

## The Value of a College Education

*Is a four-year degree the only path to a secure future?*

**P**resident Obama's \$12 billion American Graduation Initiative — announced in July — aims to help millions more Americans earn degrees and certificates from community colleges. The president wants the United States to have, once again, the highest proportion of college graduates in the world. Along with the administration, economists and many students and parents embrace the notion that higher education offers the most promising ticket to financial security and upward mobility. However, some argue that many young people are ill-prepared or unmotivated to get a four-year degree and should pursue apprenticeships or job-related technical training instead. The debate is casting a spotlight on trends in high-school career and technical education — long known as vocational education — and raising questions about the ability of the nation's 1,200 community colleges to meet exploding enrollment demand.



*A student learns welding at Central Piedmont Community College in Charlotte, N.C. Students in the fast-track program can earn career-readiness certificates in six months or less.*

### INSIDE THIS REPORT

THE ISSUES .....	983
BACKGROUND .....	990
CHRONOLOGY .....	991
CURRENT SITUATION .....	996
AT ISSUE .....	997
OUTLOOK.....	999
BIBLIOGRAPHY .....	1002
THE NEXT STEP .....	1003

**CQ Researcher • Nov. 20, 2009 • [www.cqresearcher.com](http://www.cqresearcher.com)  
Volume 19, Number 41 • Pages 981-1004**



RECIPIENT OF SOCIETY OF PROFESSIONAL JOURNALISTS AWARD FOR EXCELLENCE ♦ AMERICAN BAR ASSOCIATION SILVER GAVEL AWARD

## THE ISSUES

- 983 • Is a four-year degree necessary for financial security?  
 • Are high-school career and technical-education programs adequately preparing students for upward mobility?  
 • Can community colleges meet rising demand for their programs?

## BACKGROUND

- 990 **Rise of Community Colleges**  
 In 1901 the nation's first public community college was founded in Joliet, Ill.
- 993 **College Degree Beckons**  
 The 1944 GI Bill helped World War II veterans attend college.
- 994 **Education Reforms**  
 The 1984 Perkins Act aimed to improve labor-force skills.

## CURRENT SITUATION

- 996 **Obama's Initiative**  
 The American Graduation Initiative seeks to help 5 million more Americans earn degrees.
- 998 **Evolving Labor Market**  
 Advocates seek more career technical education.

## OUTLOOK

- 999 **Many Challenges**  
 Growing enrollment and limited funding confront community colleges.

## SIDEBARS AND GRAPHICS

- 984 **Community Colleges at a Glance**  
 Most are publicly supported.
- 985 **Canada Leads World in Young College Graduates**  
 United States is tied for sixth place.
- 987 **Two-Year Colleges Cost the Least**  
 Private four-year colleges have the highest tuition.
- 988 **College Graduates Earn the Most**  
 A bachelor's degree is worth 83 percent more than a high-school diploma.
- 989 **The Joy of Working With Your Hands**  
 Michael Crawford has a Ph.D. in philosophy and a motorcycle repair shop.
- 991 **Chronology**  
 Key events since 1862.
- 992 **Community Colleges Welcome Night Owls**  
 Funding is down, enrollment is rising.
- 997 **At Issue**  
 Should school districts give equal priority to college-prep and career-training programs?

## FOR FURTHER RESEARCH

- 1001 **For More Information**  
 Organizations to contact.
- 1002 **Bibliography**  
 Selected sources used.
- 1003 **The Next Step**  
 Additional articles.
- 1003 **Citing *CQ Researcher***  
 Sample bibliography formats.

Nov. 20, 2009  
 Volume 19, Number 41

**MANAGING EDITOR:** Thomas J. Colin  
 tcolin@cqpress.com

**ASSISTANT MANAGING EDITOR:** Kathy Koch  
 kkoch@cqpress.com

**ASSOCIATE EDITOR:** Kenneth Jost

**STAFF WRITERS:** Thomas J. Billitteri,  
 Marcia Clemmitt, Peter Katel

**CONTRIBUTING WRITERS:** Rachel Cox,  
 Sarah Glazer, Alan Greenblatt, Reed Karaim,  
 Barbara Mantel, Patrick Marshall,  
 Tom Price, Jennifer Weeks

**DESIGN/PRODUCTION EDITOR:** Olu B. Davis

**ASSISTANT EDITOR:** Darrell Dela Rosa

**EDITORIAL INTERN:** Emily DeRuy

**FACT-CHECKING:** Eugene J. Gabler,  
 Michelle Harris



A Division of SAGE

**PRESIDENT AND PUBLISHER:**  
 John A. Jenkins

Copyright © 2009 CQ Press, a Division of SAGE. SAGE reserves all copyright and other rights herein, unless previously specified in writing. No part of this publication may be reproduced electronically or otherwise, without prior written permission. Unauthorized reproduction or transmission of SAGE copyrighted material is a violation of federal law carrying civil fines of up to \$100,000.

CQ Press is a registered trademark of Congressional Quarterly Inc.

*CQ Researcher* (ISSN 1056-2036) is printed on acid-free paper. Published weekly, except; (Jan. wk. 1) (May wk. 4) (July wks. 1, 2) (Aug. wks. 3, 4) (Nov. wk. 4) and (Dec. wk. 4), by CQ Press, a division of SAGE Publications. Annual full-service subscriptions start at \$803. For pricing, call 1-800-834-9020, ext. 1906. To purchase a *CQ Researcher* report in print or electronic format (PDF), visit [www.cqpress.com](http://www.cqpress.com) or call 866-427-7737. Single reports start at \$15. Bulk purchase discounts and electronic-rights licensing are also available. Periodicals postage paid at Washington, D.C., and additional mailing offices. POSTMASTER: Send address changes to *CQ Researcher*, 2300 N St., N.W., Suite 800, Washington, DC 20037.

# The Value of a College Education

BY THOMAS J. BILLITERI

## THE ISSUES

Mike Rowe, host of the cable-TV show “Dirty Jobs,” has a thing or two to say about work and education.

For 30 years, writes Rowe, whose show profiles some of the more challenging sides of blue-collar work, “we’ve convinced ourselves that ‘good jobs’ are the result of a four-year degree. That’s bunk. Not all knowledge comes from college.”<sup>1</sup>

Rowe’s plainspoken view contradicts the lofty advice routinely dispensed to young people, that a bachelor’s degree is a fundamental requirement for achieving the American Dream.

But with college costs soaring, skilled jobs such as welders and medical technicians in demand and millions of young adults ill-prepared for the rigors of a university education, some policy experts argue that while post-high-school education is vital in today’s global economy, a four-year degree may be unnecessary for economic security — and perhaps even ill-advised.

“In many cases, young people think they are going to make substantial income just by having a college degree,” says Edwin L. Herr, a professor emeritus of education at Pennsylvania State University and co-author of *Other Ways to Win*, a book that analyzes alternatives to the traditional bachelor’s degree. “There are a lot of people destined for unhappiness if we simply say that everybody ought to go to college. I don’t think society in general requires everybody to go to college. It certainly requires people who have skills, and there certainly are ways to



Stock Photo

*Courses in dental hygiene are popular at many of the nation’s 1,200 community colleges. Today’s “career and technical education” (CTE) programs integrate core academic training into job-specific courses like computer programming, medical technology, restaurant and hotel management and construction.*

obtain those skills other than a four-year college.”

The Obama administration seems to agree. Under his American Graduation Initiative, announced in July, President Barack Obama is calling for an additional 5 million community college graduates by 2020, including those who earn associate degrees or certificates or who go on to graduate from four-year institutions. Beyond that, he wants every American to commit to at least a year of higher education or career training, whether at a community college or a four-year school, or through a vocational program or apprenticeship.<sup>2</sup>

The United States had the highest percentages of college graduates in

the world for most of the post-World War II era, but now the rates remain stagnant, according to the Indianapolis-based Lumina Foundation for Education. About 39 percent of U.S. adults hold a two- or four-year degree, but in some countries, including Japan and South Korea, more than half of young adults ages 25 to 34 hold degrees, a foundation report said. “Even more disturbing for the U.S.,” it added, “rates in these other countries continue to climb while ours remain stagnant.”

Lumina estimated that at current college-graduation rates, “there will be a shortage of 16 million college-educated adults in the American workforce by 2025.”<sup>3</sup>

Obama proposes to spend a record \$12 billion over the next decade to strengthen the nation’s system of 1,200 community colleges, part of a larger goal to restore the United States as the leader in college graduates by 2020.

“[F]or a long time there have been politicians who have spoken of training as a silver bullet and college as a cure-all,” Obama said. “It’s not, and we know that.” But, he added, “We know that in the coming years, jobs requiring at least an associate degree are projected to grow twice as fast as jobs requiring no college experience. We will not fill those jobs — or even keep those jobs here in America — without the training offered by community colleges.”<sup>4</sup>

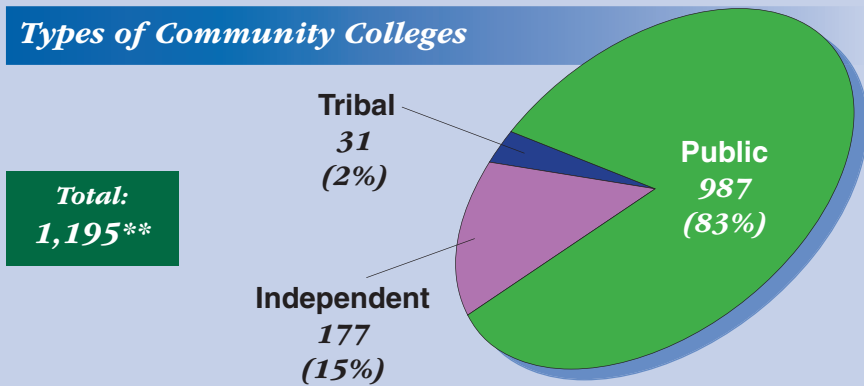
To be sure, a bachelor’s degree is a laudable goal for many young adults, one that can pay big dividends in personal satisfaction, career opportunities and earnings. In 2007 people with a bachelor’s degree earned an average \$57,181, or 63 percent more than those



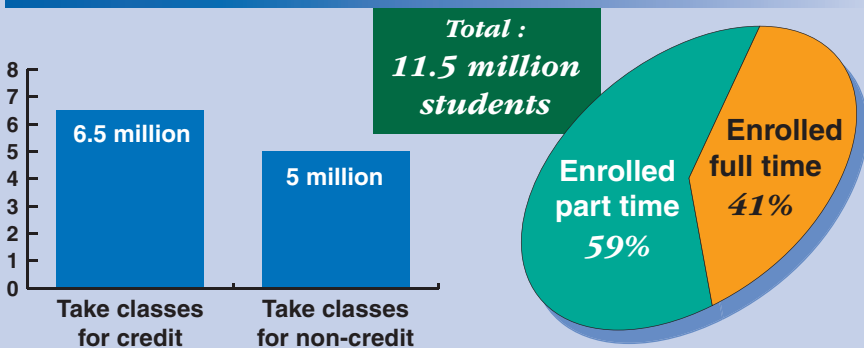
## Community Colleges at a Glance

More than 80 percent of the nation's approximately 1,200 community colleges are publicly supported. Of the 11.5 million students they serve, nearly 60 percent are enrolled part time, and 40 percent are among the first generation of their families to attend college.

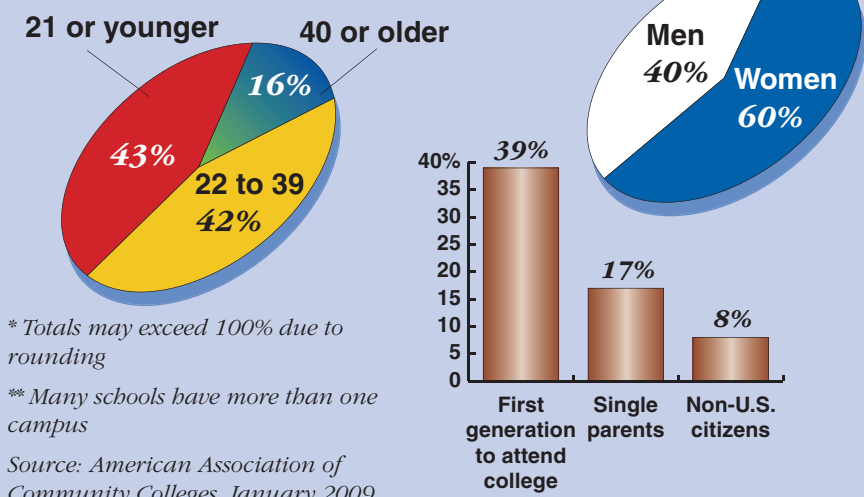
### Types of Community Colleges



### Enrollment



### Demographics



\* Totals may exceed 100% due to rounding

\*\* Many schools have more than one campus

Source: American Association of Community Colleges, January 2009

with some college or an associate's degree and 83 percent more than those with only a high-school diploma.<sup>5</sup> (See graph, p. 988.) And the seasonally adjusted unemployment rate was 4.9 percent in September for adults 25 and older with a bachelor's degree or higher, compared with 8.5 percent for those with less college and 10.8 percent for those with only a high-school education.<sup>6</sup>

Still, a four-year degree is not always the best option, workforce and public-policy experts argue.

For one thing, many students simply aren't cut out for college. "No one wants to really talk about this, but a lot of [teens] come out of high school unprepared to do legitimate college-level work," says Kenneth C. Gray, a Pennsylvania State emeritus professor of education and coauthor with Herr of *Other Ways to Win*.

At the same time, four years of college demands a steep investment that may take years to recoup. In-state tuition, fees and room and board at a public four-year college now average \$15,213 per year, up 5.9 percent in a year, though student aid often lowers the tab. At private schools, the bill — not counting any aid — runs \$35,636 per year, up 4.3 percent in a year.<sup>7</sup> (See graph, p. 987.)

And a bachelor's degree is no guarantee of career success or upward mobility. Much may depend on the field of study. For instance, degrees in health care, computer science or engineering may offer far better prospects than those in the humanities.

Meanwhile, many good jobs simply don't require a bachelor's degree. About half of all employment is in so-called middle-skill occupations — jobs that require more than a high-school diploma but less than a four-year degree, according to a 2007 study by Robert Lerman, an economics professor at American University, and Harry J. Holzer, a professor at Georgetown University's Public Policy Institute. Demand for such

workers will likely remain strong compared to the supply, they said.<sup>8</sup>

“Real pay for radiological technicians increased 23 percent between 1997 and 2005, speech/respiratory therapists saw real increases of 10 to 14 percent and real pay for electricians rose by 18 percent,” they found. “These increases compare very favorably with the overall 5 percent increase for the average American worker.”<sup>9</sup>

In June, in the depths of the current economic downturn, *The New York Times* noted that “employers are begging for qualified applicants for certain occupations, even in hard times.”<sup>10</sup> Most of the jobs take years of experience, the newspaper noted. But some jobs in high demand, such as those in welding, don’t require four years of college.

“Not everyone needs a degree, and not every job requires a four-year degree,” says Tony Zeiss, president of Central Piedmont Community College, a six-campus institution in and around Charlotte, N.C., with more than 70,000 part- and full-time students. “For decades, only about 22 percent of jobs have required a baccalaureate degree or higher, and yet 75 percent of the jobs consistently require training beyond high school but below a baccalaureate. That’s community college.”

Still, whether community colleges, which get most of their money from recession-battered state and local governments, can keep up with demand remains an open question, especially as the Obama administration puts them at the center of his postsecondary education policy.<sup>11</sup>

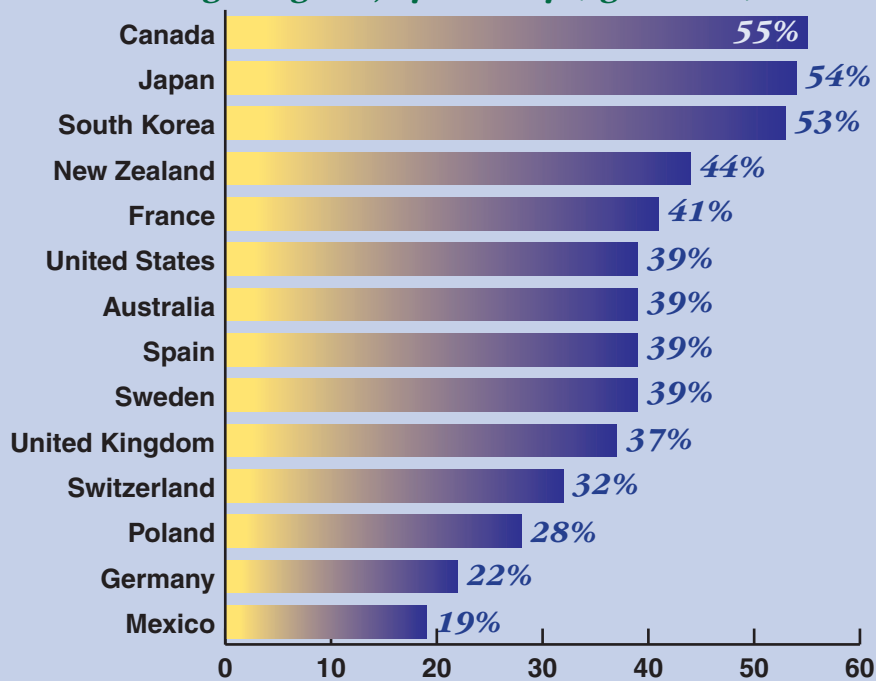
Nearly 40 percent of 18- to 24-year-olds were enrolled in college last year, a record number that was propelled by swelling community college attendance, according to Pew Research Center data reported by *The New York Times*.<sup>12</sup>

“At the same time that we have tremendous increases in enrollment, states are cutting budgets like crazy,” says Norma G. Kent, vice president for communications at the American

## Canada Leads World in Young College Graduates

*Canada has the highest percentage in the world of young adults with two- and four-year college degrees. The United States is tied for sixth place, with Australia, Spain and Sweden.*

### Percentage of Young Adults With Two- or Four-Year College Degrees, by Country (ages 25-34)



Source: “A Stronger Nation Through Higher Education,” Lumina Foundation for Education, February 2009

Association of Community Colleges. “Our tradition has been to do more with less, but there gets to be a stretching point beyond which you cannot go. Our credo is open access and open doors, and whether consciously or de facto, we are turning away students.”

In California, community colleges lost \$840 million in state funding in the combined fiscal 2008-2009 and 2009-2010 budgets, according to Scott Lay, president and CEO of the Community College League of California. Institutions face eliminating course offerings and turning away students, he says. “We believe when this all shakes out, total enrollment will drop by about

250,000 students,” or 8.6 percent, by the 2010-2011 academic year, Lay says.

High-school vocational education programs have long offered the potential for non-college-bound students to learn the fundamentals of a marketable trade or craft, and then move directly into the job market or on to further training at a community college, technical school or even a four-year institution. Yet for decades “vo-ed” programs — typically wood shop or auto repair — carried a stigma, often unfairly, as a dumping ground for low achievers. In recent years, however, many vocational education programs have been transformed into progressive “career and technical education” (CTE)

programs that integrate core academic training in math, reading and other essentials into job-specific courses like computer programming, medical technology, restaurant and hotel management and construction.

“Historically, there’s been a real divide between the academic and vocational side,” says Julian Alssid, executive director of the Workforce Strategy Center in New York, a national nonprofit group that focuses on making education and workforce development more responsive to the economy. But, he adds, “we’re seeing much more melding” of academic and technical training in career and technical programs.

As policy experts and educators debate the merits of a four-year college degree versus other options, here are some of the questions being raised:

### ***Is a four-year college degree necessary for financial security?***

In a report last year, the American Youth Policy Forum, a nonprofit group in Washington, said that “while the benefits of college in terms of lifetime earnings, health and civic participation are known, success in our economy and society isn’t limited to the attainment of a four-year college degree.”<sup>13</sup>

Many well-paying fields don’t require a bachelor’s degree, the group noted. “All you have to do,” says Betsy Brand, the report’s author and the policy forum’s executive director, “is look at [Labor Department] numbers to realize that yes, indeed, we need people with associate degrees and industry certificates in order to keep our economy running.”

That is not to say that postsecondary education is unimportant or that a four-year degree isn’t a worthy objective for many students. “I spent 40 years teaching in graduate schools and colleges,” points out Herr, the Pennsylvania State emeritus professor and *Other Ways to Win* coauthor. “That’s not the issue.” The issue, he says, is having realistic expectations about a college degree and a clear-eyed understanding of the options.

In their book, Gray and Herr argue that “the current enthusiasm for a four-year college degree is excessive and unreasonable.” Not all teenagers “are blessed with the academic talent to do college-level work or mature enough to pursue college at age 18,” they write, and “many just plain do not like school.” What’s more, they assert, while most teens say they want to go to college to get a good-paying job, few consider “that the economy will not generate enough jobs that pay them a college-level wage” even if they get a degree.<sup>14</sup>

Studies are mixed on the issue of job demand. Some point to a rising need for workers with bachelor’s degrees, and others to a shortfall in the number of people qualified for “middle-skill” jobs, which don’t require four years of college.

For example, the Public Policy Institute of California said the supply of college-educated workers won’t meet projected demand, in part because of impending retirements. In 2025, 41 percent of workers in the state will need a bachelor’s degree if recent trends persist, the institute projected. That compares with 34 percent who had bachelor’s degrees in 2006 and 28 percent in 1990. During that 16-year period, the institute noted, “The wages of college-educated workers grew substantially, whereas the wages of less-educated workers were relatively stagnant.”<sup>15</sup>

But a separate study by the Workforce Alliance and two other groups that advocate for workforce-training education projected more than 2.7 million middle-skill job openings by 2016 in California. Such jobs would account for 43 percent of all openings in the state between 2006 and 2016, it said.<sup>16</sup> Studies in Rhode Island, Connecticut and elsewhere came to similar conclusions.<sup>17</sup>

Meanwhile, middle-class jobs requiring no college-level knowledge or skills are quickly vanishing, primarily because of global competition, the Lumina foundation said. And Americans who hold lower-skills jobs that do exist “are less

likely to have access to quality health care, save for retirement or assure their children access to higher education.” Getting a middle-class job these days “is now mostly dependent on completing some form of postsecondary education.”<sup>18</sup>

Still, experts in labor-force trends say the value of a degree depends in significant part on what academic field the degree is in, the quality of instruction and what job opportunities await the graduate.

“On average, people do better getting a four-year degree,” says Lerman of American University, “but some [degrees] are better to begin with. . . . There is a lot of variability, and also a considerable amount of frustration” because many students aren’t finding good jobs after graduation. “You’re hearing that a fair number of them are going to community college later” to obtain a marketable skill, he says.

Alssid, of the Workforce Strategy Center, says that to achieve economic self-sufficiency “one really does need to have some form of postsecondary credentialing,” but “the paper really has to have some value.” And that, he argues, means that colleges and other training institutions should have a “much closer alignment” and a “strong partnership” with workforce and economic-development officials and industry.

Asked on the National Public Radio show “Tell Me More” whether a high-school graduate heading to a four-year college amid today’s economic downturn is making an investment or a mistake, Syracuse University finance professor Boyce Watkins answered that “it’s certainly an investment,” but added: “The question is whether or not you get your return on that investment in actual financial capital or some sort of human capital or emotional capital or social capital.

“This blanket notion that going to college will guarantee you a better economic future is not always true,” he continued. “When you have students

who are going to college for economic advancement, and they choose majors that don't fit that particular objective and then take a lot of debt on in the process, then . . . you have to ask them, well, did you plan it all the way through when you ended up with an outcome that you didn't quite expect?"

Going to college is important, Watkins said, but "we have to be very intelligent about what we expect to get out of our education."

Another guest on the show, Ohio University economics professor Richard Vedder, said 45 percent of people who go to four-year colleges don't get a bachelor's degree within six years. Another group of people, he said, graduate but have trouble finding work and wind up taking jobs for which a college education isn't required.<sup>19</sup>

At the U.S. Chamber of Commerce, Arthur Rothkopf, a senior vice president in charge of the business group's Education and Workforce Initiative, says the Chamber "comes down very strongly" in favor of those "for whom a four-year degree is important and useful and is part of what they want to do with their lives," professionally or otherwise. But, he adds, "there needs to be far more emphasis on middle-skill jobs," whose requirements, he says, include both a rigorous high-school education and some form of postsecondary schooling such as a two-year degree or certificate.

"A lot of these middle-skill jobs are not going to get outsourced," whether the jobs entail working in factories, being welders, physician's assistants, technicians at nuclear power plants, or working for Intel, Cisco or Microsoft, Rothkopf says. "There are lots of jobs that don't require a four-year degree."

***Are high-school career and technical-education programs adequately preparing students for upward mobility?***

At Sussex Technical High School in Georgetown, Del., mathematics and English are incorporated into lessons in

**Two-Year Colleges Cost the Least**

*Publicly supported community colleges have the lowest average tuition rates and usually no room and board fees, while private not-for-profit four-year colleges have the highest average tuition and room and board fees.*

Type	Average Tuition and Fees, 2009-10	Average Room and Board, 2009-10	Average Total Charges 2009-10
Public two-year	\$2,544	N/A	N/A
Public four-year in-state	\$7,020	\$8,193	\$15,213
Public four-year out-of-state	\$18,548	\$8,193	\$26,741
Private not-for-profit four-year	\$26,273	\$9,363	\$35,636
Private, for-profit*	\$14,174	N/A	N/A

\* Subsidiaries of larger parent companies, such as DeVry or the Apollo Group, that offer degree and non-degree programs and compete with community colleges to teach students specific workforce skills.

Sources: "Tuition and Fee and Room and Board Charges, 2009-10," *The College Board, Annual Survey of Colleges, 2009*, [www.trends-collegeboard.com/college\\_pricing/pdf/2009\\_Trends\\_College\\_Pricing.pdf](http://www.trends-collegeboard.com/college_pricing/pdf/2009_Trends_College_Pricing.pdf); Francesca Levy, "For-Profit Colleges Improve Their Financial Grades," *BusinessWeek*, August 12, 2008, [www.businessweek.com/bschools/content/aug2008/bs20080812\\_253727.htm?chan=bschools\\_bschool+index+page\\_top+stories](http://www.businessweek.com/bschools/content/aug2008/bs20080812_253727.htm?chan=bschools_bschool+index+page_top+stories)

auto-body repair, cosmetology and computers, an approach that Patrick Savini, superintendent of the Sussex Technical School District, calls "techademics."

Technical instructors must know math and grammar, and academic teachers must be able to demonstrate how algebra and English apply to reading repair manuals and programming computers. "It's a dual expectation," Savini says. "It's the technical teacher understanding state standards [for] teaching math, science" and other core subjects, "and it's the academic teachers checking their ego at the door."

Sussex Technical has won recognition from the U.S. Department of Education and others, and not just for its integrated classroom approach. Ninth-graders get to explore six career majors

for about a month each before choosing one for the rest of the year — and perhaps their entire time at the school. Classes last 90 minutes, allowing for deeper engagement with lessons and minimizing discipline problems. And Sussex offers extracurricular activities common at traditional high schools: athletic teams, a band program and a prom.

"It's about options," says Savini. "If you do career tech right, you prepare [students] for immediate employment but also take their aspirations and have them reach beyond."

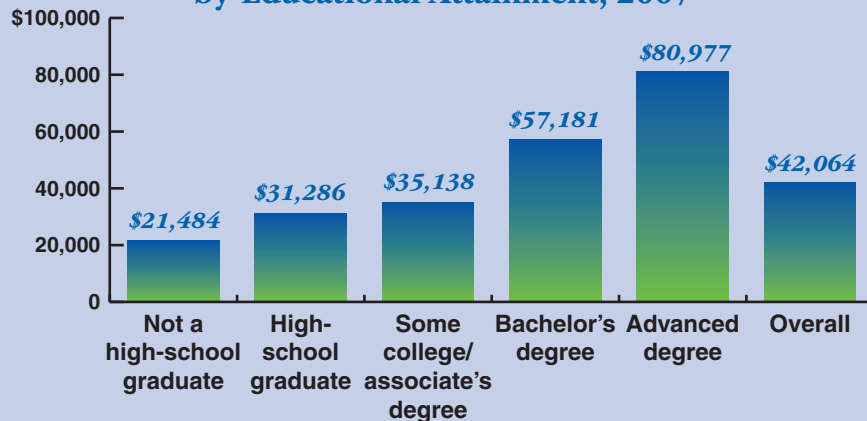
Such an approach defies the negative images that have long dogged high-school career-training programs, which over the decades have been accused of "tracking" minorities and others into academic dead-ends.



## College Graduates Earn the Most

Workers with bachelor's degrees earned an average of \$57,181 in 2007 — or 63 percent more than those with some college or an associate's degree and 83 percent more than those with only a high-school diploma.

**Average Earnings of Workers 18 and Over, by Educational Attainment, 2007**



Source: U.S. Census Bureau, [www.census.gov/population/socdemo/education/cps2008/tabA-3.xls](http://www.census.gov/population/socdemo/education/cps2008/tabA-3.xls), Table A-3.

“The public and many policy makers tend to have a negative and/or outdated image of CTE, believing that CTE lacks academic rigor, leads to antiquated, undesirable or low-paying jobs, limits access to college and serves only low-performing students,” Brand noted in the American Youth Policy Forum report.<sup>20</sup> “But this is not today’s reality,” she added. CTE can increase student engagement, improve attendance and graduation, enhance academic learning and allow students to earn college credit while in high school, among other things, Brand wrote.

Still, CTE programs remain in flux. “High-quality CTE programs are not accessible to every student that wants to pursue such studies, and there are still outdated CTE programs that lack academic rigor and relevance to the labor market,” Brand wrote.

Lerman of American University questions whether the types of course requirements being pushed for high-school diplomas “crowd out types of

learning that could be more directly linked to careers.” Lerman, who supports “work-based” learning or “apprentice-type activities,” says that while “many [CTE] programs are pretty good,” he would like to see more that link “much more directly” to careers and allow “people a chance to try things out. There’s a lot about careers that you can only learn by doing,” he says.

Measuring the success of CTE programs can be difficult. The Carl D. Perkins Career and Technical Education Act of 2006, or “Perkins IV” — the main federal law governing CTE programs — mandates that core academic subjects be integrated into career and technical programs and that schools assess results.

But a U.S. Government Accountability Office report this year said states say their biggest challenge is gathering data on students’ attainment of technical skills and student placement in jobs or further education after completion of CTE programs.<sup>21</sup>

“There’s a real debate about what constitutes an accurate assessment of student performance,” says Richard Walter, a Penn State education professor who directs the university’s Workforce Education and Development Program. “Are we talking industry credential? Test assessment?”

A related problem, he and others say, is that CTE students seeking to gain industry certification sometimes have to pay for their own qualification tests, which may discourage low-income students from receiving credentials for skilled jobs.

Still, CTE programs are making strides. “States have been working to increase the rigor and effectiveness” of CTE education, noted a September report by the Education Commission of the States that highlights noteworthy state policy efforts at accountability, dropout prevention, preparation for high-demand occupations and other categories.<sup>22</sup>

In an interview, Brand says high-performing CTE programs work closely with employers and have employer advisory boards that guide administrators on economic and employment trends and industry needs. Such programs “really see themselves as contributing to the economic-development and labor-market needs of the community or the state or region,” she said. At the same time, she said, many high schools link their CTE programs with local community colleges, enabling high-school students to become certified for jobs in health care, computer programming and other fields.

“This is what career and tech education should look like,” Brand says. “If it’s not connected to business and industry and postsecondary education, if it doesn’t lead to some of these skill certificates, it shouldn’t be here.” Still, while many CTE programs are putting all the pieces together, some are behind. “It’s hard to get educators to change rapidly.”

James Kemple, executive director of the Research Alliance for New York City Schools at New York University, led a study of one kind of CTE program —



# Ph.D. Mechanic Celebrates Challenge of Manual Labor

**M**atthew B. Crawford straddles two worlds: He has a Ph.D. in political philosophy from the University of Chicago and is a fellow at the Institute for Advanced Studies in Culture at the University of Virginia. He also operates a motorcycle repair shop in Richmond and is author of the best-selling 2009 book *Shop Class as Soulcraft: An Inquiry into the Value of Work*, in which he argues that too often students are forced into a college track when manual trades offer a viable and rewarding alternative. Here are excerpts from the book:

***“Today, in our schools, the manual trades are given little honor. The egalitarian worry that has always attended tracking students into ‘college prep’ and ‘vocational ed’ is overlaid with another: the fear that acquiring a specific skill set means that one’s life is determined. In college, by contrast, many students don’t learn anything of particular application; college is the ticket to an open future.”***



Matthew B. Crawford, motorcycle mechanic and philosopher.

***“The trades are then a natural home for anyone who would live by his own powers, free not only of deadening abstraction but also of the insidious hopes and rising insecurities that seem to be endemic in our current economic life.”***

***“Piston slap may indeed sound like loose tappets, so to be a good mechanic you have to be constantly attentive to the possibility that you may be mistaken. This is an ethical virtue.”***

***“I landed the job at the think tank because I had a prestigious education in the liberal arts, yet the job itself felt illiberal: coming up with the best arguments money could buy. This wasn’t work befitting a free man, and the tie I wore started to feel like the mark of the slave.”***

***“At issue in the contrast between office work and***

***the manual trades is the idea of individual responsibility, tied to the presence or absence of objective standards.”***

“career academies” — which are schools within high schools that combine rigorous academics and training in such fields as travel and tourism, video technology, health care and finance. The academies establish close ties with local employers, raising students’ familiarity with career options and providing opportunities for on-the-job experience.

Kemple says his study found that such programs produced a “substantial impact” on the long-term earnings and employment of participating students without decreasing the likelihood that the students would go on to college. <sup>23</sup>

## ***Can community colleges meet rising demand for their programs?***

At North Carolina’s Central Piedmont Community College, Zeiss says he’s never had to turn away students in the 42 years he’s been in the higher education field — until last year.

“We turned away 5,000 students [who applied for at least one class] because we didn’t have the money,” he says. “We’re up 35 percent in college-credit enrollment in the past two and half years, and we’re down about 9 percent in budgets. You can increase your class sizes and number of students you counsel [only] so much, and we’re bend-

ing at the limit. I’ve been spending my time raising private money so we can hire part-time teachers.”

Central Piedmont’s instructors each have 28 students per class on average this year, instead of the traditional 20, Zeiss says, and the counselor-to-student ratio is one-to-1,900. Meanwhile, applications for financial aid have doubled over the past year.

“We can’t keep this up,” Zeiss says. “Everybody loves us, and they’re starting to put grants out there — Obama now and Bush before him. But we’ve got to shore up the revenue base of these colleges.”

It's a message echoing throughout the nation's community college system, which educates nearly 12 million students, or 44 percent of the nation's undergraduates. Public community colleges depend on state and local revenues for about 60 percent of their funding — a source hit hard by the economic crisis.

What's more, community colleges typically lag four-year institutions in government support. "The country spends about three times more to educate students at four-year universities than to educate community college students," *USA Today* stated last year, citing Education Department data.<sup>24</sup>

In a survey this year, state directors of community college systems predicted that despite surging enrollment, state operating budgets for community colleges would decline an average of 1 percent while tuition is expected to rise at twice the inflation rate. Among 43 responding states, nine predicted cuts next year in their state student aid programs, and 21 forecast no increase. Many respondents expressed concern about what will happen as federal stimulus money — used by states to support education budgets — runs out.<sup>25</sup>

As states slash education budgets, the economic downturn has propelled huge numbers of unemployed adults into community colleges. "We've got a lot of adult learners who are out of a job or in a field that's going extinct, and they're coming back to community college for a lifeline," says Kent of the American Association of Community Colleges.

While Obama's proposed \$12 billion community college plan would give the institutions a major boost, the money may not go as far as some would hope. It would be spread over a decade among 1,200 institutions, and \$9 billion would be in the form of competitive grants requiring community colleges to improve student educational and employment outcomes.

Meeting such benchmarks could be a challenge for community colleges.

Typically, they not only grant two-year degrees but also do workforce training in areas such as health and computer science, provide English-as-a-second-language classes for non-native students, prepare some students for transfer to four-year schools and perhaps offer on-site training tailored to the specific needs of employers. Community colleges also often work with small businesses to provide training for entrepreneurs.

"Community colleges mean many different things," says Alssid of the Workforce Strategy Center. "A big part of the challenge for community colleges is that almost all of them are being called upon to fulfill this multiplicity of missions."

What's more, community colleges must provide remedial classes to a significant portion of incoming students — a problem that four-year institutions also face but is most pronounced at community colleges.

A study on college readiness by Strong American Schools, a project of Rockefeller Philanthropy Advisors, concluded that well over a third of all college students need remedial coursework to acquire basic academic skills and that 43 percent of students at public two-year institutions have enrolled in a remedial course.

"In many ways, the problem is the American high school," the study concluded. It noted that nearly 80 percent of students needing remedial work had a high-school grade-point average of 3.0 or higher, suggesting that many teens finish high school ill-prepared for college-level study.<sup>26</sup>

"Community colleges have huge amounts of energy siphoned away by providing remediation to students who aren't yet ready to do college-level work," says Alssid. "The country is going to have to figure out how to fix that problem."

Meanwhile, enrollment continues to grow at community colleges, fueled by people looking to acquire marketable skills. And many of those people are ones who already have four-year degrees. Gray, the Pennsylvania State

University emeritus professor, sees something of an irony in the trend.

"Community college enrollment is way up," he says, while most "non-competitive" four-year colleges — those with easy admission standards — "are looking for students."

The noncompetitive colleges "attribute this to the fact that there's less money for financial aid, and therefore students are seeking less-expensive alternatives," Gray says, but "I'm not convinced of that. I suspect people are starting to sense that maybe they should go" to a community college to gain an industry credential "and get a four-year degree later." ■

## BACKGROUND

---

### Rise of Community Colleges

---

From the Republic's earliest days, leaders stressed that education is important for the well-being of the nation and its citizens. "Knowledge, being necessary to good government and the happiness of mankind, schools and the means of education shall forever be encouraged," the Continental Congress wrote in the Northwest Ordinance in 1787.<sup>27</sup>

Yet questions arose in the new nation over how widespread higher education should be. In 1862 Congress passed the Morrill Act, also known as the Land Grant Act, which called for public land to be donated for colleges emphasizing agricultural and mechanical-arts training. The law was the cornerstone for a system of state colleges and universities that made higher education available to millions of students.<sup>28</sup> Still, not all Americans benefited. A second Morrill Act, in 1890, sought to expand college opportunities for African-Americans.

As the economy evolved from rural

*Continued on p. 992*

# Chronology

---

## 1860s-1930s

*As U.S. economy industrializes, country focuses more on higher education and vocational training for potential workforce.*

**1862**

Congress passes Morrill Act, known as the Land Grant Act, which calls for public land to be donated for colleges that emphasize agricultural and mechanical-arts training.

**1890**

Second Morrill Act seeks to expand college opportunities for African-Americans.

**1901**

Nation's first public community college, Joliet (Illinois) Junior College, opens with six students.

**1917**

Congress passes landmark Smith-Hughes Act, which provides money to states for high-school vocational education.

**1920**

Only 3 percent of Americans 25 and older hold bachelor's degrees.

---

## 1940s-1970s

*World War II baby boom and GI Bill trigger huge wave of college enrollment.*

**1944**

GI Bill of Rights provides financial help for World War II veterans seeking to attend college.

**1947**

Truman Commission on Higher Education calls for a network of public community colleges. . . . College enrollment stands at 2.3 million.

**1952**

Veterans Readjustment Assistance Act of 1952 — the Korean War GI Bill — is passed, eventually helping 2.4 million vets attend college or receive on-the-job or other training.

**1965**

Congress passes Higher Education Act to provide financial aid to students pursuing higher education; college enrollment climbs to 5.6 million.

**1975**

Community colleges number more than 1,200; college enrollment nationwide grows to 10.9 million.

---

## 1980s-1990s

*Vocational-education enrollment begins to decline sharply as more and more students pursue four-year college degrees.*

**1983**

In "A Nation at Risk," U.S. Education Department warns of a "rising tide of mediocrity" in education and says the United States is falling behind in global economic competition.

**1984**

Congress passes Carl D. Perkins Vocational Education Act to help improve labor-force skills and provide broader job training for adults, disabled people and others.

**1990**

Tech-Prep program helps students begin learning a technical field in high school, then a certificate or two-year degree in that field at a community college. . . . Twenty percent of Americans 25 and older have at least a bachelor's degree, up from 7.7 percent in 1960 and 16.2 percent in 1980.

**1991**

College enrollment continues to climb; 63 percent of high-school graduates go directly to college, compared with 46 percent in 1973.

---

## 2000-Present

*President Obama calls for higher graduation rates and more money for community colleges.*

**2000**

Republican-dominated Congress does not renew School to Work Opportunities Act, passed during the Bill Clinton administration, which allows some students to earn academic credit for work experience.

**2002**

President George W. Bush signs No Child Left Behind Act, which holds schools accountable for student achievement.

**2006**

Perkins Act amendments mandate closer integration of skills training and core academic subjects in high-school vocational courses; the law replaces the term "vocational education" with "career and technical education," or "CTE." . . . Bush seeks to eliminate funding for vocational education, but funding is retained after protests.

**2009**

President Obama proposes to spend \$12 billion over the next decade to strengthen the community college system and calls on every American to commit to at least a year of higher education or career training. . . . Obama eases Pell Grant restrictions for unemployed adults. . . . Unemployment rate exceeds 10 percent, sending many laid-off adults to community colleges in search of new skills.



# Community Colleges Welcome Night Owls

*But please take the bus, busy schools ask students.*

Community colleges are getting so many applicants that sometimes they can't admit everybody, as they once did. Or they are turning to unorthodox approaches.

When a flood of new students descended on Bunker Hill Community College in Boston, the school inaugurated what has been dubbed the "Burning the Midnight Oil" schedule. It offers several popular introductory courses from 11:45 p.m. until 2:30 a.m. And the school pushed the first class of the day up to 7 a.m. Makeshift parking lots were created to accommodate the overload.

At Holyoke Community College, also in Massachusetts, parking was so strained by rising enrollment that the school sent postcards to all 7,500 students urging them to take public transportation.

Clackamas Community College in Oregon City, Ore., has been offering a late-night welding course since last spring.

Northern Virginia Community College (NVCC) added 20 popular lower-level classes, such as English, biology, psychology and accounting, this semester that begin before 7 a.m.; other classes run late into the evening.

"Over the last two years, our annual student enrollment has jumped over 8,000 students while our physical capacity has grown only modestly," says NVCC President Robert G. Templin, Jr. "To respond to the dramatic increase in student demand, we've stretched our class schedule by offering classes as early as 6 a.m., and pushed night classes past 10 p.m. Nearly everything we've offered has been snapped up regardless of the time or format."

But some schools control the overflow by closing their doors

when they fill up. The six community colleges that are part of the City University of New York (CUNY) traditionally have accepted applications up to a week before classes start — enough time for students to apply for financial aid and receive the required immunizations. This fall, however, all but one of the campuses had to stop accepting applications a month before the semester began because it didn't have enough teachers and other resources to support the flood of new students.

"Enrollment has been growing steadily, but this was a tidal wave for us this fall," said Gail O. Mellow, president of LaGuardia Community College, in Long Island City. The school's student body has risen by almost 50 percent over the past decade.<sup>1</sup>

Virtually every state has had to deal with rising enrollments at public community colleges, according to the American Association of Community Colleges. Some in California have reported increases of 35 percent just since 2008.<sup>2</sup>

At Sinclair Community College in economically suffering Dayton, Ohio, enrollment has jumped 25 percent over the past year alone as laid-off General Motors employees and other auto industry workers seek new skills in the evolving labor market. Recent high-school graduates are also finding two-year institutions more preferable to pricier four-year colleges, as many parents struggle to make ends meet. School officials say they are trying to keep Sinclair affordable as many Dayton residents become financially challenged.

Sinclair currently offers high-school students in the area who take technical courses and maintain a C-plus average in their

*Continued from p. 990*

and agricultural to urban and industrial, education evolved, too. In 1901, Joliet Junior College, in Illinois, became the nation's first public community college, formed as an experimental program for high-school graduates.

College enrollment was still a rarity among young people in the early 20th century — Joliet Junior College started with just six students — and educational and political leaders debated how best to prepare for what they saw as increasingly competitive global economy.

"[T]he great battles of the world in the future are to be commercial rather than military," the educational historian Ellwood P. Cubberley wrote in 1909. He added: "Whether we like it or not, we are beginning to see that we are pitted against the world in a gigantic

battle of brains and skill, with the markets of the world, work for our people and internal peace and contentment as the prizes at stake."<sup>29</sup>

A key way to win those prizes, it was widely viewed, was to promote job-specific vocational education.

Educational theorist Charles Prosser, a steelworker's son, was critical of a single-minded focus on academics and scholarship. He argued that high schools should offer separate skills training to meet the interests, capabilities and job prospects of a significant portion of students. Traditionalists such as the philosopher and educational reformer John Dewey vehemently disagreed. In the end, Prosser's theories prevailed.

"World economic competition was viewed as the best strategy for national economic growth," Gray, the co-

author of *Other Ways to Win*, wrote in a 1996 journal article, and "the schools were accused of doing little to help the cause, particularly with regard to the education of children from working-class families who were beginning to go to high school in large numbers." The solution, he added, was to develop a separate curriculum in high schools tailored to training students for jobs in commerce, industry, agriculture and home economics.<sup>30</sup>

In 1914, a commission appointed by President Woodrow Wilson cited census data showing that more than 12 million Americans worked in agriculture and 14 million in manufacturing, mechanical and allied pursuits. But the commission concluded that probably fewer than 1 percent were adequately prepared for their jobs.<sup>31</sup>



junior and senior years an automatic \$3,000 scholarship, enough to cover tuition for three semesters. Courses range from radiology to traditional information technology disciplines.

The community college also has helped 53 area high schools upgrade their technical courses and make it easier for students to transition to college. It recently made a \$4 million grant to a local school district to create a “career technology” high school that offers advanced science courses and will serve as a feeder school for the college.

Such initiatives support President Obama’s American Graduation Initiative — a 10-year, \$12 billion plan to invest in community colleges and add 5 million new graduates by 2020. Obama has embraced the nation’s community colleges, calling them “vital bulwarks” against the decline of the American middle class and, hence, the nation’s competitiveness.

“Jobs requiring at least an associate degree are projected to grow twice as fast as jobs requiring no college experience,” he said during a speech about vanishing jobs this July in Warren, Mich., among the recession’s hardest-hit areas. “We will not fill those jobs — or even keep those jobs here in America — with-



*The first session of Kathleen O’Neill’s evening class in psychology draws a crowd at Bunker Hill Community College in Boston.*

AP Photo/Josh Reynolds

out the training offered by community colleges.”<sup>3</sup>

Meanwhile, some educators worry that community colleges may not have enough resources to meet the growing current demand.

“The community college is a second-chance institution for the country,” said Patrick M. Callan, president of the National Center for Public Policy and Higher Education. “Most people would agree that this is not a good time in terms of the economic competitiveness of the country to be turning people away.”<sup>4</sup>

— **Darrell Dela Rosa**

<sup>1</sup> Lisa W. Foderaro, “Two-Year Colleges, Swamped, No Longer Welcome All,” *The New York Times*, Nov. 12, 2009, [www.nytimes.com/2009/11/12/education/12community.html](http://www.nytimes.com/2009/11/12/education/12community.html).

<sup>2</sup> Abby Goodnough, “New Meaning for Night Class at 2-Year Colleges,” *The New York Times*, Oct. 28, 2009, [www.nytimes.com/2009/10/28/education/28community.html](http://www.nytimes.com/2009/10/28/education/28community.html).

<sup>3</sup> “Remarks by the President on the American Graduation Initiative,” Office of the Press Secretary, The White House, July 14, 2009, [www.whitehouse.gov/the\\_press\\_office/Remarks-by-the-President-on-the-American-Graduation-Initiative-in-Warren-MI](http://www.whitehouse.gov/the_press_office/Remarks-by-the-President-on-the-American-Graduation-Initiative-in-Warren-MI).

<sup>4</sup> Foderaro, *op. cit.*

Three years later, Congress passed the landmark Smith-Hughes Act, which became known as the Magna Carta of vocational education.<sup>32</sup> Under Smith-Hughes, federal money was distributed to the states for vocational education in high schools, but unlike today’s integrated approach for blending academics and skills training, the 1917 act drew a clear distinction. The law stipulated that vocational-education money could not be used to pay salaries of academic teachers, and it limited the amount of academic instruction a vocational student could receive.<sup>33</sup>

“By explicitly defining vocational education as preparation for occupations that did not require a bachelor’s or advanced degree, the Smith-Hughes Act affirmed that vocational education

was not intended to prepare high-school students for college,” wrote David Stern, an education professor at the University of California-Berkeley.

Still, college was less of an issue back then than it is today. As Stern noted, in 1920 a mere 3 percent of Americans age 25 and older held bachelor’s degrees.<sup>34</sup>

Over the decades, vocational education served a variety of purposes — to strengthen national defense in the 1920s, ease unemployment in the 1930s, address wartime industrial needs in the 1940s and smooth the transition to peacetime after World War II.<sup>35</sup> But vocational education sometimes faced accusations that it provided an inferior education and was used to channel students into economic blind alleys.

James Fraser, former dean of the School of Education at Northeastern University in Boston, told *The Christian Science Monitor* that in the 1940s and ’50s some groups began to see vocational education as problematic. “It was popular in working-class white communities,” Fraser said, “but among immigrants and in communities of color it was mistrusted. They feared that [vocational education] was being used to steer their kids into second-class citizenship.”<sup>36</sup>

## College Degree Beckons

Meanwhile, a college degree beckoned more and more young people. Policy changes spurred the trend. The 1944 GI Bill of Rights provided

financial help for World War II veterans seeking to attend college. After the war, a report by the President's Commission on Higher Education, known as the Truman Commission Report, called for a network of public community colleges that would charge little if anything in tuition, offer a comprehensive program emphasizing civic responsibility and serve their local areas.<sup>37</sup> The report also called for a doubling of college attendance by 1960.<sup>38</sup>

"[W]e shall aim at making higher education equally available to all young people . . . to the extent that their capacity warrants a further social investment in their training," the commission wrote.<sup>39</sup>

Later, Congress passed various financial-aid bills, notably the Higher Education Act of 1965.

Meanwhile, demographic, economic and geopolitical developments were fueling college enrollment. The post-war baby boom created a huge bubble of college-age young adults. The Cold War space race sparked enrollment in university science and technology programs. And in the 1960s and early '70s, the Vietnam War led millions of young men to seek college deferments from the military draft.

College enrollment exploded from about 2.3 million students in 1947 to 10.9 million in 1975, according to the U.S. Census Bureau.<sup>40</sup> It kept climbing as recession and global competition for manufactured goods fueled a perception in the 1980s that blue-collar work was no longer secure and a college education — preferably a four-year degree — was a ticket to economic success.

By 1990, 20 percent of the American population age 25 and older had at least a bachelor's degree, up from 7.7 percent in 1960 and 16.2 percent in 1980. By 2000, the figure stood at more than 24 percent.<sup>41</sup>

As four-year-college enrollments rose, community colleges also were booming. The number of institutions and their branch campuses exploded

from roughly 600 in 1955 to more than 1,200 in 1975 and about 1,600 (including multiple campuses) by the end of the 1990s.<sup>42</sup>

During this period, enrollment in high-school vocational programs fell sharply, beginning in the early 1980s, Gray wrote. Spurring the decline was not only a worry that secure, well-paid industry jobs were disappearing but also the notion that "in the eyes of the public the only thing that seemed to be at all certain was the increasingly publicized idea that college graduates made more money than high-school graduates," he wrote.<sup>43</sup>

"Faced with uncertainty about economic opportunities in the future and misinformation about career opportunities for future college graduates, and aided by an oversupply of college seats and thus open admissions at many colleges, students . . . [rejected] traditional vocational education offerings and [enrolled] in college preparatory programs. The nation concluded that there is only 'one way to win' . . . — to get a four-year baccalaureate degree."<sup>44</sup>

As a result, Gray argued, many "academically average" students who in the past would have taken vocational-education courses were instead on the college track and finished high school "prepared neither for college nor work."

In 1973, 46 percent of high-school graduates went directly on to college, Gray noted, citing Education Department data. By 1991, the proportion had risen to 63 percent. And the proportion continues to grow.<sup>45</sup>

"A new vocationalism" had emerged, Gray wrote, "manifested in the form of growing percentages of academically average students enrolling in traditional college preparatory programs." Motivating their enrollment, he wrote, was not "some newly found thirst for knowledge" but rather "vocational reasons."

Meanwhile, as economic and social conditions changed in the 1980s and '90s, American education came under severe scrutiny. In 1983, the Education

Department's "A Nation at Risk" report warned of a "rising tide of mediocrity" in schools and colleges and said the United States was falling behind in global economic competition. The report spurred deep soul-searching among reformers and government officials about how to improve the educational system — introspection that continues today as high-school and college dropout rates soar, and even elite universities have high numbers of students who need remedial coursework.<sup>46</sup>

## Education Reforms

In the wake of the report, policy officials began to look for ways to reform the educational system, and some of those efforts centered on vocational education. In 1984 Congress passed the Carl D. Perkins Vocational Education Act with a goal of improving the nation's labor-force skills and providing broader job-training opportunities for adults, disabled people and so-called at-risk populations. Since then, the Perkins Act has gone through a series of reauthorizations and reforms aimed at strengthening the link between academic and vocational training.

In 1990, for example, more emphasis was placed on developing career prospects for all students, rather than just those who were not college-bound. Under a program called Tech-Prep, students could begin learning a technical field in high school and then earn a certificate or two-year degree in that field at a community college.

In a 2006 revision of the Perkins law, the term "career and technical education," or CTE, was officially adopted in place of "vocational education," and schools were required to more closely integrate core academic coursework into job-skills training.

At the same time, Washington was placing more and more emphasis on the ability of schools to meet academic benchmarks. That approach became



enshrined in 2002 in the George W. Bush administration's No Child Left Behind Act, which holds schools accepting federal funds accountable for student achievement.<sup>47</sup>

By then, however, vocational education was under fire. In 2000 the Republican-dominated Congress did not renew the School to Work Opportunities Act, a Clinton-era law that in some cases allowed students to earn academic credit for job internships or other work experience. Conservatives argued that School to Work shifted the educational focus away from core academics. Others said it sought to replicate the German apprenticeship model and steered students too early onto a career path.

Then, in 2006, Bush sought to completely eliminate federal funding for vocational education, arguing that it had “produced little or no evidence of improved outcomes for students despite decades of federal investment.”

“Bush wasn't impressed with CTE,” says Walter of Pennsylvania State University. “He tried to zero out Perkins — tried to remove every cent, [in part because] that [was] the largest chunk of money that would have been available to him to work on high-school reforms” under No Child Left Behind.

Bush didn't succeed. Advocates, including community colleges, argued that vocational education enhanced student achievement and increased postsecondary enrollment. Still, while vocational funding survived, the federal outlay devoted to career and technical education has declined in recent years. Obama proposed keeping it flat at \$1.3 billion in fiscal 2010, but CTE and community college advocates want it raised to at least \$1.4 billion.<sup>48</sup>

At the same time, Obama has proposed expanding the overall 2010 education budget by \$1.3 billion, including increasing spending on postsecondary education by 6 percent — or \$200 million — to \$3.6 billion. His budget would



Central Piedmont Community College (both)

### *Training for the Workforce*

*A student (top left) in the sustainability technology program at Central Piedmont Community College in Charlotte, N.C., reviews a rooftop photovoltaic installation with his instructor. Two-year degrees offered at the school prepare students to work in the alternative energy, green construction and sustainable manufacturing fields. Nursing students (bottom) at the school can earn a two-year associate's degree and take the national test for licensing as a registered nurse.*

expand student financial aid, elevate the role of community colleges and support innovative state efforts to help low-income students complete their college education.<sup>49</sup>

Even so, students face skyrocketing college costs at a time when family incomes remain stagnant and state education budgets are getting pounded. In a *Newsweek* article in October, Sen. Lamar

Alexander, R-Tenn., former education secretary in the George H. W. Bush administration, said state higher-education funding rose 17.6 percent from 2000 to 2006 but that average tuition at public four-year institutions shot up 63 percent, with state support for education hit hardest by “runaway” Medicaid costs.<sup>50</sup>

A big worry for many state officials is the looming termination of federal stimulus spending. Alexander cited a comment made by Tennessee Gov. Phil Bredesen in March, that “when this money ends 21 months from now, our campuses will suddenly need to begin operating with about \$180 million less in state funding than they had this year.”

Among the possible ways to cut college costs, Alexander advocates having students finish a bachelor’s degree in three years. Schools could make year-round use of academic facilities, and students could reduce their college expenses, he argued.

But speeding up graduation is no small feat. A study this year by the American Enterprise Institute, a conservative Washington think tank, found that on average, four-year colleges graduate fewer than 60 percent of their freshmen within six years.<sup>51</sup> Another study, published in the new book *Crossing the Finish Line*, found that only 65 percent of students at highly selective flagship public universities graduated in four years. At several less selective state systems, only about 26 percent finished in four years.<sup>52</sup>

Cocauthor William G. Bowen, president emeritus of both the Andrew W. Mellon Foundation and Princeton University, told the online publication *Inside Higher Ed* of an atmosphere at many schools that suggests it is normal to take six years to graduate.

“At a very highly regarded flagship university,” Bowen said, “when you talk there to students about graduation rates, you can be told, as we were told by one person, ‘graduating in four years is like leaving the party at 10 o’clock.’”<sup>53</sup> ■

## CURRENT SITUATION

### Obama’s Initiative

In a speech to a joint congressional session in February, Obama declared that “a good education is no longer just a pathway to opportunity — it is a prerequisite.” But he noted that while three-quarters of the fastest-growing occupations require education beyond high school, just over half of Americans have that much schooling.

What’s more, Obama said, the United States has “one of the highest high-school dropout rates of any industrialized nation,” and “half of the students who begin college never finish,” which he called “a prescription for economic decline.”

The centerpiece of Obama’s effort to boost postsecondary education and college completion is the American Graduation Initiative, which he announced at Macomb Community College in Warren, Mich., the state’s largest grantor of associate degrees. The aim of the record \$12-billion, 10-year plan, Obama said, is to help an additional 5 million Americans earn degrees and certificates in the next decade. The money would be used to improve community college programs, buildings and classrooms and academic courses.<sup>54</sup>

“Community colleges are an undervalued asset in our country,” Obama said. “Not only is that not right, it’s not smart.”

The administration’s plan for community colleges makes up part of a much broader bill, called the Student Aid and Fiscal Responsibility Act, introduced in July in the House Education and Labor Committee and passed in the House in September.<sup>55</sup> The House bill would invest \$10 billion in community colleges, \$7 billion of it through competitive grants, according

to the committee. The measure includes \$40 billion to incrementally raise the maximum annual Pell Grant scholarship over the next decade, \$3 billion to help improve college access and completion and \$2.55 billion for historically black colleges and other institutions that serve minorities.

Notably, the bill would replace guaranteed student loans administered by private lenders with direct government loans, a controversial idea that the administration says would save billions of dollars but that opponents argue would lead to inefficiencies.<sup>56</sup>

Separately, the \$787 billion economic-stimulus bill passed this year expanded the Pell Grant student-aid program and raised the maximum annual award by \$500 in the first year — to \$5,350 — and more in the second.

And in May the administration made it easier for some unemployed adults to receive Pell Grants, a move advocates hail as an important step in linking jobs and education. Pell Grants cover tuition at most community colleges.

“The Pell move is pivotal because it shows that the president understands that postsecondary education is the workforce development system and a key piece of the workforce adjustment system in response to trade and technology change,” wrote Anthony Carnevale, director of the Georgetown University Center on Education and the Workforce. Obama’s remarks on education and jobs and his action on Pell Grants “is clearly more than another love note to community colleges, gushing over how they do so much with so little, or another boutique program funded with departmental transfers,” he added.<sup>57</sup>

Not that Pell Grants are immune to criticism. Florida’s *St. Petersburg Times* reported in October that more than \$2.3 million in Pell Grants funded by the economic stimulus had gone to Tampa-area cosmetology and massage schools “to pay tuition for the hairdressers, masseuses and nail technicians

*Continued on p. 998*



# At Issue:

## *Should college-preparatory and career-training programs get equal priority?*



**SEN. RODERICK D. WRIGHT (D-LOS ANGELES)**  
**CALIFORNIA STATE SENATE**

WRITTEN FOR *CQ RESEARCHER*, NOVEMBER 2009

Recently, I attended a Senate committee hearing where someone quoted from a new report that stated 35 percent of all jobs would require a four-year college degree by 2020. The members of the committee responded by drafting legislation to increase college-preparatory requirements in California schools.

I looked at that same report, from The Workforce Alliance, and thought: What about the other 65 percent that won't require a bachelor's degree?

College was never intended for everyone. It used to be assumed that some kids would become plumbers and some would become doctors. Some would become police officers and some would become accountants.

But today's high-school students are told if they don't go to college they are failures who will never amount to anything. So kids with an aptitude for auto mechanics instead try to become lawyers or financial managers and end up with no job and no marketable skills.

This quest to send everyone to college has had disastrous consequences: High-school dropout rates are at all-time highs. The percentage of kids entering and not finishing college is at an all-time high. The percentage of kids with four-year degrees enrolled at vocational programs at community colleges, or dubious private postsecondary institutions, is at an all-time high. The number of high-school graduates with no job skills is at an all-time high. Here in California, the number of prison inmates is at an all-time high.

If we are going to rebuild our economy, we will need skilled workers more than ever. It is estimated that openings for middle-skill jobs such as electrical linemen, respiratory therapists and computer technicians will surge by 20 percent in the next decade.

As baby boomers retire, this lack of trained workers could stall our nation's economic recovery. Meanwhile, kids are being pushed into college, becoming disillusioned and dropping out of both high school and college. So society loses all the way around.

Clearly, we need to maintain our development of professional careers for kids with that aptitude. There will always be a need for engineers and doctors. I believe our educational system can and must prepare for both career and college tracks. One without the other is a complete failure.



**ARUN RAMANATHAN**  
**EXECUTIVE DIRECTOR**  
**THE EDUCATION TRUST-WEST**

WRITTEN FOR *CQ RESEARCHER*, NOVEMBER 2009

We are long past the time when young people could graduate from high school and go directly into careers that guaranteed lifetime employment and a living wage. Now, the annual wage difference between a four-year college degree and a high-school diploma is \$25,895. And, for African-Americans and Latinos, wage differences between high-school and college completion are striking.

An African-American woman with a college degree earns \$16,836 more than an African-American woman without one. And a Latino male with some college earns almost \$5,000 more than a Latino male with a high-school diploma. Times have changed, and there is no debating the link between educational opportunity and economic success.

What has not changed is the lack of educational opportunities for many low-income students and students of color. While it is true that not all students will go to college, far too often our most vulnerable students are tracked into low-level career-tech classes and end up prepared for neither college nor career. These students, if they graduate from high school, do so with the empty promise of a bright future in a trade, only to find they are missing the critical skills necessary for success. This matters, because even skilled trades — plumbing, auto technicians and manufacturing — all require intensive academic preparation.

Rigorous career technical education (CTE) classes integrated into a college-prep curriculum can enhance the students' academic experience and allow them to explore real-world applications in areas such as mathematics or physics. In some districts, innovative high schools, like Kearny Construction Tech School in San Diego, are doing just that.

Construction Tech aligns its classes with the graduation requirements of the University of California and California State University systems. As a result, its graduates have a true choice between college and career, and the skills to succeed in either.

The question is not whether school districts should give equal priority to college-prep and career-training programs. High schools must provide all students with a rigorous curriculum that prepares them for the challenges of college, career and civic participation so that young people can explore a wide range of options for work and higher education. If not, they may suffer crippling limitations that do a tragic disservice to them, their communities and our nation.

*Continued from p. 996*

of tomorrow” despite limited job opportunities.<sup>58</sup>

“It would raise the eyebrows of many Americans to know that is where their Pell Grant and stimulus money is going,” Steve Ellis, vice president of Taxpayers for Common Sense, a watchdog group in Washington, told the newspaper.<sup>59</sup>

Overall, the president’s education plans have been viewed with a mix of praise and skepticism.

“He is the first president I have ever heard . . . actually address” the need for postsecondary education without simply prescribing a four-year degree, says Walter, the Penn State workforce-education director.

Likewise, Nancy Cauthen, director of the Economic Opportunity Program at Demos, a liberal think tank in New York, said the proposed increase in community college funding “will increase postsecondary success and improve economic opportunity and mobility for young adults.” It recognizes that “low graduation rates at these institutions will not increase if community colleges are forced to cut back their spending” and if students, particularly low-income and first-generation college students, can’t afford to stay enrolled, she said.<sup>60</sup>

But Neal McCluskey, associate director of the Center for Educational Freedom at the Cato Institute, a libertarian think tank, termed Obama’s call for a year of postsecondary education for everyone “essentially a ‘consume-more-education’ policy. We’re encouraging people to consume education that they’re either not prepared for or aren’t really interested in by subsidiz-



*The Institute of Culinary Education in New York City offers six- to 11-month career-training programs in culinary arts, pastry and baking and culinary management. The school holds night classes because of the increasing demand for cooking classes from both amateurs and aspiring professionals.*

Getty Images/Chris Hondros

ing it and having our leaders tell us it’s the ticket to the middle class and the American dream.”<sup>61</sup>

## **Evolving Labor Market**

The full Congress has yet to digest the Obama plan — a companion Senate bill hadn’t been filed as of mid-November. Meanwhile, some education experts are focusing on the 2010 budget and their concerns about career and technical-education funding under the Perkins Act.

“It is refreshing that this administration recognizes the need for an investment in career technical education,” said Kimberly A. Green, executive director of the National Association of State Directors of Career Technical Education Consortium. “However, I am disappointed that the president’s budget proposes flat funding for Perkins. Level-funding this program is like putting a temporary patch on a hole in a dam that is ready to burst. Demand for these programs is up. The pace of technological change is increasing. Equipment needs are grow-

ing. To be able to support our country properly, CTE needs a significant new infusion of funding.”<sup>62</sup>

Still, observers are hopeful that Obama will put more money into CTE after the nation’s current budget woes ease. A positive sign, they say, is the appointment of Brenda Dann-Messier as assistant secretary for vocational and adult education. A former Clinton-era Education Department official, Dann-Messier most recently was president of Dorcas Place Adult and Family Learning Center,

an educational facility for low-income residents in Providence, R.I.

“We’re waiting to see how things play out with the new assistant secretary,” Walter says. “She has a real background in adult education.”

However things play out for CTE and the administration’s broader education policy, the labor market will continue to evolve in ways that make some form of postsecondary education necessary for economic security, many experts say — but not without challenges for both employers and students.

For employers, one of the biggest challenges is finding workers with adequate skills. Nearly half of respondents to a 2008 survey of more than 200 employers said they provide remedial-training programs for newly hired graduates at three educational levels: high school, two-year college and four-year college. The programs are designed to remove deficiencies among new hires in skills the employers expected them to have when hired. But most companies said their training programs were only moderately or somewhat successful at best.<sup>63</sup>

“U.S. business is increasingly outspoken about the competitiveness threat posed by an ill-prepared workforce — but employers must do a better job of quantifying this threat and communicating it to key stakeholders,” said Mary Wright, program director of the Workforce Readiness Initiative at The Conference Board, a business membership organization that participated in the survey.<sup>64</sup>

For students, figuring out a career path can pose daunting challenges. A 2008 study by researchers at MPR Associates, a research and consulting firm specializing in education, and the National Center for Education Statistics compared employment experiences of 1992-1993 bachelor’s degree recipients 10 years after college. The study found that compared with graduates with academic undergraduate majors — such as social sciences, arts and math — those with career-oriented majors such as business, health and engineering “appeared to establish themselves in the labor force earlier, and relatively fewer obtained additional education.”<sup>65</sup>

Some adults who already hold four-year degrees are finding themselves without the necessary skills to find work. In growing numbers, white-collar college graduates are turning to community colleges to upgrade their skills or learn new ones that might land them a second career.<sup>66</sup>

“Continuing education used to be personal enrichment, primarily, but it has moved steadily toward workforce development,” James B. Jacobs, president of Macomb Community College, told *The New York Times*. “People would go to classes to learn to cook Chinese food to impress their friends and relatives or to learn interior decorating.

“Those courses have been transformed and have become areas for a lot of people coming out of white-collar jobs,” he continued. “They now take culinary programs to help open a restaurant. They learn not just how to cook, but how to buy and how to run a restaurant.”<sup>67</sup> ■

# OUTLOOK

## Many Challenges

The issues surrounding educational pathways for young adults will no doubt become more complex in coming years.

Career and technical-education programs will have to satisfy the needs of college- and career-bound students seeking training in fields such as computers and health care while also making the vocational-education programs worthwhile for students who may not be cut out for postsecondary education or middle-skill jobs.

“A huge issue” for schools offering a CTE program is “who is it serving?” says Walter of Penn State. “There are two sides of the argument. How does CTE fulfill its mission?”

CTE programs also must figure out how to measure success as high-school career training, postsecondary education and industry certification become more integrated, Walter says. In the past, programs “were assessed by how many students graduated [from high-school CTE classes] and were placed in employment.” Now, he says, success is often measured by whether students complete a CTE program in high school, advance to other training and then gain a good job.

Community colleges must absorb a growing enrollment load despite severe budget limitations. Zeiss, of Central Piedmont Community College, points out that money designated in the House education bill for improving community college facilities is in the form of loans for shovel-ready projects. Zeiss says he doesn’t know of many states that allow community colleges to borrow money. He says he hopes the Senate version of the bill will call for grants — at least matching grants — instead of loans.

For students, perhaps the biggest hurdle to overcome is the rising cost of

education. Many students receive financial aid, of course. Full-time students at private not-for-profit four-year institutions get an estimated average of \$14,400 in grant aid and federal tax benefits, according to the College Board, cutting tuition and fees to about \$11,900 on average. At public four-year institutions, the aid and benefits average about \$5,400, reducing the tab to \$1,600.<sup>68</sup>

Still, many students finish college in debt — a problem made worse when no job is waiting after graduation. In 2007-2008, 38 percent of bachelor’s degree recipients from public four-year institutions had no school debts, but 6 percent owed at least \$40,000, according to the College Board.

The debt load was lighter for community college students. Sixty-two percent of those graduating with associate degrees from two-year public institutions had no debt, and less than 1 percent owed \$40,000 or more.<sup>69</sup> ■

## Notes

<sup>1</sup> Mike Rowe, “Work Is Not the Enemy,” [www.mikeroweworks.com](http://www.mikeroweworks.com).

<sup>2</sup> “Remarks of President Barack Obama, Address to Joint Session of Congress,” The White House, Feb. 24, 2009, [www.whitehouse.gov/the\\_press\\_office/Remarks-of-President-Barack-Obama-Address-to-Joint-Session-of-Congress](http://www.whitehouse.gov/the_press_office/Remarks-of-President-Barack-Obama-Address-to-Joint-Session-of-Congress).

<sup>3</sup> “A Stronger Nation through Higher Education,” Lumina Foundation for Education, February 2009, [www.luminafoundation.org/publications/A\\_stronger\\_nation\\_through\\_higher\\_education.pdf](http://www.luminafoundation.org/publications/A_stronger_nation_through_higher_education.pdf). The Lumina Foundation said its data source is the Organisation for Economic Co-operation and Development, “Education at a Glance 2008.”

<sup>4</sup> “Remarks of President Barack Obama,” *op. cit.* For background, see Scott W. Wright, “Community Colleges,” *CQ Researcher*, April 21, 2000, pp. 329-352.

<sup>5</sup> U.S. Census Bureau, [www.census.gov/population/socdemo/education/cps2008/tabA-3.xls](http://www.census.gov/population/socdemo/education/cps2008/tabA-3.xls).

<sup>6</sup> Bureau of Labor Statistics, Oct. 2, 2009, [www.bls.gov/news.release/empsit.t04.htm](http://www.bls.gov/news.release/empsit.t04.htm).

<sup>7</sup> “Trends in College Pricing 2009,” College Board, [www.trends-collegeboard.com/college\\_pricing/pdf/2009\\_Trends\\_College\\_Pricing.pdf](http://www.trends-collegeboard.com/college_pricing/pdf/2009_Trends_College_Pricing.pdf).



# THE VALUE OF A COLLEGE EDUCATION

<sup>8</sup> Harry J. Holzer and Robert Lerman, "America's Forgotten Middle-Skill Jobs," Workforce Alliance, November 2007, [www.urban.org/UploadedPDF/411633\\_forgottenjobs.pdf](http://www.urban.org/UploadedPDF/411633_forgottenjobs.pdf). Holzer and Lerman are both scholars at the Urban Institute.

<sup>9</sup> *Ibid.*  
<sup>10</sup> Louis Uchitelle, "Despite Recession, High Demand for Skilled Labor," *The New York Times*, June 24, 2009, [www.nytimes.com/2009/06/24/business/24jobs.html?scp=1&sq=despite%20recession,%20high%20demand%20for%20skilled%20labor&st=cse](http://www.nytimes.com/2009/06/24/business/24jobs.html?scp=1&sq=despite%20recession,%20high%20demand%20for%20skilled%20labor&st=cse).

<sup>11</sup> For background on jobs and the economy, see the following *CQ Researcher* reports: Alan Greenblatt, "State Budget Crisis," Sept. 11, 2009, pp. 741-764; Peter Katel, "Vanishing Jobs," March 13, 2009, pp. 225-248; Marcia Clemmitt, "Public-Works Projects," Feb. 20, 2009, pp. 153-176; Kenneth Jost, *et al.*, "The Obama Presidency," Jan. 30, 2009, pp. 73-104; Peter Katel, "Straining the Safety Net," July 31, 2009, pp. 645-668.

<sup>12</sup> Tamar Lewin, "College Enrollment Set Record in 2008," *The New York Times*, Oct. 30, 2009, [www.nytimes.com/2009/10/30/education/30college.html?scp=1&sq=college%20enrollment%20set%20record%20in%202008&st=cse](http://www.nytimes.com/2009/10/30/education/30college.html?scp=1&sq=college%20enrollment%20set%20record%20in%202008&st=cse).

<sup>13</sup> Betsy Brand, "Supporting High Quality Career and Technical Education through Federal and State Policy," American Youth Policy Forum, May 2008, [www.aypf.org/documents/SupportingHighQualityCTE.pdf](http://www.aypf.org/documents/SupportingHighQualityCTE.pdf).

<sup>14</sup> Kenneth C. Gray and Edwin L. Herr, *Other Ways to Win* (2006), p. 8.

<sup>15</sup> Deborah Reed, "California's Future Workforce: Will There Be Enough College Graduates?" Public Policy Institute of California, December 2008, [www.pplic.org/content/pubs/report/R\\_1208DRR.pdf](http://www.pplic.org/content/pubs/report/R_1208DRR.pdf).

<sup>16</sup> "New Report: More than 2.7 Million 'Middle-Skill' Job Openings Projected for California by 2016," press release, The Workforce Alliance, Skills2Compete and California EDGE Campaign, Oct. 19, 2009, accessed at [www.reuters.com/article/pressRelease/idUS86731+19-Oct-2009+PRN20091019](http://www.reuters.com/article/pressRelease/idUS86731+19-Oct-2009+PRN20091019).

<sup>17</sup> Press releases accessed at [www.skills2compete.org/site/c.fhLKYPLLuF/b.3356267/k.89B1/Media\\_Center.htm](http://www.skills2compete.org/site/c.fhLKYPLLuF/b.3356267/k.89B1/Media_Center.htm).

<sup>18</sup> Lumina Foundation, *op. cit.*

<sup>19</sup> "Is a College Education Worth the Debt?" "Tell Me More," National Public Radio, Sept. 1, 2009, [www.npr.org/templates/story/story.php?storyId=112432364](http://www.npr.org/templates/story/story.php?storyId=112432364).

<sup>20</sup> Brand, *op. cit.*

<sup>21</sup> "Career and Technical Education: States Have Broad Flexibility in Implementing Perkins IV," U.S. Government Accountability Office, July 2009, [www.gao.gov/new.items/d09683.pdf](http://www.gao.gov/new.items/d09683.pdf). For a discussion of this issue, see Demenic Giandomenico, "Career Technical Education Success Difficult to Measure," *The Chamber Post*, July 31, 2009, [www.chamberpost.com/2009/07/career-technical-education-success-difficult-to-measure.html](http://www.chamberpost.com/2009/07/career-technical-education-success-difficult-to-measure.html).

<sup>22</sup> "Noteworthy State Legislation for Improving Career and Technical Education," Education Commission of the States, September 2009, [www.ecs.org/clearinghouse/82/07/8207.pdf](http://www.ecs.org/clearinghouse/82/07/8207.pdf).

<sup>23</sup> See James J. Kemple with Cynthia J. Willner, "Career Academies: Long-Term Impacts on Labor Market Outcomes, Educational Attainment and Transitions to Adulthood," MDRC, June 2008, [www.mdrc.org/publications/482/overview.html](http://www.mdrc.org/publications/482/overview.html).

<sup>24</sup> Mary Beth Marklein, "Four-year schools get bigger share of revenue pie," *USA Today*, July 22, 2008, [www.usatoday.com/news/education/2008-07-22-comcol-funding\\_N.htm](http://www.usatoday.com/news/education/2008-07-22-comcol-funding_N.htm).

<sup>25</sup> Stephen G. Katsinas and Terrence A. Tollefson, "Funding and Access Issues in Public Higher Education: A Community College Perspective," University of Alabama Education Policy Center, 2009, <http://education.ua.edu/edpolicycenter/documents/fundingandaccess2009.pdf>.

<sup>26</sup> "Diploma to Nowhere," Strong American Schools, 2008, [www.deltacostproject.org/resources/pdf/DiplomaToNowhere.pdf](http://www.deltacostproject.org/resources/pdf/DiplomaToNowhere.pdf). The group analyzed 2004 data.

<sup>27</sup> "The People's Vote: 100 Documents that Shaped America, Morrill Act (1862)," *U.S. News & World Report*, [www.usnews.com/usnews/documents/docpages/document\\_page33.htm](http://www.usnews.com/usnews/documents/docpages/document_page33.htm).

<sup>28</sup> *Ibid.*

<sup>29</sup> Ellwood P. Cubberley, *Changing Conceptions of Education* (1909), pp. 49-50, accessed at <http://books.google.com>.

<sup>30</sup> Kenneth Gray, "Vocationalism and the American High School: Past, Present and Future?" *Journal of Industrial Teacher Education*, vol. 33, no. 2, winter 1996, <http://scholar.lib.vt.edu/ejournals/JITE/v33n2/gray.html>.

<sup>31</sup> Neville B. Smith, "A Tribute to the Visionaries, Prime Movers and Pioneers of Vocational Education, 1892 to 1917," *Journal of Vocational and Technical Education*, vol. 16, no. 1, fall 1999, <http://scholar.lib.vt.edu/ejournals/JVTE/v16n1/smith.html>.

<sup>32</sup> *Ibid.*

<sup>33</sup> "Smith-Hughes Act of 1917," Prentice Hall Documents Library, <http://cwx.prenhall.com/bookbind/pubbooks/dye4/medialib/docs/smith917.htm>.

<sup>34</sup> David Stern, "Expanding Policy Options for Educating Teenagers," *The Future of Children*, vol. 19, no. 1, spring 2009, pp. 211-239, [http://futureofchildren.org/futureofchildren/publications/docs/19\\_01\\_10.pdf](http://futureofchildren.org/futureofchildren/publications/docs/19_01_10.pdf). The journal is a collaboration of the Woodrow Wilson School of Public and International Affairs at Princeton University and The Brookings Institution.

<sup>35</sup> Prentice Hall Documents Library, *op. cit.*

<sup>36</sup> Marjorie Coeyman, "Practical skills vs. three R's: A debate revives," *The Christian Science Monitor*, July 8, 2003, [www.csmonitor.com/2003/0708/p13s02-lepr.html](http://www.csmonitor.com/2003/0708/p13s02-lepr.html).

<sup>37</sup> "Significant Events," American Association of Community Colleges, [www.aacc.nche.edu/AboutCC/history/Pages/significantevents.aspx](http://www.aacc.nche.edu/AboutCC/history/Pages/significantevents.aspx).

<sup>38</sup> "Statement by the President Making Public a Report of the Commission on Higher Education," Public Papers, No. 235, Harry S. Truman Library and Museum, Dec. 15, 1947, <http://trumanlibrary.org/publicpapers/index.php?pid=1852>.

<sup>39</sup> *Ibid.*

<sup>40</sup> U.S. Census Bureau, [www.census.gov/population/socdemo/school/TableA-6.xls](http://www.census.gov/population/socdemo/school/TableA-6.xls).

<sup>41</sup> U.S. Census Bureau, "Decennial Census of Population," 1940 to 2000, [www.census.gov/population/socdemo/education/phct41/table2.xls](http://www.census.gov/population/socdemo/education/phct41/table2.xls).

<sup>42</sup> American Association of Community Colleges, [www.aacc.nche.edu/AboutCC/history/Documents/np10.pdf](http://www.aacc.nche.edu/AboutCC/history/Documents/np10.pdf).

<sup>43</sup> Gray, *op. cit.*

<sup>44</sup> *Ibid.*

<sup>45</sup> Of the 3.2 million young people who graduated from high school from October 2007 to October 2008, 2.2 million — about 69 percent — were attending college in October 2008, according to the U.S. Labor Department.



## About the Author

**Thomas J. Billitteri** is a *CQ Researcher* staff writer based in Fairfield, Pa., who has more than 30 years' experience covering business, nonprofit institutions and public policy for newspapers and other publications. His recent *CQ Researcher* reports include "Auto Industry's Future," "Afghanistan's Future" and "Financial Literacy." He holds a BA in English and an MA in journalism from Indiana University.



About 60 percent of those who enrolled in college attended four-year institutions. See "College Enrollment and Work Activity of 2008 High-school Graduates," April 28, 2009, [www.bls.gov/news.release/pdf/hsgec.pdf](http://www.bls.gov/news.release/pdf/hsgec.pdf).

<sup>46</sup> For background, see R. Thompson, "Teachers: The Push for Excellence," *Editorial Research Reports*, April 20, 1984, available at *CQ Researcher Plus Archive*.

<sup>47</sup> For background, see Barbara Mantel, "No Child Left Behind," *CQ Researcher*, May 27, 2005, pp. 469-492.

<sup>48</sup> An April 3, 2009, letter to Obama from officials of the Association for Career and Technical Education, the National Association of State Directors of Career Technical Education Consortium and the American Association of Community Colleges sought at least \$1.4 billion in funding under the Perkins Career and Technical Education Act and said federal investment in the act had decreased by \$42 million since fiscal 2002 while enrollments have soared to record highs. See [www.actonline.org/uploaded/Files/Issues\\_and\\_Advocacy/files/FY10\\_President\\_Signon.doc](http://www.actonline.org/uploaded/Files/Issues_and_Advocacy/files/FY10_President_Signon.doc).

<sup>49</sup> Office of Management and Budget, [www.whitehouse.gov/omb/fy2010\\_department\\_education](http://www.whitehouse.gov/omb/fy2010_department_education).

<sup>50</sup> Lamar Alexander, "The Three-Year Solution," *Newsweek*, Oct. 26, 2009, [www.newsweek.com/id/218183](http://www.newsweek.com/id/218183).

<sup>51</sup> Frederick M. Hess, Mark Schneider, Kevin Carey and Andrew P. Kelly, "Diplomas and Dropouts," American Enterprise Institute, June 2009, [www.aei.org/docLib/Diplomas%20and%20Dropouts%20final.pdf](http://www.aei.org/docLib/Diplomas%20and%20Dropouts%20final.pdf).

<sup>52</sup> William G. Bowen, Matthew M. Chingos and Michael S. McPherson, *Crossing the Finish Line* (2009).

<sup>53</sup> Quoted in Scott Jaschik, "(Not) Crossing the Finish Line," *Inside Higher Ed*, Sept. 9, 2009, [www.insidehighered.com/news/2009/09/09/finish](http://www.insidehighered.com/news/2009/09/09/finish).

<sup>54</sup> "Remarks by the President on the American Graduation Initiative," The White House, July 14, 2009, [www.whitehouse.gov/the\\_press\\_office/Remarks-by-the-President-on-the-American-Graduation-Initiative-in-Warren-MI/](http://www.whitehouse.gov/the_press_office/Remarks-by-the-President-on-the-American-Graduation-Initiative-in-Warren-MI/).

<sup>55</sup> The bill is HR 3221.

<sup>56</sup> See Michael A. Fletcher, "Obama Spotlights Student Loan Reform," *The Washington Post*, April 24, 2009, [http://voices.washingtonpost.com/44/2009/04/24/obama\\_spotlights\\_student\\_loan.html](http://voices.washingtonpost.com/44/2009/04/24/obama_spotlights_student_loan.html). For an analysis of the bill, see "Congressional Budget Office Cost Estimate," July 24, 2009, [www.cbo.gov/ftpdocs/104xx/doc10479/hr3221.pdf](http://www.cbo.gov/ftpdocs/104xx/doc10479/hr3221.pdf).

<sup>57</sup> Anthony Carnevale, "Postsecondary Educa-

## FOR MORE INFORMATION

**American Association of Community Colleges**, 1 Dupont Circle, Suite 410, Washington, DC 20036; (202) 728-0200; [www2.aacc.nche.edu/research/index.htm](http://www2.aacc.nche.edu/research/index.htm). Represents nearly 1,200 two-year associate degree-granting institutions.

**American Youth Policy Forum**, 1836 Jefferson Pl., N.W., Washington, DC 20036; (202) 775-9731; [www.aypf.org](http://www.aypf.org). Nonprofit professional-development organization engaged in youth and education issues at the national, state and local levels.

**College Board**, 45 Columbus Ave., New York, NY 10023; (212) 713-8000; [www.collegeboard.com](http://www.collegeboard.com). Nonprofit membership organization that manages college admission tests and collects data on college costs and student debt, among other roles.

**Community College League of California**, 2017 O St., Sacramento, CA 95811-5211; (916) 444-8641; [www.ccleague.org](http://www.ccleague.org). Membership organization for 72 local community college districts in California.

**Lumina Foundation for Education**, 30 S. Meridian St., Suite 700, Indianapolis, IN 46204-3503; (317) 951-5300; [www.luminafoundation.org](http://www.luminafoundation.org). Provides grants, policy education and leadership development in education.

**Workforce Strategy Center**, 350 Fifth Ave., 59th Floor, New York, N.Y. 10118; (646) 205-3240; [www.workforcestrategy.org](http://www.workforcestrategy.org). Works with education, workforce development and economic-development agencies to help students and workers succeed and to foster regional economic growth.

tion Goes to Work," *Inside Higher Ed*, May 15, 2009, [www.insidehighered.com/views/2009/05/15/camevale](http://www.insidehighered.com/views/2009/05/15/camevale). Obama spoke on "job creation and job training" on May 9, 2009; see [www.whitehouse.gov/the\\_press\\_office/Remarks-by-the-President-on-Job-Creation-and-Job-Training-5/8/09/](http://www.whitehouse.gov/the_press_office/Remarks-by-the-President-on-Job-Creation-and-Job-Training-5/8/09/).

<sup>58</sup> Will Van Sant, "\$2.3 million in federal stimulus money is going to pay for Tampa Bay area beauty school tuition," *St. Petersburg Times*, Oct. 17, 2009, [www.tampabay.com/news/education/23-million-in-federal-stimulus-money-is-going-to-pay-for-tampa-bay-area/1044637](http://www.tampabay.com/news/education/23-million-in-federal-stimulus-money-is-going-to-pay-for-tampa-bay-area/1044637).

<sup>59</sup> Quoted in *ibid*.

<sup>60</sup> "President Obama's Plan to Invest in Community Colleges Could Vastly Improve Young People's Ability to Achieve Economic Security," *Demos*, July 22, 2009, <http://demos.org/press.cfm?currentarticleID=BE413099%2D3FF4%2D6C82%2D5592F9B4EF236F90>.

<sup>61</sup> Quoted in Kelly Field, "A Year of College for All: What the President's Plan Would Mean for the Country," *Chronicle of Higher Education*, May 22, 2009, accessed at <http://cew.georgetown.edu/media/news/>. McCluskey made his comments at a forum, according to the *Chronicle* article.

<sup>62</sup> "Obama Budget Level Funds Career Technical Education," press release, National Association of State Directors of Career Technical Education Consortium, May 7, 2009,

[www.careertech.org/press\\_releases/show/28](http://www.careertech.org/press_releases/show/28).

<sup>63</sup> Jill Casner-Lotto, Elyse Rosenblum and Mary Wright, "The Ill-Prepared U.S. Workforce," Corporate Voices for Working Families, American Society for Training & Development, Conference Board and Society for Human Resource Management, July 2009, [www.astd.org/NR/rdonlyres/A7A0ECCF-333E-445C-BAA5-99486742F7F0/22788/Workforcekeyfindings0709final.pdf](http://www.astd.org/NR/rdonlyres/A7A0ECCF-333E-445C-BAA5-99486742F7F0/22788/Workforcekeyfindings0709final.pdf).

<sup>64</sup> "New Report Shows Employers Struggle with Ill-Prepared Workforce," The Conference Board, press release, July 14, 2009, [www.conference-board.org/utilities/pressDetail.cfm?press\\_id=3693](http://www.conference-board.org/utilities/pressDetail.cfm?press_id=3693).

<sup>65</sup> Susan P. Choy, Ellen M. Bradburn and C. Dennis Carroll, "Ten Years After College: Comparing the Employment Experiences of 1992-93 Bachelor's Degree Recipients With Academic and Career-Oriented Majors," National Center for Education Statistics, February 2008, <http://nces.ed.gov/pubs2008/2008155.pdf>.

<sup>66</sup> Steven Greenhouse, "More White-Collar Workers Turn to Community Colleges," *The New York Times*, Aug. 19, 2009, [www.nytimes.com/2009/08/20/education/20COMMUN.html](http://www.nytimes.com/2009/08/20/education/20COMMUN.html).

<sup>67</sup> Quoted in *ibid*.

<sup>68</sup> College Board, "Trends in College Pricing," *op. cit*.

<sup>69</sup> "Trends in Student Aid 2009," College Board, p. 10, [www.trends-collegeboard.com/student\\_aid/pdf/2009\\_Trends\\_Student\\_Aid.pdf](http://www.trends-collegeboard.com/student_aid/pdf/2009_Trends_Student_Aid.pdf).

# Bibliography

## *Selected Sources*

### **Books**

**Bowen, William G., Matthew M. Chingos and Michael S. McPherson, *Crossing the Finish Line*, Princeton University Press, 2009.**

Public universities are crucial to the nation's future, yet fewer than 60 percent of students entering four-year colleges graduate, according to this scholarly examination of graduation rates at 21 flagship public universities and four statewide public higher-education systems.

**Crawford, Matthew B., *Shop Class as Soulcraft: An Inquiry Into the Value of Work*, Penguin Press, 2009.**

A think tank scholar turned motorcycle repair shop owner waxes philosophically about the satisfaction of working with one's hands and analyzes the unwillingness of American culture to recognize the merits of tradecraft and manual labor.

**Gray, Kenneth C., and Edwin L. Herr, *Other Ways to Win*, Corwin Press, 2006.**

Two Pennsylvania State University scholars focus on teens in the academic middle — those in the second and third quartiles of their high-school class — and question the premise that the only way to achieve economic security is by pursuing a four-year college degree.

### **Articles**

**Epstein, Jennifer, "Should Everyone Go to College?" *Inside Higher Ed*, Sept. 18, 2009, [www.insidehighered.com/news/2009/09/18/college#](http://www.insidehighered.com/news/2009/09/18/college#).**

In a panel discussion, four policy experts examine the question of whether everyone needs college — and how that postsecondary education should be defined.

**Greenhouse, Steven, "At Sinclair Community College, Focus Is Jobs," *The New York Times*, Aug. 15, 2009, [www.nytimes.com/2009/08/15/business/15college.html?scp=1&sq=sinclair%20community%20college&st=cse](http://www.nytimes.com/2009/08/15/business/15college.html?scp=1&sq=sinclair%20community%20college&st=cse).**

The Dayton, Ohio, community college is in the forefront of efforts to create a higher-skilled workforce — retraining thousands of laid-off autoworkers and helping local leaders foster growth industries and train workers for them.

**Greenhouse, Steven, "More White-Collar Workers Turn to Community Colleges," *The New York Times*, Aug. 20, 2009, [www.nytimes.com/2009/08/20/education/20COMMUN.html?scp=1&sq=more%20white-collar%20workers%20turn%20to%20community%20colleges&st=cse](http://www.nytimes.com/2009/08/20/education/20COMMUN.html?scp=1&sq=more%20white-collar%20workers%20turn%20to%20community%20colleges&st=cse).**

Many community college students are employed but want to increase their skills, while others have lost their jobs and are returning to school to obtain new skills.

**Jan, Tracy, "These Bunker Hill Classes Make Late Arrival Mandatory," *The Boston Globe*, Sept. 11, 2009, [www.boston.com/news/education/higher/articles/2009/09/11/these\\_bunker\\_hill\\_classes\\_make\\_late\\_arrival\\_mandatory/](http://www.boston.com/news/education/higher/articles/2009/09/11/these_bunker_hill_classes_make_late_arrival_mandatory/).**

Several community colleges are working to accommodate the needs of their students by offering midnight courses in psychology, writing and "graveyard" welding classes.

**Lewin, Tamar, "College Costs Keep Rising, Report Says," *The New York Times*, Oct. 21, 2009, [www.nytimes.com/2009/10/21/education/21costs.html?ref=us](http://www.nytimes.com/2009/10/21/education/21costs.html?ref=us).**

While overall consumer prices fell last year, the cost of a college education rose significantly, with tuition and fees at four-year public colleges up an average of 6.5 percent and those at private colleges up 4.4 percent, the College Board reported.

**Uchitelle, Louis, "Despite Recession, High Demand for Skilled Labor," *The New York Times*, June 24, 2009, [www.nytimes.com/2009/06/24/business/24jobs.html?scp=1&sq=despite%20recession,%20high%20demand%20for%20skilled%20labor&st=cse](http://www.nytimes.com/2009/06/24/business/24jobs.html?scp=1&sq=despite%20recession,%20high%20demand%20for%20skilled%20labor&st=cse).**

Despite a national unemployment rate near 10 percent, some employers are seeking qualified applicants for skilled jobs in welding, critical-care nursing and other specialties.

### **Reports and Studies**

**"A Stronger Nation Through Higher Education," Lumina Foundation for Education, February 2009, [www.luminafoundation.org/publications/A\\_stronger\\_nation\\_through\\_higher\\_education.pdf](http://www.luminafoundation.org/publications/A_stronger_nation_through_higher_education.pdf).**

College-attainment rates are climbing in nearly every industrialized or post-industrial country except the United States, where about 39 percent of adults hold a two- or four-year degree, according to this examination.

**Casner-Lotto, Jill, Elyse Rosenblum and Mary Wright, "The Ill-Prepared U.S. Workforce," The Conference Board, Corporate Voices for Working Families, American Society for Training & Development and Society for Human Resource Management, July 2009, [www.cvworkingfamilies.org/system/files/Ill\\_Prepared\\_Workforce\\_KE.pdf](http://www.cvworkingfamilies.org/system/files/Ill_Prepared_Workforce_KE.pdf).**

Employers are finding that many new hires lack important basic and applied skills, but company training programs often are not correcting those deficiencies, the study concludes.

**Holzer, Harry J., and Robert I. Lerman, "America's Forgotten Middle-Skill Jobs," Workforce Alliance, November 2007, [www.urban.org/UploadedPDF/411633\\_forgottenjobs.pdf](http://www.urban.org/UploadedPDF/411633_forgottenjobs.pdf).**

Researchers conclude that demand for workers to fill jobs that require more than a high-school diploma but less than a four-year degree will likely remain strong relative to supply.

# The Next Step:

## *Additional Articles from Current Periodicals*

### **Community Colleges**

**Calvan, Bobby Caina, "Programs at Colleges Grow to Help Meet Rising Demand," *Sacramento Bee* (California), April 26, 2009, p. B1.**

Community colleges have added programs in health care, where the number of jobs continues to grow, with the help of companies that sponsor students to develop skills in various health occupations, including radiology.

**Cawvey, Matthew, "Virtual Classrooms Fill; Community Colleges Lead Online Demand," *The Washington Times*, April 15, 2008, p. A2.**

Many community colleges have turned to online course offerings in an effort to meet rising demands for courses through distance learning.

**Giordano, Maria, "Columbia State Hopes Obama's Proposal Helps," *The Tennessean*, July 20, 2009.**

Community colleges in Tennessee have been on wait lists for state funding for years, but many hope President Obama's emphasis on the importance of a college education will shake loose the federal funding needed to meet the goal of expansion.

**Wilson, Matt, "De Anza May Turn Away Eligible Students as More Apply for Fewer Classroom Seats," *San Jose Mercury News*, Aug. 14, 2009.**

Due to tight budgets, many community colleges have to turn away increasing numbers of eligible students while also cutting course offerings.

### **Financial Security**

**"Largest Investment in Higher Education in History Passes House," *States News Service*, Sept. 24, 2009.**

U.S. Rep. Niki Tsongas, D-Mass., says everyone should go to college, not just for personal financial security but for the security of the United States in the global economy, as well.

**Asimov, Nanette, "Survey Finds Many Troubled by College Cost; California," *San Francisco Chronicle*, Nov. 13, 2009, p. B1.**

A California survey found that people think college is more necessary today than ever before for financial security, but many are worried about affording it.

**Maddaluna, Michael, and Michael J. Herrera, "Guest Commentary: Technical Schools a Ticket to Success," *Courier News* (Bridgewater, N.J.), Sept. 23, 2009.**

Technical training allows people to develop skills for important jobs, such as construction and nursing, which offer high wages and contribute to the health of the overall economy.

**Rossi, Lisa, "Candidates Divided on Need to Cut College Cost," *Des Moines Register*, Dec. 11, 2007, p. 1A.**

An Iowa State University associate professor argues that not everyone should go to college, but people feel pressured into attending, which may not be the best use of their skills.

### **Technical Training Programs**

**"College Plan Fine, but Don't Forget High School Problem," *The News-Messenger* (Fremont, Ohio), April 9, 2008, p. 4.**

High-school programs in Ohio are not preparing students for college, or even retaining students long enough for them to graduate, leaving many people without the skills needed to succeed in the workforce.

**"Peterson Garners National Recognition for Leadership on Technical Education," *States News Service*, April 1, 2008.**

U.S. Rep. John Peterson, R-Pa., emphasizes the importance of transforming technical education as technology changes, in order to remain competitive in the global economy.

**"Wave of the Future," *News & Record* (Greensboro, N.C.), May 25, 2008, p. H2.**

Guilford County community colleges have successfully implemented technical-training programs to retrain displaced textile, tobacco and furniture employees for jobs in high-growth fields such as nursing and aviation.

**Burk, Jennifer, "Tech Colleges Provide Training for New Companies," *The Macon Telegraph*, Feb. 1, 2008.**

Quick Start, a technical-training and adult-education program in Georgia, provides training to new or expanding businesses free of charge, which has brought many companies to the state, including Kia and Boeing.

### **CITING CQ RESEARCHER**

Sample formats for citing these reports in a bibliography include the ones listed below. Preferred styles and formats vary, so please check with your instructor or professor.

#### **MLA STYLE**

Jost, Kenneth. "Rethinking the Death Penalty." *CQ Researcher* 16 Nov. 2001: 945-68.

#### **APA STYLE**

Jost, K. (2001, November 16). Rethinking the death penalty. *CQ Researcher*, 11, 945-968.

#### **CHICAGO STYLE**

Jost, Kenneth. "Rethinking the Death Penalty." *CQ Researcher*, November 16, 2001, 945-968.

# In-depth Reports on Issues in the News

*Are you writing a paper?*

*Need backup for a debate?*

*Want to become an expert on an issue?*

For more than 80 years, students have turned to *CQ Researcher* for in-depth reporting on issues in the news. Reports on a full range of political and social issues are now available. Following is a selection of recent reports:

## Civil Liberties

Closing Guantánamo, 2/09  
Affirmative Action, 10/08  
Gay Marriage Showdowns, 9/08  
America's Border Fence, 9/08  
Immigration Debate, 2/08

## Crime/Law

Interrogating the CIA, 9/09  
Examining Forensics, 7/09  
Legalizing Marijuana, 6/09  
Wrongful Convictions, 4/09  
Prostitution Debate, 5/08

## Education

Financial Literacy, 9/09  
Reading Crisis? 2/08  
Discipline in Schools, 2/08

## Environment/Society

Women in the Military, 11/09  
Conspiracy Theories, 10/09  
Human Spaceflight, 10/09  
Gays in the Military, 9/09  
Energy and Climate, 7/09  
Future of Books, 5/09  
Hate Groups, 5/09

## Health/Safety

Medication Abuse, 10/09  
Nuclear Disarmament, 10/09  
Health-Care Reform, 8/09  
Straining the Safety Net, 7/09  
Treating Depression, 6/09  
Reproductive Ethics, 5/09

## Politics/Economy

State Budget Crisis, 9/09  
Business Bankruptcy, 4/09  
Future of the GOP, 3/09  
Middle-Class Squeeze, 3/09

## Upcoming Reports

Prisoner Reentry, 12/4/09

Bilingual Education, 12/11/09

Homelessness, 12/18/09

## ACCESS

*CQ Researcher* is available in print and online. For access, visit your library or [www.cqresearcher.com](http://www.cqresearcher.com).

## STAY CURRENT

To receive notice of upcoming *CQ Researcher* reports, or learn more about *CQ Researcher* products, subscribe to the free e-mail newsletters, *CQ Researcher Alert!* and *CQ Researcher News*: <http://cqpress.com/newsletters>.

## PURCHASE

To purchase a *CQ Researcher* report in print or electronic format (PDF), visit [www.cqpress.com](http://www.cqpress.com) or call 866-427-7737. Single reports start at \$15. Bulk purchase discounts and electronic-rights licensing are also available.

## SUBSCRIBE

Annual full-service *CQ Researcher* subscriptions—including 44 reports a year, monthly index updates, and a bound volume—start at \$803. Add \$25 for domestic postage.

*CQ Researcher Online* offers a backfile from 1991 and a number of tools to simplify research. For pricing information, call 800-834-9020, ext. 1906, or e-mail [librarysales@cqpress.com](mailto:librarysales@cqpress.com).

## CQ RESEARCHER PLUS ARCHIVE

GET ONLINE ACCESS TO VITAL  
ISSUES FROM 1923 TO THE PRESENT



*CQ Researcher Plus Archive* delivers fast, online access to every *CQ Researcher* report from 1991 to the present, PLUS lets you explore the complete archive of *Editorial Research Reports*\*

from 1923-1990. Search and browse more than 3,600 in-depth reports.

Loaded with handy online features, *CQ Researcher Plus Archive* provides the trustworthy reporting and the advanced online functionality today's researchers demand. The new "Issue Tracker" feature provides quick links to past and present reports on the specific topics you need.

For a free trial, visit <http://library.cqpress.com/trials>.

For pricing information, call 1-800-834-9020, ext. 1906 or e-mail [librarymarketing@cqpress.com](mailto:librarymarketing@cqpress.com).

\**Editorial Research Reports*, the predecessor to *CQ Researcher*, provides the same expert, nonpartisan reporting on the vital issues that have shaped our society.

CQ Press • 2300 N Street, NW, Suite 800 • Washington, DC 20037