Closing the Gender Gap
Smith College offers the first engineering track at an all-women college

By Jon Marcus
Northampton, Massachusetts

The name of one of the newest courses at Smith College may seem self-explanatory to the literal-minded science students who attend this elite all-women, liberal arts school.

English majors are to be forgiven if they prefer to dwell on the symbolism. The class is called Designing the Future, and it serves as the introduction to Smith’s new undergraduate engineering program. It is literally a course in mechanical and electrical design. But it also marks the first engineering track at an all-women college, and then only a third at a top liberal arts school.

Symbolism is, in fact, a part of the equation. Smith’s new self-contained engineering major, which replaces a modest dual-degree program with Dartmouth, has only one professor and 19 students. At capacity, it is projected to produce only 25 graduates per year, beginning some time after 2004. But it is in the vanguard of a concerted new movement to increase the number of women in a field seemingly more cloistered than any outside the Catholic priesthood—and to change the way all engineers are taught.

"The world would be different in all kinds of ways if there were more women in this profession," said John Connolly, provost and dean of the faculty. "Smith can’t do that alone, but we can send a message here." Besides, he said, "the impact on the campus is significantly greater if you have a program of this kind. The New York Times doesn’t put you on the front page for signing an agreement with Dartmouth."

The addition of a program such as engineering, in which women are so vastly underrepresented, bolsters the idea of all-women education at a time when the number of women’s colleges is falling.

National publicity was not the only payoff. Corporate sponsors including Boeing, Ford and Hewlett-Packard, anxious to recruit women engineers, have showered money and equipment on the campus. And there are expectations that Smith’s already high caliber of students will be heightened even further with the continued on page 15

California’s Improved Financial Aid Program
State reverses national trend toward merit scholarships

By William Trombley
Senior Editor
Sacramento, California

When California Governor Gray Davis recently signed a bill that will double the size of the state’s student financial aid program over the next five years, there was no hint of the long struggle to bring the reluctant governor to this point.

Indeed, speaking at a bill-signing ceremony on the campus of California State University, Los Angeles, Davis bragged about the legislation, calling it the “most ambitious financial aid program in America.”

The plan assures that students with good grades and financial need will be rewarded with “Cal Grants” that pay for tuition and fees at the state’s public colleges and universities and up to $9,708 per year for California students attending private institutions.

In the past, many students who were eligible for Cal Grants did not receive them because the money ran out. In the current academic year, 136,022 high school graduates were eligible but only 57,254 received new awards.

Until now, the California Student Aid Commission has rationed the money by raising the grade point average for Cal Grant eligibility, a process that favored the University of California and the more selective private schools over the California State University and the community colleges.

But the new law, making Cal Grants an entitlement program, like MediCare or Social Security, requires the state to provide enough funds for all eligible students.

The new legislation will take effect in fall 2001. The Student Aid Commission estimates that the number of annual new awards will increase from this year’s 57,254 to 136,022 by 2006–2007. The annual cost is expected to jump from $503 million to $1.2 billion in the same period.

California’s action has won praise from national financial aid experts, who have watched with some dismay as state after state has adopted merit scholarship programs, while shortchanging grants that are based on financial need.

"I’d like to think this is a harbinger, the beginning of a counter trend," said Lawrence Gladieux, former director of the Washington, D.C. office of The College Board. Continued on page 8

In This Issue

State Senators Charles Poochigian (left), a Republican, and John Burton, a Democrat, played key roles in passing California’s new student financial aid bill.

For several years a contentious debate over distance education divided the faculty on the seven campuses of the state of Maine’s university system. The dispute was partly responsible for the departure of former Chancellor Michael Orenduff.

But his replacement, Terrence MacTaggart (above), has found a way to expand distance learning opportunities for students without ruffling too many faculty feathers. (See page 5.)
Robert McCabe is a senior fellow with the League for Innovation in the Community College, and is former president of Miami-Dade Community College. He is a founding board member of the National Center for Public Policy and Higher Education. McCabe was interviewed by Patrick M. Callan, president of the Center.

Patrick Callan: Remedial education has been taking a lot of hits recently. You have recently written No One to Waste, a national study of community college remedial programs. Why a major study of remediation at this time?

Robert McCabe: During my time at Miami-Dade and subsequently, I’ve had many conversations and debates with legislators and others who are concerned about remediation. Usually the arguments were based on anecdotes—theirs versus ours. There really has been no hard data beyond that produced by individual institutions, even though the issues are critical ones.

I believed that we should have better data. We need to debate the issues on the basis of information rather than stories.

PC: Let’s start with the study and what you have learned and reported. First, the students. Who is taking remedial classes in the community colleges?

RM: I started with the classic definition, one that’s pretty much been used all over the country—that is, deficiencies in reading, writing, and math. Based on criteria that vary greatly from institution to institution, those who do not measure up to those criteria are labeled as remedial. Remedial students range from those with a minor deficiency in one area to people who are deeply deficient in all three. There are roughly one million students a year who begin in college and are assigned to remedial courses.

PC: Is that number for all institutions or just community colleges?

RM: In all of them. It’s 29 percent of all the entering college students. In community colleges it’s about 40 percent, and I do not know of an urban community college where it is not at least half.

PC: How much time do the community college students typically spend on remediation?

RM: The typical college uses a credit equivalent, and the average student takes a little over seven semester credits for remediation, approximately one-fourth of a college year.

PC: What is known about whether, or how well, remediation works? Your report talks about the perception, especially among some state legislators, that we simply are paying for failure one more time?

RM: There is that perception, but more often than not it’s based on faulty premises. First, some of these legislators see continuity between high school and college that doesn’t exist. They think that if students graduate from high school, they should be ready for standard college work. But the criteria for high school graduation do not match the competency requirements to begin standard college classes. Students can meet criteria for high school graduation, but still lack the skills needed for college.

Second, our definitions of success may be too narrow. A variety of studies, including my own, show that between 40 and 50 percent of students who begin in community colleges are successfully remediated. But, the fact is that a high percentage is not going on to bachelor’s degrees, even though remedial programs are really geared for that purpose. Twice as many earn occupational associate degrees or certificates.

If you look at remedial students nine years later, 90 percent are employed in work above an entry-level type of job. Less than two percent are out of work. Remediation in the community colleges is much more occupational and vocational than we have thought, and measures of its success should be designed accordingly.

I’m not arguing that all aspects of remediation are successful. For the seriously deficient, the program is basically a total failure. Only 20 percent of those students complete remediation, and very few go on to anything after that. Programs for the seriously deficient need to be redesigned altogether.

PC: How do you define “seriously deficient”? Out of the million students mentioned earlier, how many are there?

RM: Seriously deficient students are those who are deficient in reading, writing, and math, and are required to take at least one course prior to the standard remedial courses. For example, they simply could not take one remedial math course and be ready—they would have to take a math course prior to that math course. A for number, I lack data for all institutions, but in the community colleges I looked at, about one-fourth were seriously deficient.

PC: In addition to the fairly widespread perception that remediation is not very successful, isn’t there also a perception that its costs are bleeding the colleges?

RM: A gain, the perception is wrong. Only one percent of the higher education budget is spent on remediation, and only four percent of the federal student financial aid goes there. In terms of expenditures in community colleges, the costs per student are not high—about one-fourth of the public cost per student, about $1,500 or less.

A basically, remediation is the most productive education program we have. With just one percent of the budget, it salvages the lives of a half-million people, and enables them to become positive, contributing individuals in our society. It is a particularly good investment because of the country’s changing demography and economy. The part of our population that is growing the most is also the part that is least prepared for college and skilled jobs. We believe in opportunity and access, and we can’t have either without remedial education.

PC: There are several conclusions in No One to Waste that challenge conventional wisdom, and may surprise some readers. For example, you assert that remediation is essential for quality, not a detrimen to it. Is this true?

RM: It is absolutely true. In regular courses, faculty must expect that students are prepared, and only remedial testing and placement can assure that this expectation is met. If it is not met, then quality will suffer because faculty will be forced to lower their expectations to meet the competencies of the unprepared, or too many will fail. This could happen, for example, in California’s community colleges, where there is wide access and required assessment, but the colleges cannot institute mandatory placement. Greet core must be taken not to mix prepared and unprepared students in classes, particularly in urban areas, to avoid lowering the quality of regular instruction and to give students the best opportunity to succeed.

PC: A further point that I think is likely to be controversial is the statement in the report that “helping under-prepared students may be the most important function that community colleges play in American life.”

RM: Students who are well prepared have many options for an education; those who are under-prepared do not. Moreover, it is essential to America, morally, socially and economically, that a high percentage of young Americans have education or training beyond high school—as high as 80 percent, in my opinion. That does not necessarily mean a bachelor’s degree. For a large percentage it would mean a two-year degree or a short occupational certificate, but both our economy and values require this.

A merica’s community colleges are unique in their concern for under-prepared students, and helping these students find a place in our society is the most important thing that we do.

PC: If serving under-prepared students is that important—essential to quality as well as access—why is remediation not valued in the political world, or in the academic world, for that matter?

RM: It is not highly valued in the political world because it is badly misunder-
A merica’s community colleges are unique in their concern for under-prepared students, and helping these students find a place in our society is the most important thing that we do.

is that typically community colleges, where most academically deficient students enroll, do not seem to use the resources that they are given for remedial programs. In fact, they often use mostly part-time instructors without additional and necessary support. They give remediation low priority and run cheap programs.

Colleges can and should do better with the resources they have, but it will also take more public investment to achieve the level of success that is possible.

PC: If all of the K–12 improvement programs that the country has been working so hard on are successful, can’t we look to the day when remediation will not be around in higher education?

RM: It would be great if that happened, but it’s highly unlikely. I’m impressed that good things are happening, and that the school reform effort is very strong. But the schools have a long way to go simply to retain their current levels of success. Three changes in our society will challenge their efforts: change in the percentage of people who will have to go on to education beyond high school, change in American demography over the next 30 or 40 years, and change in the nature of work and demography over the next 30 or 40 years; beyond high school; change in American society will challenge their ability and run cheap programs.

PC: As a result of your research, what do you recommend? First, what should the community colleges do that they are not doing or could do better?

RM: The colleges need to do several things. They need to recognize the importance of remediation, and stand up and make their case forcefully to the public and legislators to get enough resources. And they need to give remediation priority within their own institutions. I recommend testing programs that accept the fact that a high percentage of young people will go on to some form of education and training beyond high school.

Testing should recognize a continuum: secondary school testing should be closely related to tests used to place people in college. With regard to under-prepared students, experience together with educational research has produced substantial knowledge of effective learning practices. Typically community colleges do not use that knowledge. They must.

PC: Is it still the case that some colleges do not use very sophisticated approaches for assessment and placement of entering students?

RM: Most of it is still very educationally unsophisticated. Community colleges usually have assessment programs that are required by the state. Most programs simply identify someone who is deficient in math or reading or writing, and then assign students to subject classes based on test results. That is a great waste of resources and student time; nothing is done to identify the differences in deficiencies within and across subject fields, or to relate deficiencies to the learning program.

We have the capacity to produce diagnostic assessments and to align each student’s program to the results. Equally important, a high percentage of students are going on to occupational programs or directly into the workforce. The remedial programs should, therefore, reflect the expectations of business and industry, as well as college academic requirements. Similarly, I believe, performance-based budgeting should recognize successful remediation, as well as degrees and certificates earned.

PC: What advice do you have for the governors and legislators?

RM: I urge mandatory assessment and mandatory placement. I recommend that they expect improved results from the colleges, and that they appropriate the funds needed to achieve that result. As I’ve said, one major measurement of success should be at the point where people have completed remediation.

A gain, I recommend development of an integrated or continuum-type assessment program. Such a program would begin wherever measurement begins in the K–12 system, and go on through the beginning of standard college work. Assessments should be diagnostic, and should connect to college's resources and programs.

Governors and legislators also should make every effort to understand the importance and many dimensions of remediation, particularly that it is not necessarily just a repeat of high school. They also should recognize that remediation will be around for a long time. Most of all they must see remediation as the only door that will open economic and social opportunity for motivated students who, often through no fault of their own, have been ill prepared for life after high school.

A final word, if I may. I was surprised by our data on just how educationally far behind ethnic minorities are. There is a monumental problem here that, in my opinion, needs to be addressed with mega effort and resources, not just by schools, but also by states and by communities.
Editor:

Of particular interest to me were the “Hope for Whom?” and “Diverting Financial Support” articles (Volume 8, No. 3, Summer 2000).

As a former teacher of (Advanced Placement) Calculus AB, I looked at the problems on the back page (National CrossTalk, Volume 8, No. 3, Summer 2000) and noted with some dismay that answers appear below.

President Gilman is correct, as were many others who called this mistake to our attention. Not only did we offer the wrong answer to the first Calculus question, we provided no answer at all for the second question. The questions and what we hope are the correct answers appear below.

— E. H.

CORRECTION

The young woman pictured at right, identified in the last issue of National CrossTalk as Sara Shaw, of Gustine (California) High School, is, in fact, Vanessa Reid, of Palo Alto (California) High School. The editors regret the error.

Lori Fisher, Indianapolis, IN
Teaching in a Wired World

Maine learns the lessons of distance education

By Bennett Davis

For the foreseeable future, dealing with the tech economy, they needed more space and trying to address the individual needs of each student. But in terms of fundamental quality, they need to work together to do it in the best way.

The writing isn't on the wall but on pink slips and harvest tallies. For more than two decades, Maine's traditional industries—fishing, forestry, footwear and hardscrabble farming—have been dwindling under pressure from foreign competitors, regulators and the nation's growing environmental awareness. By 1985, it had become clear to the state's policymakers that if Mainers were to take their place in an information-based high-tech economy, they needed more education. But given the challenges of distance and terrain, single snowfalls that are measured in feet instead of inches, and the state's low rates of college attendance, that promised to be an uphill journey.

Instead of asking the cash-strapped Legislature to bankroll a string of community colleges across the state, the university system's administration hatched a plan to use its existing resources to fill the gap.

The result, begun in 1987, was called the Education Network of Maine. Two years later, the network launched one of higher education's first interactive television channels. The ITV system now beams classes over a fiber-optic network to all seven state university campuses, ten dedicated learning centers, and about 400 more remote sites. The network was set up on the Augusta campus, which has no dorms and most closely resembles a commuter or community college. "The idea," Levy explains, "was to leave no resident farther than 25 miles from a place where they could take a course."

The ten learning centers were opened in modest-size towns such as Ellsworth and Thomaston, population centers that still are relatively far from a campus. Each center includes class-rooms, is outfitted with large-screen televisions, phone lines so students and instructors can talk back and forth during class, a career information library, and is staffed by a director and a student services worker. The more remote, unstaffed sites are housed in church basements, public schools, community centers, or anywhere that even just one student can be linked to a class through a television cable and a phone line. Students can matriculate at any of the seven campuses and take courses—even earn full degrees—without leaving their local sites or centers.

But before the show could go on, there was the issue of faculty compensation to work out. In a typical traditional class, students can catch the instructor in the corridor for a quick question or show up for a conference during the professor's few open office hours each week. Because distance students' schedules often are more flexible, the course instructor has to be more available—keeping additional office hours and being available by e-mail or telephone, perhaps even in the evening.

There was also an issue of sheer numbers. A conventional class might have 30 or 40 students. A televised class would have those same students in the room with the instructor but also perhaps another hundred or more, far away. A faculty member accustomed to reading 30 papers or grading 40 tests suddenly might be handed fifty times that number, all while fielding questions and trying to address the individual needs of each student.

To entice teachers into the experiment, the system's administrators agreed to count the technical aspects of the broadcasts. Still, only three Augusta faculty members volunteered the first year. One was sociology professor Jon Schlenker, who readily embraced television as "a new way to reach more students." A number of his colleagues hesitated in part because of concerns that the quality of learning would diminish over long distances. But Schlenker has helped to lay that to rest. He recently completed a study comparing the grades of 37 students on the Augusta campus with 119 at outlying sites, all taking his introductory sociology course. He found no statistically significant difference, a finding reflected in more than 300 national studies over the last 30 years assessing learning over media from radio to the Internet.

"It's simply the case that some instructors are more conscientious than others," said Sue Huseman, the system's vice chancellor for academic affairs. "When you add a layer of technology, obviously you're adding a new challenge for faculty members. But in terms of fundamental quality, the questions are the same as they are in a continued next page
from preceding page

traditional classroom: How does the instructor interact with students and how responsive is the instructor to their needs? These are universal questions. They’re not embedded in a technology.”

Indeed, Schlenker has come to believe that technology “makes me a better instructor.”

Because distance students don’t have the same easy access to instructors for questions, “I’ve had to become better organized and make my presentations much tighter,” he says. A television technology that has become more sophisticated, so have the graphics Schlenker uses with his courses, making the material more accessible for visual learners. “It also keeps me fresh,” he added. “When the technology or the graphics change, I adjust the course content and presentation to make better use of them. I’m always updating my material, trying new things. Learning over television is a richer experience for me as well as for my students.”

Word began to spread. By the mid-90s, the television network sported four separate channels. Professors at all seven campuses were teaching on the system, and more—although still a small proportion of the faculty system-wide—were clamoring for access. “A growing number of faculty wanted more—although still a small proportion of faculty were teaching on the system, and more were no longer wondering whether they could get time on the system.” Levy said, “but how they should do it,” Levy added. “When the technology or the graphics change, I adjust the course content and presentation to make better use of them. I’m always updating my material, trying new things. Learning over television is a richer experience for me as well as for my students.”

That worried George Connick. As president of the Augusta campus, he had been not only the architect of the television system but also its resident visionary and chief champion. “It became dear to us that if we wanted

Helpful Hints

F A C U L T Y  A N D  a d m i n i s t r a t o r s  w o r k i n g  i n  t h e  U n i v e r s i t y  o f  M a i n e ’ s  d i s t a n c e  e d u c a t i o n  p r o g r a m  s a y  t h e y  h a v e  l e a r n e d  t h e s e  l e s s o n s:

• Distance education does not diminish, and may enhance, the quality of learning.

• Distance learning programs must offer equal opportunities to all faculty members but should force none to take part. “If faculty can be pulled into distance learning, but they can’t be pushed,” said Charles Colgan, a professor of public policy on the Portland campus.

• Faculty teaching at a distance requires an organized, extensive infrastructure of ongoing technological support, education and planning time.

• Students learning at a distance require an infrastructure of personal support, such as over-the-phone counseling and a single phone number to call for comprehensive administrative services. “Students on campus can walk from one office to another to do business,” George Connick, president of the Augusta

Distance education does not diminish, and may enhance, the quality of learning.

campus, pointed out. “But you can’t expect distance students to make seven different long-distance phone calls to find out what they need to do.”

• Distance education creates unexpected issues of faculty workload and compensation that are not easily resolved.

• Done right, distance education elevates—rather than supplants—the role of faculty and the labs, libraries and other facilities that support them.

—Bennett Davis

security that those students would bring to the campuses where they matriculate. The faculty circled its wagons. The rumors, Connick and others assert, weren’t true. “We had no intention of creating a separate campus,” he said flatly. “One thing we specifically did not want was our own dedicated faculty. We wanted to be flexible enough to offer programs that were in demand, and retire these for which we’d exhausted the market. It was important to us to be able to draw on faculty expertise as we needed it, wherever it was in the system.”

A noted Levy: “Some faculty and administrators thought that they didn’t get needed money because there was a distance learning program. But they were never going to get that money anyway. It became available not because there was a university system, but because the specific concept of distance learning excited the imaginations of enough legislators to be funded specially.”

Perhaps the greatest obstacle to effecting the separation was the chancellor himself. According to Connick, “This became a hot-button issue during the ongoing faculty contract negotiations because it was the only system-wide entity that the faculty could target that they knew the chancellor supported.”

By all accounts, Orenduff’s leadership style was one of command and control. He was not known to solicit other opinions in deliberating over decisions, and he tended to be especially brusque with faculty. “He was not willing to put up with a lot of rhetoric about ‘the academic community,’” Connick said. “He was very blunt about telling faculty, ‘We live in a new world. Our job is to ensure access to education, not to worry about where in the state students go to school.’ Obviously, this caused a great deal of anxiety among campus-based faculty already concerned about their jobs.” By 1996, the faculty’s intransigence about the issue had played a key part in forcing Orenduff from his job.

His replacement arrived in 1997. Terrence M. A. Taggart, formerly of the University of Minnesota’s chancellor, was well aware of the distance learning controversy when he arrived. But, he said, “I had bigger fish to fry.”

“We hadn’t had a budget increase in seven years,” he recalled. “There were 16 bills in the Legislature to radically restructure the state’s university system or abolish it entirely. To be involved in a debate about whether it’s better to have seven or eight campuses was not the debate to be having. In this state, the only way we were going to approach adequate pay for faculty and staff, and be able to make other needed investments, was through growth. We needed to stop talking about what we needed and start talking about how we better serve the people of Maine.”

In framing that discussion, MacTaggart relied on two principles: that change is more enticing when it’s invited than when it’s forced; and that initiatives that capitalize on existing assets take priority over those demanding new ones.

“In terms of distance learning, I said that we will not have an eighth campus. We have enough overhead as it is, so let’s just take that idea off the table. That action didn’t resolve all of the faculty’s concerns but it was pretty symbolic of a new start.” MacTaggart said.

Next, he convened a commission made up of faculty and administrators to suggest ways to implement distance learning equitably and effectively. He also removed

Some instructors are moving their entire courses to the Internet, posting their lectures and graphics on the Web.
learning when I go to faculty meetings,” Levy said with a chuckle. His UNE T staff of 87 full-time-equivalent specialists now includes Web course designers, network managers, video editors and student support counselors, all of whom work with faculty to improve existing distance courses and to create new ones. “What I do get yelled at about is, ‘We need to expand the technology’ or ‘We need more support’—and that’s a healthy discussion,” Levy added.

That discussion has expanded over the intervening years, as the speed with which technology invades traditional academic space has accelerated. Broadcast courses are adding Internet-based discussion forums and chat rooms. Some instructors are moving their entire courses to the Internet, posting their lectures and graphics on the Web. Some are using traditional class sessions only for group work or other enrichment activities, or are abolishing class meetings altogether.

Even the issue of quality has reappeared—although in an unexpected context. “We’ve all seen enough studies to convince us that technology doesn’t necessarily diminish learning,” noted Josh Nadler, dean of Augusta’s arts and humanities department. “But there are related questions and concerns that remain.”

Some Augusta instructors teaching Web-based courses seem convinced that the technology prods students to do better work. “When students speak in a classroom, their words float away in the air,” noted Jeffrey Klivans, an associate professor of business at the Augusta campus. “But when they post a comment or question on a discussion board, it stays there for all to see. I can’t back this up with data, but it seems to make them more thoughtful and careful about what they say. And because so much of the course communication is carried out over discussion boards and e-mail, I think it also improves their writing.”

But ensuring the quality of a distance course can be grueling for a faculty member. “We have work-related issues that haven’t been adequately addressed,” sociology professor Schlenker said. “In this spring’s semester, I had more than 400 students in my two televised courses. I’m still grading papers even though it’s now the first week of summer school. I didn’t get a week off between terms, and I’m not paid any more for teaching these courses than someone who has 60 students in a distance course instead of 200. The increased compensation scale that applies to televised courses is equitable only if you teach smaller classes.”

For his Internet course, Klivans spends half an hour each week on an open phone line so students can call with questions. He logs an additional hour each week in an online discussion forum, and in a typical day he fields 50 e-mails from students. “An Internet course is 50 percent more work than a television course, which is more work than a traditional course,” he said. “It’s not more difficult to teach, but it takes time to do the paperwork and keep up with students.”

As Schlenker and others struggle to give students personalized attention in courses groaning under huge enrollments, the question of quality reappears. Schlenker does have a teaching assistant to grade the objective parts of tests and handle routine chores. “Some faculty members’ TA s do more, reading papers and so on,” he noted. But that touches on the ethical aspects of quality, he argues: Students take a course to interact with a professor, not a teaching assistant. “If a student calls me to ask about comments made, or their grade, on a paper, I’d be embarrassed to have to say that I didn’t know because I delegated the job to someone else.”

Faculty members agree that workload and class size limits are issues still in search of a solution. Compensation and help for distance instructors should be keyed to a rising scale of enrollment, they argue, not just fixed at twice the credit value, and sweetened by the help of one assistant.

Even those basic adjustments haven’t been codified for Internet courses, according to Nadler. “In some instances they count as double credits; in others they don’t,” he said. “It’s been a matter of individual negotiations.” For his Internet courses, Klivans negotiated only a 50 percent increase—less than the 100 percent increase applicable to televised courses, even though Web classes demand more of an instructor’s time.

Schlenker is part of a faculty-wide committee spearheading a collective bargaining initiative to create a more graduated scale of pay, time flexibility, and help for instructors as their course enrollments rise. “It’s been a soft issue in contract negotiations because only a small portion of the faculty has been teaching at a distance,” he said. “But now that more people are becoming involved, the issue is drawing more faculty support.”

Not a moment too soon. New faculty members are required by contract to teach at a distance if called upon to do so. A iso, Maine and other traditional schools face new competition for students from cyber-courses offered by renowned universities around the world as well as by for-profit enterprises such as U N E T, which is bankrolled in part by junk-bond king Michael Milken and software mogul Lawrence Ellison and is able to hire the services of stellar academics.

Still, instructors and administrators agree that faculty will remain irreplaceable. But technology is transforming their role from being “the sage on the stage” to “the guide on the side,” serving more as learning coaches, advisors and role models than as data delivery devices.

That new role for faculty in a wired world also will transform the function and meaning of a university, many contend. To begin to discover that new meaning, schools need only to follow one piece of advice, said Charles Colgan, professor of public policy on the Portland campus: “Just do it. The technology is now cheap enough and simple enough. You’ll never solve all the problems and answer all your questions in advance. If you try, you’ll go crazy. Find a few people who want to blaze the trail in distance learning, give them plenty of incentives and support, and others will follow.”

To those who still fear to tread, Levy offers a word of hope. “This isn’t a question of ‘either distance education or traditional education,’” he said. “Both have vital roles to play. This is about individualized education to an extent we can’t imagine today.”

Bennett Davis, a freelance writer, lives in Walpole, New Hampshire.
California’s action has won praise from national financial aid experts, who have watched with some dismay as state after state has adopted merit scholarship programs, while shortchanging grants that are based on financial need.

What Mockler did not say is that Davis, who often is described as a moderate Democrat and fiscal conservative, strenuously opposed making Cal Grants an entitlement, fearing that the future cost would be too high. Indeed, the governor wanted a smaller merit scholarship program, to reward high school graduates who do well on standardized state tests or in advanced Placement classes, which are college-level courses offered in some high schools.

A bill to create the new “Governor’s Scholars” was introduced early in the 2000 legislative session by Richard Polanco, a Democratic state Senator from Los Angeles. But other Senate Democrats, led by President Pro Tem John Burton, a San Francisco liberal, were opposed.

The Polanco bill “would have benefited primarily the wealthy,” said state Senator Deborah Ortiz, one of the Democrats who objected. A Cal Grant helped to make it possible for Ortiz to attend the University of California, Davis.

Meanwhile, legislative staff members from both parties, some of whom also had been Cal Grant recipients in their college days, thought the state’s booming economy and $12 billion budget surplus provided a perfect opportunity to help larger numbers of financially needy students.

“We had a bill in mind, we were looking for an author and Burton was interested,” said Marlene Garcia, who went to UCLA with a Cal Grant and now is higher education consultant in the state Senate Office of Research.

After many changes, the bill that Burton introduced contained these key elements:

• High school seniors who graduate with at least a 3.0 grade point average, and have financial need, would be guaranteed a Cal Grant A, covering full tuition and fees at the nine-campus University of California or the 22-campus California State University, and a grant of up to $9,708 to attend a private college or university. But they must apply within a year of graduation.

• High school graduates with at least a 2.0 GPA and financial need would be guaranteed a Cal Grant B award of $1,551. In the first year, this would cover “access costs” such as books and transportation, but in the second year the grant also would pay for tuition and fees. (California’s current community college tuition fee is $11 per unit.)

• Students transferring from two-year community colleges to four-year campuses would be guaranteed grants if they meet the academic and financial requirements and enter community college directly from high school.

• The state is required to set aside enough money each year to finance all eligible students in these entitlement programs.

For Democrats, increasing financial aid for college students has long been an important issue. But last year and this year, in a somewhat surprising move, Senate Republicans pushed for more Cal Grant money and for lower fees at the public colleges and universities. Many of them agreed to support Burton’s bill.

“This measure had very strong support from all along the political spectrum because it has a strong element of merit,” said Republican state Senator Charles Poochigan, who played an important role in persuading some of his conservative Republican Senate colleagues to accept the bill’s “entitlement” language.

At a key Senate Education Committee hearing last April, the two measures were joined—Senator Polanco’s bill creating merit scholarships and Senator Burton’s sweeping expansion of Cal Grants. Burton’s message to Governor Davis, a fellow Democrat, was clear: Support the Cal Grants bill or there will be no “Governor’s Scholars.”

For the next couple of months, legislators and staff members met with administration representatives, mostly from the Department of Finance, to try to resolve their differences. The tone of the meetings was not friendly.

“I would characterize the administration’s behavior as hostile,” said Bill Lucia, Senator Poochigan’s chief of staff.

Lucia, 35, received a Cal Grant that made it possible for him to attend UC Santa Barbara. “Without that grant, I don’t know that I would have had access to that kind of opportunity,” he said.

Another Senate aide called the Cal Grant negotiations “pretty grim...The Finance Department people would say this (the entitlement idea) was crazy, stupid, it couldn’t be done...Many of their remarks were rude and cutting.”

After Finance Director Tim Gage became chief negotiator for the administration, the meetings were held in Gage’s office, and the atmosphere became more cordial, according to several participants.

By this time, Governor Davis had revised his next year’s budget, increasing Cal Grant spending by $70 million, but he and Gage refused to make Cal Grants an entitlement, fearing that future costs would be too high. An administration source, asking not to be named, said one estimate showed the cost could soar to at least $3.5 billion a year by 2006-2007.

Legislative staffers say the administration’s figures were wildly exaggerated. “A big part of the negotiation process was to show how the Department of Finance numbers were flawed,” Bill Lucia said.

Some sympathized with the governor’s position. “The two sides couldn’t agree on the numbers,” said Christopher Cabaldon, vice chancellor for policy, planning and external affairs in the statewide community college chancellor’s office. “It wasn’t clear who would be eligible and what the financial impact would be, so I can understand the governor being cautious.”

When the Legislature recessed on July 7, the two sides still were far apart. But shortly after lawmakers returned to Sacramento in early August, things changed. “It was clear that this was finally on the governor’s radar screen and the Department of Finance people began to be cooperative,” Lucia said.

Some believe this happened because Senator Burton threatened an override if Davis vetoed the bill. “I suspect we could have done that,” Senator Ortiz said. “People were pretty firm in their beliefs on this.”

An administration source said, “On
“DISPUTED TERRITORIES”
A Civic Purposes Roundtable
considers the role of higher education
in preparing students for lives of
social and political engagement

Among enlightened company, nothing brings nods of assent quite like the notion
that college graduates should be prepared to lead lives of civic engagement. It is a
sentiment—this call for students ready and able to take up their lives of informed
citizenship—that figures prominently in the mission of virtually every institution of higher
education. Its affirmation is so natural as to be instinctive—and yet it is one in which
affirmative nods too often become preludes to simply nodding off.

Today, too many of the nation’s colleges and universities simply proclaim the
importance of civic engagement. Too few do much more than publish lists documenting their
students’ volunteer activities as evidence of a broader institutional investment in the public
well-being. Only a handful can be said to practice models of civic engagement in which the
interests of community and academy are purposefully entwined.

As long as colleges and universities can fulfill their obligation to educate students for
citizenship primarily through anecdote and symbolism, nodding off may in fact be the most
natural response. When the opposite is true—when an institution begins to take seriously its
task to civic engagement by changing its curriculum and approaches to learning, its
criteria for awarding tenure, or its capital campaign goals—every eye pops open, every
head hunkers down in anticipation of protracted debate.

It is a debate worth having, if for no other reason than America itself has changed: Its
citizens have become more mobile, its communities more diverse, its arguments more
fractious. Changed as well are how people behave toward one another, how they
communicate, what they think governments can do, and what roles they believe markets can
play. Through it all there is simply less civic participation, less of a sense of common identity,
less commitment to a collective vision that is centered in civic or political purposes or in the
responsibilities that attend the conveying of citizenship.

It is also a debate worth having because American colleges and universities have both the
capacity and the obligation to educate a citizenry that takes a strong, active part in the
nation’s civic and political affairs. In a society that encourages us to think we can make the
citizenship and the obligation to civic engagement depends. What is required—what will
give the issue of civic engagement the kind of traction it perhaps never has had—is a
commitment to make questions of public pursuits central to the campus agenda.

Making the issue real means making civic engagement an integral part of a campus’
own governance. It means building partnerships that extend beyond the campus community
narrowly defined. It means acting on the principle that fostering a more engaged citizenry
ultimately serves higher education’s own purposes as well as those of society in general.

Our Civic Purposes Roundtable, convened jointly by the National Center for Public
Policy and Higher Education and the Knight Higher Education Collaborative, was in many
ways a rehearsal for the kind of discourse we have in mind. Our goal was to state as clearly
as possible how the nation’s colleges and universities might contribute to a greater sense of
collective purpose and commitment within the American polity. What kinds of actions could
make the cultivation of civic purposes more central, not just to the agenda of colleges and
universities but to the goals and accomplishments of the students who attend them? What
strategies could register the value of civic engagement in a sharper relief for a population of
learning consumers who, like much of contemporary society, are more concerned with
personal rather than societal returns on the time and effort they expend?

This issue of Policy Perspectives itself should attest that answering these questions is
no simple matter. Nearly every attempt to define common ground is likely to confront issues
that are deep and pervasive, in which there are few answers that satisfy everyone, and
much that please no one.

In our own passage through these disputed territories we came to understand more
clearly just how important, as well as difficult, it is to sustain a dialogue focusing on the
academy’s obligations to prepare students for lives of citizenship in addition to individual
success. At the same time, we came away from those encounters with a renewed sense of
purpose, energized by what is possible and by the unacceptability of just leaving
matters be. This was one sleeping dog we resolved not to let lie. 

American colleges and universities have both the capacity and the obligation to educate a citizenry that takes a strong, active part in the nation’s civic and political affairs.
render colleges and universities harmless though not necessarily blameless. However great the urge to idealize the past, the truth is that higher education may never have been particularly good at educating students for lives of civic and political engagement. If college graduates of the 1940s and 1950s exhibited greater involvement in civic and political affairs, the cause likely had less to do with their college experiences and more with the nation’s political climate during and after the Second World War.

The sense of common purpose and engagement some college students then exhibited may have been a function of the elite, even exclusionary profile of higher education in the 1950s and 1960s—a kind of educational noblesse oblige that colored much of that generation’s political commitment. Regardless of the motivation for student involvement, the most important question is not whether colleges and universities have added to the problem but what they must do to be a part of the solution.

**ELEMENTS OF ENGAGEMENT**

Education remains the best predictor of civic involvement, and higher education serves as the nation’s most important common ground. Indeed, their very diversity makes it critical for colleges and universities to provide their students with a real basis for participating in the civic life of society. To do so, however, a working definition of civic engagement is required. What are the attributes and behaviors the nation should expect its college graduates to exemplify?

The practice of volunteerism is certainly a good start. Individuals ought to invest their own social capital in the betterment of society, giving time and effort to others for shared community purposes. The willingness to work with others for a cause extending beyond the realm of family, friends, school or workplace often becomes the foundation for engagement in the broader domain of civic and political affairs. In allotting time and effort to broader societal issues, a person is likely to develop the insights and empathy that are important for functioning as an active member of an inclusive democracy.

Yet volunteerism is only a first step in the kind of engagement we envision. Beyond the giving of one’s time to service or to political causes, participation in civic engagement requires adherence to a set of principles for human conduct. Among that set of attributes one would expect to find a commitment to moral integrity, fairness and a willingness to be accountable for one’s actions. Beyond that, the process of civic engagement in a democratic society requires a disposition to:

- treat others with dignity;
- listen and compromise;
- argue on the basis of factual evidence;
- abide by the outcomes achieved through agreed-upon processes of political debate and deliberation; and
- publicly affirm the validity of that process even when the decision reached runs counter to one’s own personal values and informed by their understanding of collective societal values.

However simple they are to state, these rules are more often proclaimed than obeyed on many college campuses and in most political arenas. What would make such rules work? That answer is equally simple: a passionate commitment to democracy itself, and, in particular, to an inclusive diversity in which most citizens remain committed to shared purposes.

**SPARKING THE COMMITMENT**

We believe colleges and universities have a special responsibility to educate citizens who are ready, willing and able to discharge the obligations of membership in our democratic society. But within that broad consensus also lie the roots of conflict and uncertainty within any college or university—what our own roundtable came to see as disputed territory. The question with which we wrestled was simple enough: What kinds of learning experiences and practices might best promote an active commitment to civic and political engagement among the nation’s citizens in general, and its college graduates in particular? Our own deliberations centered around four fundamental activities that colleges and universities might undertake:

1) Convene broad-ranging institutional discussions of the meaning and importance of civic engagement in a democratic society.

The logical first step is to convene broad-based institutional dialogues concerning the values that are central to a culture of civic engagement. What colleges and universities need to demonstrate, through both precept and practice, is that the process works, that inclusion is a means as well as an end, and that the basis of a civic policy is shared values as well as shared responsibilities and tasks.

Productive discussions of human and societal values are never easy to convene—or to conclude. To discuss what citizens share in common is to become immersed in controversy. And yet, without those discussions and the confusion and pain they often entail, little beyond individual initiative is likely. It is the discussion of core values and civic responsibilities that identifies the shared principles underlying a democratic society. It is also the activity most likely to bring individual differences into sharpest form. But the difficulty of convening and sustaining such discussions cannot be an excuse for shirking the responsibility to get the process started.

2) Develop curricular programs that actively impart an understanding of principles central to an inclusive, diverse democracy.

Whether the discussions of civic values and perspectives prove productive will likely depend on how well the institution integrates those discussions within its larger curricular framework. Colleges and universities have a responsibility to help their students understand the importance of values in their personal lives and in the workings of society.

Ultimately, students—as students—need to define the values that will guide their choices as both individuals and as citizens. The curricular objective should not be to produce a citizenry with identical preferences and prejudices. Rather, the objective should be to ensure that college graduates have thought about those questions and formulated responsible answers to which they are prepared to give public voice.

The irony, of course, is that discussions of common curricular options have proved to be among the most difficult conversations in which a campus can engage productively—demonstrating anew that true civic engagement begins on one’s own campus. Nonetheless, we believe that every institution has a responsibility to provide students with a foundation in the principles of democratic government extending beyond what they gained from their families and K–12 schooling. In part, conveying this understanding implies using the liberal arts as a platform for learning the lessons of history, and including a kind of tough-minded political science that focuses on the meaning and evolution of the nation’s political and constitutional traditions.

We do not advocate a specific set of interventions. The curricular and co-curricular experiences an institution designs for its students must necessarily be a function of its own identity and circumstances. We would expect that an institution committed to making civic engagement an integral part of its curriculum would want to explore a wide variety of pedagogies, including strategies that promote active learning through community service.

Pedagogies of engagement, which place students in environments that stress active learning, can and should have a major impact on student learning and their proclivity toward civic engagement. Institutions need to design guided problem-solving activities through which students can address issues and formulate solutions that are both consistent with their personal values and informed by their understanding of collective societal values.

3) Demonstrate a willingness to magnify those voices expressing views that could otherwise fail to be heard.

One of the most complex issues facing any democratic institution is the creation of a forum that is open and receptive to every voice in a debate, including those whose views are not of the majority. The history of American democracy—and of higher education governance as an extension of that tradition—is rife with examples of the necessity of magnifying minority voices that would otherwise be drowned out in the tide of majority opinion. There are times when a minority view provides an important corrective to a decision reached through majority rule. In such instances, a college or university must be prepared to create a space for voices that would otherwise exert little impact on a particular policy or course of action.

Beyond this measure, the administrative leadership of an institution must be prepared to stake the institution’s credibility in support of often divisive issues, even if the position it upholds differs from the views of the majority of its faculty and staff. Colleges and universities must ask themselves: Is the tradition of open and inclusive debate sufficient to ensure a political domain that affords equal consideration of all viewpoints? The culture of any given institution will determine the extent to which it must proactively work to provide a space for minority opinions to be heard in its internal and civic deliberations. In this, as in other disputed territories, an institution cannot choose to ignore the issues simply because they are too uncomfortable to confront. Failure to address and debate issues of such fundamental importance will erode the foundations of civic life in the institution itself.

4) Model responsible citizenship through the institution’s own processes of academic
governance as well as through its engagement with its immediate neighbors. Beyond the dialogues they convene and the values and skills they impart through the curriculum and other learning experiences, colleges and universities must actively exemplify their commitment to promoting civic engagement. Institutions willing to act publicly on the values they define will send a strong signal—to their students, their extended communities, and themselves—that those values are more than stylish rhetoric.

One of the ways an institution demonstrates its commitment to responsible citizenship is the manner in which it conducts its own affairs of governance. A tradition of academic decision-making that encourages active, open debate on issues facing the institution will help underscore the strength of the democratic process and its potential for helping an institution align its values with the choices it makes.

No less important than ensuring the vitality and effectiveness of their own governance systems are the actions institutions take as citizens of an extended region. By involving themselves with their neighbors, colleges and universities model the kind of behavior they ultimately expect of their students. Becoming engaged in the workings of community will mean different things to different institutions; even institutions of similar size and mission will find that civic engagement derives from particular rhythms and purposes relevant both to themselves and their local communities.

Often, the key to effective partnerships is the realization by an institution and its stakeholders that their destinies are intrinsically bound to one another. When an institution achieves this perspective, engagement in community and civic life becomes something more than perfunctory obligation. The ties developed with society at large help to realize a vision of the institution as a genuine partner in creating a future of shared purposes.

Even as they move toward greater involvement in the workings of a local and extended polity, colleges and universities face tough choices. Should community involvement become a more pronounced institutional priority, equal to that of teaching and research? Again, it is a question that must be confronted directly and explicitly. Every institution must create the forums that allow this discussion to proceed, while ensuring that those who express opinions can do so without fear of personal reprisal. The outcomes of such debates then become the touchstones on which curricular and other choices are made.

LeverS of Cultural Change

On most campuses the instilling of a more active commitment to civic engagement will require nothing short of a change in culture that includes, if nothing else, a broadened definition of institutional goals and measures of success. Rare indeed is the organization that can achieve an academic and civic commitment in both academic and student affairs without making it clear that those whose efforts help to challenge change receive tangible rewards in addition to the intrinsic satisfaction of doing good.

The first step is to ask: Why is it that so few of our own faculty and staff make service to both community and institution a personal priority? The answer can be found by acknowledging just how few rewards currently accrue to those who would take on the challenge of promoting civic engagement. While some exemplary educators engage in community service and seek to promote civic commitment in their students, in the broader scheme of things educating for civic involvement is not an activity that is likely to sustain bottom-up momentum. Leadership from the top also is required, along with the commitment of financial resources to support the value of educating for citizenship. It is inherently a presidential, provostial, decanal agenda—and ultimately one that requires the active participation of trustees as well.

A lesson learned by many aspiring presidents makes the point: However prominent a role civic engagement might have played in discussions preceding their appointment, once on the job they find themselves evaluated by criteria having more to do with fundraising and capital construction than with promoting their community’s social or civic well-being.

The concept of educating for citizenship can be a hard sell, because it often is seen as an objective that conflicts with the attainment of academic excellence. Colleges and universities seeking more selective and competitive undergraduate admissions will direct energy and resources to that end, even at the expense of other laudable goals. Many years ago, one institution found itself having to choose between working to establish a Phi Beta Kappa chapter or pursuing a set of initiatives designed to provide students with expanded opportunities for community and civic participation. Not surprisingly, the institution’s first priority became the meeting of standards established for affiliation with Phi Beta Kappa. Only after succeeding in this goal could it “afford the luxury” of providing greater opportunities for students to discover the responsibilities of citizenship.

In general, we worry that most institutions will see civic engagement as a worthwhile but pricky goal to be pursued only after the fulfillment of other, more academic objectives.

Our colleagues, Anne Colby and Tom Ehrlich, senior scholars at the Carnegie Foundation for the Advancement of Teaching, are studying the impact of higher education on civic responsibility, and working with several institutions to enhance their impact. They have found that a number of colleges and universities in every category—from community college to research university—have made broad institutional commitments to the civic development of their students. They are documenting the work of the following campuses as exemplars of comprehensive and intentional approaches to civic learning: Alverno College, College of St. Catherine, California State University at Monterey Bay, Emory University, Kapi’olani Community College, Messiah College, University of Notre Dame, Portland State University, Spelman College, Turtle Mountain Community College, Tusculum College, and the United States Air Force Academy.

All of these campuses share several important institutional features. First, their public statements of institutional purpose stress the importance of personal integrity, social responsibility, and civic and political engagement and leadership. Second, the upper levels of the administration in both academic and student affairs endorse the importance of educational goals, and allocate resources to programs designed to promote them. Third, multiple and overlapping approaches are used in each setting, and there are mechanisms in place to facilitate communication among the different programs on campus in order to strengthen the coherence of the student experience.

An equally important factor may be an institution’s awareness that its future well-being is inextricably tied to that of its local community. The recognition of this linkage recently prompted four institutions—Franklin & Marshall College, Michigan State University, State University of New York, College at Geneseo; and Washington and Jefferson College—to work together in conjunction with the Knight Collaborative to explore principles and strategies of institutional engagement with a community. While none of these four would consider itself at present to be a national leader in the realm of community engagement, each has placed the issue squarely on its agenda in ways that it had not done before.

In the final analysis, an institution will make civic engagement one of its first priorities if—and only if—it perceives that engagement to be in its own interests. During the time when one of the nation’s major universities confronted the decision of changing from a single-sex to a coeducational institution, the then-president pursued a strategy of entertaining, even encouraging, a broad array of reasons for pursuing the change, rather than confining the rationale to a narrow set of issues. It was a strategy of “giving people lots of hooks on which to hang their hats” concerning an issue that would have a major impact on the character and future of the institution. The same kind of strategy is required to lend an issue such as civic engagement greater importance in an institution’s agenda.

With this strategy, as with nearly every major question confronting an institution, there are hooks to accommodate many different hats. Some may believe that a heightened emphasis on service and citizenship will improve an institution’s market position in the competition for undergraduate enrollment. Others, concerned that their college or university is located in a community that has suffered economic decline, may seek to establish partnerships with local political and business leaders to enhance the quality of life in the region. Still others may act to develop their institution’s curricular and co-curricular programs, prompted by the conviction that civic engagement is enhanced through the experiences in real-life situations that service- and community-based learning afford.

Public policy also has an important role to play in making civic purposes figure more plainly in the self-interests of colleges and universities. A policy of loan forgiveness to students who enter lower-paying service professions, for example, could have an impact on the number of students willing to pursue such courses of study in their college years. If colleges and universities in turn came to recognize that a growing share of their students were seeking

Colleges and universities have a special responsibility to educate citizens who are ready, willing and able to discharge the obligations of membership in our democratic society.

Harold M. Williams, president emeritus, J. Paul Getty Trust.
significant involvement in civic purposes as part of their undergraduate education, these institutions could adjust their curricular and co-curricular programs accordingly.

Accreditation agencies can play similarly important roles in shaping the priorities of universities and colleges. More than any other factor, periodic regional accreditation has been responsible for promoting the widespread adoption of learning assessment in higher education institutions over the past decade. If these accrediting agencies were to accord the same importance to service and civic learning in their evaluation criteria, the learning programs of colleges and universities would come to reflect this element as well.

In each of these cases, fostering a more active sense of civic and political participation results from a combination of external motivation and an institution’s recognition of the benefits such steps could yield for its own purposes.

The Long Run

Emerson observed that every age must write its own books. Each generation of Americans must define in its own terms the meaning of the democratic system of government it inherits. Members of today’s leadership generation who came of age from the late 1950s through the early 1970s often express difficulty relating to subsequent generations, whose formative experience and political orientation differ markedly from their own.

Among today’s collegiate leaders there is an important and surprisingly large cohort of baby boomers who find themselves confronting versions of the same social and political issues that engaged them so passionately as young adults. Having run the race on behalf of these causes over three and four decades, many find it distressing to witness a generation who came of age from the late 1950s to the early 1970s often express difficulty relating to subsequent generations, whose formative experience and political orientation differ markedly from their own.

In many ways the essential challenge confronting today’s leadership— and higher education faculty and administrators in particular—is to transfer the responsibility for a strong democratic society to a generation that views societal issues with different eyes and will confront issues within different contexts than today’s leaders might expect. What is required is both skepticism and patience— that, and the recognition that the pursuit of civic engagement is in fact a marathon that will test the mettle of every college and university. Those who run this course will want to seek out others who can keep the pace, who can inspire and teach as well as console and encourage. The course ahead is one that can only be run with diligence, discipline and preparation. It is time to get started.

The essay, “Disputed Territories,” is based on a Civic Purposes Roundtable, jointly convened in July 2000 by the National Center for Public Policy and Higher Education and the Knight Collaborative. The Roundtable sought to identify actions that could make the cultivation of civic purposes more central not just to the agenda of colleges and universities but to the goals and accomplishments of students who attend them. The following individuals were participants in the Civic Purposes Roundtable and helped to shape the essay that appears in this issue of Policy Perspectives.

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paper, yes, they had the votes for an over-
ride. It was a credible threat but I doubt it
would have happened.”

Others credit John M. Mockler, the interim
secretary of education and a veteran Sac-
ramento lobbyist and legislative staffer, for
persuading Davis to accept the idea of
making Cal Grants an entitlement pro-
gram.

“I think John pointed out how bad it
would look if a Democratic governor was
overridden on a bill that helped low-in-
come kids go to college,” one Democratic
senator said.

Mockler himself would say only that his
role has been “vastly overstated.”

Whatever the reasons for the gover-
nor’s reversal, serious negotiations be-
tween the administration and the Legis-
lature finally began, two weeks before the
legislative session was to end.

Several administration proposals to
limit the scope of the program were ac-
cepted: Only graduating high school
seniors or those one year out of high
school would be eligible for a Cal Grant A;
the community college “transfer grants”
would apply only to students 24 or youn-
ger; and only those attending institutions
accredited by the Western A-

society of Schools and Colleges
would be eligible for grants.

But an administration proposal to
raise the grade point average cut-off for a Cal Grant A from 3.0
to 3.1 was not accepted. A nd a new
category of “competitive grants”
was created, with half of the annual
22,500 slots earmarked for
community college students. These
are intended for students who
make a late decision to attend col-
lege or who interrupt their educa-
tion for some reason and later
want to return.

On August 16, Governor Davis
announced he had reached agreement with legislative leaders
on both the Senate bill (Senator
Ortiz was now its principal author)
to expand Cal Grants, and make
them an entitlement, and on the
Polanco merit scholarship bill.

Both bills passed the Assembly,
77-1 (and the lone dissenter later
said he had made a mistake) on
August 28, and two days later they
were approved by the Senate, 40-0.

In a September 1 press release, D avis
praised the legislation for
creating the “greatest educa-
tional opportunity for students
since the G.I. B ill.” A nd on
September 11, he signed both
bills into law.

“This is the way the process
is supposed to work,” said
a Davis aide who did not want to be
identified. “The Legislature
has a bill. The governor agrees
with some of it, disagrees with
other parts, and they work it
out. I think we ended up with a
damned fine bill.”

A more accurate analysis
might be that a bipartisan co-
alition, guided skillfully by
Burton, the Senate president pro
tem, and helped immea-
surably by energetic staff work
on both sides of the aisle,
forced the governor to accept a
major increase in student
financial aid that he did not
want.

The degree of bipartisanship
was unusual for legislators who
often are at each other’s
throats.

“I don’t know if we’ll ever
have this kind of cooperation
again,” Senator Ortiz said. “I’ve
worked on bipartisan bills
before, both in the Assembly
and Senate, and I’ve never
seen this much cooperation.”

This attitude extended to
staff members working for both
parties.

“We all did a really good job
of keeping each other in-
formed,” said Terry Ander-
dson, Senator Burton’s education
consultant, who has worked in
the Senate for 18 years. “No-
body tried to make political
gain on this, there wasn’t any
back-stabbing and there wasn’t much ego.

It was a really great experience.”

The involvement of so many past Cal
Grant recipients—Senator Ortiz, Marlene
Garcia, Bill L. ucia and D anny A. Iavez,
who is education consultant to A assembly
Speaker Bob Hertzberg—was important.

Those who crafted the legislation
believe that excluding representatives
of the colleges and universities, both public
and private, from the decision-making
process was another important reason for
its success. Several past efforts to expand
the Cal Grants program had bogged down
in bickering over how many grants should
go to which system. “This time, we con-
cluded that the program was not ex-
pected to have much effect on the Uni-
sity of California and on the inde-
pendent colleges and universities, where
Cal Grant awards are already $9,420 a
year, but will have a substantial impact on
the California State University and es-
pecially on the state’s 107 community
colleges.

“I think that’s true,” M arlene Gar-
cia said, “and that’s as it should be—that’s
where the biggest problem has been.” Last
year, Cal Grants accounted for only three
percent of the financial aid dollars avail-
able for community college students.

In part, this is because students often
decide to attend a community college well
after the filing date for a Cal Grant appli-
cation, which is March 2 of the preceding
academic year. To try to correct this prob-
lem, the new legislation provides a second
filing date of September 2, close to the start
of classes, for community college students.

Much will depend on the ability of the
two-year colleges to spread the word that
Cal Grants are more readily available, and
then to provide students with adequate
information and guidance.

“To reach California’s least sophis-
ticated students, including many on the
lower end of the income scale, requires a
major outreach effort,” said M ary G ill,
coordinator of student financial aid pro-
grams in the statewide chancellor’s office.

“But we do not have enough staff to do
the job properly, and there is no money to hire
more people.”

The bill also requires UC, Cal State and
the private colleges to provide at least as
much institutional money for financial aid
as they have in the past, but this will be
difficult to monitor, especially in the pri-
ivate schools. Both UC and Cal State now
spend more than $100 million a year on
grants for students who were eligible for
Cal Grants but did not receive them be-
cause the money ran out.

There are other questions.

“There is always some untidiness when
you establish something like a ‘B’ average
cut-off,” said M ichael S. M cPherson,
president of M calaster College, who has
written frequently about student financial
aid. “Will students take easier courses to
get a better GPA? How do you account for
differences among high schools? Why
should someone with a 3.1 GPA get a grant
while another with a 2.9 does not?”

“Still, on the whole, this is a really
welcome development,” he added. “Per-
haps it will lead to some rethinking in
states that are now considering HOPE-
type (merit scholarship) programs.”

Members of both
parties thought the
state’s booming
economy and $12
billion budget surplus
provided a perfect
opportunity to help
larger numbers of
financially needy
students.

Terry Anderson, education consultant to state Senator John Burton, said bipartisan
coop eration on the Cal Grants bill was “a really great experience… there wasn’t any back-
stabbing and there wasn’t much ego.”

Cal Grants by
the Numbers

When the new Cal Grants entitlement program
begins in fall 2001, these will be the individual
annual awards:

<table>
<thead>
<tr>
<th>Cal Grant A</th>
<th>Cal Grant B</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of California</td>
<td>$3,429</td>
</tr>
<tr>
<td>California State University</td>
<td>$1,428</td>
</tr>
<tr>
<td>Independent Colleges</td>
<td>$9,708</td>
</tr>
<tr>
<td>Community Colleges</td>
<td>$1,551</td>
</tr>
<tr>
<td>Income Ceilings</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Family size</th>
<th>Cal Grant A</th>
<th>Cal Grant B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Six or more</td>
<td>$74,100</td>
<td>$40,700</td>
</tr>
<tr>
<td>Five</td>
<td>$68,700</td>
<td>$37,700</td>
</tr>
<tr>
<td>Four</td>
<td>$64,100</td>
<td>$33,700</td>
</tr>
<tr>
<td>Three</td>
<td>$59,000</td>
<td>$30,300</td>
</tr>
<tr>
<td>Two</td>
<td>$57,600</td>
<td>$26,900</td>
</tr>
<tr>
<td>Current new grants (2000–2001 academic year)</td>
<td>$7,254</td>
<td></td>
</tr>
<tr>
<td>Estimated new grants (2006–2007)</td>
<td>$144,000</td>
<td></td>
</tr>
<tr>
<td>Total cost (2000–2001)</td>
<td>$503.6 million</td>
<td></td>
</tr>
<tr>
<td>Estimated cost (2006–2007)</td>
<td>$1.2 billion</td>
<td></td>
</tr>
</tbody>
</table>

(Source: California Student Aid Commission)
A new update to the testing standards—the newly updated guidelines developed by the testing profession, especially when the initiation of high-stakes testing is being planned. Evaluators now have recommended postponing implementation by one to two years to allow “time to develop an assessment that fully meets professional and legal standards.”

A strict interpretation would say that most high school exit examination programs are in contravention of this professional testing standard. By Rebecca Zwick

Do high school exit exams measure up?

A N EDUCATIONAL STANDARDS FRENZY has overtaken our country during the past decade. Forty-eight states have implemented some kind of “standards-based assessment,” and half the states have high school graduation tests in place or in the works. This is all part of an educational reform movement that calls for the establishment of rigorous academic requirements and the use of student testing to monitor progress.

Critics charge that the resulting assessment blitz has caused a narrowing of the curriculum as a result of “teaching to the test.” A noxious atmosphere that encourages cheating, and creates unfair obstacles for ethnic minorities and special-needs students.

Unfortunately, professional testing standards rarely are invoked in the debate about the educational standards movement. A notable exception is a recent evaluation report on California’s brand-new high school graduation test, the centerpiece of Governor Gray Davis’ ambitious plan to improve K-12 education. The exam is scheduled to be administered to ninth graders on a voluntary basis next spring, with mandatory administration to tenth graders to follow in 2002.

Beginning in 2004, students who haven’t passed the test will not get diplomas, if all goes as planned. Evaluators now have recommended postponing implementation by one to two years to allow “time to develop an assessment that fully meets professional and legal standards.” Indeed, high school exit exams are on shaky ground according to standards developed by the testing profession, especially when the initiation of high-stakes assessment outpaces curriculum reform.

Let’s see how these exams stack up against four key guidelines from the Talmud of testing standards—the newly updated Standards for Educational and Psychological Testing published by the American Educational Research Association, the American Psychological Association, and the National Council on Measurement in Education.

1) In educational settings, a decision that will have major impact on a student should not be made on the basis of a single test score. Do high school graduation exams violate this guideline? In a court challenge to the Texas Assessment of Academıc Skills, the judge concluded that test scores alone were not being used as the basis for graduation decisions because students had several chances to pass, and grades and attendance also were taken into consideration. But in Texas, as in most states that use exit exams, test scores are indeed the determining factor in graduation decisions, as a 1999 National Research Council report on high-stakes testing points out. It is not permissible, for example, to compensate for low test scores by having exceptionally high grades or taking extra classes.

According to the NRC report, test results “should be buttressed by other relevant information...such as grades, teacher recommendations and extenuating circumstances.” A strict interpretation would say that most high school exit examination programs are in violation of this professional testing standard.

2) When test results substantially contribute to making decisions about... graduation, there should be evidence that the test covers only the... content and skills that students have had an opportunity to learn.

In the field test of California’s graduation test, the average tenth grader correctly answered 59 percent of the English language arts questions and 47 percent of the mathematics questions. No decision has been made about the minimum score required to pass the test, but the evaluators estimated that, if students were required to answer 70 percent of the questions correctly (as in Texas), about two-thirds of tenth graders would fail the English section and 85 percent would flunk the math section.

They also noted that “minority students, special needs students and English language learners are particularly at risk of failing.” Why the high failure rates? For the majority of the test questions, said the evaluators, “at least one-fourth of the tenth grade students had not received instruction that would allow them to answer...correctly.”

We might assume that if reasonable curriculum standards are set, acceptable pass rates will follow. But the crucial steps in between can take years. The curriculum must be brought in line with the standards, teachers must be trained in the new curriculum, and student instruction must be modified accordingly. A basic problem with the standards movement, said Sandra Feldman, president of the American Federation of Teachers, is that “in some states and districts, tests are just about the only part of the standards process that has been put into place.”

3) Test takers [should] receive comparable and equitable treatment during all phases of the testing or assessment process.

States embarking on a high school exit examination program face a mountain of unresolved equity issues. For example, according to a recent report by the President’s Advisory Commission on Educational Excellence for Hispanic Americans, the testing policies of many states do not treat English language learners in an equitable way. In particular, the commission criticized the practice of translating tests from English to another language and then simply assuming the translated versions are equivalent to the original tests.

Similarly complex issues arise in testing disabled students: Giving an unmodified test to, say, a student with severely impaired vision is obviously unfair. But would reading the test aloud to the student yield an assessment equivalent to the usual version? Without a lot of research, it is impossible to say.

4) In educational settings, test users should ensure that any test preparation activities and materials provided to students will not adversely affect the validity of test score inferences.

At least ten states have reported cheating on standardized tests during the last year—and that’s just the cheating done by principals and teachers! Seven teachers in the Sacramento area photocopied the Stanford Achievement Test-ninth edition, which is used to rate the state’s schools, and then taught its content. A high school employee copied a draft version of the state’s graduation test and gave it to consultants who had been hired to prepare teachers for the test. And in Massachusetts, a teacher sent an e-mail message to colleagues at other schools containing questions from a statewide test.

Obviously, this is not what backers of standards-based assessment had in mind. Widespread cheating by school personnel could render the assessments useless and produce a generation of “ethically challenged” students as well.

What can be done?

How can we uphold testing standards without abandoning educational standards? One approach is to build in an initial “limited-stakes” phase in which exit exams are used solely for monitoring the progress of districts, schools and key groups of students. Because this original assessment would be for accountability purposes only, we wouldn’t have to test each student—we could just take a random sample. And because no scores would be assigned to individuals, we wouldn’t need to give every student the same test questions. Later, when the needed curriculum changes had been fully implemented, the high-stakes phase, in which test scores would affect graduation decisions, would begin.

This limited-stakes phase-in plan isn’t pie in the sky; it can be accomplished using a well-established data collection method called “multiple matrix sampling.” As an example of how it works, let’s say we’re interested in measuring the math skills of tenth graders from the Paradise School District. To maximize the breadth of the assessment, we could create several distinct sets of questions, and give each of these test forms to a portion of our random sample, making sure each form is short enough to be completed within a single class period.

A sampling we used at sampled students and assigned test forms correctly, we could legitimately use the test results to draw conclusions about how well the district’s tenth graders had mastered a wide range of math skills. There is no reason that students’ names would need to be associated with their test papers—identification codes could be used for tracking purposes.

For California, this method of assessment would be déjà vu. This approach was used by the now-defunct California Assessment Program, described 20 years ago as “the largest and most highly developed of the state programs.”
 Granted, this strategy has its downsides. It would defer, rather than eliminate some difficult decisions. And it would require that steps be taken to assure that students were motivated to do well during the limited-stakes phase-in. But, by providing for the monitoring of student progress without imposing negative student consequences, this approach could buy us quite a lot. First of all, it would allow unhurried decisions to be made about crucial issues: How can test scores be combined with non-test information in determining who graduates? What testing accommodations are appropriate for English language learners and disabled students? What kind of help should be provided to students who fail the test?

In addition, the limited-stakes phase-in period could minimize the incentive to cheat, reduce the investment of classroom time and money, and help to tame the emerging backlash against the proliferation of standardized tests. Most important, it would bring the assessment system into compliance with the opportunity-to-learn standard, which is central to educational improvement efforts. Diplomas would not be at stake until all pieces of the reform process were in place and all students had been given the chance to learn the required material.

Rebecca Zwick is a professor of education at the University of California, Santa Barbara.

The Senior Slump
Making the most of high school preparation

By Michael W. Kirst

The senior year in high school has substantial but underutilized potential for improving student preparation to enter and succeed in postsecondary education. Because admissions processes begin early in the senior year, preparation primarily occurs between grades 8 and 11. Failure to use the senior year to enhance preparation for success at the postsecondary education level reflects the deep disjuncture between postsecondary and K–12 education, and the consequent lack of incentives for students to work hard academically, and prepare for postsecondary education.

Neither K–12 nor postsecondary education claims the academic content of the senior year as a basis for further education. As a result, the senior high school curriculum is not linked clearly to the first two years of study at a university, or to a continuous vision of postsecondary and K–12 education, and the consequent lack of incentives for students to work hard academically, and prepare for postsecondary education.

Any students who express interest in college mistakenly assume that meeting their high school graduation requirements means they are prepared for college. All types of students, including the highest performing, talk about the second semester of the senior year as being a time they have “earned” to relax and have fun. Even though about 70 percent of seniors will go from high school to postsecondary education in 2000, the weak academic focus in the senior year is one reason why the percentage that complete a baccalaureate degree is not much greater than it was in 1950.

Why is the senior year not effective?

Admissions and placement policies are prime examples of the problems for students at all levels of the high school achievement spectrum. For instance, community colleges have open admission, so students rarely are aware of placement exams or requirements for community college. Yet placement exams determine whether community college students can do credit-level work.

Many selective public universities admit by December 1 of the senior year, and rarely even look at senior-year grades. Consequently, students cut back on academic courses and work long hours in jobs or internships. Rarely do universities or colleges withdraw admission if grades fall off drastically during the senior year.

Because of the substantial increase in early admissions at our most selective universities, students know early in their senior year where they will attend university.

Many of these students took Advanced Placement courses in their junior year in order to gain admission to a highly selective school, and drop difficult senior year courses after receiving early admission. These high achieving students have scant need or motivation to use the senior year for more academic preparation.

Indeed, many seniors regress in terms of academic preparation, as is evidenced by high failure rates on mathematics placement tests. More than 60 percent of the students admitted to the University of California take remedial math courses. And many high achievers take the most advanced math courses during their junior year in high school and then have no math options in their senior year. A typical pattern for many students attending less selective four-year institutions or community colleges is not to take any math in the senior year.

When these same students are confronted with a math placement exam in the summer after graduation, they discover that they have forgotten the math needed to avoid remedial classes in college. And many high achievers take the most advanced math courses during their junior year in high school and then have no math options in their senior year. A typical pattern for many students attending less selective four-year institutions or community colleges is not to take any math in the senior year.

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Some K-12 state assessments are at such a basic level that they are inappropriate for use in postsecondary education.

K-12 standards, and feel most comfortable with these two assessments that they know and can influence. Many universities are wary of being subjected to a higher education version of K-12 state-accountability systems, and seek to avoid the political quagmire surrounding high-stakes testing.

Given the volume of applications, the selective universities are getting the students they want, so they see no need to implement an alternative to junior-year SAT I/ACT assessment.

In some states, the governor’s office is the most logical place to put these fragmented standards systems together, but higher education leaders (especially from private universities) want to guard their political independence from gubernatorial and legislative specification of admissions criteria.

Because each state has a distinctive K-12 standards and assessment system, it is not clear what can be done nationally. For example, President Clinton’s advocacy of a national voluntary test died after protests concerning states’ rights.

A lining and improving standards and assessments

Postsecondary education needs to send consistent and clearer signals (accompanied by appropriate incentives) to seniors concerning academic preparation. The concepts of content and standards alignment are promising, but also have deleterious effects if not done properly. For example, K-16 alignment focused upon low-level or inappropriate content would make matters worse. Some K-12 state assessments are at such a basic level that they are inappropriate for use in postsecondary education.

Two recent analyses of K-16 assessments exposed the similarities and differences among K-16 visions of what high school students need to know and to be able to do. A 1999 report of the Education Trust demonstrated the range in mathematics. The high school tests rarely extended beyond algebra and geometry, with content coverage similar to SAT I. But the placement exams had considerable emphasis on algebra 2 and trigonometry. Students are admitted to postsecondary education based on one conception of appropriate math, but their placement is based on a different conception.

The need for students to take algebra 2 and trigonometry in their senior year is not communicated clearly by higher education, because students are focusing upon access and admission, and not upon what they need to know to complete their postsecondary studies.

The Stanford Bridge Project six-state assessment analysis highlights the differences in K-16 writing standards. SAT I and ACT assess writing through multiple choice formats, while many states use writing samples. It is ironic that many of the nation’s universities do not include actual writing in their admission standards. Consequently, SAT I/ACT preparation courses emphasize finding errors quickly in sentence and paragraph structure.

The senior year of high school should include intensive writing preparation for postsecondary success, but there are few signals or incentives to do this. In short, K-16 assessments are all over the map, and send confusing signals to students and parents. Students are confused as to why SAT I is so different from the content and skills on their state K-12 assessments.

Policy improvements that encompass the senior year

Several policy directions would improve senior-year preparation for postsecondary education:

• Permit students to submit subject-matter-based state external exams as a significant factor for admissions and freshman placement. Study the university success of these students.

The crucial difference between external exams and the SAT I/ACT is that a curriculum-based exam is organized by discipline and keyed to the content of specific course sequences. This focuses responsibility for preparing the student for particular exams on one teacher or a small group of teachers. The exams define the level relative to an external standard, not relative to other students in the classroom or school.

• Substitute SAT II (or College Board Pacesetters, when it is developed) for SAT I in order to link admissions and placement standards closer to external discipline-based standards outlined above. Higher costs of SAT II should be borne by the public and not by the student. Since some SAT II exams have not been changed since they were originated, many of them need to be strengthened and updated.

• A lign freshman placement exams with other state standards, and publicize placement exam content, standards and consequences to students in high school. The quality of these exams must be high, or else alignment will lead to lower and inappropriate standards.

• Report and publicize freshman placement results for each high school. A low scores for take placement exams in 11th or 12th grade, and substitute K-12 assessments for university-devised placement exams. Since some states have different placement exams for each university or tier of university, there needs to be a study of content differences and whether a common exam is feasible.

• Require a writing sample for all admissions decisions. Neither the SAT I nor ACT assess writing samples, but some statewide K-12 assessments have a writing sample that could be incorporated into the regular admissions/placement process.

• Standardize high school procedures for computing high school class rank (HCR) and grade point average. Universities should specify academic courses that count in computing HCR, and accord appropriate weight for honors and AP courses. Senior year academic courses should be an important component of HCR calculations.

• Explore the feasibility of using student portfolios for admissions in lieu of current policies. For example, Oregon PAss provides a writing score to colleges and universities that is based on a portfolio of high school academic work.

• Align merit financial aid policies with the changes recommended above. For example, base merit aid on external subject-matter exams like the New York Regents and North Carolina end-of-course tests.

• Review on a periodic basis state, local K-16 and university content and performance standards. Study the signals and incentives that students receive concerning admissions standards. Universities know what signals they are trying to send, but not what signals students receive.

Specific initiatives to improve the academic quality and impact of the senior year

The following list is targeted at the senior year, but will be more effective if accompanied by the changes recommended in the prior section.

• For 70 percent of students now participating in postsecondary education, the senior year should be re-conceptualized to stress preparation for postsecondary success, credit level placement, and a start upon continuous general or liberal arts education. A cress to higher education is only the starting point of senior year, not the sole goal.

• Expand substantially successful dual-enrollment K-12 postsecondary programs that include all levels of students, not just the highest achieving students.

• Undergraduate general education requirements need to be sequenced so appropriate senior-year courses are linked. Senior year courses can be a gateway to general education requirements in the first year of college or university.

• Set explicit standards for senior-year performance in all courses, and withdraw admission if they are not met. Require a minimum number of academic credits for the last semester of the senior year. Stress postsecondary placement exam standards in this last semester for students who plan to proceed to postsecondary education.

• Make the implications of freshman placement exams clearer to students. They should understand that taking senior-year math and writing courses enhances placement scores, and results in less costly remediation.

• If a university has a math requirement for graduation from its campus, then require a linked high school senior-year math course with a certain minimum standard. M any states require only two years of college-prep math.

• University reports about remediation and freshman performance of students from specific high schools should be publicized widely in mass media, and considered by local school boards for policy implications.

• Encourage high school accreditation by state governments and private groups to focus upon the academic rigor of the senior year. A credibility should focus more directly on postsecondary preparation.

• Revie high school policies granting course credit for work experience that has no strong academic components. Much of the senior year for many students is spent working with no academic link.

Concluding comments

All of these policy mechanisms and recommendations to improve the senior year require leadership and motivation. It is unclear how this will evolve, given the long U.S. tradition of K-16 disjuncture. Perhaps the stimulus will come from rising public concern about postsecondary remediation. But the senior slump has been around so long, it has become part of American high school culture.

The senior-year issue must receive more public attention and concern before K-16 policy makers realize it will be too late to act. Given the huge gap in postsecondary attainment between high- and low-income students (particularly for Hispanic and African Americans), this is an urgent issue of equity as well as quality education.
The Public Purposes of Higher Education: 
Us Not Me

By Thomas E. Hirsch

I T IS OLD NEWS that students go to college primarily to get a job. The data are clear that this is the overwhelming reason why applicants and their parents are willing to pay escalating undergraduate tuition, even at small liberal arts colleges. Both students and their parents want higher education to serve as an individual enabler—to enable a graduate to get a job, to earn money, and, as a result, to have a happy life.

The “college as job credential” phenomenon means that prospective students struggle before coming to college to choose the right major for their career aspirations. The overwhelming majority of undergraduates select a major because they believe that it will provide the quickest and safest route to high-paid employment, which has made business the number one major in the country (U.S. Department of Education, 1996). General education courses are seen as hurdles to get over on the way to preparing for that career.

Increasingly, colleges and universities are responding with curricular arrangements designed to meet these market pressures. Fractionating forces in higher education are pressing them to cater to career needs with all the individualized attention of a boutique and all the mass delivery capability of an ATM machine.

Higher education is obviously not alone in promoting rampant individualism; it mirrors contemporary American culture. The consequences of that consumer culture have been decried by many as promoting a growing sense that Americans are not responsible or accountable to each other, and a decline in civility, in mutual respect, and in tolerance. In short, it leads to the preeminence of self-interest and individual preference over concern for the common good (Bellah et al., 1991; Putnam, 1995 and 1996). It is all about me and mine, not about us and ours.

Higher education too often these days is also just about me. It concentrates on preparing workers suited to American commerce and giving students knowledge and skills to compete economically, so that they can lead comfortable, affluent lives. Individual students are consumers who invest time and money to receive future individual economic benefits.

Students who look at the institutional behaviors of their colleges and universities regularly see models of this balance-sheet behavior. The competitive, commercial pressures are making colleges and universities act as responsible citizens of their communities.

Did higher education once better serve a convening function, helping our society understand and strengthen common bonds? Did it formerly have an animating sense of mission to enhance the common good? Nostalgia for the good old days is always dangerous; it may mean that many students and their parents see the college campus as an oasis from the jumble of mundane reality and are not concerned for the common good.

The causes of this corrosion of public purpose are not hard to identify. Many are constraints that affect virtually every institution in society, not just colleges and universities. There are centrifugal pressures on organizations of every type. The pressures on higher education may seem more obvious now, but only because they have been relatively submerged until recently. The same forces that have made colleges and universities more responsive to market pressures have brought with them the value assumptions, the language, the administrative policies of the business world, including marketing and market research, corporate management strategies, and aggressive public relations.

These are not the only fractionating forces at work in higher education. The dominant template of pre-World War II higher education was private institutions educating full-time students from affluent families in residential settings. This template now holds true for just a small minority of American undergraduate education. Currently, more than three out of four undergraduates attend a public institution, and almost that same share are commuter students (U.S. Bureau of Census, 1996). A near majority of undergraduates today do not come to college or university directly from high school. They are older than their predecessors, they work part-time and are part-time students, many are married, and many are parents. Most do not view themselves as members of a “community of learners,” but rather as consumers who seek to get what they want as fast as possible. This may mean attending two or three different institutions in the course of an undergraduate career, over a six- or eight-year period.

At the same time, nearly 40 percent of undergraduate credit hours are taught by adjunct faculty who usually find it difficult to develop relationships with their students or to influence them outside the classroom (U.S. Bureau of Census). Even full-time faculty members, particularly those at prestigious research universities, often view themselves as entrepreneurial individual contractors, with little obligation to an institution, let alone an educational calling. Bidding wars are common for the talents of prominent faculty, who view their tenure as in the marketplace.

All of these pressures, and more, are tough obstacles in the search for higher education’s public purposes—purposes beyond vocational preparation. Higher education has come to operate on what has been termed a “default program of instrumental individualism,” in which “expertise and skill appear as simply neutral tools to be appropriated by successful competitors in the service of their particular ends” (Sullivan, p. 11, 1999).

Though the task of establishing and committing to common purposes is hard, it is arguably the most important challenge facing colleges and universities today. This paper focuses on civic responsibility as a common purpose of fundamental priority for American democracy. It is not the only common purpose. But it is among the most important.

Civic responsibility involves two interrelated strands for institutions of higher education.

The first is preparing students for lives of civic responsibility. The second is serving as a responsible institutional citizen of a community. The first is obviously closest to the primary educational mission of a college or university, though neither can successfully occur without the other. This paper considers each strand in turn.

The need for civic learning

The data on civic life in this country are devastating. Americans growing up in recent decades vote less often than their elders and show lower levels of social trust and knowledge of politics (Putnam, 1995). Similar shifts accompany their rise in the importance attached to “having lots of money” (Rahn and Tranuse, 1997). Data from annual Freshman Surveys indicate that the percentage of college freshmen who report frequently discussing politics dropped from a high of 30 percent in 1968 to just 15 percent in 1995. Similar decreases were seen in percentages of college freshmen who believe it is important to keep up to date with political affairs or who have worked on a political campaign (Sax and Astin, 1997; Astin, Parrot, Korn and Sax, 1997). These trends bode ill for the future of American democracy.

What might make one think that enhancing civic responsibility, particularly political engagement, is an essential common purpose of higher education? Past history and current mission statements are two reasons. The primary purpose of the first American colleges and universities was the development of students’ character, no less than their intellect. Character was defined in terms of moral and civic virtues. The founding charters of most colleges and universities are clear on their civic goals. This excerpt from the founding documents of Stanford University is typical: “The objects of the University are to qualify its students for becoming engaged citizens who provide the time, attention, understanding and appreciation for the responsibilities and rewards of civic engagement, as well as to foster the civic capacities necessary for thoughtful participation in public discourse and effective involvement in social enterprises. Important progress was made in this direction when the presidents of more than fifty colleges and universities signed at A.P. a declaration on the Civic Responsibility of Higher Education, which committed those leaders to work to strengthen the civic learning on their campuses and the civic engagement of their institutions. Since then, more than two hundred other presidents have signed the Declaration, which includes an assessment instrument to help campuses in promoting civic responsibility.”

At the Declaration makes clear, for colleges and universities to enhance the civic responsibility of their students means much more than telling them to be good citizens. “Civic” is used here to cover all social spheres beyond the family, from neighborhoods and local communities to state, national and cross-national arenas. Political engagement is a particular subset of civic responsibility that is required for sustaining American democracy. Colleges and universities should not be expected to promote a single type of civic or political engagement, but the argument here is that they should help prepare their graduates for becoming engaged citizens who provide the time, attention, understanding and action to collective civic goals. Those citizens recognize themselves as members of a larger social fabric, and therefore consider social problems to be at least partly their own; they are able to see the civic dimensions of issues, to make and justify informed civic
though the task of establishing and committing to common purposes is hard, it is arguably the most important challenge facing colleges and universities today.

Colleges and universities as good citizens

The second dimension of civic responsibility as a goal for higher education is the role of a college or university as an engaged citizen of its community. This dimension is closely related to the education of civicly responsible citizens because students cannot be expected to take seriously the challenge of personal involvement if they do not see their own campus working to improve its community. "Town-gown" relations mean different things in different communities across the country, but serious commitments by campuses to community involvement are rare.

Some campuses, by design, have little community contact—they are simply sanctuaries from preceding page judgments, and to take action when appropriate.

How can higher education enhance this kind of civic development? In a project under the auspices of the Carnegie Foundation for the Advancement of Teaching, several colleagues and I are analyzing the American undergraduate scene in terms of campus efforts to promote the civic responsibilities of students. We also are working to encourage colleges and universities to strengthen those efforts. Our work to date convinces us that higher education has the potential to be a powerful influence in reinvigorating the democratic spirit in America.

Our inquiries also have shown us that some American colleges and universities do take very seriously references in their mission statements to the civic education of their students. For a few of these institutions, this commitment shapes many or most aspects of the undergraduate educational experience and constitutes an intentional and holistic approach to civic as well as academic education.

For other institutions, strong programs designed with civic development in mind exist within an overall campus environment that does not have a comprehensive emphasis on these goals.

Our work persuades us that promoting civic learning involves mutually interdependent sets of knowledge, virtues and skills. Because they are interdependent, no simple listing of attributes is adequate. Such a listing may imply that the elements involved have particular definitions and parameters that prevent them be gained through a single course or even from reading a few books. We have come to understand through studying various colleges and universities that this is not the case. Instead, enriching the civic responsibility of all members of the campus community is best achieved through the cumulative, interactive effect of numerous curricular and extracurricular programs, within an environment of sustained institutional commitment to these overarching goals.

We focus on those sets of knowledge, virtues and skills that we believe are central to civic development and integral to a sound undergraduate education. We do not mean, however, that these sets are necessary or sufficient for all situations or circumstances. We also do not mean that one can become a civically responsible person only by attending college. Rather, we are convinced that a college education can and should enhance these attributes and capacities.

Included in the core knowledge we consider integral to civic learning is knowledge of basic ethical concepts and principles, such as justice and equity, and how they have been interpreted by various seminal thinkers. Also included is a comprehension of the diversity of American society and global cultures, and an understanding of both the institutions and processes of American and international civic, political and economic affairs. Finally, deep substantive knowledge of the particular issues in which one is engaged is critical.

This core of knowledge cannot be separated from the virtues and skills that a civically responsible individual should possess. We do not mean, however, that the first requires the active practice of the second because the first is much more difficult to develop than the second. Civic responsibility includes not only the ability to recognize the civic dimensions of issues and to take a stand on those issues. But they also include the ability to rely on and act as a consensus and to move a group forward under conditions of mutual respect.

The need for dialogue

One need not accept the arguments for viewing civic responsibility as a key public purpose of higher education to conclude that it is long past time to promote public dialogue on the issue. That dialogue must not be limited to those in higher education. A language is needed to describe what is meant by the public purposes of higher education. A set of strategies also is required to encourage serious, extended debate about those purposes and how best to further them.

There has been a corrosion of a sense among institutions of higher education that they have a common mission to improve society as a whole.
targeted at boys. There are few female role models in industry or on engineering faculties, only four percent of which are female. A nd research shows that engi- neering education is traditionally linear, which tends to be more suited to male patterns of learning, as opposed to collabora- tive, which researches say is preferred by women. (At one engineering school that experimented with all-women and all-men orientations, the women were found to share their tools; the men steadfastly re- fused.)

Smith’s new engineering students say they’re living proof of this. “When I was growing up, I didn’t hear my teacher tel- ling me, ‘You can do this,’” said one, E merson Taylor. “I didn’t have any female role models.” In math and science class in high school, said another, K amaalea Cott, “I would be confused somewhere along the way, totally lost. I’d ask a question, and they wouldn’t hear me.” In her high school computer classes, said Smith student J ulia Packer, “I was the only girl. It drove me crazy. A ll the guys would make fun of me. I was in the corner, and they’d be like, ‘Oh, my god, there’s a girl in the class!’”

Students—most of them women—say they’re now living proof of the idea that women are so vastly underrepre- sented, bolsters the idea of all-women engineering programs. “I have bright well-rounded engineers out there,” said one, D omenico Grasso, who turned down a department chair at Columbia to become the founding head of the new program at Smith. “Engineers have not been properly trained to be engineers.”

Smith students major in science at nearly three times the national rate for college women, and the school ranks in the top three percent among all colleges in the proportion of alumni who earn Ph.D.s in science. That makes it a powerful factor in the newfound effort to increase the number of women engineers.

In 1950, barely one-third of one percent of engineering students were women. That number would improve only incremen- tally. Twenty-five years later, women represented barely two percent of engi- neering students. A nd while women have made enormous gains in other science disciplines—comprising three-quarters of psychology majors, and half of biology majors, for example—they still earn only 17 percent of undergraduate degrees in engineering today. A paltry nine percent of all working engineers are women.

In some engineering fields, the gender gap has actually been widening. The number of computer science degrees awarded to women has plummeted from 37 percent in 1984 to 16 percent today. Women make up only about a quarter of systems analysts, and less than 30 percent of programmers. This at a time when there are 400,000 vacant information tech- nology jobs, a figure expected to rise to one million by 2003. The National Science F oundation anticipates growth in engi- neering-related jobs will be triple that for other jobs, and the Bureau of Labor Sta- tistics predicts the demand for computer engineers will double by 2006.

Filling jobs is not the only goal of new programs designed to draw more women into engineering. There is a simultaneous push to train new engineers in communica- tion skills. A crediting agencies, under pressure from engineering schools and employers, are giving greater weight to the liberal arts in their graduation require- ments. Beginning last year, the A credi- tation Board for Engineering and Techno- logy began requiring that graduates from engineering programs know such things as how to work on teams.

“Industry, which is the ultimate cus- tomer of the product coming out of engi- neering programs nationwide, was telling me that our graduates aren’t prepared to work,” said M aryaunn Weiss, spokeswoman for the board. Students in Smith’s demanding engineering program will have to also study literature, history, social science, natural science, analytic phi- losophy, a foreign language and fine arts.

“Yet, what we’ve done engineering is in the past is a disservice to engineers in par- ticular and society in general,” said D omenico Grasso, who turned down a department chair at Columbia to become the founding head of the new program at Smith. “Engineers have not been properly qualified to deal with the issues that are asked of them...It would be so nice to have bright well-rounded engineers out there.”

Women, Grasso said, may actually turn out to be better engineers than men. “En- gineers must appreciate and understand the human condition,” he said. “The market is in dire need both of women engi- neers and engineers generally who are well-grounded in their understanding of the human condition.”

Yes, studies—and the experiences of women who go into the field, including the pioneering young engineers at Smith—indicate that women are consistently dis- couraged from careers in engineering. Women take fewer classes in math in high school, and score lower than men on the math portion of the SAT.

“Imagine that somebody would ask you to take the SAT in a topic you’ve hardly studied,” said P fabe. “Of course you would do worse. There’s nothing in women that would prevent them from being excellent in science and engineering. Those who go into engineering and into physics do as well as their male peers. There’s something that doesn’t work well in elementary, middle and high schools, where girls’ are not encouraged to do science. They are pushed into, for example, social work, or English.”

Engineering has long been male-ori- ented. The nation’s first engineering pro- gram was at West Point, and engineering remained closely associated with the military. More recent studies point out that modern-day computer games also are

For her part, Caitlyn Shea was hesitant to come to a single-sex school. “But it’s amazing all the opportunities we’re going to get.” The college, she says, mailed books, graph paper, even key chains to the students before they even arrived, and has since provided them with tea parties, lunches and special lectures. Nine students per year will receive $10,000 fellowships and, beginning next year, Ford will furnish four full scholarships. “It’s almost a hand-icap,” said Sarma. “It feels like I don’t have to get good grades—they’ll take care of it. But it’s nice to know that there are people looking out for us.”

A nd Simone K ao, another of the students, said: “If they’re going to treat me like a queen because I’m a girl, I’ll take it.”

More and more universities and col- leges are reaching out to girls. The Na- tional Science Foundation has allocated $2 million in grant money to increase women’s participation in technology fields.

Pennsylvania State U niversity invites Girl Scout troops to its campus on Saturdays for hands-on engineering activities. Newly arriving engineering students get a special orientation, taught by returning women students. “A lot of the message they’re getting is that this is a boy thing,” said Barbara Bogue, who directs Penn State’s Women in Engineering Pro- gram. “Teachers are catering more to boys. We still meet that stereotype. When we do surveys, we ask women how good they are in computers, and they tend to underestimate how good they are in com- puters. It’s a cultural thing. What we’re trying to do in many ways is make sure the women have the same benefits the men have gotten, one way or another.”

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addition of aspiring engineers. “Engineer- ing students tend on the whole to be smar- ter than other students by standard mea- sures, and I think that’s important to the college,” said Connolly. “In general, a col- leges that have an engineering program can expect to be enrolling more bright stu- dents.”

It is also no coincidence that the addi- tion of a program such as engineering, in which women are so vastly underrepre- sented, bolsters the idea of all-women engineering programs. “I have bright well-rounded engineers out there,” said one, D omenico Grasso, who turned down a department chair at Columbia to become the founding head of the new program at Smith. “Engineers have not been properly trained to be engineers.”

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Corporate recruiters also come to cam-
pus at the beginning of the school year, while the engineering students’ parents are still there helping them unpack. “We have these industry people on a panel telling them how much these kids are going to make when they get out, and it’s usually more than the parents are mak-
ing,” Bogue said. That way, parents are less likely to acquiesce when their daugh-
ters call home wanting to get out of the program when things get tough.

To girls, they would always say, “You poor girl, why don’t you change your ma-
jor,” while with the guys, it’s like, “I just suck it up.” Now the parent understands the stakes.” (But women leave engineering at a rate higher than men; only about 40 per-
cent who start a degree complete it.)

Other engineering schools are starting special women’s programs, from a Lego summer camp for girls run by Tufts Uni-
versity to the “House of the Future” inter-
active model aimed at attracting women to the University of Cincinnati College of Engineering, which also sponsors a “take-
apart-toaster day” each year for girls from local schools. Cornell has a program office devoted to recruiting and retaining women engineering students.

At Worcester Polytechnic Institute, where women make up only 23 percent of all undergraduates, a new program this year called Women on Women’s Issues uses “girls’ nights out” to bring together women students, faculty, staff and alum-
nae, including female executives in science fields. Lizabeth Schieler, a lecturer at Cal Poly San Luis Obispo, is building a data-
base of successful women in science and engineering, including biographies and contact information. Mount Holyoke, another all-women college, continues to offer a joint five-year engineering degree with Dartmouth.

“‘If they’re going to treat me like a queen because I’m a girl, I’ll take it,’” says engineering student Simone Koo, shown in front of the Smith College library.

Professor Borjana Mikic is leaving the University of Virginia to help “build a new undergraduate engineering program from scratch” at Smith.

“M any, many more schools are paying attention to women,” said Jane Daniels, director of the Women in Engineering Program at Purdue, which in 1969 became the first university to address the issue. Purdue now has 5,000 women graduates who work in engineering fields, and who it uses as a support network for new and prospective students. “I think they realize the obstacles young girls face, that nobody

is there encouraging them,” said Daniels. “We still in this day and age have girls come in and tell us, my counselor told me it was ridiculous for me even to consider engineering as a career.”

Smith had offered a dual degree pro-
gram with the engineering school at the University of Massachusetts from 1976 un-
til 1991, and with Dartmouth beginning last year. Since 1985, it also had had an engineering minor. Then, in 1975, a new president, Ruth J. Simmons, challenged the campus to consider what Smith ought to become in the coming decades.

“For a moment we were able to forget how much it would cost. We thought about the future,” said physics professor Mary Agoglia Pfabe. A mong the suggestions that came back to Simmons: that Smith should place more of an emphasis on cognitive science, biomolecular structure, neu-
roscience, biophysics, landscape studies—
and engineering. Pfabe was among the members of the science faculty who met with the new president to push for en-
gineering. Having served on the presi-
dential search committee, she said, “I could anticipate her reaction. She was very supportive.”

An outside team—the dean of engi-
neering from Princeton, and a professor from Swarthmore, which, with Trinity of Connecticut, was one of only two top liberal arts schools that offered engineering—was invited to make recommenda-
tions, and by 1998 Smith’s new engineering major seemed assured.

But there was resistance from a sur-
prising source: some of the non-science faculty. Besides concerns about the cost of a new program at a time when financial resources were strained, “there was an issue of the tradition of a liberal arts college, and whether engineering really belonged to the liberal arts,” remembered Pfabe. “There were voices asking, ‘A re we going to become a vocational school?’”

Her answer: “It is to some extent an obvious thing. Smith, in my opinion, needs engineering because having people who can think quantitatively, other people learn from that, too. If I say I don’t know anything about English literature or his-
tory, people would look at me and say, ‘She’s not well-educated.’ But when you say you don’t want to do math and physics, they smile as if that’s OK and understand-
able.”

The backers of the engineering major carefully built their case. They presented their plans at faculty meetings, complete with testimony from students who sup-
ported the idea. They promised to make classroom space available in a proposed new engineering building, and offered high-tech expertise to other departments.

“We’re going to build a brand new undergraduate engineering program from scratch.” She said.

“From the beginning, the idea was to keep everyone involved. The seeds were well-laid and carefully tended. It was sort of like an engineering project: There was a lot of planning, a lot of research, a lot of sharing of ideas and drafting a plan,” said Dominique Thiebaut, a computer science professor who supported engineering. “It became obvious to many faculty members

that they were going to profit from en-
gineering by having collaborations, and this building where other classes could be

taught,” Pfabe said.

When it finally came up for a vote, the major was approved unanimously. Its sup-
porters retired to Pfabe’s house off campus and had “I don’t know how many bottles of wine to celebrate,” she said.

Soon trustees were lavishing $12.5 million on what was to be called the Picker Engineering Program, named for an alum-
na and her husband who gave $5 million to endow it. Its new seal showed a light-
house—an image some women at the school grumble is inappropriately phallic, and old-fashioned—and a sus-
pension bridge, meant to represent the link between the sciences and the humanities.

A temporary building quickly went up, sheathed in green corrugated metal that stands out on the brick-and-ivy campus

and looks remarkably like the famous left-
field wall at Boston’s Fenway Park. In-
evitably, it was quickly nicknamed the Green Monster. Inside, the facilities are state-of-the-art, the rooms filled with more donated computers, printers and other electronic equipment than are piled up in many warehouse stores.

Manufacturers’ tags still hang from the chairs, and the wires and conduits have been left exposed by the architect. The faculty is housed on the upper level of the nearby faculty club, where the smell of lunchwaits into Grasso’s office. Two more professors are expected to be added, both of them women; added to him, Grasso jokes, they will give Smith the highest proportion of female engineering faculty in the country.

One, Borjana Mikic, the daughter of a professor of mechanical engineering at the Massachusetts Institute of Technology, will move to Smith from the University of Vir-

ginia, attracted, she said, by “the opportu-
nity to build a brand new undergraduate engineering program from scratch.” She added, “The least of it is being in an all-
women’s college, although I find that very intriguing and I’m very excited about it.”

Mikic says that, even more than the prospect of training women, she was drawn to the idea of requiring engineers to take non-engineering courses. “I realized a few years ago that the right environment for me to be in was a liberal arts school. Then I realized, boy, was I in the wrong field to do that.”

Students seem to like this, too. Even without a track record, Smith’s new engi-
neering program managed to bring in 107 applicants, by relying on newspaper cover-
age and word of mouth, and by buying lists of girls who won science or math com-
petitions. Sixty of the applicants (56 percent) were admitted; 19 of those (32 percent) enrolled. The college admits 53 percent of its applicants overall, and 39 per-
cent accept its offer.

It’s still a modest start. Engineering continues to take up less than two pages in Smith’s 422-page catalogue of courses. The program must graduate its first class before it can seek accreditation. (Degrees awarded before then are expected to be accredited retroactively. The students don’t seem to be worried. “Who’s going to say, ‘Oh, you only got a degree from Smith?’” said one, Meghan Taugh.

Grasso and others say the problems dogging engineering are bigger than Smith can solve.

“Younger girls still are not encouraged to pursue math and science, and a lot of companies have not come to grips with fa-
mily issues” such as maternity leave and subsidizing day care, he said.

“We have to work to change the image of engineering,” Pfabe said. “Many any-
changes have to be made, not only in education, but in society. Many women still have to choose between a family and a pro-
fessional career. These problems have been solved in other countries. Why can’t we solve them?”

Jon Marcus is executive editor of Boston Magazine, and co-eds U.S. higher edu-
cation for The Times of London.