A TEST OF LEADERSHIP

Charting the Future of U.S. Higher Education

A Report of the Commission Appointed by
Secretary of Education Margaret Spellings

U.S. DEPARTMENT OF EDUCATION

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2006

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Secretary

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September 2006

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A NATIONAL DIALOGUE:
THE SECRETARY OF EDUCATION'S COMMISSION ON THE FUTURE OF HIGHER EDUCATION

The Honorable Margaret Spellings
U.S. Department of Education
400 Maryland Avenue, SW
Washington, DC 20202-0001

Dear Madam Secretary:

The undersigned members of the commission respectfully hereby submit this report resulting from your assignment.

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Ben Wildavsky made an invaluable contribution in bringing his extensive experience and professional judgment in the writing and editing of the report under demanding circumstances.

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PREAMBLE

Three hundred and seventy years after the first college in our fledgling nation was established to train Puritan ministers in the Massachusetts Bay Colony, it is no exaggeration to declare that higher education in the United States has become one of our greatest success stories. Whether America's colleges and universities are measured by their sheer number and variety, by the increasingly open access so many citizens enjoy to their campuses, by their crucial role in advancing the frontiers of knowledge through research discoveries, or by the new forms of teaching and learning that they have pioneered to meet students' changing needs, these postsecondary institutions have accomplished much of which they and the nation can be proud.

Despite these achievements, however, this commission believes U.S. higher education needs to improve in dramatic ways. As we enter the 21st century, it is no slight to the successes of American colleges and universities thus far in our history to note the unfulfilled promise that remains. Our yearlong examination of the challenges facing higher education has brought us to the uneasy conclusion that the sector's past attainments have led our nation to unwarranted complacency about its future.

It is time to be frank. Among the vast and varied institutions that make up U.S. higher education, we have found much to applaud but also much that requires urgent reform. As Americans, we can take pride in our Nobel Prizes, our scientific breakthroughs, our Rhodes Scholars. But we must not be blind to the less inspiring realities of postsecondary education in our country.

To be sure, at first glance most Americans don't see colleges and universities as a trouble spot in our educational system. After all, American higher education has been the envy of the world for years. In 1862, the *First Morrill Act* created an influential network of land-grant universities across the country. After World War II, the *Serviceman's Readjustment Act of 1944*, also known as the G.I. Bill made access to higher education a national priority. In the 1960s and 1970s, the launching and rapid growth of community colleges further expanded postsecondary educational opportunities. For a long time, we educated more people to higher levels than any other nation.

Among the vast and varied institutions that make up U.S. higher education, we have found much to applaud but also much that requires urgent reform.

We remained so far ahead of our competitors for so long, however, that we began to take our postsecondary superiority for granted. The results of this inattention, though little known to many of our fellow citizens, are sobering.

We remained so far ahead of our competitors for so long, however, that we began to take our postsecondary superiority for granted. The results of this inattention, though little known to many of our fellow citizens, are sobering.

We may still have more than our share of the world's best universities. But a lot of other countries have followed our lead, and **they are now educating more of their citizens to more advanced levels than we are**. Worse, they are passing us by at a time when education is more important to our collective prosperity than ever.

We acknowledge that not everyone needs to go to college. But everyone needs a postsecondary education. Indeed, we have seen ample evidence that some form of postsecondary instruction is increasingly vital to an individual's economic security. Yet too many Americans just aren't getting the education that they need—and that they deserve.

- We are losing some students in our high schools, which do not yet see preparing all pupils for postsecondary education and training as their responsibility.
- Others don't enter college because of inadequate information and rising costs, combined with a confusing financial aid system that spends too little on those who need help the most.
- Among high school graduates who do make it on to postsecondary education, a troubling number waste time—and taxpayer dollars—mastering English and math skills that they should have learned in high school. And some never complete their degrees at all, at least in part because most colleges and universities don't accept responsibility for making sure that those they admit actually succeed.
- As if this weren't bad enough, there are also disturbing signs that many students who do earn degrees have not actually mastered the reading, writing, and thinking skills we expect of college graduates. Over the past decade, literacy among college graduates has actually declined. Unacceptable numbers of college graduates enter the workforce without the skills employers say they need in an economy in which, as the truism holds correctly, knowledge matters more than ever.

Over the past decade, literacy among college graduates has actually declined. Unacceptable numbers of college graduates enter the workforce without the skills employers say they need in an economy where, as the truism holds correctly, knowledge matters more than ever.

- The consequences of these problems are most severe for students from low-income families and for racial and ethnic minorities. But they affect us all.
- Compounding all of these difficulties is a lack of clear, reliable information about the cost and quality of postsecondary institutions, along with a remarkable absence of accountability mechanisms to ensure that colleges succeed in educating students. The result is that students, parents, and policymakers are often left scratching their heads over the answers to basic questions, from the true cost of private colleges (where most students don't pay the official sticker price) to which institutions do a better job than others not only of graduating students but of teaching them what they need to learn.

In the face of such challenges, this commission believes change is overdue. But when it comes—as it must—it will need to take account of the new realities that are sometimes overlooked in public discussions about the future of higher education. While many Americans still envision the typical undergraduate as an 18- to 22-year-old with a recently acquired high school diploma attending classes at a four-year institution, the facts are more complex. Of the nation's nearly 14 million undergraduates, more than four in ten attend two-year community colleges. Nearly one-third are older than 24 years old. Forty percent are enrolled part-time.

As higher education evolves in unexpected ways, this new landscape demands innovation and flexibility from the institutions that serve the nation's learners.

As higher education evolves in unexpected ways, this new landscape demands innovation and flexibility from the institutions that serve the nation's learners. Beyond high school, more students than ever before have adopted a "cafeteria" approach to their education, taking classes at multiple institutions before obtaining a credential. And the growing numbers of adult learners aren't necessarily seeking degrees at all. Many simply want to improve their career prospects by acquiring the new skills that employers are demanding.

In this consumer-driven environment, students increasingly care little about the distinctions that sometimes preoccupy the academic establishment, from whether a college has for-profit or nonprofit status to whether its classes are offered online or in brick-and-mortar buildings. Instead, they care—as we do—about results.

Against this backdrop, we have adopted an ambitious set of goals that spell out what our commission expects from American higher education, which we define as broadly and richly as possible to include all public and private education that is available after high school, from trade schools, online professional-training institutions and technical colleges to community colleges, traditional four-year colleges and universities, and graduate and professional programs.

- We want a world-class higher-education system that creates new knowledge, contributes to economic prosperity and global competitiveness, and empowers citizens;
- We want a system that is accessible to all Americans, throughout their lives;
- We want postsecondary institutions to provide high-quality instruction while improving their efficiency in order to be more affordable to the students, taxpayers, and donors who sustain them;
- We want a higher-education system that gives Americans the workplace skills they need to adapt to a rapidly changing economy;
- We want postsecondary institutions to adapt to a world altered by technology, changing demographics and globalization, in which the higher-education landscape includes new providers and new paradigms, from for-profit universities to distance learning.

To reach these objectives, we believe that U.S. higher education institutions must recommit themselves to their core public purposes. For close to a century now, access to higher education has been a principal—some would say *the* principal—means of achieving social mobility. Much of our nation's inventiveness has been centered in colleges and universities, as has our commitment to a kind of democracy that only an educated and informed citizenry makes possible. It is not surprising that American institutions of higher education have become a magnet for attracting people of talent and ambition from throughout the world.

But today that world is becoming tougher, more competitive, less forgiving of wasted resources and squandered opportunities. In tomorrow's world a nation's wealth will derive from its capacity to educate, attract, and retain citizens who are to able to work smarter and learn faster—making educational achievement ever more important both for individuals and for society writ large.

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What we have learned over the last year makes clear that American higher education has become what, in the business world, would be called a mature enterprise: increasingly risk-averse, at times self-satisfied, and unduly expensive. It is an enterprise that has yet to address the fundamental issues of how academic programs and institutions must be transformed to serve the changing educational needs of a knowledge economy. It has yet to successfully confront the impact of globalization, rapidly evolving technologies, an increasingly diverse and aging population, and an evolving marketplace characterized by new needs and new paradigms.

History is littered with examples of industries that, at their peril, failed to respond to—or even to notice—changes in the world around them, from railroads to steel manufacturers. Without serious self-examination and reform, institutions of higher education risk falling into the same trap, seeing their market share substantially reduced and their services increasingly characterized by obsolescence.

Already, troubling signs are abundant. Where once the United States led the world in educational attainment, recent data from the Organization for Economic Cooperation and Development indicate that our nation is now ranked 12th among major industrialized countries in higher education attainment. Another half dozen countries are close on our heels. And these global pressures come at a time when data from the U.S. Department of Labor indicate that postsecondary education will be ever more important for workers hoping to fill the fastest-growing jobs in our new economy.

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To implement the goals outlined above, we have distilled our deliberations into a series of findings that range across four key areas that the U.S. secretary of education charged us

with examining when she created this commission: access, affordability, quality, and accountability. Those findings are followed by a series of six far-reaching recommendations aimed at all the parties whose efforts will be needed to ensure that reform takes root: colleges and universities; accrediting bodies and governing boards; state and federal policymakers; elementary and secondary schools; the business community; and parents and students themselves.

We note that the commissioners did not agree unanimously on every single finding and recommendation. This was a diverse group, with varied perspectives and backgrounds, and from the beginning our commission's explicit mandate was to engage in debate and discussion, as indicated by the first part of our panel's formal name: "A National Dialogue." In a higher-education system as diverse and complex as ours, it is no surprise that knowledgeable individuals can and do differ over certain matters. Nevertheless, there has been remarkable consensus among our members not only on the acute challenges facing the nation's colleges and universities but also on how we can begin to address higher education's weaknesses and build a promising foundation for a thriving 21st century postsecondary education system.

In outlining our conclusions and recommendations below, and detailing them in the remainder of this report, we recognize that some who care deeply about higher education—and whose partnership we value in the new endeavors we propose—may not easily accept either our diagnosis or our prescriptions. But we would note that past reforms that later came to be recognized as transformational for American society were not universally embraced at first. The G.I. Bill, for instance, greatly worried such 20th-century intellectual luminaries as Robert Maynard Hutchins, president of the University of Chicago, and James B. Conant, president of Harvard University, each of whom fretted that newly returned veterans might overwhelm campuses and be ill-suited to reap the benefits of higher education. In retrospect, such concerns seem positively archaic.

We can make no promise that our proposed reforms would have an impact as enormous as that historic, door-opening measure. Nor do we make light of the inevitable questions and concerns that may be raised by all those whom we are asking to participate in the reform measures called for in our recommendations, including postsecondary institutions, federal and state policymakers, and employers.

But were the American system of higher education—and those who want to help it rise to the challenges of a new century—to make the changes our commission recommends, we believe other important changes would follow. The result would be institutions and programs that are more nimble, more efficient, and more effective. What the nation would gain is a heightened capacity to compete in the global marketplace. What individuals would gain is full access to educational opportunities that allow them to be lifelong learners, productive workers, and engaged citizens.

SUMMARY

THE VALUE OF HIGHER EDUCATION

In an era when intellectual capital is increasingly prized, both for individuals and for the nation, postsecondary education has never been more important. Ninety percent of the fastest-growing jobs in the new knowledge-driven economy will require some postsecondary education. Already, the median earnings of a U.S. worker with only a high school diploma are 37 percent less than those of a worker with a bachelor's degree. Colleges and universities must continue to be the major route for new generations of Americans to achieve social mobility. And for the country as a whole, future economic growth will depend on our ability to sustain excellence, innovation, and leadership in higher education. But even the economic benefits of a college degree could diminish if students don't acquire the appropriate skills.

Substandard high school preparation is compounded by poor alignment between high schools and colleges, which often creates an "expectations gap" between what colleges require and what high schools produce.

ACCESS

We found that access to American higher education is unduly limited by the complex interplay of inadequate preparation, lack of information about college opportunities, and persistent financial barriers. Substandard high school preparation is compounded by poor alignment between high schools and colleges, which often creates an "expectations gap" between what colleges require and what high schools produce. Although the proportion of high school graduates who go on to college has risen substantially in recent decades, the college completion rate has failed to improve at anywhere near the same pace. Shortcomings in high schools mean that an unacceptable number of college students must take costly remedial classes. Moreover, there is a troubling and persistent gap between the college attendance and graduation rates of low-income Americans and their more affluent peers. Similar gaps characterize the college attendance rates—and especially the college completion rates—of the nation's growing population of racial and ethnic minorities. While about one-third of whites have obtained bachelor's degrees by age 25–29, for example, just 18 percent of blacks and 10 percent of Latinos in the same age cohort have earned degrees by that time.

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We propose to dramatically expand college participation and success by outlining ways in which postsecondary institutions, K–12 school systems, and state policymakers can work together to create a seamless pathway between high school and college. States' K–12 graduation standards must be closely aligned with college and employer expectations, and states should also provide incentives for postsecondary institutions to work actively and collaboratively with K–12 schools to help underserved students improve college preparation and persistence. While better high-school preparation is imperative, admitted students and colleges themselves must jointly take responsibility for academic success. Improving the information about college available to students and reducing financial barriers to attendance, which we address below in our discussion of affordability, are also crucial to improving access.

In our view, affordability is directly affected by a financing system that provides limited incentives for colleges and universities to take aggressive steps to improve institutional efficiency and productivity.

COST AND AFFORDABILITY

The commission notes with concern the seemingly inexorable increase in college costs, which have outpaced inflation for the past two decades and have made affordability an ever-growing worry for students, families, and policymakers. Too many students are either discouraged from attending college by rising costs, or take on worrisome debt burdens in order to do so. While students bear the immediate brunt of tuition increases, affordability is also a crucial policy dilemma for those who are asked to fund higher education, notably federal and state taxpayers. Even as institutional costs go up, in recent years state subsidies have decreased on a per capita basis and public concern about affordability may eventually contribute to an erosion of confidence in higher education. In our view, affordability is directly affected by a financing system that provides limited incentives for colleges and universities to take aggressive steps to improve institutional efficiency and productivity.

To improve affordability, we propose a focused program of cost-cutting and productivity improvements in U.S. postsecondary institutions. Higher education institutions should improve institutional cost management through the development of new performance benchmarks, while also lowering per-student educational costs by reducing barriers for transfer students. State and federal policymakers must do their part as well, by supporting the spread of technology that can lower costs, encouraging more high school-based provision of college courses, and working to relieve the regulatory burden on colleges and universities.

FINANCIAL AID

We found that our financial aid system is confusing, complex, inefficient, duplicative, and frequently does not direct aid to students who truly need it. There are at least 20 separate federal programs providing direct financial aid or tax benefits to individuals pursuing postsecondary education. For the typical household, the *Free Application for Federal Student Aid*, or *FAFSA*, is longer and more complicated than the federal tax return. Moreover, the current system does not provide definitive information about freshman year aid until the spring of the senior year of high school, which makes it hard for families to plan and discourages college attendance. Unmet financial need is a growing problem for students from low-income families, who need aid the most.

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We propose replacing the current maze of financial aid programs, rules and regulations with a system more in line with student needs and national priorities. That effort would require a significant increase in need-based financial aid and a complete restructuring of the current federal financial aid system. Our recommendations call for consolidating programs, streamlining processes, and replacing the *FAFSA* with a much shorter and simpler application.

LEARNING

As other nations rapidly improve their higher education systems, we are disturbed by evidence that the quality of student learning at U.S. colleges and universities is inadequate and, in some cases, declining. A number of recent studies highlight the shortcomings of postsecondary institutions in everything from graduation rates and time to degree to learning outcomes and even core literacy skills. According to the most recent National Assessment of Adult Literacy, for instance, the percentage of college graduates deemed proficient in prose literacy has actually declined from 40 to 31 percent in the past decade. These shortcomings have real-world consequences. Employers report repeatedly that many new graduates they hire are not prepared to work, lacking the critical thinking, writing and problem-solving skills needed in today's workplaces. In addition, business and government leaders have repeatedly and urgently called for workers at all stages of life to continually upgrade their academic and practical skills. But both national and state policies and the practices of postsecondary institutions have not always made this easy, by failing to provide financial and logistical support

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But both national and state policies and the practices of postsecondary institutions have not always made this easy, by failing to provide financial and logistical support for lifelong learning and by failing to craft flexible credit-transfer systems that allow students to move easily between different kinds of institutions.

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In our view, correcting shortcomings in educational quality and promoting innovation will require a series of related steps, beginning with some of the accountability mechanisms that are summarized below and discussed at greater length later in this report. In addition, we urge postsecondary institutions to make a commitment to embrace new pedagogies, curricula, and technologies to improve student learning.

TRANSPARENCY AND ACCOUNTABILITY

We have noted a remarkable shortage of clear, accessible information about crucial aspects of American colleges and universities, from financial aid to graduation rates. Because data systems are so limited and inadequate, it is hard for policymakers to obtain reliable information on students' progress through the educational pipeline. This lack of useful data and accountability hinders policymakers and the public from making informed decisions and prevents higher education from demonstrating its contribution to the public good.

We believe that improved accountability is vital to ensuring the success of all the other reforms we propose. Colleges and universities must become more transparent about cost, price, and student success outcomes, and must willingly share this information with students and families. Student achievement, which is inextricably connected to institutional success, must be measured by institutions on a "value-added" basis that takes into account students' academic baseline when assessing their results. This information should be made available to students, and reported publicly in aggregate form to provide consumers and policymakers an accessible, understandable way to measure the relative effectiveness of different colleges and universities.

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INNOVATION

Finally, we found that numerous barriers to investment in innovation risk hampering the ability of postsecondary institutions to address national workforce needs and compete in the global marketplace. Too many of our colleges and universities have not embraced opportunities to be entrepreneurial, from testing new methods of teaching

and content delivery to meeting the increased demand for lifelong learning. For their part, state and federal policymakers have also failed to make supporting innovation a priority. Accreditation, along with federal and state regulation, can impede creative new approaches as well.

We recommend that America's colleges and universities embrace a culture of continuous innovation and quality improvement. We urge these institutions to develop new pedagogies, curricula and technologies to improve learning, particularly in the areas of science and mathematics. At the same time, we recommend the development of a national strategy for lifelong learning designed to keep our citizens and our nation at the forefront of the knowledge revolution.

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FINDINGS

The U.S. secretary of education asked this commission to examine four central issues in American higher education: access, affordability, quality, and accountability. Despite the many successes of our system, we have found that significant shortcomings remain. Our recommendations for improving U.S. higher education, and thus fulfilling the untapped promise of our colleges and universities, stem from the following findings:

FINDINGS REGARDING THE VALUE OF HIGHER EDUCATION

In today's knowledge-driven society, higher education has never been more important.

America's national capacity for excellence, innovation and leadership in higher education will be central to our ability to sustain economic growth and social cohesiveness. Our colleges and universities will be a key source of the human and intellectual capital needed to increase workforce productivity and growth. They must also continue to be the major route for new generations of Americans to achieve social mobility.

- The transformation of the world economy increasingly demands a more highly educated workforce with postsecondary skills and credentials. Ninety percent of the fastest-growing jobs in the new information and service economy will require some postsecondary education.[1] Job categories that require only on-the-job training are expected to see the greatest decline.[2] In high-demand fields, the value of postsecondary credentials and skills is likely to rise. The Department of Labor projects, for instance, that by 2014 there will be close to four million new job openings combined in health care, education, and computer and mathematical sciences.[3]
- The benefits of higher education are significant both for individuals and for the nation as a whole. In 2003, for example, the median annual salary of an American worker with only a high school diploma was $30,800, compared with the $37,600 median for those with an associate's degree and the $49,900 median for those with a bachelor's degree.[4] Over a lifetime, an individual with a bachelor's degree will earn an average of $2.1 million—nearly twice as much as a worker with only a high school diploma.[5] Higher education also produces broader social gains. Colleges and universities are major economic engines, while also serving as civic and cultural centers.

FINDINGS REGARDING ACCESS

Too few Americans prepare for, participate in, and complete higher education—especially those underserved and nontraditional groups who make up an ever-greater proportion of the population. The nation will rely on these groups as a major source of new workers as demographic shifts in the U.S. population continue.

This commission believes the nation must be committed to building and sustaining a higher education system that is accessible to all qualified students in all life stages. While the proportion of high school graduates who immediately enter college has risen in recent decades, unfortunately, it has largely stalled at around 60 percent since the late 1990s.[6] The national rate of college completion has also remained largely stagnant.[7] Most important, and most worrisome, too many Americans who could benefit from postsecondary education do not continue their studies at all, whether as conventional undergraduates or as adult learners furthering their workplace skills.[8]

We found that access to higher education in the United States is *unduly limited by the complex interplay of inadequate preparation, lack of information about college opportunities, and persistent financial barriers.* Inadequate high school preparation is compounded by poor alignment between high schools and colleges, which often creates an "expectations gap" between what colleges require and what high schools produce. The result is a high level of remediation by colleges (and by employers), a practice that is both costly and inefficient. *We are especially troubled by gaps in college access for low-income Americans and ethnic and racial minorities. Notwithstanding our nation's egalitarian principles, there is ample evidence that qualified young people from low-income families are far less likely to go to college than their similarly qualified peers from high-income families.*

- Several national studies confirm the insufficient preparation of high school graduates for *either* college-level work or the changing needs of the workforce.[9] Dismal high school achievement rates nationwide have barely budged in the last decade. Close to 25 percent of all students in public high schools do not graduate[10]—a proportion that rises among low-income, rural, and minority students.
- The educational achievement levels of our young people who do complete high school are simply not high enough to allow them to succeed in college. According to the National Assessment of Educational Progress (NAEP), only 17 percent of seniors are considered proficient in mathematics,[11] and just 36 percent are proficient in reading.[12]
- Ample evidence demonstrates that a key component of our national achievement problem is insufficient alignment between K-12 and higher education. Studies show the overwhelming majority of both college and

high school faculty and administrators are unaware of the standards and assessments being used by their counterparts in the other sector. For example, only eight states require high school graduates to take at least Algebra II—a threshold course for college-level success in math-based disciplines including engineering and science.[13] Fewer than 22 percent of the 1.2 million students who took the ACT college-entrance examinations in 2004 were ready for college-level work in the core subjects of mathematics, English and science.[14] Forty-four percent of faculty members say students aren't well prepared for college-level writing, in contrast to the 90 percent of high school teachers who think they are prepared.[15]

- Not surprisingly, the consequences of substandard preparation and poor alignment between high schools and colleges persist in college. Remediation has become far too common an experience for American postsecondary students. Some 40 percent of all college students end up taking at least one remedial course[16]—at an estimated cost to the taxpayers of $1 billion.[17,18] Additionally, industry spends significant financial resources on remediation and retraining.

- Access and achievement gaps disproportionately affect low-income and minority students. Historically these are the very students who have faced the greatest academic and financial challenges in getting access to or completing college. Many will be the first in their families to attend college. Regardless of age, most will work close to full-time while they are in college and attend school close to home. Despite years of funding student aid programs, family income and the quality of high school education remain major factors in college-level access and success.[19, 20] By age 25–29, about 34 of every 100 whites obtain bachelor's degrees, compared to 17 of every 100 blacks and just 11 of every 100 Latinos.[21] Just as dismaying, low-income high school graduates in the top quartile on standardized tests attend college at the same rate as high-income high school graduates in the bottom quartile on the same tests.[22] Only 36 percent of college-qualified low-income students complete bachelor's degrees within eight and a half years, compared with 81 percent of high-income students.[23]

- Access problems also affect adult students. More and more adults are looking for ways to upgrade and expand their skills in an effort to improve or protect their economic position. Nearly 40 percent of today's postsecondary students are self-supporting adults age 24 and up[24]; almost half attend school part-time; more than one-third work full-time; 27 percent have children themselves.[25] In 2005, more than 12 million adults age 25 and older participated in credential or degree-granting programs in colleges and universities.[26] But we are not expanding capacity across higher education to meet this demand. America's community colleges, whose enrollments have been growing significantly, have provided a place to begin for many of these students. In some states, however, community colleges are reaching their capacity limits, a cause for deep concern.

FINDINGS REGARDING COST AND AFFORDABILITY

Our higher education financing system is increasingly dysfunctional. State subsidies are declining; tuition is rising; and cost per student is increasing faster than inflation or family income. Affordability is directly affected by a financing system that provides limited incentives for colleges and universities to take aggressive steps to improve institutional efficiency and productivity. Public concern about rising costs may ultimately contribute to the erosion of public confidence in higher education.

There is no issue that worries the American public more about higher education than the soaring cost of attending college (Table 1). That may explain why most public discussions of college affordability are framed solely in terms of the financial strain faced by students and families. Yet because students and families only pay a portion of the actual cost of higher education, affordability is also an important public policy concern for those who are asked to fund colleges and universities, notably federal and state taxpayers but also private donors. Tuition increases for students have gone hand in hand with a rapid rise in the cost of operating institutions. While the pattern of cost increases varies (it has been much less pronounced, for example, at community colleges), it is in general unacceptably large and contributes to problems of access discussed elsewhere in this report.

- From 1995 to 2005, average tuition and fees at private four-year colleges and universities rose 36 percent after adjusting for inflation. Over the same period, average tuition and fees rose 51 percent at public four-year institutions and 30 percent at community colleges.[27]
- One of the reasons tuition and fees have increased is that state funding fell to the lowest level in over two decades.[28] State funding for higher education has always followed a zigzag course—going up in times of growth and down during recessions. The prospects for a return to a time of generous state subsidies are not good. States are expected to experience long-term structural deficits in funds for postsecondary education, caused by the squeeze of revenues and pressures on spending from rising health care costs.[29] *The bottom line is that state funding for higher education will not grow enough to support enrollment demand without higher education addressing issues of efficiency, productivity, transparency, and accountability clearly and successfully. However, based on our commission's review of the education needs of our nation, we encourage states to continue their historic and necessary commitment to the support of public higher education.*
- Funding cuts are not the only reason costs are rising. Institutions are spending more money, particularly the wealthiest universities with the greatest access to capital. Next to institutional financial aid, the greatest growth has been in administrative costs for improvements in student services (including state-of-the-art fitness centers and dormitories).[30]

- College and university finances are complex, and are made more so by accounting habits that confuse costs with revenues and obscure production costs. The lack of transparency in financing is not just a problem of public communication or metrics. It reflects a deeper problem: inadequate attention to cost measurement and cost management within institutions.
- A significant obstacle to better cost controls is the fact that a large share of the cost of higher education is subsidized by public funds (local, state and federal) and by private contributions. These third-party payments tend to insulate what economists would call producers—colleges and universities—from the consequences of their own spending decisions, while consumers—students—also lack incentives to make decisions based on their own limited resources. Just as the U.S. health-care finance system fuels rising costs by shielding consumers from the consequences of their own spending choices, the high level of subsidies to higher education also provides perverse spending incentives at times.
- In addition, colleges and universities have few incentives to contain costs because prestige is often measured by resources, and managers who hold down spending risk losing their academic reputations. With pressures on state funding for higher education continuing, institutional attention to cost—and price—control will inevitably become an urgent priority both for internal institutional accountability and public credibility.
- Another little-recognized source of cost increases is excessive state and federal regulation. Specifically, institutions of higher education must comply with more than 200 federal laws—everything from export administration regulations to the *Financial Services Modernization Act*. At their best, these regulations are a mechanism to support important human values on campuses. At worst, regulations can absorb huge amounts of time and waste scarce campus financial resources with little tangible benefit to anyone.[31]

Table 1. Percentage of family income needed to cover net college costs after grant aid by type of institution from 1992–93 to 2003–04

Distribution of Family Income				
Type of Institution	**Lowest Quartile 2003 (1992)**	**2nd Quartile 2003 (1992)**	**3rd Quartile 2003 (1992)**	**Highest Quartile 2003 (1992)**
Public Two-Year	37% (29%)	19% (15%)	13% (13%)	7% (6%)
Public Four-Year	47% (41%)	26% (22%)	18% (16%)	11% (10%)
Private Four-Year	83% (60%)	41% (33%)	29% (25%)	19% (17%)

Lowest quartile: $0-$34,000; 2nd quartile: $34,000-$62,000; 3rd quartile: $62,000-$94,000; Highest quartile: $94,000+. (Source: College Board, 2005)

FINDINGS REGARDING FINANCIAL AID

The entire financial aid system—including federal, state, institutional, and private programs—is confusing, complex, inefficient, duplicative, and frequently does not direct aid to students who truly need it. Need-based financial aid is not keeping pace with rising tuition.

- There are at least 20 separate federal programs providing direct financial aid or tax benefits to individuals seeking postsecondary education.[32] The system is overly complicated and its multitude of programs sometimes redundant and incomprehensible to all but a few experts. This complexity has the unfortunate effect of discouraging some low-income students from even applying to college.
- For the typical household, the *Free Application for Federal Student Aid*, or *FAFSA*, is longer and more complicated than the federal tax return.[33] Moreover, the simplest IRS tax form, the 1040EZ, already collects most of the key pieces of data that could determine federal aid eligibility.
- The current system does not provide definitive information about freshman year aid until the spring of the senior year in high school, which makes it difficult for families to plan and discourages college attendance.
- Unmet financial need among the lowest-income families (those with family incomes below $34,000 annually) grew by 80 percent from 1990 to 2004 at four-year institutions, compared with 7 percent for the highest-income families.[34] The Advisory Committee on Student Financial Assistance estimates that in the first decade of the new century, financial barriers will keep nearly two million low- and middle-income college qualified high school graduates from attending college.[35] Over half of today's undergraduates take out loans to finance part of their college work. According to the most recent College Board figures, nearly three-quarters of undergraduate students in private, nonprofit institutions graduate with some debt, compared with 62 percent in public institutions. Median debt levels among students who graduated from four-year institutions were $15,500 for publics and $19,400 for private, nonprofits.[36]
- Large majorities of adults—59 percent overall and 63 percent among parents of college students—say students today graduate with too much debt. While 80 percent of adults say a college education is more important today than it was a decade ago, two-thirds say that affording college is harder now—and 70 percent say they expect it to be even more difficult in the future.[37]

FINDINGS REGARDING LEARNING

At a time when we need to be increasing the quality of learning outcomes and the economic value of a college education, there are disturbing signs that suggest we are moving in the opposite direction. As a result, the continued ability of American postsecondary institutions to produce informed and skilled citizens who are able to lead and compete in the 21st-century global marketplace may soon be in question.

- While U.S. higher education has long been admired internationally, our continued preeminence is no longer something we can take for granted. The rest of the world is catching up, and by some measures has already overtaken us. We have slipped to 12th in higher education attainment and 16th in high school graduation rates.[38]
- While educators and policymakers have commendably focused on getting more students into college, too little attention has been paid to helping them graduate. The result is that unacceptable numbers of students fail to complete their studies at all, while even those that graduate don't always learn enough. Several national studies highlight shortcomings in the quality of U.S. higher education as measured by literacy, rising time to degree, and disturbing racial and ethnic gaps in student achievement:
    - The National Assessment of Adult Literacy indicates that, between 1992 and 2003, average prose literacy (the ability to understand narrative texts such as newspaper articles) decreased for all levels of educational attainment, and document literacy (the ability to understand practical information such as instructions for taking medicine) decreased among those with at least some college education or a bachelor's degree or higher (Figure 1).[39]
    - Only 66 percent of full-time four-year college students complete a baccalaureate degree within six years.[40] (This reflects the percentage of students who begin full-time in four-year institutions and graduate within six years.)
    - Significant attainment gaps between white and Asian students and black and Hispanic students remain during the college years.[41]
    - Employers complain that many college graduates are not prepared for the workplace and lack the new set of skills necessary for successful employment and continuous career development.[42]

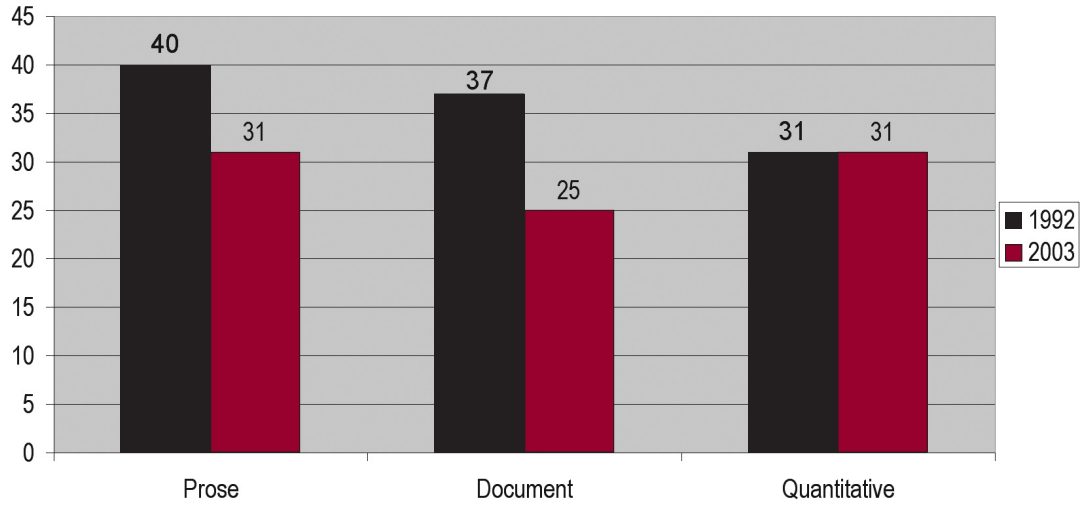
FINDINGS REGARDING TRANSPARENCY AND ACCOUNTABILITY

There is inadequate transparency and accountability for measuring institutional performance, which is more and more necessary to maintaining public trust in higher education.

Our complex, decentralized postsecondary education system has no comprehensive strategy, particularly for undergraduate programs, to provide either adequate internal accountability systems or effective public information. Too many decisions about higher education—from those made by policymakers to those made by students and families—rely heavily on reputation and rankings derived to a large extent from inputs such as financial resources rather than outcomes. Better data about real performance and lifelong working and learning ability is absolutely essential if we are to meet national needs and improve institutional performance.

- Traditionally, institutional quality is measured primarily through financial inputs and resources. In today's environment, these measures of inputs are no longer adequate, either within individual institutions or across all of higher education.
- Despite increased attention to student learning results by colleges and universities and accreditation agencies, parents and students have no solid evidence, comparable across institutions, of how much students learn in colleges or whether they learn more at one college than another. Similarly, policymakers need more comprehensive data to help them decide whether the national investment in higher education is paying off and how taxpayer dollars could be used more effectively.

Figure 1. Percentage of college graduates proficient in prose, document, and quantitative literacy: 1992 and 2003



Source: U.S. Department of Education, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

- Colleges and universities can also use more comparable data about the benchmarks of institutional success—student access, retention, learning and success, educational costs (including the growth in administrative expenses such as executive compensation), and productivity—to stimulate innovation and continuous improvement.
- Extensive government data on higher education do exist, but they leave out large numbers of nontraditional students who are increasingly attending our colleges and universities[43] and rarely focus on outcomes.[44] Data collected by the National Center for Education Statistics through the Graduation Rate Survey under the Integrated Postsecondary Education Systems (IPEDS) are limited to full-time, first-time degree- or certificate-seeking students. Unfortunately, for a significant portion of students—those who enroll on a part-time basis and those who transfer to other institutions—no data exist on time to degree for individual students or completion for students who, in an increasingly common pattern, begin their studies, drop out, and then restart.[45]
- Accreditation, the large and complex public-private system of federal, state and private regulators, has significant shortcomings. Accreditation agencies play a gatekeeper role in determining the eligibility of institutions and programs to receive federal and state grants and loans. However, despite increased attention by accreditors to learning assessments, they continue to play largely an internal role. Accreditation reviews are typically kept private, and those that are made public still focus on process reviews more than bottom-line results for learning or costs. The growing public demand for increased accountability, quality and transparency coupled with the changing structure and globalization of higher education requires a transformation of accreditation.[46]

FINDINGS REGARDING INNOVATION

American higher education has taken little advantage of important innovations that would increase institutional capacity, effectiveness and productivity. Government and institutional policies created during a different era are impeding the expansion of models designed to meet the nation's workforce needs. In addition, policymakers and educators need to do more to build America's capacity to compete and innovate by investing in critical skill sets and basic research.

- Institutions as well as government agencies have failed to sustain and nurture innovation in our colleges and universities. The commission finds that the results of scholarly research on teaching and learning are rarely translated into practice, especially for those working at the grassroots level in fields such as teacher preparation and math and science education. We also find that little of the significant research of the past decade in areas such as cognitive science, neurosciences, and organizational theory is making it into American classroom practice, whether at the K–12 level or in colleges and universities.

- The commission finds that with the exception of several promising practices, many of our postsecondary institutions have not embraced opportunities for innovation, from new methods of teaching and content delivery to technological advances to meeting the increasing demand for lifelong learning. We also find that for their part, both state and federal policymakers have failed to make supporting innovation a priority by adequately providing incentives for individuals, employers, and institutions to pursue more opportunities for innovative, effective, and efficient practice.
- Traditional academic calendars and schedules often result in inefficient use of an institution's physical plant and learning programs that are less than optimal.[47]
- Barriers to the recognition of transfer credits between different types of institutions pose challenges to students and prevent institutions from increasing capacity. Students too often receive conflicting information about credit-transfer policies between institutions, leading to an unknown amount of lost time and money (and additional federal financial aid) in needlessly repeated course work. Underlying the information confusion are institutional policies and practice on student transfers that are too often inconsistently applied, even within the same institution.[48]
- Accreditation and federal and state regulations, while designed to assure quality in higher education, can sometimes impede innovation and limit the outside capital investment that is vital for expansion and capacity building.[49]
- Fewer American students are earning degrees in the STEM fields (science, technology, engineering, mathematics), medicine, and other disciplines critical to global competitiveness, national security, and economic prosperity. Even as the Bureau of Labor Statistics projects that 16 of the 30 fastest-growing jobs in the next decade will be in the health professions, current and projected shortages of physicians, registered nurses and other medical specialists may affect the quality of care for the increasingly aging population of baby boomers.[50]
- It is fundamental to U.S. economic interests to provide world-class education while simultaneously providing an efficient immigration system that welcomes highly educated individuals to our nation. Foreign-born students represent about half of all graduate students in computer sciences, and over half of the doctorate degrees awarded in engineering.[51] Almost 30 percent of the actively employed science and engineering doctorate holders in the U.S. are foreign born.[52] However, current limits on employer-sponsored visas preclude many U.S. businesses from hiring many of these graduates, which may discourage some talented students from attending our universities.
- At a time when innovation occurs increasingly at the intersection of multiple disciplines (including business and social sciences), curricula and research funding remain largely contained in individual departments.

RECOMMENDATIONS

Our colleges and universities are treasured national assets, but the shortcomings we have outlined persuade us that it is time for Americans to concentrate on what higher education can become. The challenge before us is nothing less than securing the promise of the future and unleashing the potential of the American people.

To that end, we offer recommendations that aim to improve access to higher education and make it more affordable. We seek to strengthen quality and encourage innovation. And we want to bring much-needed transparency and accountability to our colleges and universities. Secretary Spellings charged us to be bold. The commission believes that America must embrace a new agenda and engage in a new dialogue that places the needs of students and the nation at its center.

1. Every student in the nation should have the opportunity to pursue postsecondary education. We recommend, therefore, that the U.S. commit to an unprecedented effort to expand higher education access and success by improving student preparation and persistence, addressing nonacademic barriers and providing significant increases in aid to low-income students.

- A high school diploma should signify that a student is ready for college or work. States must adopt high school curricula that prepare all students for participation in postsecondary education and should facilitate seamless integration between high school and college. The commission believes higher education must assume responsibility for working with the K–12 system to ensure that teachers are adequately trained, curricula are aligned and entrance standards are clear. The effort underway in a number of states to align K–12 graduation standards with college and employer expectations should be implemented in all 50 states. States should provide incentives for higher education institutions to make long-term commitments to working actively and collaboratively with K–12 schools and systems to help underserved students improve college preparation and persistence.
- The commission strongly encourages early assessment initiatives that determine whether students are on track for college. A prominent chancellor has described the 12th grade as a “vast wasteland” rather than a time to ensure that students are prepared for college or are enrolled in college-level courses. We endorse the expansion of early college or dual enrollment programs, as well as Advanced Placement and International Baccalaureate courses.

The California State University System: Increasing Access and Improving Preparation

One of the best national models of how higher-education and K–12 officials can collaborate to help students is the Early Assessment Program (EAP) developed by Chancellor Charles Reed and administrators at the California State University (CSU) system in partnership with the California Department of Education and the State Board of Education. This statewide assessment is designed to test students' proficiency in mathematics and English and to reduce the likelihood that students will have to take remedial classes once they enter college. The award-winning program embeds a voluntary college-placement exam in the state testing program required of all 11th-grade students, using the CSU's admissions placement standards in math and English. The "early" component of the program—testing in the 11th grade, rather than the 12th—provides students an opportunity to make gains in areas of weakness during their senior year.

Additionally, CSU is raising awareness of college opportunities by reaching future students where they are—in their homes, their churches, and their communities. Partnering with community leaders and the state's K–12 system, administrators are targeting low-income and minority students and putting higher education within their reach. For the 54 percent of CSU's 405,000 students who are racial or ethnic minorities, initiatives such as visits by campus presidents to the largest African-American church in Los Angeles and partnerships with Latina mothers of elementary school children show the university system's commitment to bringing underrepresented populations into higher education. An informative "How to Get to College" poster available in English, Spanish, Vietnamese, Korean, and Chinese outlines step-by-step advice on how students and parents can begin getting ready for college as early as the sixth grade. These posters have been distributed to the state's middle and high schools and contain helpful information on the admission process, applying for financial aid, and appropriate courses to take in high school to best prepare students for collegiate-level learning. Finally, the system has a dedicated Web site (http://www.csumentor.edu) to help students and families navigate the college admissions and financial aid application processes.

Source: Commission Staff

- The commission recommends support for initiatives that help states hold high schools accountable for teaching all students and that provide federal support for effective and timely intervention for those students who are not learning at grade level. Such initiatives would include requirements for state assessments in high school to ensure that diplomas mean students are prepared to enter college or the workforce with the skills to succeed. In addition, the current 12th-grade NAEP test should be redesigned to allow the NAEP proficiency standard to be used to measure college and workforce readiness and provide disaggregated data in state-by-state reports. (Historically, the 12th-grade NAEP has been limited to a national survey with a sample size that precludes state-by-state reporting of assessment results. This is of little value for either improvement or accountability.)
- Students must have clearer pathways among educational levels and institutions and we urge colleges to remove barriers to student mobility and promote new learning paradigms (e.g., distance education, adult education, workplace programs) to accommodate a far more diverse student cohort. States and institutions should review and revise standards for transfer of credit among higher education institutions, subject to rigorous standards designed to ensure educational quality, to improve access and reduce time-to-completion.
- Even though surveys show that most students and parents believe college is essential, numerous nonacademic barriers undermine these aspirations. Many student and parents don't understand the steps needed to prepare for college and the system fails to address this information gap. The commission calls on businesses to partner with schools and colleges to provide resources for early and ongoing college awareness activities, academic support, and college

planning and financial aid application assistance. Such efforts should include developing students' and parents' knowledge of the economic and social benefits of college through better information, use of role models and extensive career exploration.

2. To address the escalating cost of a college education and the fiscal realities affecting government's ability to finance higher education in the long run, we recommend that the entire student financial aid system be restructured and new incentives put in place to improve the measurement and management of costs and institutional productivity.

Public providers of student financial aid should commit to meeting the needs of students from low-income families.

- The federal government, states, and institutions should significantly increase need-based student aid. To accomplish this, the present student financial aid system should be replaced with a strategically oriented, results-driven system built on the principles of (i) increased access, or enrollment in, college by those students who would not otherwise be likely to attend, including nontraditional students; (ii) increased retention, or graduation by, students who might not have been able to complete college due to the cost, (iii) decreased debt burden, and (iv) eliminating structural incentives for tuition inflation.
- Any new federal financial aid system should aim to replace the current federal aid form (the *Free Application for Federal Student Aid*, or *FAFSA*) with a much shorter and simpler application form. The application process should be substantially streamlined by analyzing student need through a simple criterion such as family income. Students should have information about financial aid eligibility (such as need or ability to pay) sooner and with early estimates of likely aid available as soon as the eighth grade.
- The financial-aid needs of transfer students, including those who transfer from two-year to four-year institutions, and part-time students should be attended to as part of the restructuring we recommend.
- Federal grant programs should be consolidated to increase the purchasing power of the Pell Grant. Whatever restructuring of federal financial aid takes place, the Pell Grant will remain the core need-based program. A specific benchmark should be established to increase the purchasing power of the average Pell Grant to a level of 70 percent (from 48 percent in 2004–05) of the average in-state tuition at public, four-year institutions over a period of five years. However, even with significant additional federal investment, there is little chance of restoring the Pell's purchasing power if tuition increases absorb most or all of the new money. This effort requires not only federal investment but also strategies by which colleges and universities contain increases in tuition and fees.

- Additionally, administrative and regulatory costs of federal aid programs should be streamlined through a comprehensive review of financial aid regulations.

Policymakers and higher education leaders should develop, at the institutional level, new and innovative means to control costs, improve productivity, and increase the supply of higher education.

- Higher education governing and coordinating boards, entrusted with the responsibility to ensure both internal and external accountability, should work with colleges to improve information about costs as well as prices for consumers, policymakers and institutional leaders.
- Higher education institutions should improve institutional cost management through the development of new performance benchmarks designed to measure and improve productivity and efficiency. Also, better measures of costs, beyond those designed for accounting purposes, should be provided to enable consumers and policymakers to see institutional results in the areas of academic quality, productivity and efficiency. An important benchmark, for example, would be that the growth in college tuition not exceed the growth in median family income over a five-year period. At the same time, the commission opposes the imposition of price controls.
- Colleges should help lower per-student educational costs by reducing barriers for transfer students. This step would be likely to lower costs to the overall postsecondary system by eliminating a great deal of redundancy within the system.
- The commission urges states to provide financial incentives to institutions that show they are fostering access, increasing productivity and cutting costs while maintaining or enhancing educational quality. States can drive improvements in educational learning productivity by encouraging both traditional and electronic delivery of college courses in high school.
- Federal and state policymakers should support the dissemination of technological advances in teaching that lower costs on a quality-adjusted basis.[53] Institutions that reduce instructional costs generally on a quality-adjusted basis should be financially rewarded. States should provide similar incentive payments to institutions that significantly reduce academic attrition and increase graduation rates within the traditional period for the degree (e.g., four years for a bachelor's degree).
- Federal and state policymakers and accrediting organizations should work to eliminate regulatory and accreditation barriers to new models in higher education that will increase supply and drive costs down. To address these barriers, federal and state policymakers should:
    - Eliminate federal financial aid regulations that differentiate between traditional semesters and nonstandard terms or, at a minimum, rewrite those regulations to provide the same benefits to nontraditional programs as to traditional semester programs.

- Require accreditation agencies to act in a more timely manner to accredit new institutions and new programs at existing institutions, while focusing on results and quality rather than dictating, for example, process, inputs, and governance, which perpetuates current models and impedes innovation.

- Federal and state policymakers should relieve the regulatory burden on colleges and universities by undertaking a review of the hundreds of regulations with which institutions must comply and recommend how they might be streamlined or eliminated. Additionally, nearly every federal agency is involved in regulating some aspect of higher education and each ought to create a compliance calendar to assist colleges and universities with identifying the myriad regulations and meeting their requirements.
- Finally, the federal government should work closely and cooperatively with institutions and higher education associations to develop compliance materials when new regulations are issued and to develop a system for notifying institutions when they are covered by a new law or regulation.

3. To meet the challenges of the 21st century, higher education must change from a system primarily based on reputation to one based on performance. We urge the creation of a robust culture of accountability and transparency throughout higher education. Every one of our goals, from improving access and affordability to enhancing quality and innovation, will be more easily achieved if higher education institutions embrace and implement serious accountability measures.

We recommend the creation of a consumer-friendly information database on higher education with useful, reliable information on institutions, coupled with a search engine to enable students, parents, policymakers and others to weigh and rank comparative institutional performance.

- The Department of Education should collect data and provide information in a common format so that interested parties can create a searchable, consumer-friendly database that provides access

Quality and Innovation Through Course Redesign

From 1999 to 2004, Carol Twigg and the National Center for Academic Transformation at the Rensselaer Polytechnic Institute worked with 30 colleges and universities to enhance quality of instruction, improve student learning, and reduce costs through the use of technology and innovative pedagogy. The participating institutions, which included Carnegie Mellon University, Northern Arizona University, and Tallahassee Community College, redesigned instructional approaches to improve some of their large, introductory courses. Instead of offering traditional lecture formats, instructors used active learning strategies to engage students in course material. These redesigned courses provided online access to Web-based tutorials, on-demand feedback, and support from student peer mentors. The use of technology reduced course preparation time for instructors and lowered instructional costs per student.

The results speak for themselves: more learning at a lower cost to the university. Institutions reported an average of 37 percent reduced cost and an increase in student engagement and learning. For example, scores in a redesigned biology course at the University of Massachusetts increased by 20 percent, while the cost to the university per student dropped by nearly 40 percent. For more information, visit http://www.collegecosts.info/pdfs/solution_papers/Collegecosts_Oct2005.pdf.

Source: Commission Staff

to institutional performance and aggregate student outcomes in a secure and flexible format. The strategy for the collection and use of data should be designed to recognize the complexity of higher education, have the capacity to accommodate diverse consumer preferences through standard and customizable searches, and make it easy to obtain comparative information including cost, price, admissions data, college completion rates and, eventually, learning outcomes.

- Third-party organizations should be encouraged and enabled to publish independent, objective information using data from such a database. In addition, comparative studies such as, for example, the National Center for Public Policy and Higher Education's biennial *Measuring Up* report, which gauges how successful state systems are at preparation, participation, affordability, completion and learning, should be published and disseminated by the Department as part of this information system.

In addition to this new consumer-oriented database, more and better information on the quality and cost of higher education is needed by policymakers, researchers and the general public.

- The secretary of education should require the National Center for Education Statistics to prepare timely annual public reports on college revenues and expenditures, including analysis of the major changes from year to year, at the sector and state level. Unlike the data currently available, institutional comparisons should be consumer-friendly and not require a sophisticated understanding of higher education finance.
- The commission supports the development of a *privacy-protected* higher education information system that collects, analyzes and uses student-level data as a vital tool for accountability, policy-making, and consumer choice. A privacy-protected system would not include individually identifiable information such as student names or Social Security numbers at the federal level. Such a system would allow policymakers and consumers to evaluate the performance of institutions by determining the success of each institution's students without knowing the identities of those students. It is essential for policymakers and consumers to have access to a comprehensive higher education information system in order to make informed choices about how well colleges and universities are serving their students, through accurate measures of individual institutions' retention and graduation rates, net tuition price for different categories of students, and other important information. Right now, policymakers, scholarly researchers, and members of the public lack basic information on institutional performance and labor market outcomes for postsecondary institutions. This is particularly true for measuring outcomes from the work of those institutions that serve the growing proportion of nontraditional students who do not begin and finish their higher education at the same institution within a set period of time.

Examples of Student Learning Assessments

The Collegiate Learning Assessment

Among the most comprehensive national efforts to measure how much students actually learn at different campuses, the Collegiate Learning Assessment (CLA) promotes a culture of evidence-based assessment in higher education. Since 2002, 134 colleges and universities have used the exam, which evaluates students' critical thinking, analytic reasoning, and written communication using performance tasks and writing prompts rather than multiple choice questions. Administered to freshmen and seniors, the CLA allows for comparability to national norms and measurement of value added between the freshman and senior years. Additionally, because the CLA's unit of analysis is the institution and not the student, results are aggregated and allow for inter-institutional comparisons that show how each institution contributes to learning. For more information, visit www.cae.org/cla.

The National Survey of Student Engagement and the Community College Survey of Student Engagement

Administered by the Indiana University Center for Postsecondary Research, the National Survey of Student Engagement (NSSE) and its community college counterpart, the Community College Survey of Student Engagement (CCSSE), survey hundreds of institutions annually about student participation and engagement in programs designed to improve their learning and development. The measures of student engagement - the time and effort students put into educational activities in and out of the classroom, from meeting with professors to reading books that weren't assigned in class - serve as a proxy for the value and quality of their undergraduate experience. NSSE and CCSSE provide colleges and universities with readily usable data to improve that experience and create benchmarks against which similar institutions can compare themselves. With surveys from several million students already compiled, these instruments provide a comprehensive picture of the undergraduate student experience at four-year and two-year institutions. Results from NSSE and CCSSE, which are publicly reported, can provide institutions and external stakeholders data for improving institutional performance, setting accountability standards, and strategic planning. For more information, visit http://nsse.iub.edu.

The National Forum on College-Level Learning

The National Forum on College-Level Learning has been called "the first attempt to measure what the college educated know and can do across states." Piloted in 2002 across Illinois, Kentucky, Nevada, Oklahoma, and South Carolina, the study collected data on student learning using multiple assessment instruments already in use or widely available such as the National Adult Literacy Survey, the Collegiate Learning Assessment (for four-year colleges) or WorkKeys (for two-year colleges), and graduate admissions exams. Results from these assessments provide states comparable information on how their colleges and universities contribute to student learning and identify challenges such as performance gaps and inconsistent teacher preparation. Comparable assessment also allows states to identify best practices, providing information useful in creating policy and programs that will improve the states' intellectual capital. For more information, visit http://www.collegelevellearning.org.

Source: Commission Staff

- The philanthropic community and other third-party organizations are urged to invest in the research and development of instruments measuring the intersection of institutional resources, student characteristics, and educational value-added. Tools should be developed that aggregate data at the state level and that also can be used for institutional benchmarking.

Postsecondary education institutions should measure and report meaningful student learning outcomes.

- Higher education institutions should measure student learning using quality-assessment data from instruments such as, for example, the Collegiate Learning Assessment, which measures the growth of student learning taking place in colleges, and the Measure of Academic Proficiency and Progress, which is designed to assess general education outcomes for undergraduates in order to improve the quality of instruction and learning.
- The federal government should provide incentives for states, higher education associations, university systems, and institutions to develop interoperable outcomes-focused accountability systems designed to be accessible and useful for students, policymakers, and the public, as well as for internal management and institutional improvement.
- Faculty must be at the forefront of defining educational objectives for students and developing meaningful, evidence-based measures of their progress toward those goals.
- The results of student learning assessments, including value-added measurements that indicate how students' skills have improved over time, should be made available to students and reported in the aggregate publicly. Higher education institutions should make aggregate summary results of all postsecondary learning measures, e.g., test scores, certification and licensure attainment, time to degree, graduation rates, and other relevant measures, publicly available in a consumer-friendly form as a condition of accreditation.
- The collection of data from public institutions allowing meaningful interstate comparison of student learning should be encouraged and implemented in all states. By using assessments of adult literacy, licensure, graduate and professional school exams, and specially administered tests of general intellectual skills, state policymakers can make valid interstate comparisons of student learning and identify shortcomings as well as best practices. The federal government should provide financial support for this initiative.
- The National Assessment of Adult Literacy (NAAL), should be administered by U.S. Department of Education at five- instead of ten-year intervals. The survey sample should be of sufficient size to yield state-by-state as well as national results. The NAAL should also survey a sample of graduating students at two and four-year colleges and universities and provide state reports.

- Accreditation agencies should make performance outcomes, including completion rates and student learning, the core of their assessment as a priority over inputs or processes. A framework that aligns and expands existing accreditation standards should be established to (i) allow comparisons among institutions regarding learning outcomes and other performance measures, (ii) encourage innovation and continuous improvement, and (iii) require institutions and programs to move toward world-class quality relative to specific missions and report measurable progress in relationship to their national and international peers. In addition, this framework should require that the accreditation process be more open and accessible by making the findings of final reviews easily accessible to the public and increasing public and private sector representation in the governance of accrediting organizations and on review teams. Accreditation, once primarily a private relationship between an agency and an institution, now has such important public policy implications that accreditors must continue and speed up their efforts toward transparency as this affects public ends.

4. With too few exceptions, higher education has yet to address the fundamental issues of how academic programs and institutions must be transformed to serve the changing needs of a knowledge economy. We recommend that America's colleges and universities embrace a culture of continuous innovation and quality improvement by developing new pedagogies, curricula, and technologies to improve learning, particularly in the area of science and mathematical literacy.

- The Fund for the Improvement of Postsecondary Education (FIPSE) should be revitalized and its funding increased. Its original mission of promoting improvement and innovation in higher education needs to be reenergized to sustain and enhance innovation in postsecondary education. The commission recommends that FIPSE prioritize, disseminate, and promote best practices in innovative teaching and learning models as well as the application of high-quality learning-related research in such rapidly growing areas as neuroscience, cognitive science and organizational sciences.
- An additional purpose of revitalizing FIPSE would be to encourage broad federal support of innovation in higher education from multiple agencies (Departments of Agriculture, Education, Energy, Labor, Defense, and Commerce; the National Science Foundation; the National Institutes of Health; and the National Aeronautics and Space Administration) in order to align and coordinate federal investment of innovation in higher education.
- Institutions should harness the power of information technology by sharing educational resources among institutions, and use distance learning to meet the educational needs of rural students and adult learners, and to enhance workforce development. Effective use of information technology can improve student learning, reduce instructional costs, and meet critical workforce needs. We urge states and institutions to establish course redesign programs using technology-based, learner-centered principles drawing upon the innovative work already

Innovation in Curriculum Development and Program Delivery

Salt Lake City-based Neumont University is educating the most sought-after software developers in the world. Neumont's curriculum is project-based and focuses on the skills most valued by today's employers. The institution's unique instructional approach is built on a project-based, experiential foundation that incorporates the tools and technologies important to the industry. Students learn both the theory of computer science and then apply that theory in real-world projects, initially mentored by faculty, and ultimately mentored by other senior students in peer-to-peer relationships. Neumont offers an accelerated program; in about 28 months graduates can earn a Bachelor of Science in computer science degree; IBM, .NET and other leading industry certifications; and a digital portfolio of projects. For more information, visit www.neumont.edu.

Source: Commission Staff

being done by organizations such as the National Center for Academic Transformation. Additionally, we urge institutions to explore emerging interdisciplinary fields such as services sciences, management and engineering and to implement new models of curriculum development and delivery.

- The commission encourages the creation of incentives to promote the development of information technology-based collaborative tools and capabilities at universities and colleges across the United States, enabling access, interaction, and sharing of educational materials from a variety of institutions, disciplines, and educational perspectives. Both commercial development and new collaborative paradigms such as open source, open content, and open learning will be important in building the next generation learning environments for the knowledge economy.

5. America must ensure that our citizens have access to high quality and affordable educational, learning, and training opportunities throughout their lives. We recommend the development of a national strategy for lifelong learning that helps all citizens understand the importance of preparing for and participating in higher education throughout their lives.

- The commission encourages institutions to expand their reach to adults through technology such as distance learning, workplace learning, and alternative scheduling programs.
- The secretary of education, in partnership with states and other federal agencies, should develop a national strategy that would result in better and more flexible learning opportunities, especially for adult learners. The comprehensive plan should include better integration of policy, funding and accountability between postsecondary education, adult education, vocational education, and workforce development and training programs. Emphasis should be placed on innovation incentives, development of tailored, new delivery mechanisms, ability to transfer credits among institutions easily (subject to rigorous standards designed to ensure educational quality), and the ability to acquire credits linked to skill certifications that could lead to a degree. The plan should include specific recommendations for legislative and regulatory changes needed to create an efficient, transparent and cost-effective system needed to enhance student mobility and meet U.S. workforce needs.

6. The United States must ensure the capacity of its universities to achieve global leadership in key strategic areas such as science, engineering, medicine, and other knowledge-intensive professions. We recommend increased federal investment in areas critical to our nation's global competitiveness and a renewed commitment to attract the best and brightest minds from across the nation and around the world to lead the next wave of American innovation.

- The commission supports increasing federal and state investment in education and research in critical areas such as the STEM fields, teaching, nursing, biomedicine, and other professions along the lines recommended by President George W. Bush's American Competitiveness Initiative; *Rising Above the Gathering Storm*, published by the National Academies' Committee on Science, Engineering, and Public Policy; and the National Innovation Initiative by the Council on Competitiveness.
- The administration should encourage more research collaboration, multi-disciplinary research and curricula, including those related to the growing services economy, through existing programs at the Department of Education, the National Science Foundation, the Department of Defense, the Department of Agriculture, and the Department of Energy's Office of Science.
- The need to produce a globally literate citizenry is critical to the nation's continued success in the global economy. The federal government has recently embarked on an initiative to dramatically increase the number of Americans learning critically needed foreign languages from K–16 and into the workforce. Higher education, too, must put greater emphasis on international education, including foreign language instruction and study abroad, in order to ensure that graduates have the skills necessary to function effectively in the global workforce.
- In addition to these competitiveness trends, the racial and ethnic diversity of our citizens is also changing. The U.S. must respond with public policies that encourage and channel capable students from diverse populations into the health care pipeline to become doctors, nurses, dentists, public health officers and related health professionals and similarly into the pipelines of other STEM professions. Two-year and four-year colleges should expand partnerships that encourage the progression of low-income and minority students through STEM fields, teaching, nursing, biomedicine, and other knowledge-intensive fields.
- In an effort to retain the best and brightest students and professionals from around the world, the federal government must address immigration policies specifically aimed at international students. The commission recommends that these international students who graduate with an advanced STEM degree from a U.S. college or university should have an expedited path to an employer-sponsored green card and also be exempted from the numerical cap for green cards. The commission also recommends eliminating the requirement that in order to receive a student visa, all students must prove that they have no intent to remain in the United States after graduating. After all, talented graduates with sought-after advanced training represent precisely the kind of intellectual capital our nation needs.

CONCLUSION

In short, the commission believes it is imperative that the nation give urgent attention to improving its system of higher education.

The future of our country's colleges and universities is threatened by global competitive pressures, powerful technological developments, restraints on public finance, and serious structural limitations that cry out for reform.

Our report has recommended strategic actions designed to make higher education more accessible, more affordable, and more accountable, while maintaining world-class quality. Our colleges and universities must become more transparent, faster to respond to rapidly changing circumstances and increasingly productive in order to deal effectively with the powerful forces of change they now face.

But reaching these goals will also require difficult decisions and major changes from many others beyond the higher education community.

The commission calls on policymakers to address the needs of higher education in order to maintain social mobility and a high standard of living. We call on the business community to become directly and fully engaged with government and higher education leaders in developing innovative structures for delivering 21st-century educational services—and in providing the necessary financial and human resources for that purpose.

Finally, we call on the American public to join in our commitment to improving the postsecondary institutions on which so much of our future—as individuals and as a nation—relies.

Working together, we can build on the past successes of U.S. higher education to create an improved and revitalized postsecondary system that is better tailored to the demands, as well as the opportunities, of a new century.

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A
Appendix

CHARTER

A National Dialogue: The Secretary of Education's Commission on the Future of Higher Education

AUTHORITY

A National Dialogue: The Secretary of Education's Commission on the Future of Higher Education (Commission) is established by the Secretary of Education and governed by the provisions of the Federal Advisory Committee Act (FACA) (P.L. 92-463, as amended; 5 U.S.C.A. Appendix 2).

BACKGROUND

Higher education in the United States encompasses a wide array of educational opportunities and programs. Students attend institutions of higher education offering programs that range from baccalaureate and advanced degrees to occupational training of less than one year. The Higher Education Act of 1965, as amended, has benefited millions of students by making higher education more affordable and ensuring its quality. As we look to the future, it is imperative that we maintain a system of higher education that meets the needs of our diverse population, and in particular the needs of traditionally underserved communities; provides enhanced opportunities for lifelong learning; and addresses the economic and workforce needs of the country.

In particular, the country is encountering a significant change to its economic structure, resulting in unmet workforce needs. This is particularly true with respect to highly skilled workers and in the fields of mathematics and science. The need is clear and unavoidable: only 68 out of 100 entering 9th graders graduate from high school on time. Yet, 80 percent of our fastest-growing jobs will require some higher education. As the need for highly skilled workers continues to grow, institutions of higher education must assess whether they are providing the necessary coursework and incentives that will enable American students to compete in the new global economy.

PURPOSE AND FUNCTIONS

The purpose of the Commission is to consider how best to improve our system of higher education to ensure that our graduates are well prepared to meet our future workforce needs and are able to participate fully in the changing economy. To accomplish this purpose, the Commission shall consider Federal, state, local, and institutional roles in higher education and analyze whether the current goals of higher education are appropriate and achievable. By August 1, 2006, the Commission will provide its written recommendations to the Secretary.

STRUCTURE

The Commission will be composed of no more than 20 representatives appointed by the Secretary from the public and private sectors, as well as several ex officio members from the Department of Education and other Federal agencies. These representatives shall include former or current public and private college presidents, and may also include former elected officials, representatives of Fortune 500 corporations, the financial services industry, for-profit education companies, nonprofit education foundations, higher education researchers and other such group representatives as the Secretary deems appropriate. As representatives, the members will speak for the groups of persons they represent, drawing on their personal experience as members of these groups with respect to these issues.

The Secretary shall appoint members for the life of the Commission. Any vacancy in the Commission shall not affect its powers but shall be filled in the same manner as the original appointment. The Secretary shall select one or more chairpersons from among the members of the Commission.

The Secretary names the Designated Federal Official (DFO) to the Commission. The Institute of Education Sciences,

the Office of Postsecondary Education, and the Office of the Secretary will provide management and staff support.

MEETINGS

The Commission will conduct at least three (3) meetings in different parts of the country to obtain a public discussion of the issues. In furtherance of its duties, the Commission shall invite experts and members of the public to provide information and guidance.

The Commission shall meet at the call of the DFO or the DFO's designee, who is present at all meetings. Meetings are open to the public except as may be determined otherwise by the Secretary in accordance with Section 10(d) of the FACA. Adequate public notification will be given in advance of each meeting. Meetings are conducted and records of the proceedings kept, as required by applicable laws.

A quorum of the Commission consists of eight members. A lesser number of members may hold public meetings.

ESTIMATED ANNUAL COST

Members will serve without compensation. Members may each receive reimbursement for travel expenses for attending Commission meetings, including per diem in lieu of subsistence, as authorized by the Federal travel regulations. Funds will be provided by the Department of Education to administer the Commission. The estimated annual person-years of staff support are three (3) Full Time Equivalents. The estimated one-fiscal year non-pay cost will be approximately $700,000.

REPORT

As representatives, the Commission's members will work independently of Departmental supervision to produce their report. The Commission's written report will address how best to improve our system of higher education, from increasing academic preparation in secondary school to building transitions for students between secondary school, higher education, and the workplace. Recommendations will be targeted at ensuring that our graduates are well prepared to meet our changing workforce needs and are able to participate fully in the new economy.

The Commission's report shall address the following questions. In addressing these questions, the report should address the appropriate roles for the various participants and how they intersect with one another.

How can State and local governments, with the assistance and encouragement of the Department of Education, better align secondary and higher education systems?

What changes are needed to ensure that higher education remains both affordable and accessible to students and their families?

What should be done to promote, sustain, and enhance world-class research and intellectual discourse?

How well are institutions of higher education preparing our students, especially nontraditional students and lifelong learners, to compete in the new global economy? What must be done to ensure that our system of higher education is able to keep up with the demand for highly skilled workers? How can the business community, other public and private sector organizations, and the higher education community work together to accomplish this goal?

TERMINATION

The Commission shall terminate 30 days after submitting its report.

The Commission is hereby chartered in accordance with Section 14(b) of FACA. This charter expires two years from the date of filing or before as the Secretary determines.

Approved:

_____ _____

Date Secretary

_____

Filing date:

B
Appendix

COMMISSION AND STAFF ROSTER AND BIOGRAPHIES

COMMISSIONERS

Nicholas Donofrio
Executive Vice President, Innovation and Technology
IBM Corporation

Nick Donofrio is a renowned business leader and the architect of IBM's global innovation and technology strategy. A 42-year IBM veteran, he is a tireless champion of the engineering and technical professions, and personally commits hundreds of hours each year to work with women and underrepresented minorities to enrich the technical professions around the world with a diversity of culture and thought. Among the many milestones accomplished under Donofrio's leadership, IBM has generated more patents than any other company for 13 consecutive years, entered a ground-breaking research partnership with the National Geographic Society to map how humankind populated the planet, and developed and nurtured one of the largest and most capable technical talent pools in the industrial world. Donofrio earned a B.S. degree in electrical engineering from Rensselaer Polytechnic Institute and an M.S. degree in the same discipline from Syracuse University. He has been awarded numerous honorary degrees and is a member of the National Academy of Engineering, the American Academy of Arts and Sciences and the Royal Academy of Engineering in the United Kingdom.

James J. Duderstadt
President Emeritus and University Professor of Science and Engineering
Director, The Millennium Project
University of Michigan

After receiving a B.Eng. degree in electrical engineering from Yale in 1964 and a Ph.D. in engineering science from the California Institute of Technology in 1967, Duderstadt joined the University of Michigan in 1968 as a professor of nuclear engineering. He later served as dean of engineering in 1981, provost in 1986, and president of the university in 1988, returning to the faculty as university professor of science and engineering in 1996. His teaching and research interests have spanned a wide range of subjects in science, mathematics, and engineering, including work in areas such as nuclear fission reactors, thermonuclear fusion, high-powered lasers, computer simulation, science policy, higher education, and information technology. Duderstadt has as served in various public policy roles including member and chair of the National Science Board (1984 to 1996) while chairing various studies and advisory groups for the Department of Energy, the National Science Foundation, and the National Academies.

Gerri Elliott
Corporate Vice President
Worldwide Public Sector
Microsoft Corporation

Gerri Elliott is corporate vice president of Microsoft's Worldwide Public Sector organization, which includes more than 1,200 sales professionals. She is responsible for strengthening customer and partner outreach within government, education and non-privatized healthcare markets in more than 75 countries worldwide. Prior to assuming her current role in October 2004, Elliott led Microsoft's U.S. Enterprise Sales segment where she was responsible for software sales across several vertical industries including financial services, retail and hospitality, automotive and healthcare as well as three geographic regions across the U.S. A 22-year veteran of IBM, Elliott held several senior executive positions focused on customers within Asia Pacific, North and South America, including vice president of distribution sector, Asia Pacific, and vice president, distribution sector, IBM Americas. She received her B.A. degree in International Politics from New York University.

Jonathan Grayer
Chairman and CEO
Kaplan, Inc.

Jonathan Grayer is chairman and CEO of Kaplan, Inc., one of the world's leading providers of educational services. Grayer has overseen Kaplan's expansion from an $80 million test preparation company in 1994 to a diverse education corporation with more than $1.4 billion in revenue in 2005. Kaplan has 900,000 students, 23,000 employees and more than 4,000 classroom locations. In an era of globalization, technological advancements and education reform, Grayer's vision is helping to transform the for-profit education industry. Under his leadership, Kaplan has embraced an aggressive, outcomes-based approach that has served as a model in the education community. Kaplan is a wholly owned subsidiary of the Washington Post Company. Grayer joined Kaplan in 1991 and held several key positions before being named president and CEO of Kaplan in 1994, and chairman and CEO in 2002. He received an A.B. degree from Harvard College and an M.B.A. degree from Harvard Business School.

Kati Haycock
Director
The Education Trust

Kati Haycock is one of the nation's leading child advocates in the field of education and she has served as director of the Education Trust since 1992. Previously, Haycock served as executive vice president of the Children's Defense Fund, the nation's largest child advocacy organization. A native Californian, Haycock founded and served as president of the Achievement Council, a statewide organization that provides assistance to teachers and principals in predominately minority schools in improving student achievement. She also served as director of the Outreach and Student Affirmative Action programs for the nine-campus University of California system. Haycock received her B.A. degree from the University of California, Santa Barbara, and her M.A. degree in Education Policy from the University of California, Berkeley.

James B. Hunt, Jr.
Governor of North Carolina (1977–85; 1993–2001)
Chairman, James B. Hunt, Jr. Institute for Educational Leadership and Policy

Serving a historic four terms as governor, Jim Hunt is a nationally recognized leader in education who led North Carolina through 20 years of education reform and economic growth. His early childhood Smart Start program won the prestigious Innovations in American Government Award. In K–12 education, Governor Hunt led his state in setting high standards and rigorous accountability. During the decade of the 1990s, North Carolina raised NAEP scores more than any other state in America. He also set high standards and pay for teachers and was the founding chairman of the National Board for Professional Teaching Standards where he served for ten years. Governor Hunt serves as chairman of the board for the National Center on Public Policy and Higher Education in San Jose, Calif., the Hunt Institute for Educational Leadership and Policy within the University of North Carolina, and the Institute for Emerging Issues at North Carolina State University. Governor Hunt is a partner in the large Southeastern U.S. law firm of Womble Carlyle Sandridge & Rice, PLLC, in Raleigh, N.C. He holds B.A. and M.S. degrees from North Carolina State University and a J.D. from the University of North Carolina at Chapel Hill.

Arturo Madrid
Murchison Distinguished Professor of Humanities
Trinity University

Arturo Madrid is the Norine R. and T. Frank Murchison distinguished professor of the humanities at Trinity University and the recipient of the Charles Frankel Prize in the Humanities. Madrid has served as the founding president of the Tomás Rivera Center, the nation's first institute for policy studies on Latino issues. He has also served as director of the Fund for the Improvement of Post-Secondary Education (FIPSE) as well as national director of the Ford Foundation's Graduate Fellowship Program for Mexican Americans, Native Americans and Puerto Ricans. He is an elected fellow of the Council on Foreign Relations and of the National Academy for Public Administration. Madrid received a B.A. degree from the University of New Mexico and holds a Ph.D. in Hispanic Languages and Literatures from the University of California, Los Angles, as well as several honorary degrees.

Robert Mendenhall
President
Western Governors University

Robert Mendenhall is the president of Western Governors University (WGU). Established in 1997, WGU is a private, not-for-profit, online university offering degrees based on demonstrating competency, rather than on credit hours or clock hours. It was founded and is supported by 19 governors as well as 23 leading corporations and foundations, and is the only regionally accredited competency-based university. WGU currently offers bachelor's and master's degrees in business, information technology and K–12 teacher education, with students in all 50 states and nine countries. Mendenhall has more than 25 years of experience in technology-based education, serving as general manager of IBM's K–12 education division, and as founder, president, and CEO of Wicat Systems, a publicly traded company providing computer-based curriculum and instructional management to K–12 schools, and technology-based training to government and industry. Mendenhall has a Ph.D. in instructional psychology and technology from Brigham Young University.

Charles Miller, Chairman
Private Investor
Former Chairman of the Board of Regents
University of Texas System

Charles Miller is the former chairman of the University of Texas System Board of Regents. During his tenure as chairman, Miller took the lead toward developing better higher education accountability systems, to be matched with deregulation and institutional autonomy. He also fostered strategies to generate significant increases in research funding, enrollment, patient care, private contributions and tuition revenues, while increasing financial aid. Miller has had a long-standing interest in education and served as chairman of the Texas Education Policy Center, which designed the public school accountability system for Texas. He also served as chairman of the Education Committee of the Governor's Business Council during Governor Bush's term and was a member of the Bush-Cheney Transition Team. Miller is chairman emeritus of the board of directors of the Greater Houston Partnership and has been very active in civic, business and educational organizations. He has had a long and successful career in investment management and is a private investor in Houston, Texas. Miller received a B.A. degree in mathematics from the University of Texas, Austin.

Charlene Nunley
President
Montgomery College

Charlene Nunley is the president of Montgomery College, a multi-campus community college in Montgomery County, Md., just outside the nation's capital. The college's diverse student population is made up of more than 50,000 students in credit and noncredit programs. Nunley is a staunch advocate for preserving the open access mission of community colleges. She led a statewide task force that examined capacity challenges facing Maryland's public colleges and universities, an effort that contributed to the recent adoption of legislation to enhance state funding for community colleges. To preserve access at her own institution, she led efforts to expand and enhance facilities at all three campuses of Montgomery College. Additionally, to broaden educational opportunities in Montgomery County, Nunley also led efforts to build model partnerships between the college and the local school district, Montgomery County Public Schools—one of the nation's largest and most outstanding school systems, as well as with the University of Maryland. As president, she has led Montgomery College into the top five community colleges nationally in private fundraising for several consecutive years. Prior to her tenure as president, she served in several other key posts at Montgomery College. Nunley received a B.A. and M.Ed. degrees from Pennsylvania State University and a Ph.D. from the George Washington University.

Catherine B. Reynolds
CEO and Chairman
Educap, Inc
Catherine B. Reynolds Foundation

Catherine B. Reynolds is chairman and chief executive officer of EduCap, Inc. and chairman and chief executive officer of Catherine B. Reynolds Foundation. Featured in *Business Week* magazine as one of the 50 most philanthropic living Americans, Reynolds helped to create the private education loan market that provides affordable financing for millions of students to attend college. She is the vice chairman of the American Academy of

Achievement and has served as the host chairman of its annual International Achievement Summit since its inaugural gathering in Budapest, Hungary. She has been active in community affairs, serving as a major benefactor of a number of organizations, including the National Gallery of Art, the John F. Kennedy Center for the Performing Arts, Morehouse College and the Catherine B. Reynolds Foundation Fellowship in Social Entrepreneurship at Harvard University and New York University. Reynolds was recently appointed as chairman of the Dance Theatre of Harlem. A native of Jacksonville, Fla., Reynolds is a graduate of Vanderbilt University.

Arthur J. Rothkopf
Senior Vice President and Counselor to the President
U.S. Chamber of Commerce

Arthur J. Rothkopf has served as senior vice president and counselor to the president of the U.S. Chamber of Commerce since 2005. One of his principal responsibilities is to manage the Chamber's initiative on workforce development and education. From 1993–2005, Rothkopf served as president of Lafayette College in Easton, Pa. Rothkopf is past board chair of the Council for Higher Education Accreditation and the Association of Independent Colleges and Universities of Pennsylvania. Rothkopf has held numerous key posts within the federal government including deputy secretary of the U.S. Department of Transportation (DOT), general counsel for DOT and staff lawyer at the Securities and Exchange Commission. Additionally, Rothkopf was a senior partner in Hogan & Hartson, Washington's largest law firm. Rothkopf earned his undergraduate degree from Lafayette College and received a J.D. from Harvard University.

Richard Stephens
Senior Vice President
Human Resources and Administration
The Boeing Company

Richard (Rick) Stephens is senior vice president, Human Resources and Administration for the Boeing Company and is a member of the Boeing Executive Council. In a career with Boeing that spans 26 years, he has led a number of businesses, involving homeland security, communications, reusable space systems and space shuttle, naval systems, missile systems, submarine combat systems, and a number of service and support-related programs. Stephens serves on a number of nonprofit and business focused boards and has been recognized for his long-standing leadership to local and national organizations regarding the use of science and technology education programs to develop the workforce of the future. Stephens is an enrolled member of the Pala Band of Mission Indians, and served as its chairman from 1988–89. A former U.S. Marine Corps officer, and published author, Stephens received his B.S degree in mathematics from the University of Southern California and his M.S. degree in computer science from California State University, Fullerton.

Louis W. Sullivan, M.D.
President Emeritus, Morehouse School of Medicine
Secretary of the U.S. Department of Health and Human Services 1989-1993

In 1975 Louis W. Sullivan was the founding dean and first president of Morehouse School of Medicine (MSM). With the exception of his tenure as secretary of the U.S. Department of Health and Human Services (HHS) from 1989 to 1993, Dr. Sullivan was president of MSM for more than two decades. Prior to assuming the presidency at MSM, Sullivan served as an instructor at Harvard Medical School, and professor of medicine at Seton Hall College of Medicine and Boston University School of Medicine. Sullivan serves as chairman on numerous national boards including: the Sullivan Alliance on Diversity in the Healthcare Workforce, the President's Board of Advisors on Historically Black Colleges and Universities, and co-chair of the President's Commission on HIV and AIDS. A native of Atlanta, Sullivan graduated *magna cum laude* from Morehouse College and *cum laude* from Boston University School of Medicine. He is certified in internal medicine and hematology.

Sara Martinez Tucker
President and CEO
Hispanic Scholarship Fund

Sara Martinez Tucker is president and chief executive officer of the Hispanic Scholarship Fund (HSF). In 2005, *Time* magazine named her one of the 25 most influential Hispanics in America. In her time at the helm of HSF, Tucker has generated funds for almost $135 million in scholarships to more than 39,000 students, clearly establishing HSF as our country's premier Hispanic higher education organization. Recognizing that scholarships alone will not get HSF to its goal, she led the launch of community outreach programs to raise college expectations in Latino families and communities. To date, these programs have directly touched more than 65,000 students, parents, HSF alumni and community members. Prior to joining HSF in 1997, she spent 16 years at AT&T, becoming the first Latina to reach the company's executive level. Tucker also served as vice president for Consumer Operations, a $370 million operation with 6,500 employees serving AT&T's 80 million consumers. Under her leadership, this group contributed to the division's receipt of the Malcolm Baldrige Quality Award. A native of Laredo, Texas, Tucker received her undergraduate and MBA degrees from the University of Texas, Austin.

Richard Vedder
Distinguished Professor of Economics, Ohio University
Adjunct Scholar, American Enterprise Institute

Richard Vedder is distinguished professor of economics at Ohio University and a visiting scholar at the American Enterprise Institute. He has won many awards for teaching undergraduate students (which he has done for over 40 years), and is the author of numerous books, including *The American Economy in Historical Perspective, Out of Work: Unemployment and Government in Twentieth-Century America* (with Lowell Gallaway), *Going Broke by Degree: Why College Costs Too Much,* and the forthcoming *The Wal-Mart Revolution* (with Wendell Cox), as well as some 200 scholarly essays and papers. Vedder serves as the director of the newly created Center for College Affordability and Productivity (CCAP) and he has been a visiting professor at several universities, including serving as John M. Olin visiting professor of labor economics and public policy at Washington University in St. Louis. Vedder has served as an economist with the Joint Economic Committee of Congress, and has advised numerous political leaders of public policy matters. Vedder completed his undergraduate education at Northwestern University and received his Ph.D. from the University of Illinois.

Charles M. Vest
President Emeritus
Massachusetts Institute of Technology

Charles M. Vest was president of MIT from 1990 until December 2004. During his presidency, he placed special emphasis on enhancing undergraduate education, exploring new organizational forms to meet emerging directions in research and education, building a stronger international dimension into education and research programs, developing stronger relations with industry, and enhancing racial and cultural diversity at MIT. He also devoted considerable energy to bringing issues concerning education and research to broader public attention and to strengthening national policy on science, engineering and education. His research interests have focused on the thermal sciences and the engineering applications of lasers and coherent optics. Vest has been a member of several government commissions and task forces including service on the President's Commission on the Intelligence Capabilities of the United States Regarding Weapons of Mass Destruction. Vest earned his B.S. degree in mechanical engineering from West Virginia University and his M.S. and Ph.D. degrees from the University of Michigan. Additionally, he is a life member of the MIT Corporation, the institute's board of trustees.

David Ward
President
American Council on Education

A leading spokesperson for American higher education, David Ward became the 11th president of the American Council on Education (ACE) on Sept. 1, 2001. ACE is the major umbrella organization for all of the nation's higher education institutions that strives to provide a unified voice on higher education issues to policy makers. Prior to his appointment at ACE, Ward served as a faculty member and then held several top administrative posts before being named chancellor of the University of Wisconsin-Madison in 1993, a position he held until 2001. Under his leadership at UW-Madison, Ward led the development of a strategic

plan that improved the quality of undergraduate education there; added to the campus research facilities; enhanced the connections between the university, the city, the business community, and the state; and creatively combined public and private support for the institution. Ward has held numerous visiting appointments at universities around the world. He completed his undergraduate education and master's work at the University of Leeds, U.K., and received a Ph.D. at the University of Wisconsin-Madison.

Robert Zemsky
Chair and Professor
The Learning Alliance for Higher Education
University of Pennsylvania

Robert Zemsky currently serves as chair of the Learning Alliance for Higher Education, a broad coalition of organizations and firms assisting institutions in implementing their change agendas. From 1980 through 2000, Zemsky served as the founding director of the University of Pennsylvania's Institute for Research on Higher Education, one of this country's major public policy centers specializing in educational research and analysis. In his research Zemsky pioneered the use of market analyses for higher education as well as the importance of purposeful change. From 1990 through 1995, Zemsky served as co-director of the National Center on the Educational Quality of the Workforce and later as a senior scholar with the National Center for Postsecondary Improvement. He is currently a trustee of Franklin and Marshall College and a member of the National Advisory Board for the National Survey of Student Engagement (NSSE). Zemsky received his B.A. degree from Whittier College and his Ph.D. in history from Yale University.

EX OFFICIO MEMBERS

Samuel Bodman
Secretary
U.S. Department of Energy

Samuel Wright Bodman was sworn in as the 11th secretary of energy on Feb. 1, 2005 after the Senate unanimously confirmed him on Jan. 31, 2005. He leads the Department of Energy with a budget in excess of $23 billion and more than 100,000 federal and contractor employees. Previously, Bodman served as deputy secretary of the Treasury beginning in February 2004. He also served the Bush administration as the deputy secretary of the Department of Commerce beginning in 2001. A financier and executive by trade with three decades of experience in the private sector, Bodman graduated in 1961 with a B.S. degree in chemical engineering from Cornell University and completed his Sc.D. degree at the Massachusetts Institute of Technology in 1965.

Raymond Orbach, *designee for Samuel Bodman*
Under Secretary for Science
U.S. Department of Energy

Raymond Lee Orbach was sworn in as the department's first under secretary for science on June 1, 2006, and he has served as director of the DOE Office of Science since March 2002. As under secretary for science, Orbach is responsible for planning, coordinating and overseeing the Energy Department's research and development programs and its 17 national laboratories, as well as the Department's scientific and engineering education activities. Orbach manages an organization that is the third largest federal sponsor of basic research in the United States and is viewed as one of the premier science organizations in the world. He oversees $3.6 billion in funds for research in high energy and nuclear physics, basic energy sciences, magnetic fusion energy, biological and environmental research, and computational science, which supports scientists at more than 300 colleges and universities nationwide. Prior to his service at DOE, Orbach served as chancellor of the University of California, Riverside, from 1992-2002 during a period of continued expansion for the university. Orbach is a committed educator and has held numerous visiting professorships at universities

around the world and has received several professional awards for his scholarship. Orbach completed his undergraduate education in physics at the California Institute of Technology and earned a Ph.D. from the University of California, Berkeley.

Elaine Chao
Secretary
U.S. Department of Labor

Elaine L. Chao is the nation's 24th secretary of labor, representing a new generation of American leadership. Since her confirmation by the Senate on Jan. 29, 2001, she has been dedicated to carrying out the Department of Labor's mission of inspiring and protecting the hardworking people of America. She is respected as an effective and articulate champion of the nation's contemporary workforce, acting quickly to focus the Labor Department on the modern realities of workers' lives. Chao's previous government career includes serving as the deputy secretary at the U.S. Department of Transportation, chairman of the Federal Maritime Commission, and deputy maritime administrator in the U.S. Department of Transportation. She received her M.B.A. degree from the Harvard Business School and her undergraduate degree in economics from Mount Holyoke College.

Emily Stover DeRocco, *designee for Elaine Chao*
Assistant Secretary for Employment and Training Administration
U.S. Department of Labor

As assistant secretary for employment and training, Emily Stover DeRocco is responsible for managing a $10 billion budget that funds the country's public workforce investment system. DeRocco has made it her purpose to develop a "demand driven" workforce investment system, which links employment, education, and economic development. Her belief is that only by effectively equipping workers with the skills that are needed by employers, and better understanding the workforce needs of business, can we create the highly skilled workforce needed to be globally competitive in the 21st century. Before her appointment as assistant secretary, DeRocco spent over ten years as executive director of the National Association of State Workforce Agencies. During President Reagan's administration, she held several executive positions at the Departments of the Interior and Energy. DeRocco earned a B.A. degree from Pennsylvania State University and a J.D. from Georgetown Law Center.

Carlos Gutierrez
Secretary
U.S. Department of Commerce

Carlos M. Gutierrez is the 35th secretary of the U.S. Department of Commerce, the voice of business in government. The former chairman of the board and chief executive officer of Kellogg Company, Gutierrez was sworn into office on February 7, 2005. Born in Havana, Cuba, he came to the United States with his family in 1960. In 1975 he joined Kellogg as a sales representative. Rising to president and chief executive officer in 1999, he was the youngest CEO in the company's nearly 100-year history. In April 2000, he was named chairman of the board of Kellogg Company. Gutierrez studied business administration at the Monterrey Institute of Technology in Queretaro, Mexico.

John Bailey, *designee for Carlos Gutierrez*
Deputy Policy Director
U.S. Department of Commerce

John Bailey is the deputy policy director for the U.S. Department of Commerce. He serves as the secretary's principal policy advisor on issues related to immigration, innovation, pandemic influenza, and health care. He has also served at the Department of Education, directing the Office of Educational Technology and, while there, established a research agenda of more than $56 million over five years including the first national long-term study of technology's impact on teaching and learning. Bailey previously worked for former Governor Tom Ridge. He received his B.A. degree in policy studies from Dickinson College and attended the Kennedy School of Government's Executive Program for State and Local Government.

Donald Rumsfeld
Secretary
U.S. Department of Defense

Donald H. Rumsfeld was sworn in as the 21st secretary of defense on Jan. 20, 2001. Before assuming his present post, the former Navy pilot had also served as the 13th secretary of defense, White House chief of staff, U.S. ambassador to NATO, U.S. congressman, and chief executive officer of two *Fortune* 500 companies. Under Rumsfeld's leadership, the department has developed a new defense strategy and replaced the old model for sizing forces with a newer approach more relevant to the 21st century. He has received numerous honors and awards, including the Presidential Medal of Freedom, the nation's highest civilian award. Rumsfeld attended Princeton University on academic and NROTC scholarships and served in the U.S. Navy as an aviator and flight instructor.

William Berry, *designee for Donald Rumsfeld*
Director for Basic Research
Office of the Director of Defense, Research and Engineering
U.S. Department of Defense

As the director for basic research, Berry is responsible for providing scientific leadership, management oversight, policy guidance and coordination of the $1.3 billion yearly basic research programs of the Military Services and Defense Agencies. In this capacity, Berry has cognizance over the complete spectrum of basic research. In addition, he is responsible for science, technology, engineering and mathematics education and workforce issues, policy for grants. Prior to his current position, he has held numerous other positions within the Department of Defense. Berry's research publications are in the fields of environmental toxicology and neuroscience. Berry earned a B.S. degree in Biology from Lock Haven University of Pennsylvania, a M.A.T. degree in zoology from Miami University, Ohio, and a Ph.D. in zoology and biochemistry from the University of Vermont, Burlington.

David Dunn (April 2006–September 2006)
Acting Under Secretary and Chief of Staff
U.S. Department of Education

President Bush appointed David Dunn acting under secretary at the U.S. Department of Education in January 2006. In this role, Dunn oversees policies, programs and activities related to vocational and adult education, postsecondary education, college aid and the president's financial reforms for the Pell Grant program. Dunn is also the chief of staff to U.S. secretary of education Margaret Spellings. Prior to coming to the U.S. Department of Education, Dunn served as special assistant to the president for domestic policy at the White House Domestic Policy Council. Before working in Washington, D.C., Dunn served as the associate executive director of the Texas Association of School Boards (TASB). Dunn has a B.A. degree in political science from Baylor University and an M.A. degree in government from the University of Texas at Austin.

Sally Stroup (October 2005–April 2006)
Assistant Secretary for Postsecondary Education
U.S. Department of Education

Sally Stroup served as assistant secretary for postsecondary education. She advised the U.S. secretary of education on all matters related to postsecondary education. In this capacity, Stroup coordinated department programs relating to financial assistance for eligible students enrolled in higher education institutions and recommended policies to recruit and prepare disadvantaged students to enroll and complete postsecondary education programs. Before joining the department, Stroup served as the director of industry and government affairs for the Apollo Group Inc. (University of Phoenix). From 1993 to 2001, she was a professional staff member for the U.S. House of Representatives Committee on Education and the Workforce. She completed her undergraduate education at Indiana University of Pennsylvania and received a J.D. from Loyola University School of Law in New Orleans.

STAFF

Cheryl Oldham
Executive Director and Designated Federal Officer

Cheryl Oldham came to the U.S. Department of Education in January 2003 from the White House. Prior to her appointment as executive director of the commission, she served as the director, Office of White House Liaison. As liaison she oversaw the political personnel process, advised the secretary, and served as the White House's contact to the department on matters of personnel and political affairs. During her tenure at the White House, Oldham served in both the Presidential Personnel and Cabinet Affairs offices. She received her J.D. from St. Mary's University School of Law and her B.A. degree from Texas Christian University.

Vickie Schray
Deputy Director for Management and Planning

For more than 20 years, Vickie Schray has dedicated her career to improving secondary and postsecondary education and has led state and national initiatives to develop standards and assessments, accountability systems, curriculum reform models, and public-private partnerships. For the past eight years she has worked in a variety of roles at the U.S. Department of Education. In previous assignments, she led the department's effort to implement a new vision for career and technical education and implement performance measurement and accountability systems at the state and local level. Prior to joining the commission staff she worked for the Executive Secretariat in the Office of the Secretary. She received her B.S. degree from Oregon State University and her M.S. degree from Portland State University. She began her career as a business and management teacher and administrator at the secondary and postsecondary levels.

Eleanor L. Schiff
Deputy Director for Research and External Affairs

Eleanor Schiff spent several years working at the White House prior to her appointment at the U.S. Department of Education. She has also worked at the Department of Health and Human Services and the U.S. Senate. In addition, she has worked in college admissions and as a substitute English teacher. She received her B.A. degree at Carleton College and has pursued graduate work at the George Washington University.

Kristen Vetri
Chief of Staff

Prior to joining the commission, Kristen Vetri served as deputy chief of staff for the Office of Postsecondary Education at the U.S. Department of Education. As deputy chief of staff, Vetri assisted in personnel management and travel operations for the office. She graduated from James Madison University with a B.A. degree in political science.

Archie P. Cubarrubia
Senior Analyst

Before joining the U.S. Department of Education, Archie Cubarrubia coordinated new student orientation, transition, and retention programs at the University of Rhode Island. Cubarrubia has also served as coordinator of new student programs at Northern Arizona University and Boston University. He earned his B.S. degree in health studies and Ed.M. degree in higher education administration from Boston University. He is currently a doctoral candidate in higher education administration at the George Washington University.

C
Appendix

ISSUE PAPERS

In order to advance the work of the Secretary of Education's Commission on the Future of Higher Education, Chairman Charles Miller asked that a series of issues papers on key topics affecting the work of the Commission be produced. These papers were authored by various experts and their purpose was to spark a national dialogue, educate the public, generate debate, and inform the work of the Commission surrounding key postsecondary issues. These papers did not represent the opinions of the Commissioners; the papers were not formal recommendations by the Commission nor were they intended to reflect the views of the U.S. Department of Education.

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D
Appendix

ORGANIZATIONS THAT PROVIDED INFORMATION TO THE COMMISSION

Information was received in many forms: white papers, testimony, opinion pieces, research reports of past blue-ribbon commissions, and other reports relevant to the work of the commission.

ORGANIZATIONS

Academy One Navigating Education System
Accreditation Board of Engineering and Technology
Accrediting Commission of Career Schools and Colleges of Technology
Accrediting Council for Continuing Education and Training
Achieve, Inc.
Advisory Committee on Student Financial Assistance
Alfred P. Sloan Foundation
American Association of Colleges of Nursing
American Association of Community Colleges
American Association of State Colleges and Universities
American Association of University Professors
American Association of University Women of Washington
American College Health Association
American Council of Trustees and Alumni
American Council on Education
American Dental Education Association
American Federation of Teachers
American Indian Science and Engineering Society
American InterContinental University–London
American Productivity and Quality Center
Anti-Defamation League
Appalachian State University
Arizona State University
Associated Students of Oregon State University
Association for Consortium Leadership
Association of Advanced Rabbinical and Talmudic Schools Accreditation Commission
Association of American Colleges and Universities
Association of American Medical Colleges
Association of American Universities
Association of Independent Colleges and Universities in Massachusetts
Association of Specialized and Professional Accreditors
Association on Higher Education and Disability
Bellevue Community College
Bentley College
Boston Foundation

Boston University
Bunker Hill Community College
Business Roundtable
California State University System
California Student Public Interest Research Group
Cambridge College
Capella Education Company
Carnegie Mellon University
Carol R. Goldberg Seminars
Center for Law and Social Policy
Center for Reform of School Systems
CISCO Systems
College Board
College Parents of America
College Solutions Network
College Summit, Inc.
Commission on Collegiate Nursing Education
Connecticut Board of Governors for Higher Education
Consortium for High Academic Performance Institute for the Study of Social Change
Council for Adult and Experiential Learning
Council for Aid to Education
Council for Higher Education Accreditation
Council of Regional Accreditors
Dēmos: A Network for Ideas and Action
Distance Education and Training Council
Education Sector
Education Trust
Educational Testing Service
Eduventures, Inc.
Federal Interagency Committee on Education
Florida Department of Education
Florida Higher Education Accountability Project
Genentech
Georgia Institute of Technology
Heritage University
Highland Campus Health Group
Houston Community College
Indiana University
Institute for Community Inclusion
Institute of Education Sciences
International Association of Medical Schools
Ivy Tech State College
Jobs for the Future
Just for the Kids
Lawrence Berkeley National Lab
Louisiana Tech University
Massachusetts Down Syndrome Congress
Massachusetts Institute of Technology
Massachusetts School of Law at Andover
Miami University, Ohio

Minnesota State College Student Association
Minnesota System of Higher Education
NASPA—Student Affairs Administrators in Higher Education
National Academic Advising Association
National Association for College Admission Counseling
National Association of College and University Business Officers
National Association of Manufacturers
National Association of State Universities and Land-Grant Colleges
National Association of Student Financial Aid Administrators
National Center for Academic Transformation
National Center for Education Statistics
National Center for Higher Education Management Systems
National Center for Public Policy and Higher Education
National Down Syndrome Society National Policy Center
National Education Association (NEA)
National Science Foundation
Nebraska Coordinating Commission for Postsecondary Education
New England Association of Schools and Colleges
Olin College of Engineering
Oregon State University
Pepperdine University
Project on Student Debt
Public Interest Research Groups
Quad Ventures
Quinsigamond Community College
R.W. Baird
RAND Corporation
Rutgers, the State University of New Jersey
Saint Anselm College
San Diego State University
Seattle Community College District
Southern Association of Colleges and Schools
Stark Education Partnership
State Higher Education Executive Officers
State PIRGs' Higher Education Project
Student Debt Alert
Temple University
TERI–The Education Resources Institute
Texas A&M University
TICAS–The Institute for College Access and Success, Inc.
Tufts University
United States Student Association
University of Massachusetts
University of Northern Colorado
University of Oregon
University of Texas
University of Texas-Austin Board of Regents
University of Washington
University System of New Hampshire
Upward Bound

Utah State University
Wagner College
Washington State Board for Community and Technical Colleges
Washington State University
Wayne State University
Western Connecticut State University
Western Illinois University
Worcester Polytechnic Institute

INDIVIDUAL STUDENTS FROM THE FOLLOWING INSTITUTIONS PROVIDED TESTIMONY TO THE COMMISSION:

Bellevue Community College
Cambridge College
Capella University
Central Washington University
Columbus State Community College
Eastern Washington University
Evergreen State College
Harvard University
Howard University
Kaplan University
Lane Community College
Massachusetts Bay Community College
Massachusetts College of Liberal Arts
Northeastern University
Oberlin College
Providence College
Quinsigamond Community College
Rutgers, the State University of New Jersey
Salem State College
St. Louis Community College at Meramec
St. Phillips College
University of Alaska
University of Arkansas, Fayetteville
University of Connecticut, Storrs
University of Maryland, College Park
University of Massachusetts, Amherst
University of Massachusetts, Boston
University of New Hampshire
University of Oregon
University of Southern Maine
University of Washington
Vanderbilt University
Western Governors University

The commission would also like to acknowledge and thank all of the students and individuals from around the country who e-mailed and provided their insights regarding key issues in higher education.

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Appendix

COMMISSION MEETINGS, HEARINGS, AND TESTIMONY

Oct. 17, 2005

Full Commission Meeting
Washington, D.C.

Presenters:
Margaret Spellings, Secretary of Education
Samuel Bodman, Secretary of Energy
Charles Miller, Chairman, The Secretary of Education's Commission on the Future of Higher Education

Dec. 8–9, 2005

Full Commission Meeting
Nashville, Tenn.

Presenters:
The State of Higher Education Today
Grover (Russ) Whitehurst, Director, Institute of Education Sciences
Peter J. Stokes, Executive Vice President, Eduventures, Inc.
Patrick M. Callan, President, National Center for Public Policy and Higher Education

Accountability
Paul E. Lingenfelter, President, State Higher Education Executive Officers
Patrick M. Callan, President, National Center for Public Policy and Higher Education
Geri Malandra, Associate Vice Chancellor for Institutional Planning and Accountability, University of Texas System

Affordability
Richard Vedder, Commission Member
Robert Zemsky, Commission Member

Accessibility
Michael Cohen, President, Achieve, Inc.
Ann Coles, Senior Vice President, College Access Programs, The Education Resources Institute

Quality
Charles Vest, Commission Member

Invited Remarks
Sen. Lamar Alexander (R–Tenn.)

Student Panel
Mari Corales, St. Phillips College and Southern Region Vice President for Delta Epsilon Chi
Sondra Wilson, Columbia State Community College
Lori Plato, Vanderbilt University

Feb. 2–3, 2006

Full Commission Meeting
San Diego, Calif.

Presenters:
Innovation and the Economy
G. Wayne Clough, President, Georgia Institute of Technology
Nicholas Donofrio, Commission Member

Innovative Financing
Trace A. Urdan, Senior Research Analyst, R.W. Baird
Andrew E. Kaplan, Partner, Quad Partners
Howard M. Block, Managing Director; Senior Research Analyst, Banc of America Securities

Innovative Models of Delivery
Robert Mendenhall, Commission Member
Jonathan Grayer, Commission Member
Stephen G. Shank, Chairman and Chief Executive Officer, Capella Education Company; Chancellor, Capella University

Innovative Public/Private Partnerships
Roland J. Otto, Head, Center for Science and Engineering Education, Lawrence Berkeley National Laboratory
Charles B. Reed, Chancellor, California State University System
Monica L. Poindexter, Associate Director, Corporate Diversity and College Programs, Genentech

Innovative Teaching and Learning Strategies (Course/Program Level)
Thomas L. Magnanti, Dean, School of Engineering, Massachusetts Institute of Technology
Joel M. Smith, Vice Provost, Chief Information Officer for Computing Services, and Director, Carnegie Mellon's Office of Technology for Education, Carnegie Mellon University
David A. Wiley, Associate Professor and Director, Center for Open and Sustainable Learning, Utah State University

Student Panel
Jerry Davis, Western Governors University
Jon Lamphier, Kaplan University
Carol Young, Capella University

Feb. 7, 2006

Public Hearing
Seattle, Wash.

Presenters (morning session):
Samuel H. Smith, President Emeritus, Washington State University
Pamela Tate, President, Council for Adult and Experiential Learning
Charles H. Mitchell, Chancellor, Seattle Community College District
David T. Conley, Director, Center for Educational Policy Research, University of Oregon
Mark A. Emmert, President, University of Washington
Andrew Menter, President and Chief Executive Officer, Highland Campus Health Group
Richard J. Anderson, Professor of Computer Science and Engineering, University of Washington
Pamela Silas, Executive Director, American Indian Science and Engineering Society
Public Comment (afternoon session)

Mar. 20, 2006 **Public Hearing**
Boston, Mass.

Presenters (morning session):
Susan Hockfield, President, Massachusetts Institute of Technology
Jack M. Wilson, President, University of Massachusetts
Dennis D. Berkey, President, Worcester Polytechnic Institute
Robert A. Brown, President, Boston University
Richard K. Miller, President, Franklin W. Olin College of Engineering
Lawrence S. Bacow, President, Tufts University
Mary L. Fifield, President, Bunker Hill Community College
Stephen J. Reno, Chancellor, University System of New Hampshire
Valerie F. Lewis, Commissioner, Connecticut Board of Governors for Higher Education
Public Comment (afternoon session)

Mar. 28, 2006 **Accreditation Roundtable Discussion**
Washington, D.C.

Participants:
Vickie Schray, Deputy Director for Management and Planning, The Secretary of Education's Commission on the Future of Higher Education, U.S. Department of Education, Moderator
John Barth, Director, Accreditation and State Liaison, Office of Postsecondary Education, U.S. Department of Education
Barbara E. Brittingham, Director, Commission on Institutions of Higher Education, New England Association of Schools and Colleges
Jennifer Butlin, Director, Commission on Collegiate Nursing Education
Judith S. Eaton, President, Council for Higher Education Accreditation
Marshall Hill, Executive Director, Nebraska Coordinating Commission for Postsecondary Education
Michael P. Lambert, Executive Director, Accrediting Commission, Distance Education and Training Council
Paul E. Lingenfelter, President, State Higher Education Executive Officers
Cheryl Oldham, Executive Director, The Secretary of Education's Commission on the Future of Higher Education, U.S. Department of Education
George Peterson, Executive Director, Accreditation Board of Engineering and Technology
Arthur J. Rothkopf, Commission Member
Elise Scanlon, Executive Director, Accrediting Commission of Career Schools and Colleges of Technology
Belle S. Wheelan, President, Commission on Colleges, Southern Association of Colleges and Schools
Roger J. Williams, Executive Director, Accrediting Council for Continuing Education and Training

Apr. 6–7, 2006 **Full Commission Meeting**
Indianapolis, Ind.

Presenters:
Affordability
Robert Dickeson, Consultant, and President Emeritus, University of Northern Colorado
Barry Burgdorf, Vice Chancellor and General Counsel, University of Texas System
James A. Boyle, President, College Parents of America
James Garland, President, Miami University, Ohio
Carol A. Twigg, President and Chief Executive Officer, National Center for Academic Transformation
A. Frank Mayadas, Program Director, Alfred P. Sloan Foundation

Accreditation
Carol D'Amico, Executive Vice President, Ivy Tech Community College of Indiana
Judith S. Eaton, President, Council for Higher Education Accreditation
Kay Norton, President, University of Northern Colorado

Commission Discussion
Richard (Rick) Stephens, Commission Member, Moderator

Articulation
Jay Pfeiffer, Assistant Deputy Commissioner of Accountability, Research, and Measurement, Florida Department of Education
Gaston Caperton, President, College Board
Peter J. Joyce, Workforce Development Manager, CISCO Systems
Richard Kazis, Senior Vice President, Jobs for the Future

Accountability
Peter Ewell, Vice President, National Center for Higher Education Management Systems
Roger Benjamin, President and Chief Executive Officer, Council for Aid to Education
Stephen P. Klein, Senior Research Scientist, RAND Corporation
M. Peter McPherson, President, National Association of State Universities and Land-Grant Colleges
Anne D. Neal, President, American Council of Trustees and Alumni
George D. Kuh, Director, Center for Postsecondary Research, Indiana University
Kevin Carey, Research and Policy Manager, Education Sector

May 18–19, 2006 **Full Commission Meeting**
Washington, D.C.

Presenters:
Margaret Spellings, Secretary of Education

Commission Discussion (Discussion leaders listed below):
Universal Access and Preparation
Charlene Nunley, Commission Member

Affordability
Robert Mendenhall, Commission Member

Accountability: Assessment and Consumer Information
Charles Miller, Commission Member

Accountability: Accreditation
Arthur Rothkopf, Commission Member

Workforce Development and Meeting Labor Market Needs
Richard (Rick) Stephens, Commission Member

Increasing Supply to Address Capacity
Charles Vest, Commission Member

Innovation
Nicholas Donofrio, Commission Member

Identification of Gaps/New Areas
Nicholas Donofrio, Commission Member

Commission Discussion and Wrap-Up
Richard (Rick) Stephens, Commission Member

Aug. 10, 2006

Full Commission Meeting
Washington, D.C.

Introduction and Discussion of Meeting Process
Charles Miller, Chairman, The Secretary of Education's Commission on the Future of Higher Education, U.S. Department of Education

Update on Process for Production and Transmittal of Final Commission Report
Cheryl Oldham, Executive Director, The Secretary of Education's Commission on the Future of Higher Education, U.S. Department of Education

Motion to Adopt Draft Report

Commission Discussion—Follow-up to Report

Our mission is to ensure equal access to education and to promote educational excellence throughout the nation.

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