



 WYOMING LEGISLATIVE SERVICE OFFICE

Memorandum

DATE October 26, 2004

TO Representative Luthi

FROM Don Richards, Senior Research Analyst

SUBJECT Participation Rates in Higher Education

Question:

1) Provide a copy of a report widely cited in Wyoming newspapers in June or July of 2004 that discussed the notion that proportionally fewer Wyoming residents were attending (or had attended) higher education institutions when compared to other states.

Answer:

1.A) First, the *Casper Star Tribune* published an article entitled, "Fewer Wyo Grads go to College" by Mead Gruver on September 14, 2004. (See Attachment A.) (As an associated press article, other newspapers potentially carried the same or similar story.) This article was based upon a report released by the National Center for Public Policy and Higher Education. (The national report and Wyoming's "report card" are included as Attachments B and C. Other states specific data can be downloaded by LSO upon request.)

In short, this study provides data on both higher education participation and completion. Specifically, the proportion of Wyoming 18 to 24-year-olds enrolled in higher education is 31 percent in 2004, down from 42 percent a decade ago. Nonetheless, completion/continuation rates at both community colleges and universities in Wyoming have increased from a decade ago.

1.B) Although the *information* contained in the above article appears to be consistent with the intent of the request, the article was not published during the anticipated time period. Two potential education-related articles could be identified that were published in June or July 2004.

University of Wyoming President Philip Dubois authored the first article, "Upping the Attendance Worth the Effort," which was published July 10, 2004. This "commentary" appears to have been largely based upon a U.S. Census Bureau release from June 29, 2004. Among other things, the article states, "...20.7 percent of Wyoming residents had earned a bachelor's degree from a college or university, one of the lowest rates in the nation." (See Attachment D for the original article and Attachment E for the associated detail data table from the U.S. Census Bureau.)

The second article, "College Support Strengthens Communities, Nation," written by Carl C. Dalstrom from a national organization, USA Funds, and published by the Casper Star Tribune on July 10, 2004 discusses financial aid and higher education. The article draws from a special report, "Investing in

America's Future: Why Student Aid Pays Off for Society and Individuals." The publishing organizations for the supporting study were The Institute for Higher Education Policy and Scholarship America. This article primarily addresses the costs (and benefits) of pursuing higher education. (Attachment F is a copy of the newspaper article; Attachment G provides a copy of the supporting study.)

If you have any other questions related to this topic or feel that perhaps other articles with slightly different emphasis should be researched further, do not hesitate to contact me at 777-7881. [An e-mail of this transmittal with electronic attachments has been previously sent.]

Enc: 7

ATTACHMENT A

Fewer Wyo grads go to college

By MEAD GRUVER
Associated Press writer

CHEYENNE -- Wyoming's recent high school graduates are more prepared for college than their counterparts 10 years ago but a smaller percentage are enrolling, according to a report released Tuesday by the National Center for Public Policy and Higher Education.

Wyoming earned a C-plus for its percentage of K-12 students taking upper-level math and science courses and scoring at or above proficient in math, science, reading and writing.

The state did better in that category than a decade ago: While the percentage of 18- to 24-year-olds with a high school or equivalency degree fell from 92 to 88 percent, the number of high-schoolers taking upper-level math increased from 41 to 51 percent and the number enrolled in upper-level science grew from 19 to 25 percent.

Eighth-graders scoring at or above proficient on a national assessment increased from 21 to 32 percent in math, 29 to 34 percent in reading, 34 to 36 percent in science and 23 to 28 percent in writing.

But the center decided that the state could improve in those areas, scoring six states just as well and 24 better for college preparation. "Despite notable improvement over the past decade, Wyoming has struggled to prepare students to succeed in college," said the report, "Measuring Up, 2004: The National Report Card on Higher Education."

Wyoming got a B for its percentage of people enrolling in college. The grade was higher than 30 states and six scored the same.

But the proportion of 18- to 24-year-olds enrolled in college in Wyoming was down 11 points, from 42 to 31 percent. The number of 25- to 49-year-olds enrolled part-time in any postsecondary education fell from 5.4 percent to 4.3 percent.

Of the five categories graded, Wyoming did best in the percentage of students who completed college and community college, earning a B-plus. Ten states scored better and two scored the same in that area.

"I was at least pleased that they recognized the efforts we made in retention and graduation rates," University of Wyoming President Phil Dubois said Tuesday.

"They noted that we had made very rapid increases in freshmen retention and also six-year graduation rates. That's all true. The bad news is we started at a very low point and have a ways to go."

According to the report, the number of freshmen returning for their sophomore year increased from 70 to 78 percent, while the number of first-year community college students coming back for a second year grew from 50 to 55 percent. The number of full-time students completing a bachelor's degree within six years increased from 45 to 54 percent.

Wyoming did worst in affordability, scoring an F and posting a decline in that area. But 35 other

states scored just as poorly.

The center said the percent of income needed to send a Wyoming student to a Wyoming college, averaged for all income, increased from 16 to 21 percent for community college and 16 to 24 percent for the university.

Forty percent of the grade, meanwhile, was based on the state's investment in need-based financial aid as compared to federal financial aid and how much percentage-wise the poorest students pay for the lowest-priced schools.

The state's contribution to financial aid is currently 1 percent of the federal aid available, down from 2 percent a decade ago. The poorest students, meanwhile, pay 12 percent of their income for the least expensive higher education in Wyoming, up from 8 percent a decade ago.

Dubois questioned the affordability grade, saying it does not show the whole picture of a student's ability to afford college in Wyoming. "It doesn't mean that students can't find aid in terms of federal aid or loans or university aid," he said.

Compared to other states, Wyoming scored worst in how much the state benefits from its college-educated residents gauged by how much they earn and give to charity and how often they vote. It tied West Virginia in getting a D, and no state scored lower.

The report said Wyoming residents with bachelor's degrees earn just 4 percent more than everyone else, down from 6 percent in 1994. Those with some higher education but not a bachelor's degree earned just 1 percent more, though that is up from the 1 percent less they earned 10 years ago.

Voting participation fell from 59 percent to 58 percent.

On the Net:

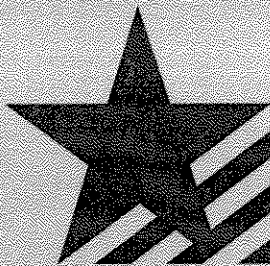
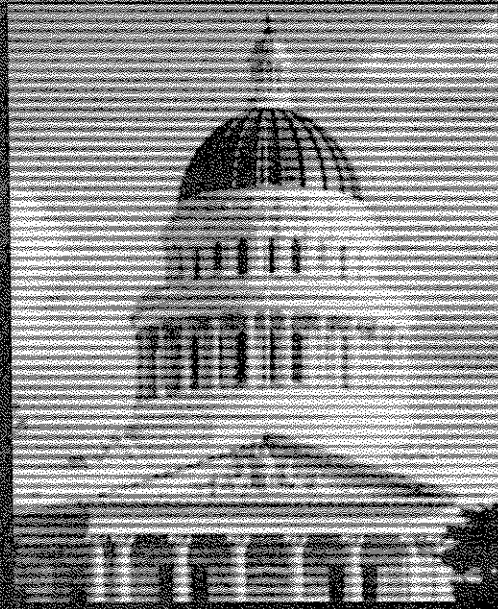
National Center for Public Policy and Higher Education: <http://www.highereducation.org>

ATTACHMENT B

MEASURING UP

2004

**THE NATIONAL REPORT CARD
ON HIGHER EDUCATION**



**THE NATIONAL CENTER FOR
PUBLIC POLICY AND
HIGHER EDUCATION**

In Memoriam

Measuring Up 2004
is dedicated to

Clark Kerr
1911–2003

Howard “Pete” Rawlings
1937–2003

Founding Directors
The National Center for Public Policy and Higher Education



The National Center for Public Policy and Higher Education is an independent, nonprofit, nonpartisan organization. It is not affiliated with any government agency, political party, or college or university. The National Center conducts policy research and fosters public awareness of pressing public policy issues affecting education and training beyond high school. The purpose of the National Center's studies and reports, including *Measuring Up 2004*, is to stimulate public policies that will improve the effectiveness and accessibility of higher education.

The National Center was established in 1998 with founding grants from The Atlantic Philanthropies and The Pew Charitable Trusts that supported the initiation of its programs, including the state-by-state report card. These grants enabled the National Center to launch the report card project, to design its methodology, and to test its feasibility through a ten-state prototype. The Ford Foundation has also provided core support to the National Center. Refinement of the report card methodology, extension of it to all 50 states, and the publication and dissemination of *Measuring Up 2000*, *2002*, and *2004* have been made possible by a major grant from the John S. and James L. Knight Foundation that was matched by The Atlantic Philanthropies, the Carnegie Corporation of New York, The John D. and Catherine T. MacArthur Foundation, The Pew Charitable Trusts, and the William R. Kenan, Jr. Charitable Trust. A grant from The Andrew W. Mellon Foundation supported an external, independent review of the report card data and methodology.

The *Measuring Up* national report cards on higher education were made possible by these grants. The statements and views expressed in these reports, however, do not necessarily reflect those of the funders, and are the responsibility of the National Center for Public Policy and Higher Education.

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Measuring Up 2004 Resources Inside back cover

Visit www.highereducation.org to:

- Download national and state reports
- Create your own comparisons for any states on any data included in *Measuring Up 2000, 2002* and *2004*
- Get reference information about indicators, calculations, and grading

For more information about this Web site, see back cover.



ACKNOWLEDGEMENTS

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The National Center for Public Policy and Higher Education is grateful to many individuals and organizations for their advice and assistance in the development of *Measuring Up 2004*. The responsibility for creating, developing, and producing the report card, however, rests entirely with the National Center.

The National Center was advised on the third report card on state performance in higher education by an independent review committee called “*Measuring Up 2004 and Beyond*” Working Group (see sidebar).

The first report card, *Measuring Up 2000*, benefited from the advice of a National Advisory Panel. Members of the original panel as well as other advisors were convened in fall 2003 to review the suggestions received by the National Center during its process of soliciting advice about improving *Measuring Up*. Participants included: Robert Atwell, Florida; David W. Breneman, University of Virginia; Anthony Carnevale, National Center on Education and the Economy; Ronald R. Cowell, Education Policy and Leadership Center; Gordon K. Davies, National Collaborative for Postsecondary Education Policy; Alfredo G. de los Santos Jr., Arizona State University; Virginia Edwards, *Education Week*; Emerson J. Elliott, Virginia; Peter T. Ewell, National Center for Higher Education Management Systems (NCHEMS); Milton Goldberg, Education Commission of the States; Elaine H. Hairston, Ohio; Janet Hansen, RAND; Sue Hodges-Moore, Kentucky Council on Postsecondary Education; Dennis P. Jones, NCHEMS; Mario Martinez, University of Nevada; Margaret A. Miller, University of Virginia; Michael T. Nettles, Educational Testing Service; Alan Wagner, State University of New York at Albany; and Richard D. Wagner, Illinois.

In addition, the National Center convened special panels this spring to solicit advice on particular issues related to *Measuring Up*, specifically: adult literacy, teacher quality, and challenges to national data collection related to improving state performance. Participants included all members of the “*Measuring Up and Beyond*” Working Group, as well as: Larry Isaak, Midwestern Higher Education Compact; Paul E. Lingenfelter, State Higher Education Executive Officers (SHEEO); David A. Longanecker, Western Interstate Commission for Higher Education; Mario Martinez, University of Nevada; Christopher Mazzeo, National Governors Association; Thomas G. Mortenson, Postsecondary Education Opportunity; Stephen Reder, Portland State University; Alene B. Russell, Virginia; Ron Skinner, *Education Week*; Joan L. Wills, Center for Workforce Development; and William Zumeta, University of Washington.

A number of organizations hosted meetings for the National Center with their members in order to solicit suggestions and feedback for improving *Measuring Up*. We are indebted to the State Higher Education Executive Officers, the National Conference of State Legislators, the National Association of State Budget Officers, and the Education Commission of the States for their willingness to host meetings and convene their members to provide suggestions to improve *Measuring Up*.

The National Center would like to thank a special panel convened to conduct final reviews of state reports for *Measuring Up 2004*, including Dennis P. Jones, NCHEMS; Richard D. Wagner, Illinois; and Jane Wellman, Institute for Higher Education Policy.

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Special analysis of financial aid data was completed by the National Center for Higher Education Management Systems. The National Center is grateful especially to Dennis P. Jones, president; Peter T. Ewell, vice president; Patrick Kelly, senior associate; John Clark, data analyst; and Paula R. Schild, research associate.

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During the past year, several individuals have provided advice and feedback to the National Center and we are grateful for their contributions, including Julie Davis Bell, National Conference of State Legislatures; Gordon K. Davies and Terese Rainwater, Education Commission of the States; Paul E. Lingenfelter, SHEEO; Scott Pattison, National Association of State Budget Officers; and Frank Bowen, senior consultant to the National Center.

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Thad Nodine, Nodine Consulting, was managing editor for *Measuring Up 2004*. Mae Kaven, The Last Detail, and Abigail Stryker provided proofreading and other editorial services.

Dennis Caldwell, Creative Only, developed the design for the report. Vivien Chow of Chow & Chow Design, Chris Hoffman of Seminar Graphics, and Kathleen Coles of IWI.COM provided production services. Printing and letter-shop services were provided by Bob Usedom, Cenveo Anderson Lithograph; Greg Cook, Far Western Graphics; Leslie Nguyen and Kelly Nguyen-Jardin, Unique Solutions; and Cindy Enos, Golden Graphics. Maria Del Roio and Greg Gatham of Web First and Michael Shannon of NETView Communications provided Web site development and support.

William Tyson of Morrison & Tyson Communications advised and assisted the National Center on the communications of *Measuring Up 2004*.

At the National Center, Vice President Joni Finney was responsible for leadership and direction of *Measuring Up 2004*. Mikyung Ryu was lead analyst and project manager for the report card. William Doyle, Jennifer A. Delaney, and Stacey Zis also provided analytical leadership.

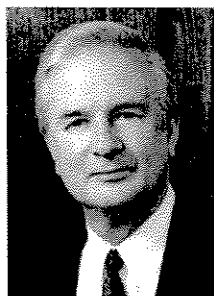
In addition, Mikyung Ryu wrote state reports and summarized national findings. William Doyle provided analytical leadership for the affordability measures, Jennifer A. Delaney wrote state reports and summarized findings, and Stacey Zis wrote state reports and developed Web text. Javier Serrano assisted in data analysis and review. William Trombley provided advice and feedback to staff on the project.

Heather Jack developed the National Center's communications plan, and Daphne Borromeo coordinated and implemented the plan.

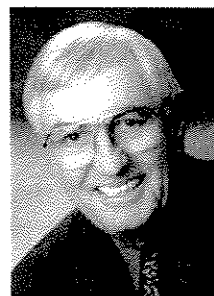
Jill De Maria led the production, Web development, quality-checking, and editorial processes. Shawn Whiteman assisted in production and coordinated the dissemination of the report. Noreen Savelle and Sue Murphy assisted in proofreading, dissemination, and the release event. Gail Moore, Holly Earlywine, Meghan Swyt, and Thomas Gudeli contributed their expertise in proofreading and quality-checking of data.

FOREWORD

By James B. Hunt Jr. and Garrey Carruthers



James B. Hunt Jr.
Chairman, The National
Center for Public Policy
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Former Governor of
North Carolina



Garrey Carruthers
Vice Chairman, The
National Center for
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Higher Education
Former Governor
of New Mexico

Measuring Up 2004 is the third biennial report card on the performance of higher education in the nation and the states. As in its predecessors, each of the 50 states is graded and compared to other states along critical dimensions of college opportunity and effectiveness, from high school preparation through the bachelor's degree. In addition, this 2004 edition adds a new dimension, a ten-year retrospective, that assesses changes in performance since the early 1990s.

This series of *Measuring Up* report cards does not, we emphasize, assess the quality or prestige of particular colleges or universities. Rather, it gauges the educational health of the population of each state in terms of five categories of college opportunity and achievement:

- *Preparation*: How well are young people in high school being prepared to enroll and succeed in college-level work?
- *Participation*: Do young people and working-age adults have access to education and training beyond high school?
- *Completion*: Do students persist in and complete certificate and degree programs?
- *Affordability*: How difficult is it to pay for college in each state when family income, the cost of attending college, and student financial assistance are taken into account?
- *Benefits*: How do workforce-trained and college-educated residents contribute to the economic and civic well-being of each state?

Due to a lack of comparable information across states, we are still unable to grade a sixth category, *learning*, which is the most important outcome of higher education. However, we do report on the pioneering work of five states in addressing the need for state-level information about learning.

The most positive and encouraging finding of this report is in the new ten-year retrospective: Over the past decade, there has been a substantial increase in the proportion of high school students taking courses that prepare them for college. Although the country has far to go in public school improvement, many high schools have strengthened the preparation of their graduates for college. This important accomplishment is the direct result of reform efforts of state and public school leaders.

The rest of the story told by *Measuring Up 2004* is less encouraging and will, we suspect, come as a shock to many Americans. The improved preparation of high school graduates for college has not brought about commensurate gains in college participation or in completion rates of associate or baccalaureate degrees. Also, paying for college has become increasingly difficult for most American students and families; the cost of college, even with financial aid, represents a larger share of the income of most American families than it did ten years ago. In short, the nation's progress toward college opportunity and effectiveness has stalled.

We find it ironic and discouraging that this national plateau occurs at a time when the knowledge-based global economy is stimulating other nations to challenge the United States' previously unqualified world leadership in higher education. According to the most recent international studies, several nations have overtaken the United States in important measures of college participation and attainment. The momentum for their improvement derives from the understanding that nations with the best-educated populations will have major advantages in the intensified global economic competition. Conversely, the twenty-first century economy relentlessly punishes undereducated nations, states, communities, and individuals.

Measuring Up 2004 is a "wake-up call" for our country. We are all justifiably proud of our colleges and universities, but the inescapable fact is that America is underperforming in higher education. Following the path of the past decade will take us to the wrong destinations: diminished opportunities for many Americans and greater economic vulnerability for the country and the states.

The state report cards that accompany *Measuring Up 2004* offer many examples of positive change. But the fundamental finding is that the nation has stalled in the development of human talent through college opportunity. The substantial gains in the preparation of young Americans for college demonstrate that sustained leadership and commitment can raise the educational performance of schools. The message of this report card is that the country and the states must commit to parallel efforts and to a comparable sense of priority and urgency in higher education.

A MESSAGE

From Governor Mark R. Warner

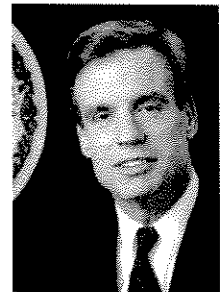
I am pleased to join Governors Jim Hunt and Garrey Carruthers and the National Center for Public Policy and Higher Education in the release of *Measuring Up 2004*.

Like most Americans, I take enormous satisfaction in the accomplishments of our colleges and universities. I am particularly proud of higher education in the Commonwealth of Virginia. Yet, as *Measuring Up 2004* makes clear, the achievements of the past do not justify complacency. The states and the nation face a challenging agenda if we are to meet the needs of our democracy for an educated citizenry, of individuals for educational and economic opportunity, and of both for competitiveness in the global economy. There is much to be done.

In Virginia, we are moving to address these challenges. Specifically, the Commonwealth and its higher education institutions are focusing on:

- Increasing college access and completion to meet the needs of our growing population and to develop the talents of all Virginians who can benefit from education and training beyond high school. This investment in enhanced performance will more than pay for itself in an improved state economy and revenue growth.
- Connecting schools and colleges in ways that move beyond rhetoric to the reality of a K–16 approach. Over the next year, one of the most promising initiatives in Virginia will be the redesign of high school programs with particular emphasis on eliminating the wasted time that characterizes the senior year. Any senior who is ready for college should be able to earn a semester of fully transferable college credit through Advanced Placement, dual enrollment, or virtual enrollment. This initiative will raise the quality and rigor of high school; will help with affordability by saving students and their families a half-year of tuition; and will enable us to serve more students through efficient use of our higher education capacity.
- Encouraging the many students seeking technical training through industry-recognized certification programs at community colleges. As an incentive, the Commonwealth will pay for certification programs that are completed within six months after high school graduation.
- Placing special emphasis on our “first-generation” families, particularly on those adults who have not completed high school. We will encourage more parents to return as adult learners to complete high school. This expanded and aggressive effort, which will leverage the popularity of auto racing by partnering with Virginia’s motor sports industry, will include a program to streamline and encourage high school completion through the GED.
- Finally, linking public financial support of higher education to performance in meeting critical public needs. The Commonwealth and its citizens share the pressing need for inclusive, effective education beyond high school.

I cite these Virginia initiatives as examples of approaches that address the agenda of *Measuring Up 2004*. Every state should, of course, design policies and initiatives that fit its particular issues and circumstances. However, I am convinced that no state can afford to ignore the imperative for increasing the accessibility, effectiveness, and affordability of higher education. I welcome the 2004 edition of this national report card on higher education, particularly its ten-year look at state and national performance and its graded comparisons of state performance. *Measuring Up 2004* is a powerful tool for governors, legislators, business leaders, and colleges and universities committed to improvement.



Mark R. Warner
Governor, Commonwealth
of Virginia
Chairman, National
Governors Association

A TEN-YEAR PERSPECTIVE: HIGHER EDUCATION STALLED DESPITE HIGH SCHOOL IMPROVEMENTS

By Patrick M. Callan



In *Measuring Up 2004*, we evaluate and grade the 50 states based on their higher education performance.* The grades derive from comparing all states to the best-performing ones—that is, to high yet quantifiable, demonstrable, and achievable standards. We have designed all categories, indicators, and grades in *Measuring Up 2004* to stimulate state, national, and educational policy leaders to meet a fundamental goal: assurance that coming generations of Americans will have—at the very least—the benefits that we and earlier generations have enjoyed.

As did the two prior report cards, *Measuring Up 2004* tracks changes and identifies educational strengths and weaknesses. It also introduces two new features. The first, a retrospective, takes stock of changes in the performance of higher education over the past decade. The second, a set of 50 individual state report cards, offers a detailed picture of higher education in each state. These state report cards include key findings and grades, and assess strengths, weaknesses, and key policy issues based on each state's performance on *Measuring Up* indicators. All national and state information is available on-line at www.highereducation.org.

Measuring Up 2004 offers many examples of states that have improved performance over the past decade. But there are also some disturbing declines. For the nation as a whole, our findings are not encouraging. They constitute, as Governors Hunt and Carruthers state, a “wake-up call” for the country:

- Compared with a decade ago, more high school students are enrolling in courses that prepare them for college, including 8th grade algebra and upper-level math and science. More students are taking and performing well on Advanced Placement exams. And more are taught by qualified teachers. Although a larger number of high school students are better prepared for education or training beyond high school, these gains have not translated into higher rates of enrollment in higher education. There have been real but modest gains in rates of associate and baccalaureate degree completion, but participation in college and completion of degrees remain among the weakest aspects of performance. In addition, far too many students still do not graduate from high school on time or at all. Without a high school diploma, most of these young people will face sadly diminished prospects of getting additional training or of ever finding employment that will support a middle-class standard of living. Communities and the nation lose as well, for having a pool of educated workers is the greatest asset in today's knowledge-based global economy.
- Pervasively dismal grades in affordability show that for most American families college is less affordable now than it was a decade ago. The rising cost of attending college has outpaced the growth in family income. Although financial aid has increased, it has not kept pace with the cost of attendance. Every state should reexamine college tuition and financial aid policies, and each should formally link future tuition increases to gains in family income. In the meantime, the conclusion from *Measuring Up 2004* is clear: The vast majority of states have failed to keep college affordable for most families.

* In the *Measuring Up* series, “higher education,” “education and training beyond high school,” and “postsecondary education” are used interchangeably to encompass academic and occupational education and training after high school offered by two- and four-year, public and private, nonprofit and for-profit institutions.

- The nation's gaps in college participation between affluent and poor students have widened. The college-going gaps between whites, African Americans, and Latinos persist.

As a report card, *Measuring Up 2004's* assessments of the present and recent past are interesting. Its lessons for the future, however, are critical. The educational gains—principally in the preparation of high school graduates for college—reflect the energy and leadership that have been devoted to public school reform. The areas of gain are those that have been the highest policy priorities of governors and legislators, business leaders, and educators. Comparable gains in college participation, completion rates, and affordability will require comparable leadership. The areas where we have stalled, made only slight gains, or lost ground will not be self-correcting. For example, rigorous high school preparation can narrow, but will not necessarily close, gaps in college participation and completion; nor will a surge in the economy automatically improve college affordability. Policy drift and not-so-benign neglect have all too often characterized crucial higher education issues over the past ten years.

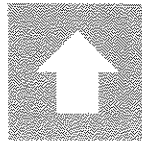
The time has come for addressing accumulated deficiencies. A highly educated population is essential if Americans are to be secure, healthy, and gainfully employed. The lesson of *Measuring Up 2004* is that higher education urgently requires a deliberate and renewed infusion of energy, commitment, and creativity. Policy leadership by governors and legislators is essential. The educational and economic aspirations of individuals, the states, and the nation can be realized in the twenty-first century only through concerted and informed action.

Although a larger number of high school students are better prepared for education or training beyond high school, these gains have not translated into higher rates of enrollment in higher education.

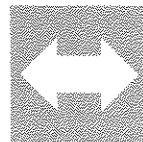
A NATIONAL OVERVIEW: IMPROVEMENT OVER THE PAST DECADE

PREPARATION

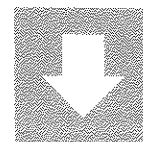
The academic preparation of high school students has improved considerably over the past decade.



44 states have improved on more than half of the indicators



6 states have improved on some of the indicators



No state has declined on every indicator

Improvements

9th to 12th graders taking at least one upper-level math course

Nebraska:	39% to 61%
New York:	34% to 55%
Texas:	38% to 59%
West Virginia:	34% to 59%

9th to 12th graders taking at least one upper-level science course

Nebraska:	23% to 38%
West Virginia:	24% to 44%

8th grade students taking algebra

California:	14% to 39%
Idaho:	14% to 27%
West Virginia:	12% to 25%

8th graders scoring at or above "proficient" on national math exams

Illinois:	15% to 29%
Massachusetts:	23% to 38%
New York:	20% to 32%
North Carolina:	12% to 32%

Low-income 8th graders scoring at or above "proficient" on national math exams

Indiana:	8% to 16%
North Carolina:	6% to 14%

Number of scores in top 20% nationally on college entrance exams per 1,000 high school graduates

Massachusetts:	138 to 231
Tennessee:	127 to 193

Number of scores that are 3 or higher on Advanced Placement tests per 1,000 11th and 12th graders

Maryland:	110 to 247
North Carolina:	68 to 187

7th to 12th graders taught by teachers with a major in their subject

Iowa:	58% to 80%
Kansas:	44% to 70%

Declines

9th graders graduating from high school within four years

Florida:	65% to 55%
New York:	67% to 54%

18- to 24-year-olds with a high school credential

Ohio:	90% to 87%
Oregon:	90% to 86%

9th to 12th graders taking at least one upper-level science course

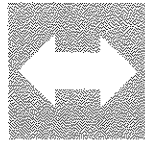
Florida:	32% to 26%
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PARTICIPATION

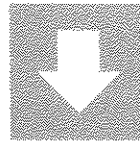
Compared with a decade ago, smaller proportions of young and working-age adults are enrolling in education and training beyond high school.



8 states have improved on more than half of the indicators



23 states have improved on some of the indicators



19 states have declined on every indicator

Improvements

18- to 24-year-olds enrolled in college

Kentucky:	24% to 32%
Tennessee:	27% to 37%

Declines

The likelihood of 9th graders enrolling in college anywhere within four years

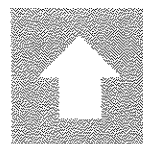
Illinois:	49% to 42%
New York:	45% to 34%
Oregon:	40% to 34%
Vermont:	46% to 34%

18- to 24-year-olds enrolled in college

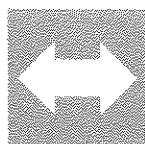
Minnesota:	43% to 36%
Wisconsin:	39% to 31%
Wyoming:	42% to 31%

AFFORDABILITY

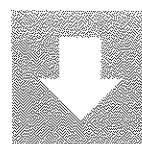
The nation's colleges and universities have become less affordable for students and families compared with a decade ago.



2 states have improved on more than half of the indicators



31 states have improved on some of the indicators



17 states have declined on every indicator

Improvements

Percent of family income needed to pay net college costs at community colleges*

Louisiana:	22% to 18%
Missouri:	21% to 19%

State investment in need-based financial aid as compared to the federal investment

Indiana:	43% to 85%
Massachusetts:	38% to 62%

Declines

Percent of family income needed to pay net college costs at public four-year colleges and universities*

New Hampshire:	23% to 32%
New Jersey:	24% to 34%
Oregon:	25% to 34%

State investment in need-based financial aid as compared to the federal investment

Illinois:	89% to 78%
New Jersey:	104% to 87%

* Net college costs equal tuition, room, and board minus financial aid. The lower the figures the better the performance on this indicator.

A NATIONAL OVERVIEW: IMPROVEMENT OVER THE PAST DECADE

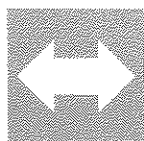
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COMPLETION

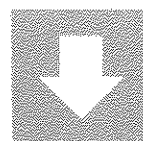
Modest gains have been made in the percentage of students completing certificates and degrees over the past decade. Most of the improvement in this area has been due to an increase in the number of certificates awarded.



37 states have improved on more than half of the indicators



9 states have improved on some of the indicators



4 states have declined on every indicator

Improvements

Certificates, degrees, and diplomas awarded per 100 undergraduate students enrolled

Arizona:	10 to 16
Georgia:	16 to 20
Louisiana:	12 to 17
South Dakota:	15 to 19

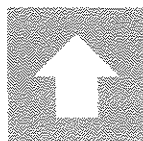
Declines

First-year community college students returning their second year

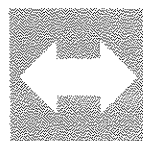
Kansas:	64% to 51%
Nebraska:	68% to 52%
New Mexico:	64% to 52%
South Carolina:	61% to 49%

BENEFITS

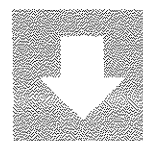
Over the past decade, most states have increased their "educational capital" as measured by the percentage of adult residents with a bachelor's degree. As a result, many states have seen an increase in the economic benefits that accrue from having a highly educated population.



41 states have improved on more than half of the indicators



8 states have improved on some of the indicators



1 state has declined on every indicator

Improvements

Adults with a bachelor's degree or higher

Alabama:	15% to 23%
Arizona:	23% to 30%
Kentucky:	17% to 24%
Maryland:	27% to 35%

Increase in total personal income as a result of the percentage of the population holding a bachelor's degree

Arizona:	8% to 12%
Maryland:	8% to 13%



LEARNING

This year 45 states continue to receive an "Incomplete" in learning. However, five states (Illinois, Kentucky, Nevada, Oklahoma, and South Carolina) receive a "Plus" for developing learning measures through their participation in a pilot study to compare learning results across states. For more information, see "Grading Learning: Extending the Concept," page 13.

GRADING LEARNING: EXTENDING THE CONCEPT

In the 2000 and 2002 editions of *Measuring Up*, all 50 states received an “Incomplete” in learning because there are no comparable data that would allow for meaningful state-by-state comparisons in this category. *Measuring Up 2004*, for the first time, gives a “Plus” in learning to five states—Illinois, Kentucky, Nevada, Oklahoma, and South Carolina. These states have developed comparable learning measures through their participation in a national demonstration project conducted by the National Forum on College-Level Learning and funded by The Pew Charitable Trusts.¹

The five-state demonstration project represents a new stage in steady progress toward creating a national learning benchmark. Essays in *Measuring Up 2000* described the kinds of data that might be assembled or collected to create such a benchmark. *Measuring Up 2002* proposed a framework for grading learning and illustrated the approach by applying a limited set of data to the state of Kentucky. *Measuring Up 2004* takes this illustration to the next step by including a full set of measures for the five participating states.

Creating a Category for Learning

Based on the results of the demonstration project, the learning category is being constructed as the other five performance categories in *Measuring Up* have been, with indicators that are grouped in several overall themes, each of which is weighted (see parentheses) and reflects a particular dimension of state performance:

1. Abilities of the College-Educated Population (25%).

This cluster of indicators examines the proportion of college-educated residents who achieve high levels of literacy. It directly addresses the question, “What are the abilities of the college-educated population?” originally posed in *Measuring Up 2000*.

For the 2004 demonstration, the data used are the same as those included in the benefits category and are based on the 1992 National Adult Literacy Survey (NALS) for residents aged 25 to 64, updated through the 2000 census. The NALS assessment poses real-world tasks or problems that require respondents to read and interpret

The National Forum on College-Level Learning, established in 2002, is the first attempt to measure what college-educated people know and can do in a comparable way across states. Between 2002 and 2004, the forum worked with the states of Illinois, Kentucky, Oklahoma, Nevada, and South Carolina on a project sponsored by The Pew Charitable Trusts to assess student learning. The project used national assessments of adult literacy, tests that many students already take when they leave college, and specially administered tests of general intellectual skills. The results make it possible to begin to assess both the educational capital available to these states and the contributions that their colleges and universities (two- and four-year, public and private) collectively make to it.

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texts (prose), to obtain or act on information contained in tabular or graphic displays (document), and to understand numbers or graphs and perform calculations (quantitative).

2. Institutional Contributions to Educational Capital (25%).

The indicators in this area reflect the contributions to a state's stock of “educational capital” by examining the proportion of the state's college graduates (from two- and four-year institutions) ready for advanced practice in the form of professional licensure or graduate study. It addresses *Measuring Up 2000*'s policy question, “To what extent do colleges and universities educate students to be capable of contributing to the workforce?”

¹ A report on the results and lessons of the five-state demonstration project will be released in November.

GRADING LEARNING: EXTENDING THE CONCEPT

Continued



For the 2004 demonstration, the measures are based on the number of college graduates within each state who have demonstrated their readiness for advanced practice by (a) taking and passing a national examination required to enter a licensed profession such as nursing and physical therapy, (b) taking a nationally recognized graduate admissions exam such as the Graduate Record Examination (GRE) or the Medical College

Admissions Test (MCAT) and earning a nationally competitive score, or (c) taking and passing a teacher licensure exam in the state in which they graduated. Each of these measures is presented as a proportion of total bachelor's and associate's degrees granted in the state during the time period.

3. Performance of College Graduates (50%).

This cluster of indicators focuses on the quality of the state's higher education "product" by addressing the all-important question, "How effectively can graduates of two- and four-year colleges and universities communicate and solve problems?"

For the 2004 demonstration, the measures consist of two sets of assessments, the Collegiate Learning Assessment (CLA) for four-year institutions and the ACT Work Keys assessment for two-year colleges. The CLA is an innovative exam that goes beyond multiple-choice testing by posing real-world tasks that a student is asked to understand and solve. For example, students could be asked to draw scientific conclusions from a body of evidence in

biology or examine historical conclusions based on original documents. They might be asked to prepare a persuasive essay, and analyze and then refute a written argument with logic and evidence. The ACT Work Keys examines what students can do with what they know. Items on reading comprehension and locating information, for instance, might require students to extract information from documents and instructions; questions in applied mathematics might test their abilities in using mathematical concepts such as probability or estimation in real-world settings. The Work Keys writing assessment requires students to prepare an original essay in a business setting.²

In order to evaluate state performance, the values for each indicator within these three themes are compared to a common standard. For the other five performance categories in *Measuring Up*, this standard is set by the best-performing states. Because the demonstration project involved only five states, the standard chosen for this illustration is the national average on each measure.³

Reading a State Profile

The resulting group of measures creates a "learning profile" for each state. The learning profile for Kentucky, the same state used to display preliminary learning results in *Measuring Up 2002*, provides an appropriate example (see chart). The horizontal bars to the left of the vertical line indicate how many percentage points below the national average Kentucky falls; bars to the right indicate how many percentage points above this benchmark the state performs. Deviations of a few percentage points from the average on a given indicator suggest that the state's performance is not markedly different from that of other states, while larger deviations (about ten points or more) indicate that the state is above or below most others on this measure.

² Measures included under the first two clusters are available nationally and can potentially be calculated for all 50 states. Measures included in the third will require special data-collection efforts similar to those undertaken by the five demonstration project states in 2004.

³ The testing measures included in Performance of College Graduates are new and lack appropriate national benchmarks; the average of the five participating states was used instead.

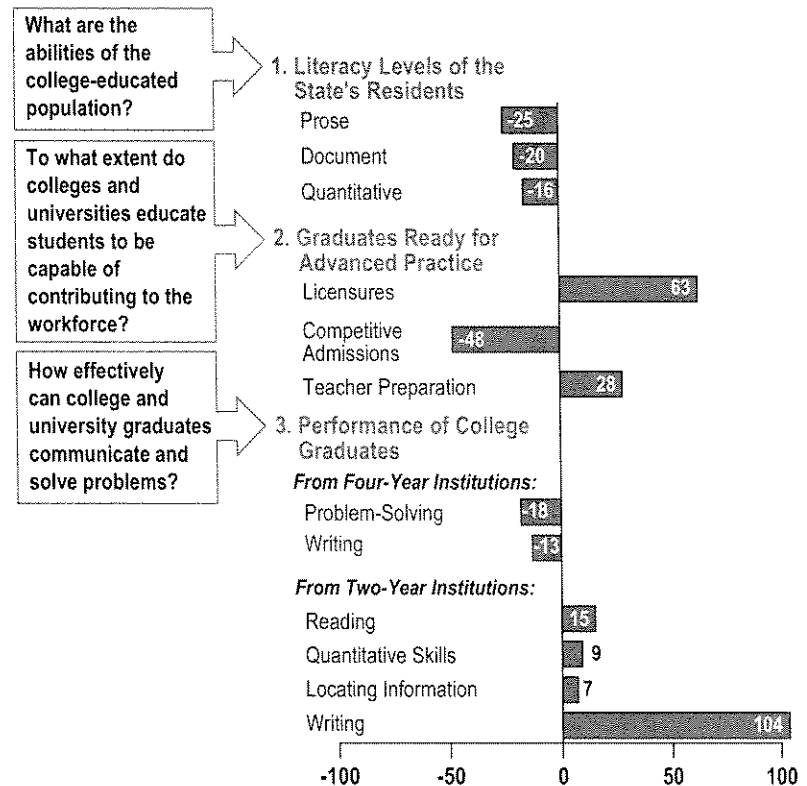
Several conclusions can be drawn from Kentucky's learning profile:

- On literacy measures, Kentucky residents perform well below the national average, reflecting low levels of educational attainment. Improving its stock of “educational capital” remains a major challenge for the state.
- Kentucky's substantial recent investment in its community college system appears to be paying off in higher than average performances on direct assessments, particularly in writing.
- The state's higher education system also appears to prepare higher than average proportions of graduates ready to enter licensed professions (like nursing and physical therapy) and teaching.
- However, the competitiveness and performance of Kentucky's four-year colleges and universities remain challenges for the state. This is reflected in graduates' performance on tests of general problem-solving and writing skills, as well as the proportions of four-year college graduates taking examinations required for graduate study and earning competitive scores (“Competitive Admissions”).

Similar learning profiles have been constructed for the other four states in the demonstration project (see table next page). The table displays how many percentage points above or below the national average each state falls on each measure.⁴ While these results can only begin to tell the “learning story” for these states, they—like the grades in *Measuring Up*—are sufficient to *start* a policy conversation. For example, behind Illinois' strong performance in learning outcomes, there are notable shortfalls for minority students that the state should address. And Oklahoma appears to face a particular challenge in written communication skills at all levels. For additional information about learning results for each state, please visit www.highereducation.org.

Kentucky Learning Measures

Percent Above or Below National Benchmark



⁴ The learning results shown in this table are provided to make broad comparisons across states. But because relatively small numbers of students were tested on the exams under Performance of College Graduates, and because the extent to which this test-taker population is representative of all two- and four-year graduates in the state is unknown, results should be treated with caution. Readers should look primarily at the overall *pattern* of results in a given state profile without making too much of the individual values for each measure.

GRADING LEARNING: EXTENDING THE CONCEPT

Continued

Learning Measures: Percent Above or Below National Average

	IL	KY	NV	OK	SC
Literacy Levels of the State's Residents					
Prose	8	-25	-8	-8	-25
Document	15	-20	-10	-5	-25
Quantitative	8	-16	-8	-4	-24
Graduates Ready for Advanced Practice					
Licensures	-13	63	-17	61	28
Competitive Admissions	[46]*	-48	-52	-58	-50
Teacher Preparation	39	28	89	7	6
Performance of College Graduates					
<i>From Four-Year Institutions</i>					
Problem Solving	[16]†	-18	[Missing]‡	3	5
Writing	[2]†	-13	[Missing]‡	-15	-1
<i>From Two-Year Colleges</i>					
Reading	6	15	-13	-7	13
Quantitative Skills	-3	9	-22	-1	4
Locating Information	5	7	-26	4	10
Writing	43	104	-37	-17	-52

* The GRE scores used as part of the calculation of Competitive Admissions for Illinois were based on the national average because of missing data for key institutions. All other test score data are specific to Illinois.

† These scores must be qualified because of the limited number of institutions participating.

‡ These data were unavailable due to insufficient numbers of test takers and logistical problems with test administration.

What Have We Learned About Measuring Learning?

Results from the five-state demonstration project suggest that it is feasible to extend this approach to other states and eventually to create a nationwide benchmark for learning. While the project has encountered difficulties in the logistics of administering tests, institutional commitment and preparation, and student motivation to

participate, these are typical of a first effort of this kind. With increased preparation and resources, these challenges can be overcome. The National Forum on College-Level Learning has prepared detailed estimates of costs and logistics, so that other states can undertake similar efforts to benchmark collegiate learning in the future. *Measuring Up 2006* will report results for additional states in this category.

QUESTIONS AND ANSWERS ABOUT MEASURING UP 2004

Who is being graded in this report card, and why?

Measuring Up 2004 grades states, not students or particular colleges or universities, on their performance in higher education. The states are responsible for preparing students for higher education through sound K–12 systems, and they provide most of the public financial support—\$69 billion currently—for colleges and universities. Through their oversight of public colleges and universities, state leaders can affect the kinds and numbers of education programs available in the state. They determine the limits of financial support and often influence tuition and fees for public colleges and universities. They determine how much state-based financial aid to make available to students and their families, which affects students attending private as well as public colleges and universities. In addition, state economic development policies influence the income advantage that residents receive from having some college experience or a college degree.

Why is a state-by-state report card needed for higher education?

Measuring Up provides the general public and policymakers with objective information they need to assess and improve higher education. After the publication of *Measuring Up 2000* four years ago, states for the first time could assess and compare performance in higher education within a national context. The report cards have been developed as a tool for improvement in policy and performance.

Why is the format of this report card different from previous ones?

Measuring Up 2004 makes greater use of the Internet (www.highereducation.org) to improve access to materials and information:

- This national report highlights nationwide trends as well as state-by-state grades.
- Fifty state report cards feature individual and comprehensive information about each state.

WHAT'S NEW IN MEASURING UP 2004?

Performance information in *Measuring Up 2004* is available, for the first time, in individual and comprehensive state report cards, available at www.highereducation.org. As with previous editions of *Measuring Up*, these state report cards provide state policymakers with crucial information about their state's current performance in comparison with top states nationwide. This year, the state report cards also present historical information about each state's performance over the past decade. This provides state leaders with information about their state's progress and setbacks in relation to its own previous performance.

Changes in Indicators

Measuring Up 2004 introduces two new indicators. Teacher Quality, in the preparation category, measures the proportion of 7th to 12th graders taught by teachers with a major in their subject. Volunteering, in the benefits category, measures the increase in volunteering rates as a result of college education. As with all graded measures in *Measuring Up*, these indicators are drawn from national data sources that are comparable across the states.

One indicator has been eliminated in *Measuring Up 2004* in the completion category. The percentage of students completing a bachelor's degree within five years is no longer used due to the discontinuation of a national survey collecting this data. Six-year completion rates for the bachelor's degree are still reported.

In addition, the series of indicators measuring adult literacy skills (in the benefits category) is not being used to calculate grades in *Measuring Up 2004* because the data have not been updated in 12 years. A new survey is currently being administered, but the new results will not be available until 2005, according to the U.S. Department of Education. As a temporary place-holder for these indicators, the National Center commissioned a study to estimate adult skill levels based on the 2000 Census. These estimates are provided in the charts found in the state report cards, but they are not used to calculate grades. The National Center plans to use the actual survey results in determining grades once they become available.

QUESTIONS AND ANSWERS ABOUT MEASURING UP 2004

Continued

WHAT'S NEW IN MEASURING UP 2004? (Continued)

Changes in Calculations

Measuring Up 2004 introduces two improvements to the affordability category, both of which make the grades more responsive to actual state performance. To measure current state performance in affordability, this edition of *Measuring Up* draws from data for the most recent two years available (2002 and 2003), rather than the most recent year for which all data would be available (2002). As a result of this change, *Measuring Up 2004* reflects some of the major changes in tuition and financial aid that occurred in 2003.

Secondly, each state's performance in making colleges affordable is now calculated in relation to the performance of top states a decade ago—rather than in relation to top states' current performance. This change creates a more stable basis for states to assess their performance in affordability, which is the most volatile of the graded categories.

Learning Update

In the learning category, *Measuring Up 2004* reports information about five states that participated in a pilot project on measuring learning (see "Grading Learning: Extending the Concept," page 13). This report card gives these states—Illinois, Kentucky, Nevada, Oklahoma, and South Carolina—a "Plus" for their efforts in assessing and measuring learning. As in previous editions, all other states receive an "Incomplete" in this category.

Note: Additional information about each of these changes can be found in the *Technical Guide* at www.highereducation.org.

What is graded in the report card?

The report card grades states in six performance categories: academic preparation, participation, affordability, completion, benefits, and learning.

Preparation: How adequately are students in each state being prepared for education and training beyond high school?

Participation: Do state residents have sufficient opportunities to enroll in education and training beyond high school?

Affordability: How affordable is higher education for students and their families?

Completion: Do students make progress toward and complete their certificates and degrees in a timely manner?

Benefits: What benefits does the state receive as a result of having a highly educated population?

Learning: What is known about student learning as a result of education and training beyond high school?

How are states graded?

States receive grades in each performance category. Each performance category is made up of several indicators, or quantitative measures—a total of 35 in the first five categories. Grades are calculated based on each state's performance on these indicators, relative to other states (see "How We Grade States," page 20).

For the sixth category, learning, most states receive an "Incomplete" because there are no common benchmarks for student learning that would allow for state-by-state comparisons. This year, *Measuring Up 2004* gives a "Plus" to five states that are actively seeking to measure and assess learning through their participation in a pilot project. For more information about measuring learning, see "Grading Learning: Extending the Concept," page 13.

What information is provided but not graded?

Each of the 50 state report cards presents important information that is not graded, either because the information, though important, is not based on performance outcomes, or because the data are not available for all the states. For example, the state report cards highlight important gaps in college opportunities for various income and ethnic

groups. They identify substantial improvements and setbacks in each state's performance over the past decade. They describe the strengths and weaknesses of higher education in each state. And they identify policy questions that state leaders should address.

What sources of information are used to determine the grades?

All data used to grade states in *Measuring Up 2004* were collected from national, reliable sources, including the U.S. Census and the U.S. Department of Education. All data are the most current available for state-by-state comparisons (in most cases from 2002 or 2003), are in the public domain, and were collected in ways that allow for effective comparisons among the states. The *Technical Guide* (available at www.highereducation.org) has information about sources used in *Measuring Up 2004*.

Does the report card grade on a curve?

No. Grades are calculated by comparing each state to the best-performing states for each indicator.

What grading scale is used?

As shown in "How We Grade," the grades are based on the familiar 100-point scale: An "A" represents a score of 90 or above, and an "F" represents a score below 60.

Does the report card use data unique to a particular state?

Measuring Up 2004 only uses data that are comparable across states. As a result, some states may find that their own internal data present a fuller picture of the state's strengths and weaknesses in higher education. The National Center encourages states to add their own data to the report card's categories to create a more detailed picture of state performance.

What happens if data are missing for a state?

When information is not available on a particular indicator, we assume, for the purposes of grading, that a state is doing no better or worse on that particular indicator than it is on the other indicators in that performance category. However, the report card uses the most recent data avail-

able. In the event that a state has data that were available in time for the 2002 but not for the 2004 edition of *Measuring Up*, the data from *Measuring Up 2002* are used again in this edition, since they are the most recent data available for state-by-state comparisons.

To what extent do the grades reflect the wealth or the race and ethnicity of the state's population?

An independent analysis of *Measuring Up* data showed that factors like wealth and economic vitality had about a 25% influence on grades, and that race and ethnicity had about a 10% influence. (See *A Review of Tests Performed on the Data in Measuring Up 2000*, by Peter Ewell, available at www.highereducation.org.)

How does the report card account for the migration of people across state lines?

Migration affects two of the performance categories: participation and benefits. One of the indicators in the participation category accounts for the migration of young people, but the indicator in the benefits category does not, due to limitations in the national collection of the data. To provide a context for the grades in participation, please see the net migration of students reported in the "Additional Information" section of the state report cards. In the benefits category, states receive credit for having an educated population since states reap the economic and societal rewards whether or not residents received their education in that state. With the exception of the benefits category, all other graded performance categories recognize states for developing rather than importing talent.

How frequently are the report cards published?

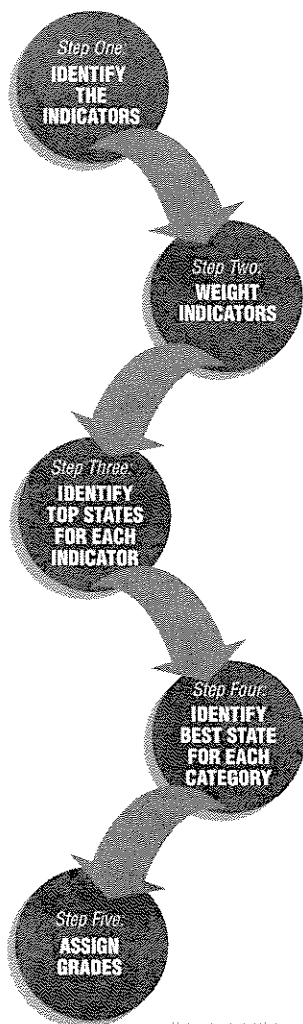
Every two years. Previous report cards were published in 2000 and 2002. The next report card will be released in 2006.

How can I find out more about the report card or about my state's performance?

Visit the National Center's Web site at www.highereducation.org to:

- Download state report cards and the national report card.
- Compare any state with the best-performing states in each performance category.
- Compare states on their grades and indicator results in each performance category.
- Compare states on other key factors (such as demographic indicators and higher education appropriations).
- Identify gaps in state performance for ethnic and income groups.
- Link directly to the sources that gathered the data.
- Obtain technical information and sources for indicators, weights, and calculations.
- Find out more about the National Center for Public Policy and Higher Education.

HOW WE GRADE STATES



A	= 93 and above
A-	= 90-92
B+	= 87-89
B	= 83-86
B-	= 80-82
C+	= 77-79
C	= 73-76
C-	= 70-72
D+	= 67-69
D	= 63-66
D-	= 60-62
F	= Below 60

State grades (A, B, C, D, or F) in the five performance categories are based on each state's performance relative to other states.

Step 1. Identify the indicators

Indicators, or measures, are selected for each performance category: preparation, participation, affordability, completion, and benefits. All indicators used in *Measuring Up*:

- are important in assessing performance in the category,
- are collected regularly by reliable, public sources that follow accepted practices for data collection,
- are comparable across the 50 states, and
- measure performance results.

Step 2. Weight indicators

Each indicator is assigned a weight based on its importance to the performance category. For each category, the sum of all weights is 100%.

Step 3. Identify top states for each indicator

State results, or raw scores, on each indicator are converted to an "index" scale of 0 to 100, using the performance of the top five states as the benchmark. This establishes a high, but achievable standard of performance. Beginning with *Measuring Up 2004*, the performance of the top five states a decade ago sets the benchmark for the current performance in the affordability category. All other categories continue to use the top five states in the current year.

Step 4. Identify best state for each category

State scores for each category are calculated from the state's results on the indicators and the indicators' weights. In each category, the sum of all the index scores on the indicators is converted to a scale of 0 to 100, based on the performance of the top state in the category.

Step 5. Assign grades

Grades are assigned based on the category index scores, using a grading scale common in many high school and college classes.

HOW WE MEASURE IMPROVEMENT OVER THE PAST DECADE

"A National Overview: Improvements over the Past Decade" (see page 10) presents each state's progress in relation to its own performance a decade ago.

1. Compare each state's results* on the indicators in *Measuring Up 2004* with its results from a decade ago.

Each state's results in this report card are compared with its own results from a decade ago on all indicators for which there are data.

2. Determine whether the state's current performance on each comparable indicator has improved or declined compared with a decade ago.

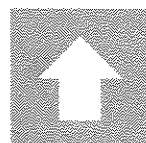
3. In each performance category, identify whether the state has made improvements or not.

With the weights of indicators taken into account,[†] the state receives one of the following arrows in each performance category:

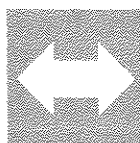
- *Up arrow*: The state has improved on more than half of the indicators in the category.
- *Side arrow*: The state has improved on some, but no more than half, of the indicators in the category.
- *Down arrow*: The state has declined on every indicator in the category.

For more information about indicators and calculations, see the *Technical Guide* at www.highereducation.org.

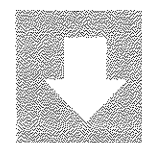
What do the arrows mean?



The state has improved on more than half of the indicators in the category.



The state has improved on some, but no more than half, of the indicators in the category.



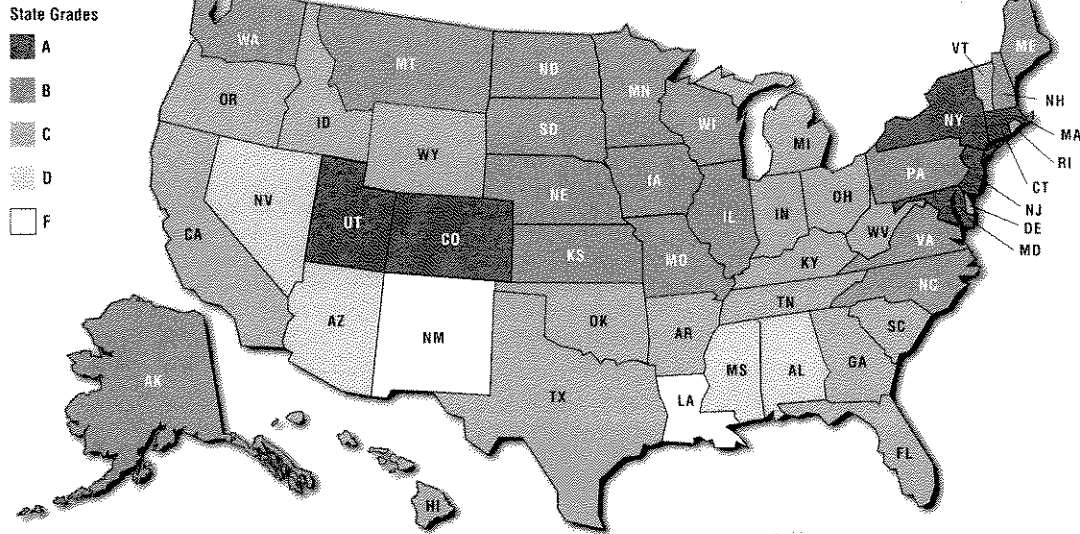
The state has declined on every indicator in the category.

* The results, or raw scores, are the numerical values that each state receives on each indicator. (To see how results are converted to grades, see "How We Grade States.")

† Each indicator is assigned the same weight as in grading (see "How We Grade States"). The only exceptions are in those performance categories in which indicators have been added or refined, or in which updated state information is not available; in those cases, the weights are adjusted proportionately.

THE NATIONAL PICTURE: 2004 SNAPSHOT

PREPARATION



A Colorado, Connecticut, Maryland, Massachusetts, New Jersey, New York, Utah **B** Alaska, Illinois, Iowa, Kansas, Maine, Minnesota, Missouri, Montana, Nebraska, New Hampshire, North Carolina, North Dakota, Pennsylvania, South Dakota, Virginia, Washington, Wisconsin **C** Arkansas, California, Delaware, Florida, Georgia, Hawaii, Idaho, Indiana, Kentucky, Michigan, Ohio, Oklahoma, Oregon, Rhode Island, South Carolina, Tennessee, Texas, Vermont, West Virginia, Wyoming **D** Alabama, Arizona, Delaware, Mississippi, Nevada **F** Louisiana, New Mexico. **Massachusetts is the top-performing state in preparation.**

PREPARATION

High School Completion
High School Credential

K-12 Course Taking

Math Course Taking
Science Course Taking
Algebra in 8th Grade
Math Course Taking in 12th Grade

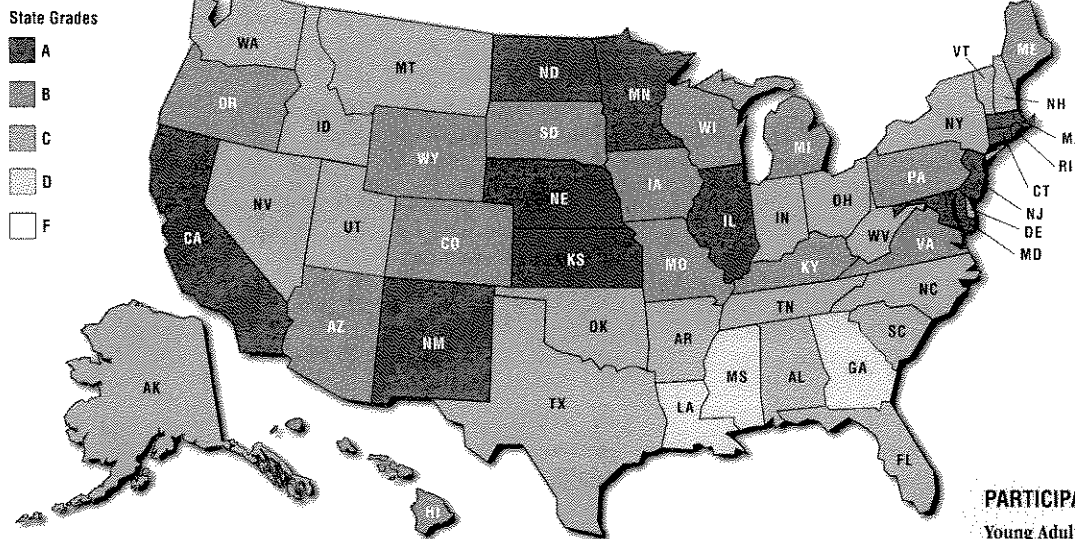
K-12 Student Achievement

Math Proficiency
Reading Proficiency
Science Proficiency
Writing Proficiency
Math Proficiency among Low-Income
College Entrance Exams
Advanced Placement Exams

Teacher Quality

Students taught by qualified teachers

PARTICIPATION



A California, Connecticut, Illinois, Kansas, Maryland, Massachusetts, Minnesota, Nebraska, New Jersey, New Mexico, North Dakota, Rhode Island **B** Arizona, Colorado, Hawaii, Iowa, Kentucky, Maine, Michigan, Missouri, Oregon, Pennsylvania, South Dakota, Virginia, Wisconsin, Wyoming **C** Alabama, Alaska, Arkansas, Delaware, Florida, Idaho, Indiana, Montana, Nevada, New Hampshire, New York, North Carolina, Ohio, Oklahoma, South Carolina, Tennessee, Texas, Utah, Vermont, Washington, West Virginia **D** Georgia, Louisiana, Mississippi. **Massachusetts is the top-performing state in participation.**

PARTICIPATION

Young Adults

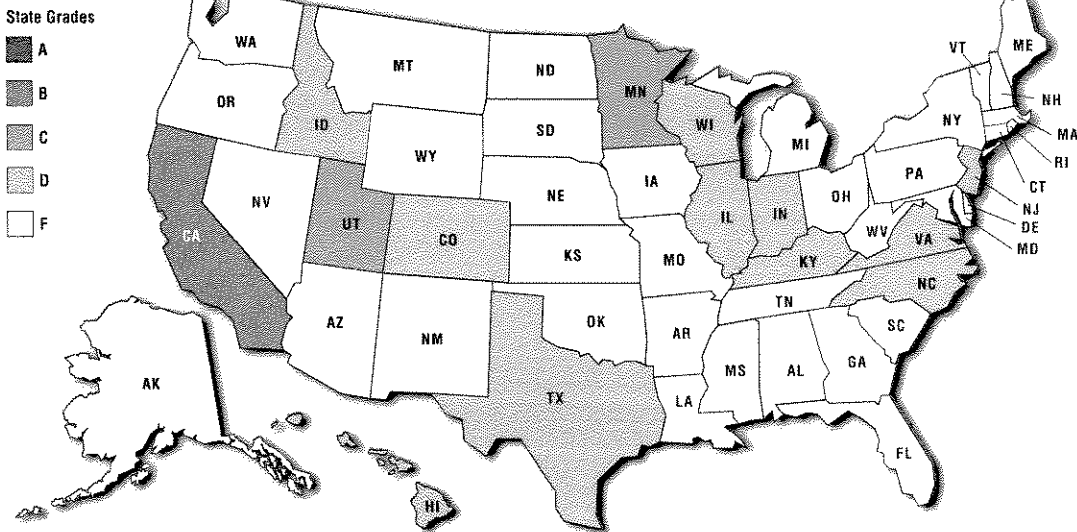
Chance for College
Young Adult Enrollment

Working-Age Adults

Working-Age Adult Enrollment

THE NATIONAL PICTURE: 2004 SNAPSHOT *Continued*

AFFORDABILITY



B California **C** Minnesota, Utah **D** Colorado, Hawaii, Idaho, Illinois, Indiana, Kentucky, New Jersey, North Carolina, Texas, Virginia, Wisconsin **F** Alabama, Alaska, Arizona, Arkansas, Connecticut, Delaware, Florida, Georgia, Iowa, Kansas, Louisiana, Maine, Maryland, Massachusetts, Michigan, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, New York, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Vermont, Washington, West Virginia, Wyoming. **California is the top-performing state in affordability.**

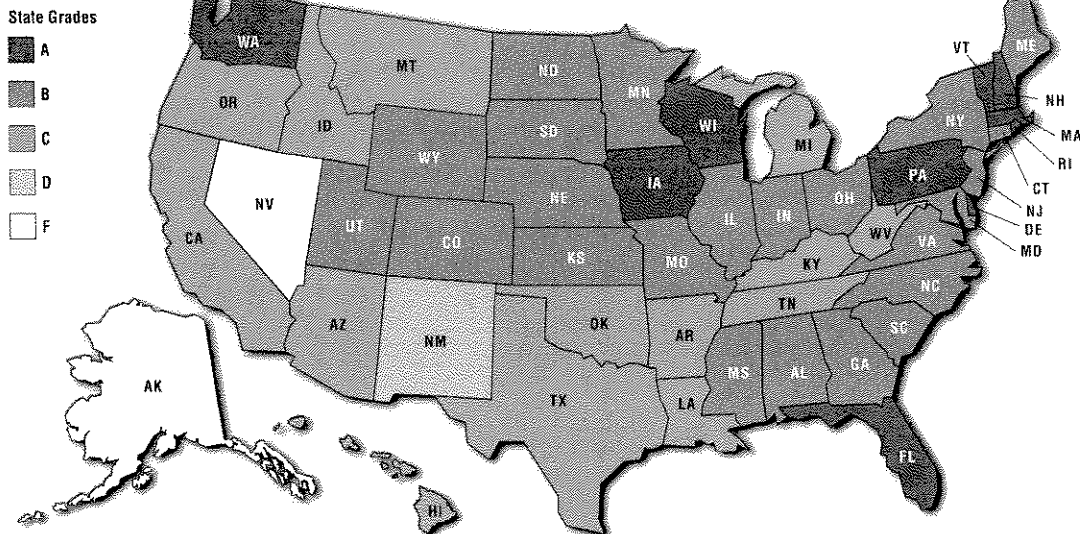
AFFORDABILITY

Family Ability to Pay
At Community Colleges
At Public 4-Year Colleges
At Private 4-Year Colleges

Strategies for Affordability

Need-Based Financial Aid
Low-Priced Colleges
Reliance on Loans
Low Student Debt

COMPLETION



A Delaware, Florida, Iowa, Massachusetts, New Hampshire, Pennsylvania, Rhode Island, Vermont, Washington, Wisconsin **B** Alabama, Colorado, Connecticut, Georgia, Illinois, Indiana, Kansas, Maine, Maryland, Minnesota, Mississippi, Missouri, Nebraska, New Jersey, New York, North Carolina, North Dakota, Ohio, South Carolina, South Dakota, Utah, Virginia, Wyoming **C** Arizona, Arkansas, California, Hawaii, Idaho, Kentucky, Louisiana, Michigan, Montana, Oklahoma, Oregon, Tennessee, Texas, West Virginia **D** New Mexico **F** Alaska, Nevada. **Vermont is the top-performing state in completion.**

COMPLETION

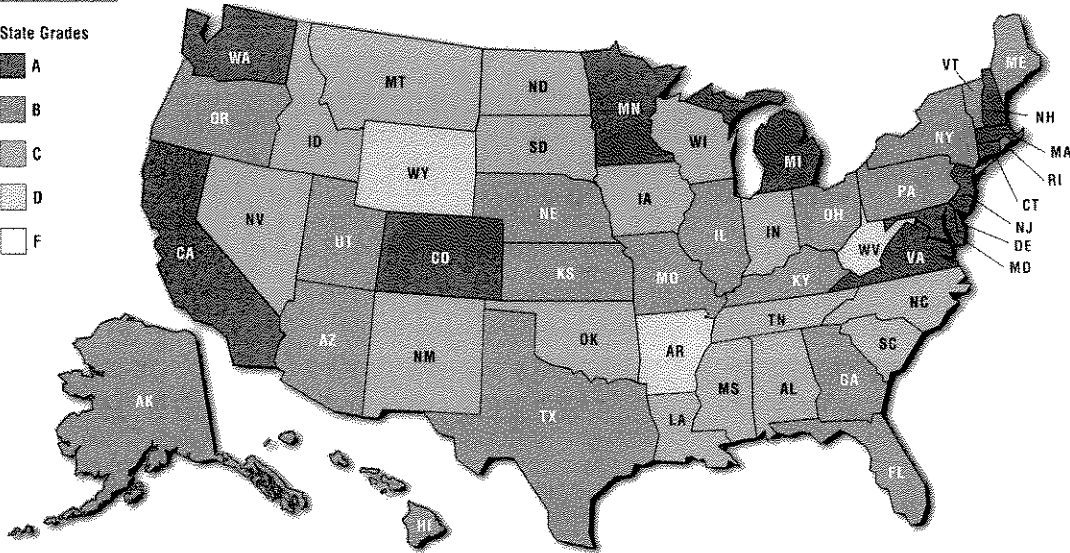
Persistence
Students Returning
at 2-Year Colleges
Students Returning
at 4-Year Colleges

Completion

Bachelor's Degree Completion
in 6 Years
All Degree Completion

BENEFITS

State Grades



A California, Colorado, Connecticut, Delaware, Maryland, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, Virginia, Washington **B** Alaska, Arizona, Florida, Georgia, Hawaii, Illinois, Kansas, Kentucky, Maine, Missouri, Nebraska, New York, Ohio, Oregon, Pennsylvania, Rhode Island, Texas, Utah, Vermont **C** Alabama, Idaho, Indiana, Iowa, Louisiana, Mississippi, Montana, Nevada, New Mexico, North Carolina, North Dakota, Oklahoma, South Carolina, South Dakota, Tennessee, Wisconsin **D** Arkansas, West Virginia, Wyoming. **Maryland is the top-performing state in benefits.**

BENEFITS

Educational Achievement
Adults with Bachelor's Degree or Higher

Economic Benefits
Increased Income from Bachelor's Degree
Increased Income from Some College

Civic Benefits

Population Voting
Charitable Contributions
Volunteering

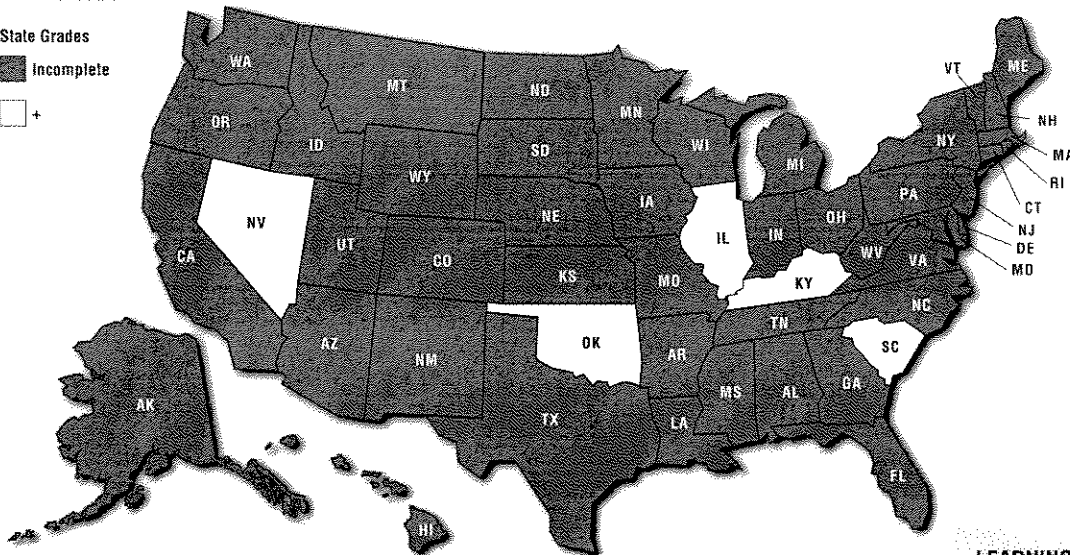
Adult Skill Levels*

Quantitative Literacy
Prose Literacy
Document Literacy

*Adult Skill Levels for 2004 are estimated and are not used to calculate grades.

LEARNING

State Grades



LEARNING



What do we know about learning as a result of education and training beyond high school? *Measuring Up 2004* gives a "Plus" in learning to five states (Illinois, Kentucky, Nevada, Oklahoma, and South Carolina) that have developed learning measures through their participation in a national demonstration project conducted by the National Forum on College-Level Learning and funded by The Pew Charitable Trusts. For more detail, see "Grading Learning: Extending the Concept," page 13.

STATE GRADES 2004

	PREPARATION	PARTICIPATION	AFFORDABILITY	COMPLETION	BENEFITS
Alabama	D-	C	F	B-	C+
Alaska	B-	C	F	F	B
Arizona	D	B+	F	C+	B
Arkansas	C	C-	F	C	D+
California	C	A	B	C	A
Colorado	A-	B	D-	B-	A
Connecticut	A	A	F	B	A
Delaware	C+	C+	F	A-	A-
Florida	C	C	F	A-	B-
Georgia	C	D	F	B	B
Hawaii	C	B-	D	C	B
Idaho	C	C-	D-	C+	C
Illinois	B+	A	D	B	B-
Indiana	C	C+	D	B	C
Iowa	B+	B+	F	A	C
Kansas	B	A	F	B	B+
Kentucky	C-	B-	D-	C	B
Louisiana	F	D+	F	C	C
Maine	B	B-	F	B	B
Maryland	A-	A	F	B-	A
Massachusetts	A	A	F	A	A
Michigan	C	B+	F	C+	A-
Minnesota	B+	A	C-	B+	A
Mississippi	D+	D	F	B-	C
Missouri	B-	B	F	B	B
Montana	B+	C	F	C	C
Nebraska	B+	A	F	B	B
Nevada	D	C	F	F	C-
New Hampshire	B+	C+	F	A	A-
New Jersey	A	A-	D	B	A
New Mexico	F	A-	F	D	C+
New York	A	C+	F	B+	B
North Carolina	B	C+	D-	B	C
North Dakota	B	A-	F	B	C
Ohio	C+	C+	F	B	B-
Oklahoma	C-	C	F	C-	C+
Oregon	C	B-	F	C	B
Pennsylvania	B-	B	F	A	B
Rhode Island	C+	A	F	A	B+
South Carolina	C	C-	F	B	C
South Dakota	B	B+	F	B	C-
Tennessee	C-	C-	F	C+	C
Texas	C+	C	D	C	B-
Utah	A	C+	C	B	B
Vermont	C+	C	F	A	B-
Virginia	B+	B-	D-	B	A-
Washington	B-	C	F	A-	A-
West Virginia	C+	C-	F	C	D
Wisconsin	B+	B	D	A-	C+
Wyoming	C+	B	F	B+	D

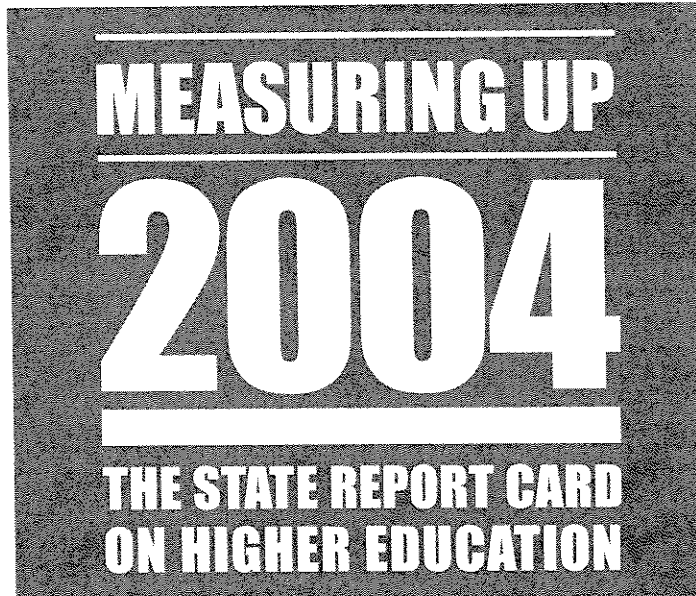


THE NATIONAL CENTER FOR
PUBLIC POLICY AND
HIGHER EDUCATION

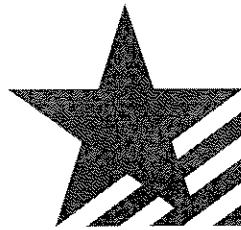
152 North Third Street, Suite 705, San Jose, California 95112 • Telephone 408-271-2699 • Fax 408-271-2697 • center@highereducation.org

www.highereducation.org

ATTACHMENT C



WYOMING



**THE NATIONAL CENTER FOR
PUBLIC POLICY AND
HIGHER EDUCATION**

WHAT IS MEASURING UP?

This state report card is derived from *Measuring Up 2004*, the national report card for higher education. Its purpose is to provide the public and policymakers with information to assess and improve postsecondary education in each state. *Measuring Up 2004* is the third in a series of biennial report cards.

Measuring Up 2004 evaluates states on their performance in higher education because it is the states that are primarily responsible for educational access and quality in the United States. In this report card, “higher education” refers to all education and training beyond high school, including all public and private, two- and four-year, for-profit and nonprofit institutions.

The report card grades states in six overall performance categories:

■ **Preparation:** How adequately are students in each state being prepared for education and training beyond high school?

■ **Participation:** Do state residents have sufficient opportunities to enroll in education and training beyond high school?

■ **Affordability:** How affordable is higher education for students and their families?

■ **Completion:** Do students make progress toward and complete their certificates and degrees in a timely manner?

■ **Benefits:** What benefits does the state receive as a result of having a highly educated population?

■ **Learning:** What is known about student learning as a result of education and training beyond high school?

Each state receives a grade in each performance category, and the grades are based on the state’s performance on several indicators, or quantitative measures, in each category. Most states receive an “Incomplete” in learning because there are no common benchmarks that allow for state-by-state comparisons in learning. Five states, however, receive a “Plus” in learning to highlight their work in developing measures to evaluate the state’s educational capital—that is, the reservoir of high-level knowledge and skills

that the state’s population has attained. For more information about this, see page 12 of this state report card.

In four of the performance categories—preparation, participation, completion, and benefits—grades are calculated by comparing each state’s current performance to that of the best-performing states. This provides a basis for assessing and comparing each state’s performance in the national context and encourages each state to “measure up” to the highest performing states.

In the affordability category, however, the nation as a whole is “measuring down.” That is, even in the best-performing states, higher education has become *less* rather than *more* affordable when the costs of attending college are considered in relation to family income. As a result, grades in the affordability category are calculated by comparing each state’s current results to the performance of the top states *a decade ago*. This enables policymakers to examine their state’s results in relation to other states, while also encouraging improved performance over time. A glance at the table of state grades on page 15 reveals that the affordability category is the only one in which no state receives an A.

Measuring Up 2004 also compares each state’s current results with its own performance a decade ago. Although this historical information is not graded, it is offered to allow states to examine their improvements and declines in performance. In gathering information for this period, information from 1992—or the closest year available—is compared with the most recently available data. All information was collected from national, reliable sources, including the U.S. Census Bureau and the U.S. Department of Education. (For more information about grading, data collection, and sources, please see the technical report at www.highereducation.org.)

This state report card begins by summarizing the state’s performance today compared with ten years ago, and by presenting key policy questions that these results suggest for the state. Next, the state’s performance in each category is described in greater detail, followed by additional contextual information.

A Snapshot of Improvement Over the Past Decade

High school graduates are, in general, better prepared for college today than their peers were a decade ago. However, most states, and the nation as a whole, have made little progress in translating these gains into improvements at the college level.

Preparation: 44 states improved on more than half of the indicators; 6 improved on some of the indicators.

Participation: 8 states improved on more than half of the indicators; 23 improved on some of the indicators; 19 declined on every indicator.

Affordability: 2 states improved on more than half of the indicators; 31 improved on some of the indicators; 17 declined on every indicator.

Completion: 37 states improved on more than half of the indicators; 9 improved on some of the indicators; 4 declined on every indicator.

Benefits: 41 states improved on more than half of the indicators; 8 improved on some of the indicators; 1 declined on every indicator.

Learning: 45 states receive an “Incomplete”; 5 states (Illinois, Kentucky, Nevada, Oklahoma, and South Carolina) receive a “Plus.”

For more information about improvement, please see *Measuring Up 2004: The National Report Card on Higher Education* at www.highereducation.org.

Wyoming has improved over the past decade in preparing students for college. However, the state has not seen commensurate gains in enrolling young adults or working-age adults in college-level education or training. Wyoming has lost ground in providing students with an affordable higher education, which may undermine its efforts to send clear messages to them about the importance of being prepared academically for college.

Strengths

Preparation

■ Compared with other states, a large percentage of Wyoming high school students enroll in upper-level math.

■ The state's 8th graders perform well on national exams in math, science, and reading. Performance on the reading exams has improved over the past decade, in contrast to a national decline on this measure.

■ Over 70% of secondary school students are taught by qualified teachers. This percentage has increased substantially over the past decade, keeping pace with national improvements on this measure.

Participation

■ Compared with other states, a large proportion of working-age adults enroll in higher education. However, Wyoming has had a substantial decline on this measure over the decade—larger than the nationwide decline.

Completion

■ Large proportions of freshmen return for their second year at the state's two- and four-year colleges and university. Over the past decade, Wyoming has been among the top states in improvement on these measures.

■ A large proportion of students at four-year institutions receive a bachelor's degree within six years of enrolling. Wyoming's improvement on this measure is among the best in the nation.

Weaknesses

Preparation

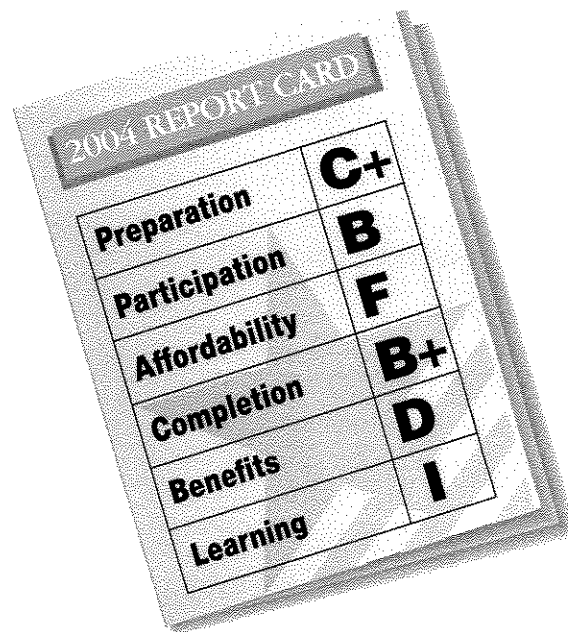
■ Relative to other states, a small proportion of Wyoming high school students enroll in upper-level science.

■ The performance of 8th graders on national writing exams is fairly low.

■ Small proportions of 11th and 12th graders take and score well on Advanced Placement and college entrance exams.

Participation

■ Compared with other states, the likelihood of 9th graders enrolling in college within four years is only fair. A small proportion of students graduate from high school, and of those who do, few enroll in college.



Affordability

■ Net college costs for low- and middle-income students to attend the state's two- or four-year colleges and university represent about a third of their annual family income. These families earn on average \$20,867 annually. (Net college costs equal tuition, room, and board minus financial aid.)

Benefits

■ Compared with top states, a small proportion of Wyoming's residents have a bachelor's degree.

Policy Questions

■ Can Wyoming increase the number of students who finish high school within four years?

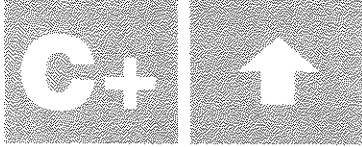
■ Given Wyoming's improving performance in preparing students for higher education, can the state develop policies to increase participation in college?

■ Can Wyoming develop a financial aid policy focused on financial need for college-qualified students?

■ Can the state improve its finance policies (for example, by linking appropriations, tuition, and financial aid) to make higher education more affordable?

2004
Grade

Improvement
Over Decade



Despite notable improvement over the past decade, Wyoming has struggled to prepare students to succeed in college. This year Wyoming receives a C+ in preparation because other states performed better.

Graded Information

■ Compared with other states, a large proportion (51%) of high school students in Wyoming are enrolled in upper-level math, but a small proportion (25%) are enrolled in upper-level science.

■ A small proportion (23%) of 8th graders take algebra.

■ Eighth graders perform well on national assessments in math, science, and reading; however, their performance in writing is fairly low.

■ Compared with their peers in other states, low-income 8th graders perform fairly well on national assessments in math.

■ Extremely small proportions of 11th and 12th graders score well on Advanced Placement tests, and fairly small proportions score well on college entrance exams.

■ Seventy-two percent of secondary school students are taught by qualified teachers, which compares well with top states.

Change in Graded Measures

■ Over the past decade, the proportion of high school students enrolled in upper-level science has increased substantially, although Wyoming's current performance on this measure is poor compared with other states.

PREPARATION	WYOMING		Top States 2004
	A Decade Ago	2004	
High School Completion (20%)			
18- to 24-year-olds with a high school credential	92%	88%*	94%
K-12 Course Taking (35%)			
9th to 12th graders taking at least one upper-level math course	41%	51%	59%
9th to 12th graders taking at least one upper-level science course	19%	25%	41%
8th grade students taking algebra	24%	23%	35%
12th graders taking at least one upper-level math course	n/a	51%	66%
K-12 Student Achievement (35%)			
8th graders scoring at or above "proficient" on the national assessment exam:			
in math	21%	32%	36%
in reading	29%	34%	39%
in science	34%	36%	42%
in writing	23%	28%	41%
Low-income 8th graders scoring at or above "proficient" on the national assessment exam in math	11%	18%	23%
Number of scores in the top 20% nationally on SAT/ACT college entrance exam per 1,000 high school graduates	140	156	227
Number of scores that are 3 or higher on an Advanced Placement subject test per 1,000 high school juniors and seniors	26	49	219
Teacher Quality (10%)			
7th to 12th graders taught by teachers with a major in their subject	59%	72%	81%

*Eighty percent of 18- to 24-year-olds have a regular high school diploma; 8% have a GED.

Note: Indicators in italics are new for 2004.

■ During the same period, the percentage of 8th graders performing well on national assessments in math has increased.

■ Over the past few years, the percentage of 8th graders performing well on national assessments in reading has increased by 17%, in contrast to a national decline of 3% on this measure.

■ The percentage of secondary school students taught by qualified teachers has increased substantially over the past decade.

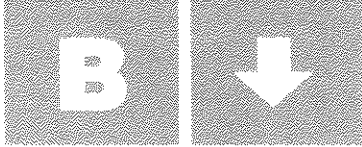
Other Key Facts

About 15% of children under age 18 live in poverty, compared with a national rate of 17%.

The preparation category measures how well a state's K-12 schools prepare students for education and training beyond high school. The opportunities that residents have to enroll in and benefit from higher education depend heavily on the performance of their state's K-12 educational system.

2004
Grade

Improvement
Over Decade



Wyoming, over the past decade, has seen a drop-off in the number of students enrolling in higher education. Despite that decline, Wyoming earns a B in participation this year.

Graded Information

■ Compared with other states, the chance of Wyoming high school students enrolling in college by age 19 is only fair, because few students graduate from high school and enroll in college.

■ The percentage of working-age adults (ages 25 to 49) who are enrolled part-time in education or training beyond high school is fairly large.

Change in Graded Measures

■ The percentage of working-age adults who are enrolled part-time in college-level education or training has declined by 20% over the past decade, exceeding the nationwide decline of 11%.

PARTICIPATION	WYOMING		Top States 2004
	A Decade Ago	2004	
Young Adults (60%)			
Chance for college by age 19	39%	39%	52%
18- to 24-year-olds enrolled in college	42%	31%	40%
Working-Age Adults (40%)			
25- to 49-year-olds enrolled part-time in any type of postsecondary education	5.4%	4.3%	5.4%

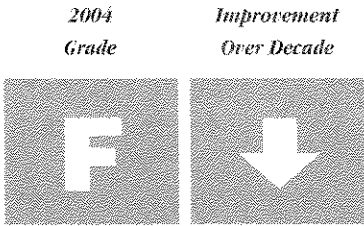
Other Key Facts

■ The state's population is projected to grow by 22% from 2000 to 2015, far exceeding the national rate of 13%. During approximately the same period, the number of high school graduates is projected to decline by 23%.

■ About 9% of the adult population has less than a high school diploma or its equivalent, compared with 14% of adults nationwide.

■ In Wyoming, 144 more students are leaving the state than are entering to attend college. About 34% of Wyoming high school graduates who go to college attend college out of state.

The participation category addresses the opportunities for state residents to enroll in higher education. A strong grade in participation generally indicates that state residents have high individual expectations for education and that the state provides enough spaces and types of educational programs for its residents.



Over the past decade, Wyoming has seen a striking decline in its provision of affordable higher education opportunities. This year Wyoming is one of many states to receive an F in affordability.

Graded Information

■ Compared with top-performing states, families in Wyoming devote a fairly large share of family income, even after financial aid, to attend public two- and four-year colleges and universities, which enroll 94% of college students in the state.

■ The state's investment in need-based financial aid is very low when compared with top-performing states, and Wyoming does not offer low-priced college opportunities.

■ Undergraduate students borrowed on average \$2,898 in 2003, one of the lowest averages in the nation.

Change in Graded Measures

■ Over the past decade, the share of income needed to pay for college expenses after financial aid has increased from 16% to 21% at community colleges and from 16% to 24% at public four-year institutions.

Other Key Facts

■ In Wyoming, 62% of students are enrolled in community colleges and 32% in public four-year colleges and universities.

AFFORDABILITY	WYOMING		Top States A Decade Ago
	A Decade Ago	2004	
Family Ability to Pay (50%)			
Percent of income (average of all income groups) needed to pay for college expenses minus financial aid:			
at community colleges	16%	21%	15%
at public 4-year colleges/universities	16%	24%	16%
at private 4-year colleges/universities	n/a	n/a	32%
Strategies for Affordability (40%)			
State investment in need-based financial aid as compared to the federal investment	2%	1%	89%
At lowest-priced colleges, the share of income that the poorest families need to pay for tuition	8%	12%	7%
Reliance on Loans (10%)			
Average loan amount that undergraduate students borrow each year	\$2,642	\$2,898	\$2,619

Note: In the affordability category, the lower the figures the better the performance for all indicators except for "State investment in need-based financial aid."

The affordability category measures whether students and families can afford to pay for higher education, given income levels, financial aid, and the types of colleges and universities in the state.

A CLOSER LOOK AT FAMILY ABILITY TO PAY	Average family income	Community colleges		Public 4-year colleges/universities		Private 4-year colleges/universities	
		Net college cost*	Percent of income needed to pay net college cost	Net college cost*	Percent of income needed to pay net college cost	Net college cost*	Percent of income needed to pay net college cost
Income groups used to calculate 2004 family ability to pay							
20% of the population with the lowest income	\$13,000	\$6,358	49%	\$6,932	53%	n/a	n/a
20% of the population with lower-middle income	\$28,734	\$6,779	24%	\$7,438	26%	n/a	n/a
20% of the population with middle income	\$44,000	\$7,030	16%	\$7,856	18%	n/a	n/a
20% of the population with upper-middle income	\$62,630	\$7,106	11%	\$8,054	13%	n/a	n/a
20% of the population with the highest income	\$96,819	\$7,099	7%	\$8,129	8%	n/a	n/a
40% of the population with the lowest income	\$20,867	\$6,569	31%	\$7,185	34%	n/a	n/a

*Net college cost equals tuition, room, and board, minus financial aid.

Those who are striving to reach or stay in the middle class—the 40% of the population with the lowest incomes—earn on average \$20,867 each year.

■ If a student from such a family were to attend a community college in the state, their net cost to attend college would represent about 31% of their income annually:

Tuition, room, and board:	\$7,159
Financial aid received:	-\$ 590
Net college cost:	\$6,569
Percent of income:	31%

■ If the same student were to attend a public four-year college in the state, their net cost to attend college would represent about 34% of their income annually:

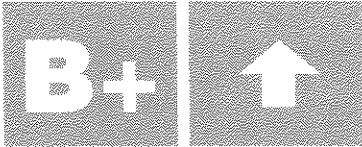
Tuition, room, and board:	\$8,636
Financial aid received:	-\$1,451
Net college cost:	\$7,185
Percent of income:	34%

Note

The numbers shown for tuition, room, and board minus financial aid may not exactly equal net college cost due to rounding.

2004
Grade

Improvement
Over Decade



Over the past decade, Wyoming has seen a notable improvement in the number of students who earn their certificates or degrees in a timely manner. Wyoming receives a B+ in completion this year.

Graded Information

■ Compared with other states, a large percentage (55%) of first-year community college students return for their second year.

■ At four-year colleges and universities, the percentage of freshmen who return for their sophomore year is very large (78%).

■ A large percentage of first-time, full-time college students complete a bachelor's degree within six years of entering college.

■ In addition, a very large proportion of students earn certificates and degrees relative to the number enrolled.

Change in Graded Measures

■ Over the past decade, the percentage of first-year community college students returning for their second year has increased, placing Wyoming among the top ten states in improvement on this measure.

COMPLETION	WYOMING		Top States 2004
	A Decade Ago	2004	
Persistence (20%)			
1st year community college students returning their second year	50%	55%	63%
Freshmen at 4-year colleges/universities returning their sophomore year	70%	78%	84%
Completion (80%)			
First-time, full-time students completing a bachelor's degree within 6 years of college entrance	45%	54%	64%
Certificates, degrees, and diplomas awarded at all colleges and universities per 100 undergraduate students	17	19	21

■ During the same period, Wyoming has been among the fastest improving states in the percentage of freshmen at four-year colleges and universities returning for their sophomore year.

■ Over the past few years, Wyoming has been among the fastest improving states in the percentage of first-time, full-time college students completing a bachelor's degree within six years of enrolling in college.

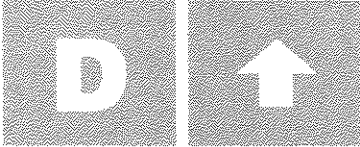
Other Key Facts

■ During the past decade, the gap has narrowed between whites and Hispanics in the proportion of students completing certificates and degrees relative to the number enrolled. The proportion of Hispanic students receiving certificates and degrees has increased from 9 to 22 per 100 enrolled.

The completion category addresses whether students continue through their educational programs and earn certificates or degrees in a timely manner. Certificates and degrees from one- and two-year programs as well as the bachelor's degree are included.

2004
Grade

Improvement
Over Decade



Despite improvement over the past decade, Wyoming still does not reap many of the benefits of having a highly educated population. This year Wyoming receives a D in benefits.

Graded Information

■ Compared with other states, a small proportion of residents have a bachelor's degree, and this substantially weakens the state economy.

■ However, residents contribute substantially to the civic good, as measured by charitable giving and voting.

Change in Graded Measures

■ Over the past decade, the economic benefits that Wyoming enjoys as a result of the percentage of the population with a bachelor's degree have decreased substantially (by 32%), in contrast to a nationwide increase of 18%.

Other Key Facts

■ If all ethnic groups had the same educational attainment and earnings as whites, total personal income in the state would be about \$76 million higher, and the state would realize an estimated \$27 million in additional tax revenues.

■ In 2002, Wyoming scored 46 on the New Economy Index, compared to a nationwide score of 60. The New Economy Index, developed by the Progressive Policy Institute, measures the extent to which states are participating in knowledge-based industries.

BENEFITS	WYOMING		Top States 2004
	A Decade Ago	2004	
Educational Achievement (37.5%)			
Population aged 25 to 65 with a bachelor's degree or higher	22%	23%	36%
Economic Benefits (31.25%)			
Increase in total personal income as a result of the percentage of the population holding a bachelor's degree	6%	4%	12%
Increase in total personal income as a result of the percentage of the population with some college (including an associate's degree), but not a bachelor's degree	-1%	1%	3%
Civic Benefits (31.25%)			
Residents voting in national elections	59%	58%	60%
Of those who itemize on federal income taxes, the percentage declaring charitable gifts	83%	79%	92%
<i>Increase in volunteering rate as a result of college education</i>	n/a	17%	22%
Adult Skill Levels (0%)*			
Adults demonstrating high-level literacy skills:			
quantitative	27%	31%	33%
prose	26%	30%	33%
document	22%	25%	28%

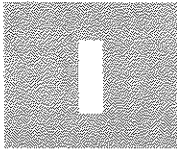
*Adult Skill Levels for 2004 are estimated and are not used to calculate grades.

Note: Indicators in italics are new for 2004.

■ Policymakers and state residents do not have access to important information about high-level literacy skills because the state has declined to participate in the national literacy survey.

The benefits category measures the economic and societal benefits that the state receives as the result of having well educated residents.

2004
Grade



Like most states, Wyoming received an Incomplete in learning because there are no comparable data that would allow for meaningful state-by-state comparisons in learning. The Incomplete in this category highlights a gap in our ability to measure each state's educational capital—the reservoir of high-level knowledge and skills that benefit each state.

Measuring Up 2004 gives a “Plus” in learning to five states (Illinois, Kentucky, Nevada, Oklahoma, and South Carolina) that have developed learning measures through their participation in a national demonstration project conducted by the National Forum on College-Level Learning and funded by The Pew Charitable Trusts.*

Based on the results of the project, the learning category is being constructed like the other performance categories in *Measuring Up*, with indicators that are grouped in several themes, each of which is weighted (see parentheses) and reflects a particular dimension of state performance:

1. Abilities of the College-Educated Population (25%). This cluster of indicators examines the proportion of college-educated residents who achieve high levels of literacy. For the 2004 demonstration, the data used are the same as those included in the benefits category and are based on the 1992 National Adult Literacy Survey (NALS) for citizens aged 25 to 64, updated through the 2000 census. The NALS assessment poses real-world tasks or problems that require respondents to read and interpret texts (prose), to obtain or act on information contained in tabular or graphic displays (document), and to understand numbers or graphs and perform calculations (quantitative).

2. Institutional Contributions to Educational Capital (25%). The indicators in this area reflect the contributions to a state's stock of “educational capital” by examining the proportion of the state's college graduates (from two- and four-

Learning	Wyoming
Literacy Levels of the State's Residents (25%)	
Prose	?
Document	?
Quantitative	?
Graduates Ready for Advanced Practice (25%)	
Licensures	?
Competitive admissions	?
Teacher preparation	?
Performance of College Graduates (50%)	
<i>From four-year institutions</i>	
Problem-solving	?
Writing	?
<i>From two-year colleges</i>	
Reading	?
Quantitative skills	?
Locating information	?
Writing	?

Note: Measures included under the first two clusters are available nationally and can be calculated for all 50 states. Measures included in the third will require special data-collection efforts similar to those undertaken by the five demonstration project states in 2004.

year institutions) ready for advanced practice. For the 2004 demonstration, the measures are based on available records for college graduates within each state who have demonstrated their readiness for advanced practice by (a) passing a national examination required to enter a licensed profession such as nursing or physical therapy, (b) earning a competitive score on a nationally recognized graduate admissions examination such as the Graduate Record Examination (GRE) or the Medical College Admissions Test (MCAT), or (c) passing a teacher licensure examination in the state in which they graduated. These measures are presented as a proportion of total bachelor's and associate's degrees granted in the state during the time period.

1. What are the abilities of the college-educated population?

2. To what extent do colleges and universities educate students to be capable of contributing to the workforce?

3. How well can graduates of two- and four-year colleges and universities perform complex problem-solving tasks?

3. Performance of College Graduates (50%). These indicators examine how well the graduates of the state's two- and four-year colleges and universities can perform complex tasks related to academic and real-world problem-solving situations. For the 2004 demonstration, the measures consist of two sets of assessments, the Collegiate Learning Assessment (CLA) for four-year students and the ACT Work Keys assessment for two-year students. The CLA is an innovative examination that poses real-world tasks that a student is asked to understand and solve. For example, students could be asked to draw scientific conclusions, examine historical evidence, or develop a persuasive essay. The ACT Work Keys examines what students can do with what they know. Students might be asked to extract information from documents and instructions, or use mathematical concepts such as probability or estimation in real-world settings. The Work Keys writing assessment requires students to prepare an extended essay.

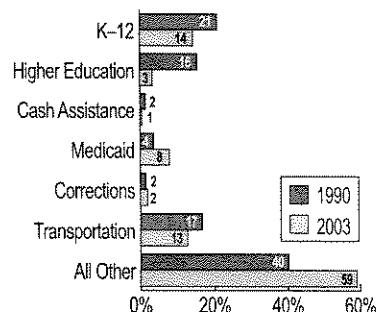
* A report on the results and lessons of the five-state demonstration project will be released in November.

State Context	Wyoming	State Rank
Population (2003)	501,242	50
Gross state product (2001, in millions)	\$20,418	48
Leading Indicators	Wyoming	U.S.
Projected % change in population, 2000-2015	22.1%	12.9%
Projected % change in number of all high school graduates, 2002-2017	-23.4%	8.0%
Projected budget surplus/shortfall by 2010	-7.8%	-3.4%
Average income of poorest 20% of population (2002)	\$13,000	\$12,072
Children in poverty (2001)	14.0%	16.0%
Percent of adult population with less than a high school diploma or equivalent (2003)	9.1%	14.0%
New economy index (2002)*	45.7	60.3
Facts and Figures	Wyoming	
	Number/Amount	Percent
Institutions of Postsecondary Education (2002-03)		
Public 4-year	1	
Public 2-year	7	
Private 4-year	0	
Private 2-year	1	
Students Enrolled by Institution Type (2001)		
Public 4-year	8,907	32%
Public 2-year	17,179	62%
Private 4-year	0	0%
Private 2-year	1,550	6%
Students Enrolled by Level (2001)		
Undergraduate	27,636	89%
Graduate	3,024	10%
Professional	435	1%
Enrollment Status of Students (2001)		
Full-time	17,560	56%
Part-time	13,535	44%
Net Migration of Students (2000)		
Positive numbers for net migration mean that more students are entering than leaving the state to attend college. Negative numbers reveal the reverse.	-144	
Average Tuition (2002-03)		
Public 4-year institutions	\$3,090	
Public 2-year institutions	\$1,613	
Private 4-year institutions	n/a	
State and Local Appropriations for Higher Education		
Per \$1,000 of personal income, FY 2004	\$12	
Per capita, FY 2004	\$393	
% change, FY 1994-2004		58%

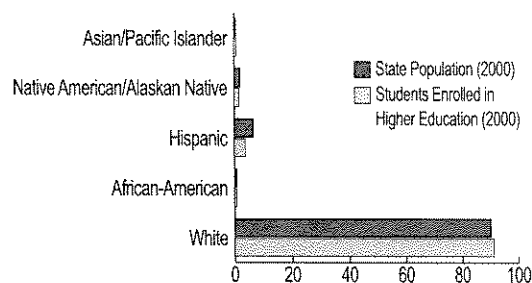
* This index, created by the Progressive Policy Institute, measures the extent to which a state is participating in knowledge-based industries. A higher score means increased participation.

Note: Percentages might not add to 100 due to rounding.

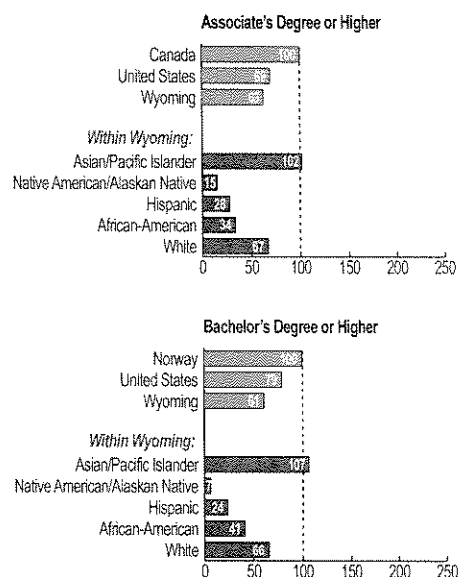
Share of State Appropriations



Ethnic Distribution (%)



Attainment of College Degrees in United States and Top Country, 25- to 34-year-olds (2000)



Note: These two charts compare performance in the U.S. to the performance of the top country, which receives a score of 100.

QUESTIONS & ANSWERS

Q: Who is being graded in this report card, and why?

A: *Measuring Up 2004* grades states, not individual colleges or universities, on their performance in higher education. The states are responsible for preparing students for higher education through sound K–12 systems, and they provide most of the public financial support—\$69 billion currently—for colleges and universities. Through their oversight of public colleges and universities, state leaders affect the kind and number of programs available in the state. They determine the limits of financial support and often influence tuition and fees for public colleges and universities. They determine how much state-based financial aid to make available to students and their families, which affects students attending private as well as public colleges and universities.

Q: How are states graded?

A: The report card grades states in six performance categories: academic preparation, participation, affordability, completion, benefits, and learning. Each category is made up of several indicators, or quantitative measures—a total of 35 in the first five categories. Grades are calculated based on each state's performance on these indicators, relative to other states. *Measuring Up 2004* draws its data from the most recent public information available. Most of the data in *Measuring Up 2004* is from 2002 and 2003.

In the affordability category, *Measuring Up 2004* reflects the major changes in tuition and financial aid that occurred in 2003. In addition, each state's performance is now calculated in relation to the performance of top states a decade ago—rather than in relation to top states' current performance, as is the case with other graded categories. This change creates

a more stable basis for states to assess their performance in affordability, which is the most volatile of the graded categories.

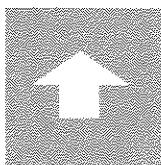
In the learning category, *Measuring Up 2004* reports information about five states (Illinois, Kentucky, Nevada, Oklahoma, and South Carolina) that participated in a pilot project on measuring learning. This report card gives these states a “Plus” for their efforts in assessing and measuring learning; however, all other states continue to receive an “Incomplete” in this category, as there is no information available to make state-by-state comparisons.

All data used to grade states in *Measuring Up 2004* were collected from national, reliable sources, including the U.S. Census and the U.S. Department of Education. All data are the most current available for state-by-state comparisons, are in the public domain, and were collected in ways that allow for effective comparisons among the states. The *Technical Guide* (available at www.highereducation.org) has information about sources used in *Measuring Up 2004*.

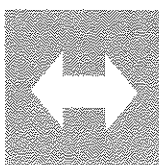
Q: What information is provided but not graded?

A: The state report cards highlight important gaps in college opportunities for various income and ethnic groups, and they identify improvements and setbacks in each state's performance over the past decade. In addition, the series of indicators measuring adult literacy skills (in the benefits category) is not being used to calculate grades in *Measuring Up 2004* because the data have not been updated in 12 years. As a temporary placeholder for these indicators, the National Center commissioned a study to estimate adult skill levels based on the 2000 Census. These estimates are provided in the charts found in the state report cards, but they are not used to calculate any grades.

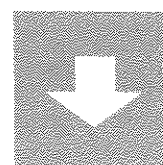
What do the arrows mean?



The state has improved on more than half of the indicators in the category.



The state has improved on some, but no more than half, of the indicators in the category.



The state has declined on every indicator in the category.

STATE GRADES

	Preparation	Participation	Affordability	Completion	Benefits
Alabama	D-	C	F	B-	C+
Alaska	B-	C	F	F	B
Arizona	D	B+	F	C+	B
Arkansas	C	C-	F	C	D+
California	C	A	B	C	A
Colorado	A-	B	D-	B-	A
Connecticut	A	A	F	B	A
Delaware	C+	C+	F	A-	A-
Florida	C	C	F	A-	B-
Georgia	C	D	F	B	B
Hawaii	C	B-	D	C	B
Idaho	C	C-	D-	C+	C
Illinois	B+	A	D	B	B-
Indiana	C	C+	D	B	C
Iowa	B+	B+	F	A	C
Kansas	B	A	F	B	B+
Kentucky	C-	B-	D-	C	B
Louisiana	F	D+	F	C	C
Maine	B	B-	F	B	B
Maryland	A-	A	F	B-	A
Massachusetts	A	A	F	A	A
Michigan	C	B+	F	C+	A-
Minnesota	B+	A	C-	B+	A
Mississippi	D+	D	F	B-	C
Missouri	B-	B	F	B	B
Montana	B+	C	F	C	C
Nebraska	B+	A	F	B	B
Nevada	D	C	F	F	C-
New Hampshire	B+	C+	F	A	A-
New Jersey	A	A-	D	B	A
New Mexico	F	A-	F	D	C+
New York	A	C+	F	B+	B
North Carolina	B	C+	D-	B	C
North Dakota	B	A-	F	B	C
Ohio	C+	C+	F	B	B-
Oklahoma	C-	C	F	C-	C+
Oregon	C	B-	F	C	B
Pennsylvania	B-	B	F	A	B
Rhode Island	C+	A	F	A	B+
South Carolina	C	C-	F	B	C
South Dakota	B	B+	F	B	C-
Tennessee	C-	C-	F	C+	C
Texas	C+	C	D	C	B-
Utah	A	C+	C	B	B
Vermont	C+	C	F	A	B-
Virginia	B+	B-	D-	B	A-
Washington	B-	C	F	A-	A-
West Virginia	C+	C-	F	C	D
Wisconsin	B+	B	D	A	C+
Wyoming	C+	B	F	B+	D

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Select the *Measuring Up* icon

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- **Improvement:** The nation's performance over the past decade
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- **Graded Performance:** Compare state results by performance category
- **State Facts:** Compare non-graded state information
- **Index Scores (sort/compare/map):** Sort states by their rank within each category and create a national map based on individual indicator scores

Commentary

- **Foreword,** by James B. Hunt Jr., Chairman, and Garrey Carruthers, Vice Chairman of the National Center's Board of Directors
- **A Message** from Governor Mark R. Warner, Governor of Virginia and Chairman of the National Governors Association

- **A Ten-Year Perspective: Higher Education Stalled Despite High School Improvement,** by Patrick M. Callan, President of the National Center

- **Grading Learning: Extending the Concept**
- Special reports forthcoming

News Room

- **National Press Release**
- **State Press Releases**
- **Press Contact Information**

About *Measuring Up*

- Questions and Answers about *Measuring Up 2004*
- What is *Measuring Up*?
- How We Grade States
- How We Measure Improvement
- *Measuring Up 2004* Database
- *Technical Guide*
- "Measuring Up 2004 and Beyond" Working Group
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ATTACHMENT D

Upping attendance worth the effort

PHILIP L. DUBOIS

In late June, the U.S. Census Bureau released a national study showing that only 20.7 percent of Wyoming residents had earned a bachelor's degree from a college or university, one of the lowest rates in the nation. That number doesn't surprise us, but it causes us concern, as it should everyone who cares about his or her family or the long-term future of Wyoming. Now that the problem has achieved some public attention, perhaps the leadership of this state can work to reverse this troubling trend.

The consequences for Wyoming of low college graduation rates are significant. From an individual perspective, someone with a bachelor's degree will earn on average twice as much over his or her lifetime than will a high school graduate. From a societal perspective, fewer than 3 percent of state prison inmates nationwide are college graduates. From an economic development perspective, Wyoming's ability to diversify its economy and attract or grow technologically-oriented companies depends upon the presence of a highly-educated workforce.

In 2003, 85 percent of jobs nationwide were classified as skilled and required post-secondary education. In Wyoming, only 52 percent of high school graduates enroll in a community college, college, or university following graduation, a modest number compared with states like North Dakota, where nearly 70 percent of high school graduates go directly on to higher education. In January, we briefed our Board of Trustees in public session about Wyoming's low rate of college attendance, about the reasons for and consequences from that low rate, and about some possible remedies.

One well-known reason for Wyoming's low rate of college attendance is the structure of Wyoming's economy. The state's largest employment sector is tourism and hospitality, but the wages paid are typically low. The sector providing the highest income is mining, but it ranks as one of the lowest in numbers of jobs. Neither the tourism industry nor the mining industry provides our citizens with *both* high employment numbers and high pay.

In truth, many Wyoming high school graduates are not as well prepared for college as they could be. This is not a matter of the quality of our teaching or high school requirements but is often a direct result of curricular choices made by students and parents. For instance, in top-achieving states, 57 percent of 9th through 12th graders take upper-level math; in Wyoming, that percentage is 40. In science the numbers are even more alarming, as 21 percent of Wyoming students take upper level science courses compared with 39 percent in top states. Even high school graduates who meet UW's admissions requirement should be taking a more rigorous curriculum, a strong predictor of success in higher education. Such a curriculum includes foreign language, four years of science and mathematics, and, if available, advanced placement or honors courses.

We also know that family income is a strong predictor of whether a student will go directly from high school to college. Ninety-five percent of high-performing students from affluent families go directly from high school to college, while only 75 percent of high-performing students from low-income families do. A driving factor in their decision may be the perception that college is just too expensive. To mitigate financial aid barriers, many states augment federal aid (Pell Grants) with extensive need-based aid programs. Top-performing states contribute more than 100 percent of the federal grant aid total to low-income students. In contrast, Wyoming funds no need-based educational grants, ranking last in the country in this statistic.

There is ample evidence to suggest that state policies can dramatically affect the college participation rates of high school graduates. For instance, Indiana is one state that has reversed its on-to-college rate, ranking 40th in the nation in college-bound participation in 1988, but 17th in 2001.

What can Wyoming do? We can consider a rigorous core curriculum for grades 7-12; introduce student and parent accountability for curricular choices; more closely align state graduation standards with college expectations; and address the financial needs of low-income students. Increasing information to students and parents that will help debunk the many myths about higher education is also critical. More than half the states have college-bound Web portals serving this purpose.

A recent national study shows that 88 percent of eighth graders expect to participate in some form of postsecondary education. Yet only 40 percent of a typical incoming ninth grade class in Wyoming will move directly on to college after high school. Is closing this gap a challenge? Yes. But it's worth, as they say, the old college try.

Philip L. Dubois is the President of the University of Wyoming.

ATTACHMENT E

Table 13. Educational Attainment of the Population 25 Years and Over, By State, Including Confidence Intervals of Estimates: 2003
(Numbers in thousands)

State	Total 25 years and over	High school graduate or higher Percent	1.6*(S.E.) /1	Bachelor's degree or higher Percent	1.6*(S.E.) /1
Alabama	2,948	79.9	1.3	22.7	1.3
Alaska	383	90.6	1.0	24.0	1.5
Arizona	3,441	83.8	1.3	26.0	1.6
Arkansas	1,743	80.9	1.3	17.4	1.3
California	21,990	81.1	0.6	29.8	0.7
Colorado	2,894	88.7	0.9	36.0	1.3
Connecticut	2,232	87.5	0.9	33.5	1.3
Delaware	531	88.7	1.1	28.1	1.6
District of Columbia	404	86.0	1.2	46.4	1.8
Florida	11,266	84.7	0.7	25.8	0.8
Georgia	5,468	85.1	1.2	25.0	1.4
Hawaii	796	88.5	1.1	27.0	1.6
Idaho	795	88.2	1.1	22.5	1.5
Illinois	8,031	85.9	0.7	28.1	0.9
Indiana	3,972	86.4	0.9	22.2	1.1
Iowa	1,891	89.7	0.9	24.6	1.3
Kansas	1,693	88.6	0.9	31.0	1.3
Kentucky	2,673	82.8	1.2	21.3	1.3
Louisiana	2,763	79.8	1.4	22.3	1.5
Maine	882	86.6	0.9	23.7	1.2
Maryland	3,545	87.6	1.0	37.2	1.5
Massachusetts	4,415	87.1	0.9	37.6	1.3
Michigan	6,330	87.6	0.8	23.3	1.0
Minnesota	3,323	91.6	0.8	32.7	1.3
Mississippi	1,742	81.2	1.4	19.3	1.4
Missouri	3,637	88.3	1.0	26.6	1.3
Montana	600	90.1	1.0	24.9	1.5
Nebraska	1,077	90.8	0.9	26.8	1.4
Nevada	1,356	85.6	1.1	21.2	1.3
New Hampshire	865	92.1	0.8	34.0	1.4
New Jersey	5,740	86.2	0.8	33.4	1.1
New Mexico	1,154	81.7	1.5	23.7	1.6
New York	12,636	84.2	0.6	29.6	0.8
North Carolina	5,409	81.4	1.1	23.8	1.2
North Dakota	420	89.7	0.9	25.2	1.3
Ohio	7,304	87.2	0.7	25.0	1.0
Oklahoma	2,214	85.7	1.1	24.3	1.3
Oregon	2,315	86.9	1.0	26.4	1.3
Pennsylvania	8,277	86.0	0.7	24.8	0.9
Rhode Island	713	81.0	1.1	27.6	1.2
South Carolina	2,591	80.8	1.3	22.3	1.4
South Dakota	465	88.7	1.0	23.9	1.3

Table 13. Educational Attainment of the Population 25 Years and Over, By State, Including Confidence Intervals of Estimates: 2003

(Numbers in thousands)

State	Total 25 years and over	High school graduate or higher Percent	1.6*(S.E.) /1	Bachelor's degree or higher Percent	1.6*(S.E.) /1
Tennessee	3,700	81.0	1.3	23.5	1.5
Texas	13,231	77.2	0.8	24.7	0.8
Utah	1,272	89.4	1.1	28.4	1.6
Vermont	423	88.9	1.0	31.3	1.5
Virginia	4,623	87.8	1.0	34.2	1.5
Washington	3,884	89.1	1.1	28.8	1.5
West Virginia	1,222	78.7	1.2	15.3	1.0
Wisconsin	3,585	88.6	0.9	24.1	1.2
Wyoming	321	90.9	0.9	20.7	1.3

/1 1.645 times the standard error added to or subtracted from the estimate provides the 90 percent confidence interval.

Source: U.S. Census Bureau

Internet Release date: June 29, 2004

ATTACHMENT F

College support strengthens communities, nation

By Carl C. Dalstrom

Investment in higher education provides significant dividends for graduates who reap the many social and financial rewards that a degree offers. But a new report shows that financial support for postsecondary education also pays off in ways that reach far beyond individual achievement to affect all of society.

Entire communities and the nation as a whole benefit from greater higher-education access - thanks to higher tax revenues, less unemployment, greater productivity, reduced reliance on public assistance, increased consumption, greater civic participation, less crime, and better quality of health, civic life and social cohesion.

The new report, "Investing in America's Future: Why Student Aid Pays Off for Society and Individuals," shows, for example, that the unemployment rate for those with bachelor's degrees was 2.9 percent in January 2004, compared with 4.9 percent for those with high-school diplomas and 8.8 percent for those with less than a high-school diploma. In the 2000 national elections, 77 percent of Americans with bachelor's degrees voted, compared with 54 percent of high-school graduates and 38 percent of those with less than a high-school diploma.

Despite higher education's compelling public benefits, access to college is at risk for many families. Thirty years of relative declines in grant aid based on students' financial need and decreasing state funding for colleges and universities have dramatically shifted the burden of rising college costs to students and their families. Low-income families, in particular, are bearing the brunt of this shift.

Need-based-grant aid now represents 22 percent of federal student aid, down dramatically from 61 percent three decades ago. The purchasing power of the Pell Grant, the largest federal grant for higher education, has declined significantly. As a result, the gap in college-going rates between low-income and high-income students has remained virtually unchanged during the past 20 years. Without an increase in financial support, this gap likely will widen.

Stemming the higher-education-access crisis will require efforts of both the public and private sectors. By taking the following three steps, you can play a role in making higher education a reality for all qualified students:

- * Urge your representatives to Congress to support increases in funding for Federal Pell Grants. Bolstering funding for these grants would reduce the burden on low-income students.
- * Ask your state officials to refocus state student-aid dollars on need-based grants. This action would reverse a trend of awarding aid based on academic merit alone, a practice that has reduced funding for low-income and minority students.
- * Suggest that your organization become an active partner in the college-financing equation, particularly through scholarship aid. Scholarships help students meet college costs that remain after federal, state and institutional financial aid is applied. Your organization also can promote higher-education access by providing tuition-reimbursement support for employees.

The broad impact that postsecondary education has on graduates and the communities in which they

live should make investment in higher education a priority. The financial and social future of our nation demands a renewed commitment to making college affordable for all.

Carl C. Dalstrom is president and CEO of Indianapolis-based USA Funds, the nation's leading guarantor of federal education loans. USA Funds is the designated guarantor of federal education loans in Wyoming. USA Funds sponsored the report "Investing in America's Future" in observance of National Scholarship Month. The report is available for downloading from USA Funds' Web site, (www.usafunds.org).

ATTACHMENT G

INVESTING **in America's Future**

Why Student Aid Pays Off for Society and Individuals

A Report from The Institute for Higher Education Policy and Scholarship America®

Funding for this project was made possible through the generous support of USA Funds®

The Institute for Higher Education Policy is a non-profit, non-partisan research organization whose mission is to foster access and success in postsecondary education through public policy research and other activities that inform and influence the policymaking process. These activities include policy reports and studies, seminars and meetings, and capacity building activities such as strategic planning. The primary audiences of the Institute are those who make or inform decisions about higher education: government policymakers, senior institutional leaders, researchers, funders, the media, and private sector leaders.

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INVESTING

in America's Future

Why Student Aid Pays Off For Society And Individuals

MAY 2004

A Report from The Institute for Higher Education Policy and Scholarship America®

Funding for this project was made possible through the generous support of USA Funds®

Foreword

Recent national attention on higher education finance has focused overwhelmingly on rising tuitions and state and federal efforts to address the burgeoning “cost crisis.” While rising prices are a serious and important concern for students and families, what has been missing from this discussion is an understanding of why the money spent on college by families, governments, and the private sector matters. In particular, the investment in student grants, scholarships, and other aid is a critical part of the equation to equalize educational opportunity and make college possible for a growing number of academically qualified but financially challenged Americans. Equally as important, the failure to invest could have serious negative consequences for the nation, far beyond the simple loss of educational opportunity for individuals.

This report reviews and synthesizes a vast array of studies and analyses conducted in recent years to paint a more complete portrait of the benefits that result from investment in student-based support. It has been commissioned to celebrate the launch of National Scholarship Month, May 2004, an annual event since 1998 that is designed to highlight the importance of access to college and to improve understanding of the need to invest in student financial support. We hope this report will serve as a valuable and timely resource to policymakers, the media, higher education leaders, and the general public about why the investment in student aid indeed pays off for both society and individuals.

Special thanks to Melissa Clinedinst, Senior Research Analyst at the Institute for Higher Education Policy, for her hard work and dedication in drafting the report. We also wish to thank the many other staff members from our respective organizations who have contributed to the report’s success, particularly Alisa Cunningham, Director of Research, and Loretta Hardge, Director of Communications and Marketing at the Institute for Higher Education Policy, as well as Barbara Arnold, Vice President, Public Affairs and Communications, and Perrie Garland, Publications Manager at Scholarship America®.

Finally, we express our deep appreciation to Carl Dalstrom, President, Henry Fernandez, Executive Director of Scholarships, Outreach, and Philanthropy, and the entire team at USA Funds for their generous support in making this project possible. We acknowledge the assistance and support of USA Funds and other organizations that provided data and feedback and recognize that they are not responsible for any errors of omission or interpretation contained herein.

Jamie P. Merisotis
President
The Institute for Higher Education Policy

William C. Nelsen
President
Scholarship America®

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Executive Summary

A college education makes a big difference in our lives as Americans. This is true for individuals, but is especially true in terms of our shared economic, social, and cultural well-being as a nation. Student aid, particularly grants, is a critical part of the investment in higher education that leads to these public and private benefits.

While many policymakers and education leaders cite the fact that a bachelor's degree has become worth more than \$1 million in lifetime earnings, the other economic and social benefits of college are even more important, though often unrecognized. These include:

- increased tax revenues,
- decreased reliance on public assistance programs,
- lower unemployment rates, and
- increased voting, volunteering, and other civic activities.

For example, the unemployment rate for those with bachelor's degrees was 2.9% in January of 2004, compared to 4.9% for those with a high school diploma and 8.8% for those with less than a high school diploma. Similarly, in the 2000 national elections, 77% of Americans with a bachelor's degree voted, compared to 54% of high school graduates and 38% of those with less than a high school diploma.

Because a college education benefits both individuals and society, the cost of providing college access to all citizens is shared by students and families, taxpayers, colleges and universities, and the private sector. Unfortunately, over the last three decades the amount and type of support provided by these partners has shifted considerably, resulting in diminished access for low-income students. Examples of this shifting support include:

- By the mid-1990s, the maximum federal Pell Grant paid for only about 34% of the average cost of attendance (tuition, fees, room, and board) at a public four-year college, compared to 84% in the mid-1970s.
- Between 1980 and 2000, the proportion of income required for a low-income family to pay for one year at a public four-year college increased from 13% to 25%; high income families pay less than 5%.
- Student loans comprised nearly 70% of federal student assistance in 2002-03, and non-need-based aid comprised more than 40% of all financial aid – both sharp increases compared to just a decade ago.

The results of this shift can be seen most clearly in the fact that the gaps in college-going rates between low and high-income students, and between minorities and

whites, have remained virtually unchanged in the last 20 years, despite increases in college enrollment overall. In fact, today only 48% of low-income students go to college, compared to 77% of high income students. Rising student loan debt – now approximately \$18,000 for undergraduates – also is a serious concern. Debt can influence whether students go to college, where they go, and what they do upon graduating. Given projected dramatic increases in the number and proportion of high school graduates who are minority and first-generation students, the failure to invest now in college access for all students will result in sharply diminished returns for individuals and society.

To make college possible for current and future generations, the federal government and states must recommit to providing need-based grant aid in amounts that will allow low-income students to attend and complete college. This goal can be reached, in part, by:

- doubling the maximum Pell Grant award and fully funding the program,
- refocusing state student aid dollars on need-based grants, and
- acknowledging the private sector as a full partner in the college financing equation, particularly through scholarship aid.

The economic growth and social stability of the nation will depend upon our ability to capitalize on these opportunities and invest in America's future.

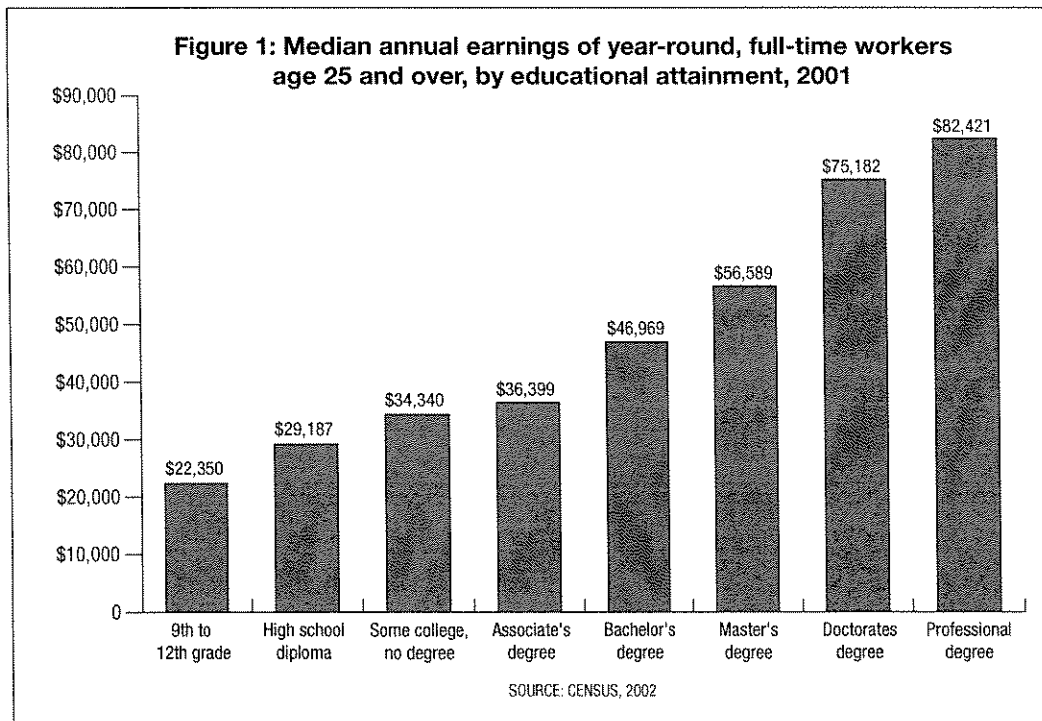
Introduction

The opportunity to increase one's economic status and personal independence, to pursue any career, is the foundation of the American dream. Education, ingenuity, and perseverance have always been important components of reaching this dream. Today, a college degree is an increasingly critical milestone on the road to personal success. The individual gains of education are more obvious, but society also benefits from the skills and knowledge of college graduates. In other words, individuals benefit both from attaining a college degree and from living in a community composed primarily of college graduates. The reality of these dual benefits is the reason why taxpayer dollars are spent to help capable but economically disadvantaged students attain college degrees. However, the size of the public contribution has changed over time in response to shifting attitudes about the relative importance of individual and societal benefits. Maintaining the right balance between individuals' and society's contribution to the cost of college will be critical to ensuring that neither of those benefits are diminished.

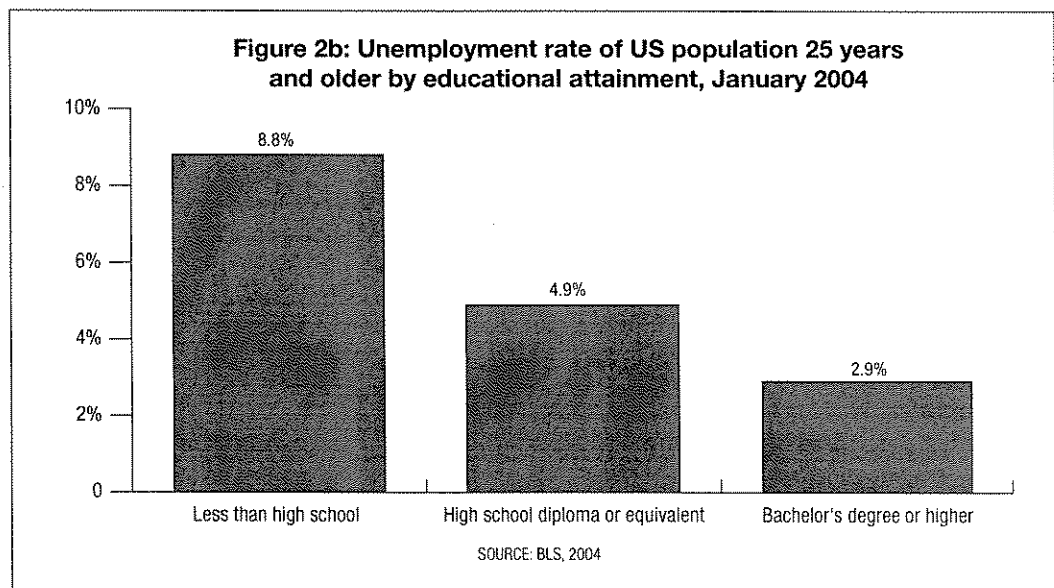
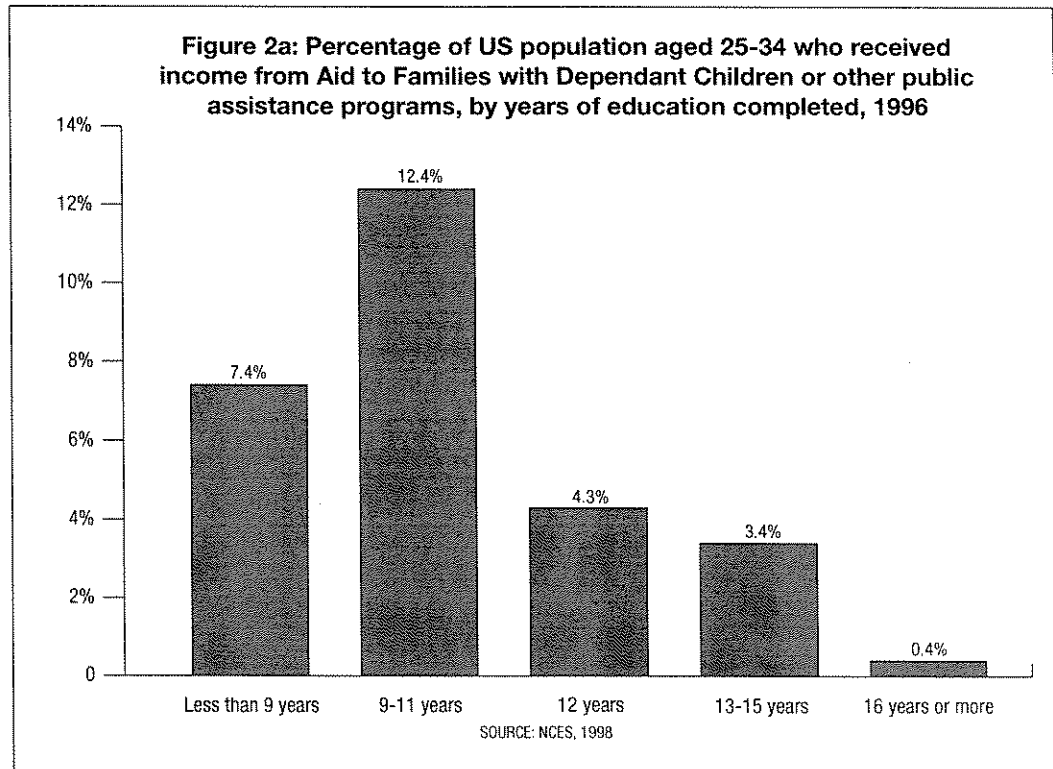
Benefits to Individuals and Society

For today's high school students, a college education represents more than an opportunity for continued learning, a vehicle for personal growth, and an advantage in the labor market. A bachelor's degree has become the passkey to the middle class and beyond. As a result, the number of high school graduates who pursue postsecondary education continues to increase even as growth in tuition outpaces growth in family income. Nothing illustrates the perceived economic advantages conferred by a postsecondary credential more powerfully than students' willingness to borrow – more than half of all bachelor's degree recipients graduate with student loan debt averaging between about \$15,000 and \$17,000 (ACE, 2003a). Yet, no one can argue that the personal economic benefits of a college education are illusory. As shown in Figure 1, median annual salaries are strongly related to educational credentials (Census, 2002). A bachelor's degree has become worth more than \$1,000,000 in total lifetime earnings (College Board, 2003a).

Society also reaps many benefits from an educated citizenry, including increased tax revenues, decreased reliance on public assistance programs (NCES, 1998), lower unemployment rates (BLS, 2004), and increased civic participation (NCES, 2003) (Figure 2a, 2b, and 2c). Although the public and private benefits of higher education



are often discussed separately, they are interrelated in important ways. For example, increased tax revenues are a direct result of the larger salaries of many college graduates. Decreased unemployment rates result from the greater number and variety of jobs available to college graduates (Barton, 2002). And, decreased reliance on public assistance programs results from both of these private benefits.



Many attempts have been made to accurately document and quantify the personal and private benefits of higher education. An array of the most commonly accepted public and private benefits are cataloged in Figure 3 according to their economic or social value (IHEP, 1998). As the proportion of jobs that require a bachelor's degree increases, the relative value of higher education will shift toward the public domain. According to the U.S. Department of Labor, job growth between 2000 and 2010 will overwhelmingly be in fields requiring a college education (BLS, 2001).

The variety of benefits to both individuals and society, as well as the interdependence of these benefits, makes clear why the investment of taxpayer dollars in higher education matters. The return on this investment is maximized when the expenditure of taxpayer dollars is focused on low-income students. Despite the future economic advantages conferred by a college degree, the financially neediest students simply cannot attend college without government intervention. The failure to invest in college access for all students not only results in diminished personal economic opportunities for low-income students but also weakens the fabric of society and risks costing the nation more in the long-term.

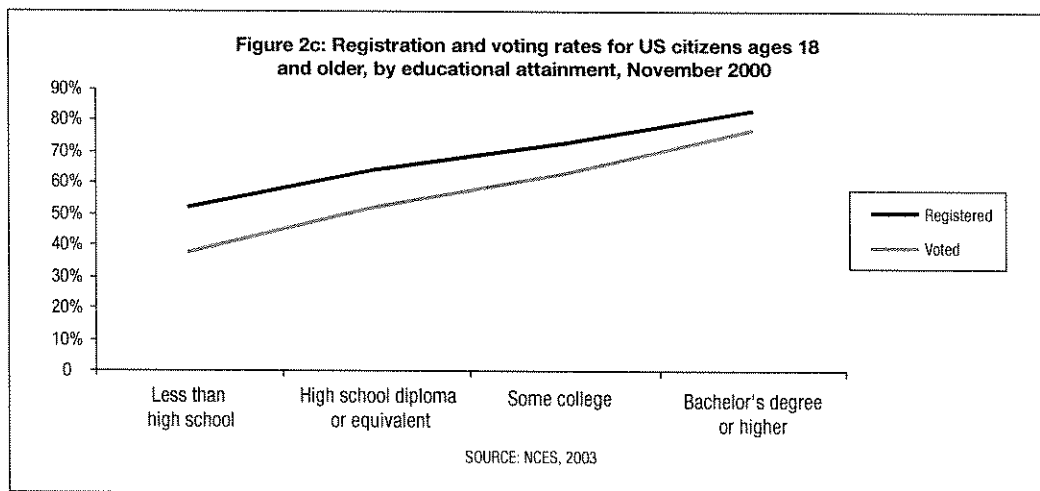


Figure 3. The array of higher education benefits

	PUBLIC	PRIVATE
Economic	<ul style="list-style-type: none"> ○ Increased Tax Revenues ○ Greater Productivity ○ Increased Consumption ○ Increased Workforce Flexibility ○ Decreased Reliance on Government Financial Support 	<ul style="list-style-type: none"> ○ Higher Salaries and Benefits ○ Employment ○ Higher Savings Levels ○ Improved Working Conditions ○ Personal/Professional Mobility
Social	<ul style="list-style-type: none"> ○ Reduced Crime Rates ○ Increased Charitable Giving/Community Service ○ Increased Quality of Civic Life ○ Social Cohesion/Appreciation of Diversity ○ Improved Ability to Adapt to and Use Technology 	<ul style="list-style-type: none"> ○ Improved Health/Life Expectancy ○ Improved Quality of Life for Offspring ○ Better Consumer Decision Making ○ Increased Personal Status ○ More Hobbies, Leisure Activities

SOURCE: IHEP, 1998

Public Investment in Access

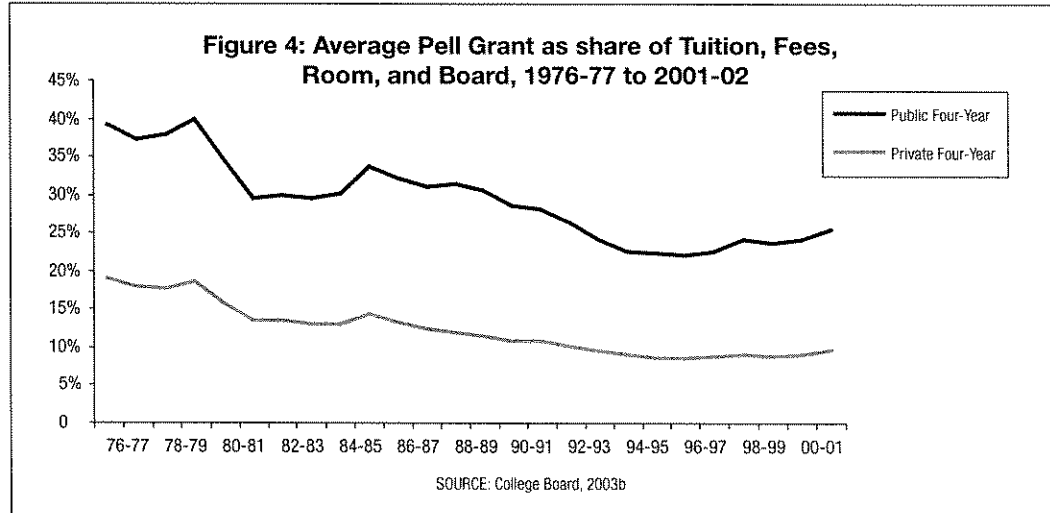
Because higher education confers both personal and societal benefits, the cost is shared among students and families, taxpayers, colleges and universities, and the private sector. Among society's financial investments are: 1) direct student financial aid, provided largely by the federal government and states; 2) financial support to colleges and universities in the form of state and local government appropriations; 3) funds raised by colleges and universities; and 4) private sector scholarships. This cost-sharing system supports the societal goal of access for low-income students and enhances both the personal and societal benefits of higher education.

However, the relative amount and type of support provided by these partners has shifted considerably over the last three decades, resulting in diminished college access for low-income students. In particular, two changes – declining support for grant aid in the federal student financial aid system and decreased state and local appropriations to colleges and universities – have shifted more of the cost of higher education to students and families. This dramatic shift in the cost-sharing system has disproportionately affected the ability of low-income students to finance their college education.

Role of the Federal Government

The federal government plays a large role in college access, providing two-thirds of the \$105.1 billion of direct student financial aid disbursed in 2002-03. During the 1970s, the vast majority of federal student financial aid was distributed in the form of grants to low-income students and families. Grant aid that is based on financial need has been shown to have the most powerful effect on college access (Heller, 1996). As both the price of college and the number of people attending increased, the cost of need-based grant aid grew substantially during a time of economic recession and competing priorities. As a result, the federal commitment to need-based grant aid has decreased substantially since the early 1980s. By 2002-03, loans comprised nearly 70 percent of federal student financial aid. Aid that is not based on financial need – unsubsidized student loans, loans to parents, and tax credits – comprised more than 40 percent of the total. This decreased commitment to grant aid has substantially reduced the proportion of the total cost of college attendance that is covered by the average Pell Grant, which is the primary vehicle for supporting low-income students (College Board, 2003b) (Figure 4). During the mid-1990s, the purchasing power of the maximum Pell Grant reached a low of 34 percent, down from 84 percent in the mid-1970s (ACSFA, 2002).

During times of budgetary strain, loans are particularly attractive to policymakers who want to convey a commitment to higher education at a fraction of the cost of grant programs. Guaranteed student loans are a less expensive investment because the federal government generally only covers the costs of subsidized interest,



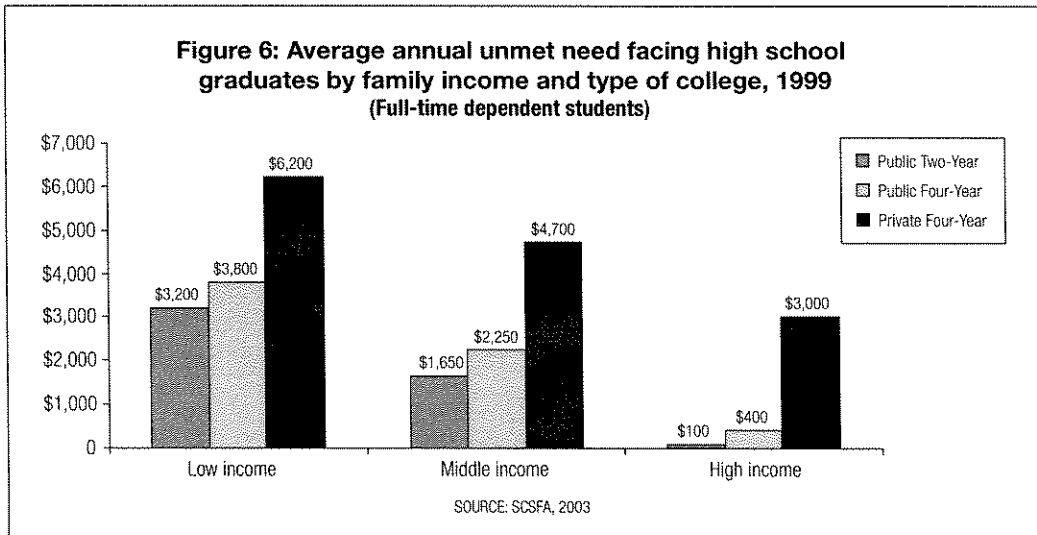
administrative requirements, and loan defaults (Price, 2004). In 2001-02, the federal government appropriated \$11.9 billion in order to provide a like amount of grant aid to students. In the same year, only \$3.9 billion was necessary to support the \$26 billion in loan aid administered through the Federal Family Education Loan Program (Price, 2004). Student loans are an important part of the college access equation and should not be underestimated. But unfortunately, the limited investment in grant aid overall and the increasing focus on non-need-based aid have hindered progress toward the goal of equity in access to a college education. Between 1981 and 1996, the nation experienced dramatic growth in the percentage of high school graduates who enrolled in college at all income levels and among almost all racial/ethnic groups. However, gaps in college-going rates between minorities and whites and between high and low-income students have remained virtually unchanged. In fact, the most recent statistics on college-going rates show either negative or flat growth between 1996 and 2001 for all groups (NCES, 2003) (Figure 5).

Figure 5: Percentage of high school graduates ages 16 to 24 enrolled in college the October following graduation, by race and income

	Total	Low income	Middle income	High income	White	Black	Hispanic
1972	49.2%	26.1%	45.2%	63.8%	49.7%	44.6%	45.0%
1981	53.9%	33.6%	49.2%	67.6%	54.9%	42.7%	52.1%
1996	65.0%	48.6%	62.7%	78.0%	67.4%	56.0%	50.8%
2001	61.7%	43.8%	56.5%	79.8%	64.2%	54.6%	51.7%

SOURCE: NCES, 2003

Until new data become available, it remains unclear whether 2001 represents a temporary stagnation in college-going among high school graduates or forecasts the beginning of a reversal in the growth of previous years. However, some basic facts

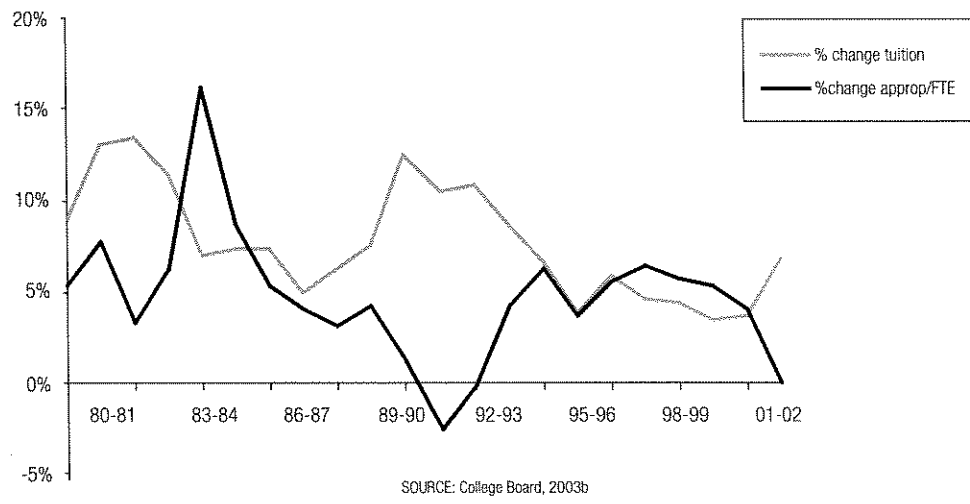


about the disproportionate and increasing burden faced by low-income students and families in financing college paint a grim picture. The percentage of family income required to pay for one year at a public four-year college doubled for low-income families – from 13 to 25 percent – between 1980 and 2000. During the same time period, the proportion of income necessary for high-income families to cover this expense remained steady at less than 5 percent (NCPPE, 2002). In addition, low-income families face substantially higher levels of unmet need – the balance remaining after the expected family contribution and all available financial aid have been applied – in comparison to middle and high-income families (Figure 6). In order to cover this balance, students have turned to even further borrowing and/or increased their work hours, both of which add to the burden of paying for college (ACSFA, 2002). Experts estimate that in the first decade of the twenty-first century as many as two million college-qualified high school graduates from low and moderate income families will not attend college because of financial barriers (ACSFA, 2002).

Role of State Governments

The proportion of total revenues provided to public institutions through state and local appropriations decreased dramatically during the 1980s and never rebounded. During academic year 1980-81, appropriations from state and local governments comprised nearly half of total revenue for public institutions. By 1999-2000, however, only about one-third of public institutional revenues were provided by state and local governments (NCES, 2002). Because the revenue sources of public institutions are limited – tuition and fees, government appropriations, private gifts, endowment income, and income from sales and services – decreased state and local appropriations often result in some level of increase in tuition and fees (College Board, 2003a) (Figure 7). In fact, decreasing revenues from state appropriations seems to be the most important factor related to tuition increases at public four-year institutions (NCES, 2001).

Figure 7: Annual percentage change in instructional appropriations and total tuition at public four-year institutions in current dollars, 1980-81 to 2001-02



Rising Tuition

Tuition increases have become the norm for today's aspiring and current college students and their parents. Beginning in the early to mid-eighties – when most current high school students were born – tuition and fee charges and total cost of attendance (tuition, fees, room, and board) have increased faster than inflation almost every year, with the most dramatic increases occurring at four-year institutions (Figure 8a and Figure 8b). For example, 2003-04 college students paid an average of \$4,694 in tuition and fees for one year at a public four-year institution. In 1993-94, one year would have cost students \$3,188 after adjusting for the ten-year inflation rate. In 1983-84, students would have paid less than half the price at \$2,074 (College Board, 2003a).

However, most students do not pay the published tuition and fee charges. Around 50 percent of college students receive grant aid that reduces their net price – the difference between published tuition and fees and what students actually pay out of pocket (College Board, 2003b). And, despite steady increases in tuition, very few students pay the exorbitant \$20,000 to \$30,000 per year tuition and fee charges that are often cited in newspaper articles. In fact, of the 3,600 American colleges and universities, only 200 had published tuition and fee charges of \$20,000 or more in 2002-03 (ACE, 2003). And, nearly two-thirds of full-time undergraduates at four-year institutions attended colleges and universities that had published tuition and fee charges of less than \$7,000 in 2003-04 (College Board, 2003a).

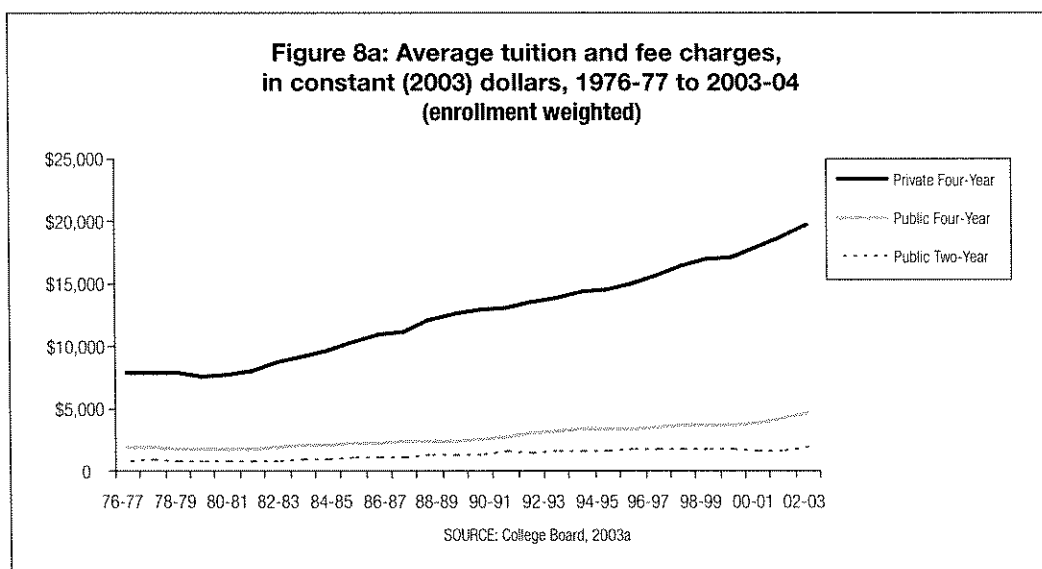
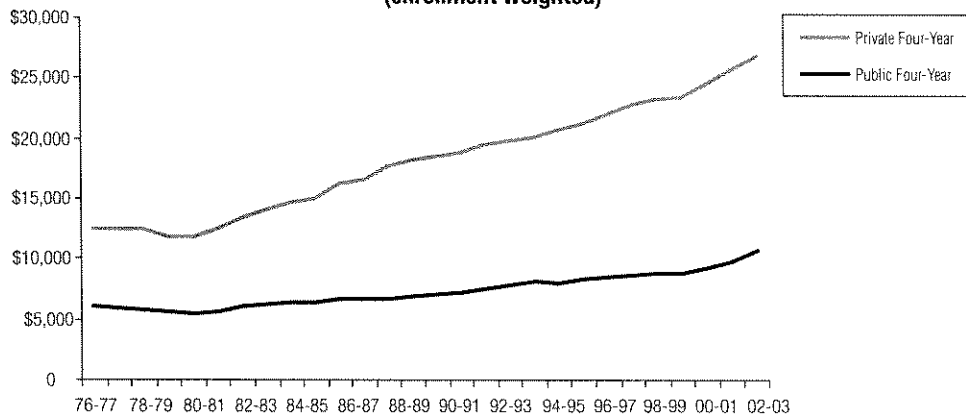


Figure 8b. Average tuition, fees, room, and board charges at four-year institutions, in constant (2003) dollars, 1976-77 to 2003-04 (enrollment weighted)



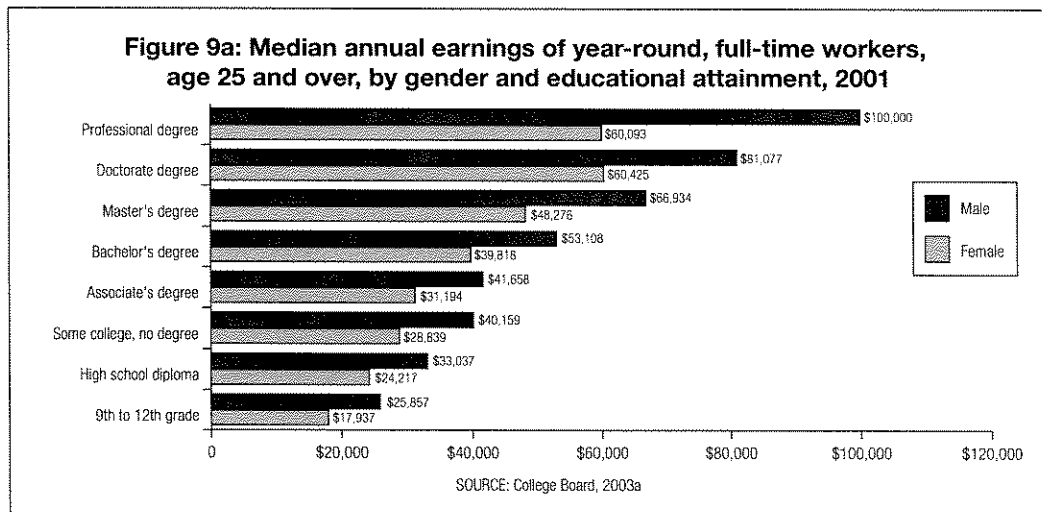
SOURCE: College Board, 2003a

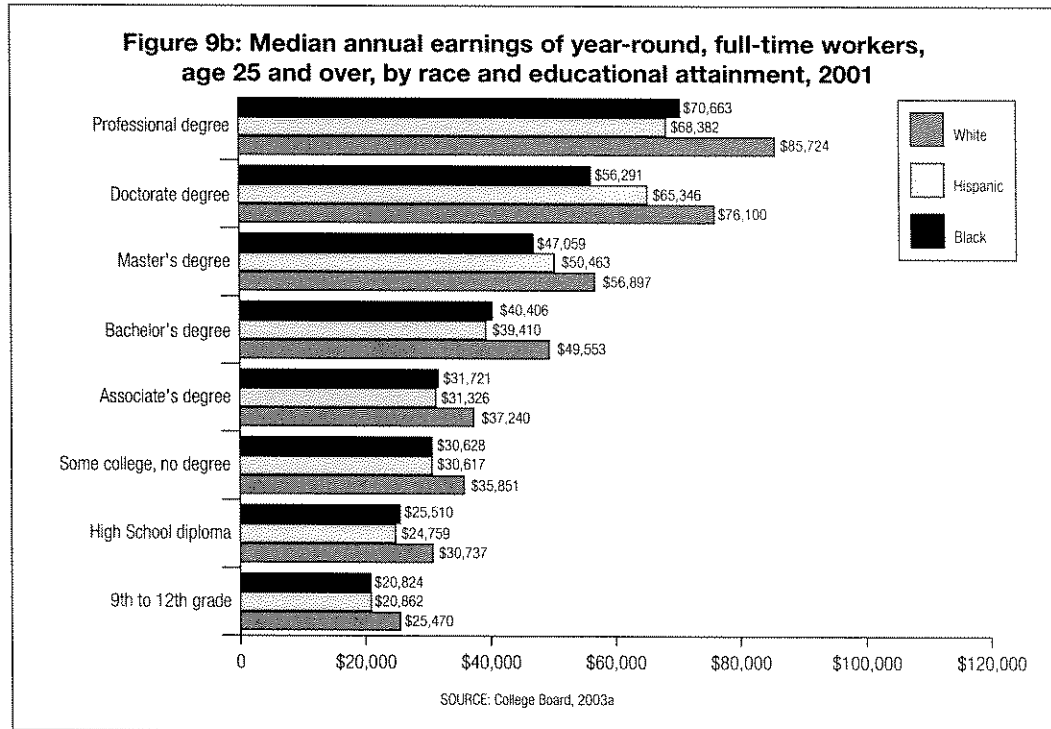
Consequences of Declining Public Investment

Students and families continue to find ways to finance higher education despite financial hardships because of the potentially large personal economic gains. However, not all college graduates benefit equally. Although college graduates do earn more on average than high school graduates, median salary figures obscure important differences in earnings. In fact, average salaries vary considerably by gender, race, economic background, and type of degree even among individuals with equivalent educational credentials. For example, women and minorities earn less on average than their counterparts. More importantly, as the level of education – and presumed financial investment – increases, these differential benefits become more pronounced (College Board, 2003a) (Figure 9a and Figure 9b). In other words, while getting a college education adds to one’s personal financial status, it also exacerbates the differences among some groups. This reinforces the need to understand the broader public benefits that result from investing in higher education.

The Role of Debt

The relative personal economic benefits of higher education also are influenced by the increasing prevalence of student borrowing, particularly among low-income students. Students who borrow to cover the cost of attendance pay a 33 percent premium on the portion that is paid for with student loans (assuming a ten-year payback period at 7 percent interest) (Price, 2004). As of 2000, average cumulative educational debt





for undergraduates was approximately \$18,000 (GAO, 2003), which translates into a \$6,000 borrowing premium. In other words, a student who borrowed \$18,000 to finance the price of college will actually pay \$24,000 over time (Price, 2004).

In the 10 years from 1989-90 to 1999-2000, the percentage of students at all income levels who borrowed for college increased as did the amount borrowed. However, the amount borrowed varied little among income groups (NCPPE, 2002). In addition, women, racial minorities, and students from low-income families all were more likely to borrow than their counterparts. Given the lower average salaries earned by these groups of graduates, it is not surprising that they are more likely to struggle with an excessive student loan debt after graduation (Price, 2004).

In addition, many borrowers begin post-college life at a disadvantage to their non-borrower counterparts in other ways that affect quality of life. A 1998 survey of student borrowers found that for those who finished their degree programs, 40 percent delayed purchasing a home, 31 percent delayed purchasing a car, and 22 percent delayed having children due to student loan debt (Baum and Saunders, 1998). In a more recent survey, 39 percent of low-income borrowers reported that loan repayments caused more hardship than anticipated (Baum and O'Malley, 2003).

Despite these difficulties, most people agree that a college degree is ultimately worth the individual investment in one's economic future, given the potential for increased earnings over the long-term. However, excessive student loan debt threatens to disrupt the delicate balance between private and public benefits. If policymakers and education leaders continue to emphasize the personal economic returns of higher education, how

can society reasonably expect recent college graduates to forgo economic prosperity to fill shortages in critical but low-wage careers, such as teaching and social work? Under our current financial aid structure, this decision would be economically unsound for the vast majority of low-income and minority graduates. For instance, the nation continues to suffer from a shortage of elementary and secondary teachers, particularly minority teachers (Alliance, 2000). Yet how can the teaching profession successfully recruit and retain new teachers when employing them in this low-paying profession is tantamount to resigning many of them to years of excessive educational debt burden, as well as delaying home ownership and families? The continued policy focus on the individual benefits of higher education risks diminished returns both for individuals and society.

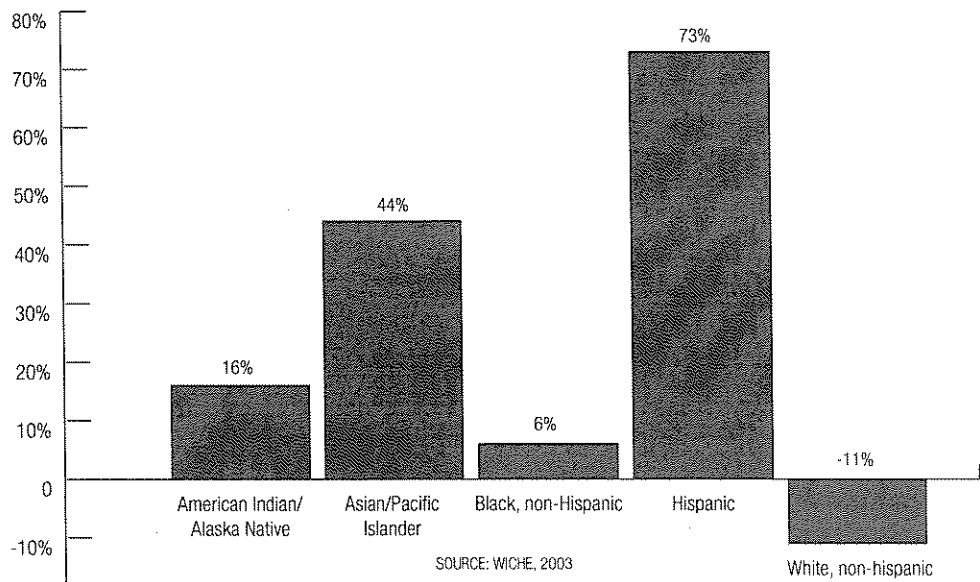
Loans certainly have an important place in the college financing system, given rising tuitions and the personal economic benefits that a college degree confers. The personal economic benefits justify the expectation that students and families will contribute to the cost of higher education, and student loans prove to be a good investment for most individuals. However, the growing reality is that borrowing serves as the main mechanism for increasing access. This poses the danger of creating yet another aspect of educational inequality – between those who have to borrow and those who can pay up front. Not surprisingly, college students who have to borrow in order to gain access to a four-year institution are more likely to have the same racial and economic background as high school graduates who still lag behind in college-going rates. In order to ensure that both low-income students and society as a whole can continue to reap the benefits of higher education, a greater proportion of financial aid must be awarded on the basis of need and in the form of grants.

The Role of Demographic Changes

The window of opportunity to regain an appropriate balance between individual and societal responsibility for financing higher education is already closing. The nation is about to experience a surge in the number of high school graduates that will peak at nearly 3 million in 2008 (WICHE, 2003). If the promise of No Child Left Behind is fulfilled, an increasing percentage of these new high school graduates will be college qualified. In addition, most of this growth in college-qualified high school graduates will occur among groups who are most in need of grant aid – minority, low-income, and first-generation students. For example, the number of Hispanic high school graduates will increase by nearly 80 percent, while the number of whites will decline (WICHE, 2003) (Figure 10). In addition, these “minority” populations will compose more than 50 percent of the total U.S. population within the lifetime of today’s high school students (Census, 2002b). As this demographic shift progresses, the economic success and social progress of today’s minority populations will become inextricably bound to that of the nation.

While the current financial aid system clearly has improved access for students overall, it has proven less effective in reducing the racial and income gaps in access to higher education due to the inadequate investment in need-based aid. As the need for more college educated workers continues to increase, the economic growth and social progress of the nation will become increasingly dependent upon providing educational opportunity to all Americans who are willing and able to learn.

Figure 10: Percent change in number of public high school graduates by race/ethnicity, 2001-02 (actual) and 2013-14 (projected)



What Can Be Done?

Policy changes at the federal and state levels can ensure postsecondary access for the coming wave of college-ready high school graduates. The future state of college access rests primarily on a recommitment to need-based grant aid. The shift to an emphasis on loan aid and non-need-based aid has addressed the needs of affordability and choice for middle and high income students, but it has not addressed the most important and original goal of student financial aid – improving access for low-income students. Given projected demographic changes that could result in a loss of as many as two million college-qualified high school students by the end of the decade, the nation simply cannot afford to under-invest in college access for low-income students. Some specific recommendations to invest in America’s future are:

- **The federal government should double the maximum Pell Grant and fully fund the program.** Doubling the maximum Pell grant would restore the program’s lost purchasing power and pay for an average of 75 percent of the price of attendance at public four-year colleges, thereby significantly reducing the financial obstacles that low-income students face. Although increases in grant aid are more expensive than equivalent increases in loan aid, grant aid is a more efficient use of taxpayer dollars because it has a far more powerful effect on students’ ability to attend college.
- **State governments must refocus student aid dollars on need-based grants.** The recent state-level trend of awarding student aid based on academic merit alone reduces funds for low-income, minority, and first-generation students. Given the societal benefits of higher education, state governments also must ensure that higher education’s share of general revenues does not continue to decline. At the same time, state policymakers must reevaluate their tuition policies for public colleges and universities. Policies must be set and resources allocated so that tuition increases can be reasonably consistent with general indicators of economic capacity in the state, such as per capita personal income. State leaders also should link funding for state financial aid programs directly with tuition or fee decisions to make sure that needy students are not shortchanged in times of rising student charges.
- **The private sector must be recognized as an important partner in the national goal of improving access to higher education.** The private sector needs to be acknowledged as a full partner in the college financing equation and should play a major role in our national dialogue about investing in America’s future. The financial resources of the private sector have had an increasingly powerful influence on college access as many students face unmet need even after federal, state, and institutional financial aid is applied. Scholarship aid can bridge this gap, decrease the amount students must borrow or work, and increase the likelihood of degree attainment. Many private sector corporations already are making

valuable contributions. Given the potential lack of qualified workers if the promise of college access remains unfilled, more corporations should consider providing tuition reimbursement plans for their employees and dependents as a minimum investment for the future.

In the coming decade, the nation will reach a critical crossroads in its commitment to educational equity. The past 30 years have proven the importance of need-based grant aid in ensuring access for low-income students. Though the landscape of financing options has changed considerably, grant aid will continue to be essential. The coming wave of high school graduates presents an invaluable opportunity to make significant strides in decreasing the gaps in college-going rates among racial and income groups. All of the partners in the college financing process – the federal government, states, institutions, and the private sector – must commit to this investment. The economic growth and social stability of the nation will depend upon our ability to capitalize on this opportunity.

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