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The Path to a Degree

A Legislator's Guide to College Access and Success

Overview: The Path to a Degree

By Brenda Bautsch *November 2009*

America is no longer the world leader in education. U.S. performance at the K-12 and postsecondary levels is falling behind other countries. According to the Organisation for Economic Co-operation and Development (OECD), America and Germany are the only two OECD countries where the younger generation is actually less educated than the older generation. In February 2009, President Obama declared the lack of educational attainment in the United States a "prescription for economic decline, because we know the countries that out-teach us today will out-compete us tomorrow," and he set a goal for the United States to reclaim its position as the leader in college graduates by 2020. To accomplish that, states need to set their own college completion goals; study and diagnose where and why students are dropping out of the education system; and target state policy to those problem areas. Effective state policy can help more students obtain college degrees, be successful in life and contribute to the economy.

According to the Bureau of Labor Statistics, 54 percent of all new jobs and 75 percent of the fastest-growing jobs require some form of postsecondary education. In addition, people with bachelor's degrees earn 60 percent more over their lifetime than those with only a high school diploma, which translates into higher tax revenues for states and the federal government. College graduates also live healthier and longer lives and rely less on social programs such as welfare or Medicaid, saving states a significant amount of money. College graduates participate more in civic activities, such as voting, and in charitable activities, such as donating blood. States that improve college access and success increase these individual, economic and societal benefits.

College enrollment and completion rates will not alter significantly unless policymakers focus on nontraditional students, particularly low-income, minority and first-generation students, who are underrepresented and underserved in the education system. These students are the fastest growing populations and the least likely to finish high school, enroll in college or earn a degree. The result is a significant and serious achievement gap that threatens states and the nation.

To meet President Obama's college completion goal and to preserve America's status as a world leader in education, state policy will need to focus on closing the achievement gap. State legislators have the power to design and implement policies that help prepare all students academically and financially for college and effectively support them to ensure they complete a degree.

The Path to a Degree: A Legislator's Guide to College Access and Success contains five briefs that provide an overview of key issues, discuss research findings, and offer examples of specific state action that can improve college access and success for underrepresented students.

Raising Awareness: College Planning Strategies focuses on early awareness and preparation as an essential component of college access. The brief discusses two strategies to increase early college planning among low-income, minority and first-generation students: information dissemination and student support services, both beginning no later than middle school.

Increasing College and Workforce Readiness discusses policies that can improve college and workforce readiness, such as aligning high school standards, adjusting graduation requirements, and using college-ready assessments. College readiness is a key component of both college access and success; students who take college preparatory courses in high school, for example, are more likely to enroll in and graduate from college.

Improving College Affordability for Underrepresented Students: Financial Aid Strategies discusses the three components of the higher education finance system: tuition, financial aid and state appropriations. The brief fo-

cuses on financial aid as a policy option to increase college affordability for low-income, minority and first-generation students and provides examples of effective financial aid programs.

Engaging Students Academically and Socially: College Success Strategies highlights evidence-based college success programs that help more students remain in college and graduate. Programs that increase student academic and social engagement have the greatest effect on completion rates. The brief provides examples of legislative action that encourages and supports college success programs.

What You Need to Know About Minority-Serving Institutions provides an overview of historically black colleges and universities, Hispanic-serving institutions, and tribal colleges and universities—known collectively as minority-serving institutions. The brief highlights why an increasing number of students choose to attend these institutions; their effect on the educational attainment of underrepresented students; and the challenges such institutions face.

Higher education can improve individual lives, bolster state economies, fill workforce needs, and sustain America's economic competitiveness. Now is the time for states to act to improve the path to a degree for all students.

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This publication was written by Brenda Bautsch as a Policy Specialist in the NCSL Education Program. Brenda works on issues regarding college access and success.

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National Conference of State Legislatures
William T. Pound, Executive Director

7700 East First Place
Denver, Colorado 80230
(303) 364-7700

444 North Capitol Street, N.W., #515
Washington, D.C. 20001
(202) 624-5400

www.ncsl.org

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Raising Awareness: College Planning Strategies

By Brenda Bautsch

November 2009

Nine of 10 parents expect their child to go to college, according to an Institute for Higher Education Policy survey of middle school parents. Parents recognize that a college degree leads to better job opportunities and higher wages. The same survey, however, found that 45 percent of those parents had not yet taken any steps to plan for college. As Figure 1 shows, they had not started saving money, had not looked at college admission requirements, had not visited campuses, and had not talked with a school counselor or teacher. Parents who did not have a college degree were most likely not to have begun planning, while three of four parents with a bachelor's degree had begun the process.[1]

The survey results are troubling because college planning ideally begins at the middle school level. The path to college involves many steps that are better started at an early age. College-bound students should begin in middle school to consider what classes they need to take for college. They should understand the importance of studying hard and getting good grades. They should start preparing for standardized testing. They should think about financial aid and scholarships, some of which are contingent upon high school grades, curriculum or extracurricular activities. Various actions need to be taken in college planning, and being aware of what those actions are early in the process is an important part of college access.

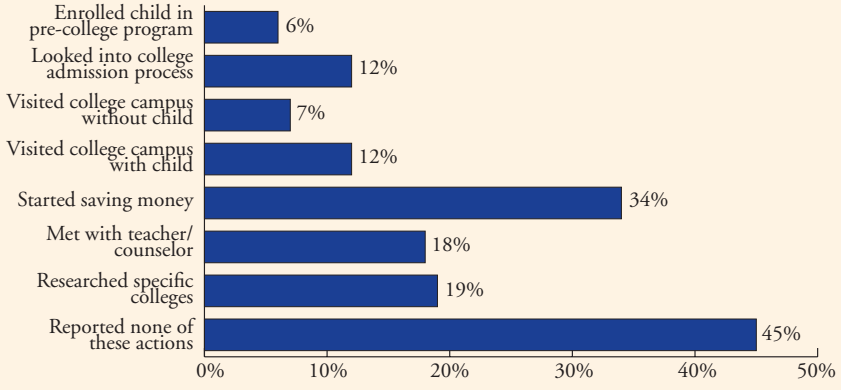
Unfortunately, college planning information is not reaching all families. Many disadvantaged school districts have limited college preparation resources and few guidance counselors who can help students navigate the college path. Many low-income, minority and first-generation students do not have a college-educated parent or role model to help guide them. Without information, students may be unaware that colleges require certain classes, or that scholarships require certain grade point averages. In fact, many of these students do not know financial aid and scholarships are available. Lack of information can lead to missed opportunities for getting more students into college.

This brief discusses two strategies that can be used to increase awareness of college planning among underrepresented students: 1) information dissemination to middle and high school students and parents, and 2) student support services throughout secondary school. Both strategies have an early outreach component that starts their college planning efforts at the middle school level. This brief examines the various tactics and methods of implementation involved in these two strategies and provides examples of current programs.

Information Dissemination

Low-income and minority students have less access to college planning information than other students. This is especially the case for first-generation students who may not be able to rely on their parents to direct them in the college preparation process. Families that are unaware of college options also typically do not know where to obtain information, and they have less access to school guidance counselors who could help them.[2]

Figure 1. What college planning steps have parents of middle school students taken?



Source: IHEP survey of middle school parents, 2007.

Information dissemination can be an inexpensive and effective way to communicate college planning information to families. Several states have conducted college information campaigns using various media outlets. Web-based campaigns can be effective because the Internet has become widely accessible and creating a website is inexpensive. Research indicates that minorities access the Internet at nearly the same rate as whites; 86 percent of white high school seniors have access to a broadband connection, compared to 85 percent of African Americans and 77 percent of Hispanics.[3]

Web Campaigns North Carolina has been hit hard by declines in skill-based industries such as manufacturing and agriculture. In efforts to develop a knowledge-based workforce, North Carolina's General Assembly created the College Foundation of North Carolina, a program focused on increasing college access for poor and minority students. The foundation is a collaboration of the K-12 and state college systems. Most of its college planning services are available on its website: www.cfnc.org. North Carolina conducted a publicity campaign to promote the website, and now 80 percent of middle and high school parents know about it.

The website allows students to track high school courses, grades and activities; search for financial aid; apply to North Carolina colleges; and apply for loans. The site provides free test preparation materials for the SAT and ACT. Applicants can electronically submit their high school transcript to colleges through the website. With such a wealth of information and resources in one place, students and parents from all backgrounds can easily educate themselves on the various aspects of college planning. As a result of the foundation's efforts, college enrollment rates for low-income students have been on the rise; in fact, North Carolina holds the record for the greatest increase—3.4 percent—from 1999 to 2006.[4]

A great benefit of web campaigns is that they can extend across state borders to reach an even larger audience. The Southern Regional Education Board, for example, has a website called "Electronic Campus" that provides information about the colleges and universities in the 16 states it represents. Students in all of those states can use the website to gather helpful information about campus tours, applications, academic programs and financial aid. A student in Arkansas could use the Electronic Campus website to easily obtain information about schools in Florida. Using the Internet to disseminate information can foster regional collaboration to efficiently reach out to students about higher education.

New Media Other methods of communication popular with students from all backgrounds are cell phone text messaging, online social networking and Internet videos, sometimes referred to as "new media." A survey of low-income and minority students in Boston found that most 11th and 12th graders own cell phones; of those, 88 percent use text messaging. The survey also indicates that the top Internet programs students use are YouTube, MySpace and AIM.[5] Taking advantage of these information pipelines can be a great way to reach out to students about college. Best of all, they are low-cost options. Text messages could be sent alerting students of upcoming college events. YouTube videos could be made to promote a college access campaign. AIM could be used by school counselors to inform students of pending deadlines.

Delaware has used new media for disseminating college information. Its Department of Education created a MySpace profile to promote its "*Yes You Can*" campaign, which encourages college and career preparation for high school students. Creating a MySpace profile is free; it requires only staff time to set it up, invite students to be friends and monitor it. Using media forums that are popular with students can have to a greater effect on their knowledge and views about higher education.

Traditional Media In addition to the Internet and new media, marketing through traditional media outlets such as radio, TV and print also can be effective to disseminate college planning information. A national initiative, KnowHow2Go, reaches out to middle and high school students through TV commercials, billboards and magazine ads. Creatively targeted toward teens, the message is simple—kids must research college options and take challenging classes. Commercials depict comic-book-like villains representing algebra, biology and foreign languages and urge kids to take on these tough courses.

Although KnowHow2Go is a national initiative, several states have teamed with the program to personalize the campaign. Nebraska, for example, launched its KnowHow2Go campaign as a collaboration among the state Department of Education, the governor's office, the state P-16 initiative,

the University of Nebraska system and others. KnowHow-2Go can be a great resource for states that want to conduct a major college access marketing effort. KnowHow2Go can provide advertising advice and materials, help the state assemble partnerships, and help secure funding for the campaign.[6]

Financial Aid Workshops Another way to disseminate information is through specialized workshops. One college topic many students and families lack knowledge on is financial aid. College Goal Sunday, an annual workshop, was created to provide low-income and first-generation students with financial aid information and help them fill out the Free Application for Federal Student Aid (FAFSA) form. Started in Indiana in 1989, it has since expanded to serve 35 states and the District of Columbia with assistance and funding from the Lumina Foundation and the National Association of Student Financial Aid Administrators (NASFAA). Each state coordinates its College Goal Sunday event, which occurs on a Sunday afternoon in January through March, the peak financial aid time. The free College Goal Sunday program is run by volunteers. Financial aid experts, guidance counselors and others come to help students and families fill out the FAFSA and learn about financial aid opportunities.

College affordability is a significant barrier for many students, and the FAFSA is the first step toward receiving financial aid. The event has had a positive response from participants; in 2008, 83 percent of those who attended a College Goal Sunday said either they could not have filled out the FAFSA on their own, or could not have done it as well.[7]

College Goal Sunday is successful only if students and families are aware of the event and attend. Legislators can help promote the event by recording public service announcements on the radio, writing about it in their newsletters, and speaking about it at constituent forums. In 2008, for example, the Tennessee College Goal Sunday program created a script for a radio announcement, and 65 state legislators participated in the recording.

Another way legislators can promote the event is to write a resolution declaring one day in January through March to be College Goal Sunday, as Michigan and Arkansas did. Or, the resolution could declare one month a Financial Aid Awareness Month as the Kentucky House of Representatives did. Legislators also can use their political ties to urge other political figures, such as mayors or governors, to publicly endorse College Goal Sunday. Using their position as public leaders, legislators can be of great help in supporting College Goal Sunday without having to spend state money. [8]

By using the web, new and traditional media, and financial aid workshops, states can effectively spread information about college planning. Information dissemination is only one strategy to improve college access, however. Another important aspect is providing students with personal support.

Student Support Services

Research indicates that information alone is not enough. Students need an adult figure who believes in them and encourages them along the way.[9] If students do not have such a role model in their family or among teachers, counselors can fill that void. College guidance counselors help students handle the preparation steps needed to enroll in college. They can help students plan their course load, prepare for the SAT and ACT, and research college and career options. Counselors who are invested in the success of their students can be important mentors, providing encouragement and support.

It is important, however, that counselors have time to help each individual and are not assigned too many students or too many tasks unrelated to college counseling. Nationally, the average counselor-to-student ratio is one to 490, but at poor schools counselors are assigned an average of 1,056 students. Such schools serve mainly minority and low-income students who are most in need of college advice and support. Moreover, counselors at these schools typically focus on behavior problems, not college planning.[10]

Nationally, the average counselor-to-student ratio is 1 to 490, but at poor schools, counselors are assigned an average of 1,056 students.

Increasing the number of counselors who are focused on college and career planning at low-income schools is a good way to increase college readiness for underrepresented students, but it can be costly. Where state funds are limited, one option is to leverage federal, private or foundation programs.

GEAR UP Gaining Early Awareness and Readiness of Undergraduate Programs (GEAR UP) is a federal grant program that works to increase college awareness and preparation among low-income and minority students. GEAR UP provides matching grants to state governments and partnerships that administer programs with an early outreach component focused on readying students for postsecondary education. The early outreach requirement refers to programs that start in middle school. Programs that increase staffing of counselors in low-income middle and high schools can apply for GEAR UP grants.

Washington's College Success Foundation, for example, used GEAR UP funds to increase school counselors, referred to as "College Prep Advisors." The advisors work with eighth, ninth and 10th graders to provide college information, course advice and encouragement. The advisors reach out to students through various formats such as after-school programs, brown-bag lunches and classroom visits.[11]

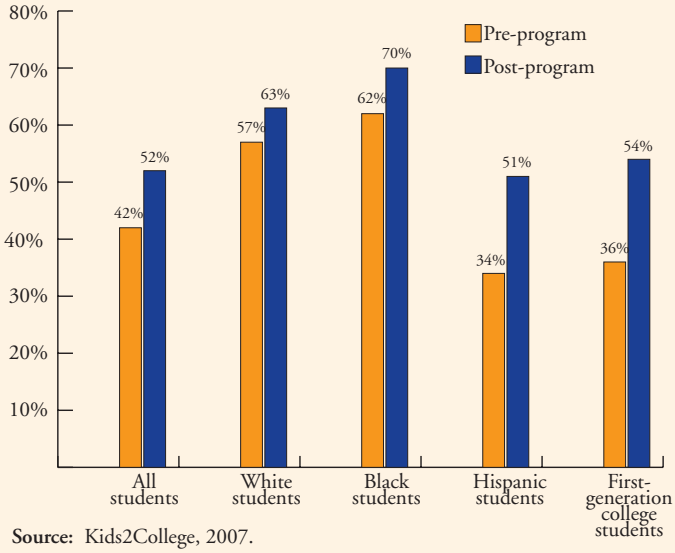
Louisiana uses GEAR UP grants to provide week-long summer learning camps held on college campuses for middle and high school students. Since low-income and first-generation students may never have been to a college campus and may have no one to describe college life, it is important to inspire a belief that they someday could be college students. College visits can expose students to the world of higher education and help them envision themselves as college students.

Along with the campus experience, Louisiana's GEAR UP summer camps provide valuable counseling. Camp themes vary and include tutoring, math and science enrichment, and leadership skills. Career-centered camps include topics such as engineering, sports medicine or culinary arts. Students also gain early awareness of how to plan for college both academically and financially. According to the Institute of Education Sciences, programs that incorporate college and career advising, college campus visits and financial aid planning increase rates of high school completion.[12]

Kids2College Another counseling program that incorporates college visits is Kids2College, a national program sponsored by the Sallie Mae Fund. The program, built on local partnerships, provides sixth graders at low-income schools with college planning sessions throughout the school year. The creative, hands-on sessions are used to expose the kids to the many opportunities available in postsecondary education. The program culminates with a campus visit to a local college or university.

When first-generation students were asked at the beginning of the Kids2College program whether they could envision themselves as a college student, 36 percent said yes. When asked the same question after the program, the number jumped to 54 percent. Figure 2 also shows increases in the percentage of white, black and Hispanic students who can envision themselves in college after participating in Kids2College.

Figure 2. Percentage of K2C Students Who Said They Can Definitely Imagine Themselves in College



Source: Kids2College, 2007.

Another positive effect of the Kids2Collge program is that more students know they should start taking college preparatory classes in eighth or ninth grade and that they should take four years of math in high school. Early awareness of which math classes to take is important; research indicates that minority and first-generation students who take upper-level math classes have higher college enrollment rates. After participating in Kids2College, students also are more likely to talk about college with friends and teachers and have a better understanding of career options.[13] A sixth-grade teacher in California whose students participated in Kids-2College said:

> "I was very moved by some of the changes in attitude I have seen with some of my toughest students. Many students are now talking about want-

ing to go to college, when a few weeks ago they would have insisted otherwise. The trip to [California State University, Fullerton] seemed to make the whole idea of "college" real and attainable for my students. Overall, students are doing more homework and taking their studies more seriously as they now know that college is not only possible, but that preparation starts early in the sixth grade."

Kentucky's Individual Graduation Plan A different strategy to increase school counseling is to make college and career preparation part of graduation requirements. In 2002, Kentucky's General Assembly created the Individual Graduation Plan and made it a requirement for high school graduation. The graduation plan is a comprehensive college and career counseling program aimed at helping students connect their high school classes and activities with their post-high school goals. The plan, administered by school staff, begins in eighth grade and runs through 12th grade.

The Individual Graduation Plan is used to assess each student's academic interests, skills and hobbies and suggests possible careers. The program then creates a four-year high school plan that is in line with the student's college and career goals. It is reviewed regularly throughout high school to track progress and any shifts in aspirations. The program promotes the idea that early planning gives students the opportunity to fully prepare for college and careers.[14]

Washington's Navigation 101 Another state-supported program is Navigation 101, a middle and high school counseling program funded by the Washington Legislature. Select schools administer the program, which matches each student within the school to an advisor—a teacher, counselor, principal or social worker. Advisors work closely with students from grade six through grade 12 on college and career planning. Having an assigned advisor ensures that each student has at least one adult at the school who knows them and cares about their future. The advisors follow a curriculum that was developed using academic and counseling standards. It covers topics such as setting personal and academic goals, improving class grades, planning for college, exploring careers, joining extracurricular activities and managing money. Early data shows that students who participate in the program are more likely to take Advanced Placement courses, graduate from high school and enroll in college.

The programs highlighted in this section have the ultimate goal of providing students with more guidance on college and careers, whether by increasing the counselor staff at schools, delivering information sessions to families, chaperoning college visits, or implementing state-supported college preparation programs. Whatever the method used, the key is to increase support services to all students, particularly those who are low-income, minority or first-generation, to help them prepare for life after high school.

Conclusion

Inadequate college planning can be a barrier to higher education for many students. Research indicates that middle school is the best time to start planning for higher education because it allows time for students to complete necessary courses, participate in extracurricular activities, study for college entrance exams, apply for financial aid, and apply for college. If students are not aware early on of specific college and program requirements, they could be at a disadvantage.

Almost all parents expect their child to attain some level of education beyond high school. However, almost half those parents have not taken any preparation steps by the time their child is in middle school. The two main strategies described in this brief—disseminating information about college planning, and increasing college counselor services for middle and high school students—can help change that trend.

The various programs highlighted demonstrate different ways to increase college planning awareness. Policymakers can consider the demographics, the current programs, and the specific needs of the schools and students in their community to decide which strategy would be best. As the examples in this brief demonstrate, partnerships can be an effective way to create or expand a program and share the costs and planning efforts. Partnerships could be forged with local nonprofits, university systems, federal grant programs, and state departments of education, among others.

As policymakers consider increasing college planning awareness among underrepresented students, these are some points to keep in mind.

- It is important to begin the college planning process in middle school to allow enough time for sufficient preparation.

- Information dissemination can be an inexpensive and effective way to communicate college planning information.
- The Internet and "new media" (i.e., text messages, social networks and web videos), which are popular with teenagers of all backgrounds, can be a low-cost way to reach out to students.
- By partnering with a national initiative such as KnowHow2Go, states can create college access campaigns tailored to their constituency.
- College Goal Sunday is an example of a workshop focused on increasing awareness of financial aid options, a subject with which many students and families are unfamiliar.
- Support services such as school counseling can provide students with valuable college information, advice and support.
- Low-income school districts typically have fewer school counselors; increasing the counseling staff at those schools could improve the college readiness of disadvantaged students.
- College visits can help students, especially those who are first-generation, to envision themselves at college, thus encouraging them to aspire to attend.
- Incorporating a college preparation plan into high school graduation requirements can be a strategy to increase college awareness.
- State legislatures can provide financial support for college and career planning programs in public middle and high schools; Washington's Navigation 101 program is one example.

Notes

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Increasing College and Workforce Readiness

By Brenda Bautsch

November 2009

Policymakers and their constituents have been shocked to learn about the low college graduation rates of America's students. Nearly half of students who enter a four-year college do not earn a bachelor's degree within six years. Two-thirds of associate degree-seeking students do not earn a degree within three years. Why do so many students fail to complete a degree?

Poor academic preparation is one significant reason why students drop out before graduation. Each year, 1 million high school graduates fail college placement tests, and 35 percent of all public college students enroll in at least one remedial course. It is clear that K-12 education is not preparing many students for college-level work. The consequences are costly—students must pay to take courses for which they receive no credit, and states must pay to teach students material they should have learned in middle and high school. Further, students who take remedial classes are much more likely to drop out of college.

Often, the high school curriculum is not properly aligned with college requirements. Too many students do not gain the knowledge and skills necessary to succeed in postsecondary education. Those who are most affected by inadequate college preparation are low-income, minority and first-generation students who attend schools that do not offer rigorous courses, college preparatory diplomas, or college guidance counseling.

Because an increasing number of jobs require some level of postsecondary education, high school graduates should be prepared for higher education. In response, states have begun to enact policies to graduate high school students "college and career ready." These policies:

- Align high school curriculum standards and graduation requirements with college and career requirements to better prepare students;
- Require all schools to offer a college- and career-ready diploma—a rigorous diploma aimed at preparing students to succeed in any level of postsecondary education, whether technical certification, a two-year degree or a four-year degree;
- Use college-readiness tests and end-of-course exams to identify students who are in need of extra preparation before college;
- Include college- and career-ready indicators, such as the number of students taking AP classes or a college preparatory diploma, into school accountability systems. Including these indicators can reward high schools that are focusing on graduating college-ready students.

What Does it Mean to Be College Ready?

College readiness simply means students are prepared for entry-level, credit-bearing college courses immediately after high school.

The simple definition of college readiness is being prepared for entry-level, credit-bearing college courses immediately after high school. More detailed definitions of college readiness specify high school course standards, course-taking requirements and minimum test scores. According to Education Week's Diplomas Count 2009 survey, 20 states have adopted formal definitions of college readiness, and 11 more currently are developing a definition.

In 14 states, the college-readiness definition identifies content standards for courses; in 13 states, the definition identifies specific courses students should take to be college ready. Seven states identify behavioral skills, such as time management and critical thinking, that students should possess.

Twenty-eight states have adopted a formal workforce-readiness definition, indicating courses, skills, content knowledge or test scores necessary to be prepared for a career. Only five states reported in the Diplomas Count survey that their definitions for college and workforce readiness differ. Several states define college and workforce readiness as the same. (See Figure 1 for an example.)

Figure 1. Excerpt from the Colorado Postsecondary and Workforce Readiness Definition

Postsecondary education and workforce readiness assumes that students are ready and able to demonstrate the following without the need for remediation.

I. Content Knowledge

Literacy

- Read fiction and non-fiction, understanding conclusions reached and points of view expressed
- Write clearly and coherently for a variety of purposes and audiences
- Use logic and rhetoric to analyze and critique ideas
- Access and use primary and secondary sources to explain questions being researched
- Use standard language properly: correct grammar, usage and spelling

Science

- Think scientifically and apply the scientific method to complex systems and phenomena
- Recognize conclusions are subject to interpretation and can be challenged
- Understand the core scientific concepts, principles, laws, and vocabulary, and how scientific knowledge is extended, refined, and revised over time

II. Learning and Life Skills

Critical Thinking and Problem-Solving

- Apply logical reasoning and analytical skills
- Evaluate the credibility and merit of information, ideas, and arguments
- Discern bias, pose questions, marshal evidence, and present solutions

Work Ethic

- Set priorities and manage time
- Take initiative, and follow through
- Learn from instruction and criticism
- Take responsibility for actions and work
- Act with maturity, civility, and politeness

Source: Colorado Department of Education and Department of Higher Education, June 2009.

Not all policymakers, scholars and educators agree that a college-readiness definition is necessary. Some believe that not all students should go to college and that there should be a stronger emphasis on career and technical education. Others argue that, even though not all students should or will go to college, all should be prepared for some form of postsecondary education, which can include vocational training and certification.

College readiness can provide all students with the option of higher learning, with the understanding that not every student must attend college. Proponents of this perspective point to studies indicating that similar skills and knowledge are desired by colleges and employers. Employers—including those in labor fields such as construction—want high school graduates who can read and write at a college freshman level.

Moreover, according to the Bureau of Labor Statistics, 54 percent of all new jobs and 75 percent of the fastest-growing jobs require some form of postsecondary education, ranging from a vocational certificate to a professional degree. Preparing all students for the option of higher education ensures that they can pursue their desired career field.

Why Students Are not College Ready

One reason students are not college ready is because high school course standards and graduation requirements are not aligned with college entrance requirements. Students are not learning what they need to be successful in credit-bearing college courses, and high school classes are not challenging enough for some students. In addition, some students do not learn study skills or time management, both of which are necessary for college.

In many instances, students are not aware that they are unprepared until they take college placement tests. Strong American Schools, an education policy organization, found that, in a survey of students in developmental courses, 80 percent said they had a 3.0 or higher high school grade point average. Many students said their high school classes were easy and noted they would have worked harder if expectations were higher. The Strong American Schools report, *Diploma to Nowhere*, notes that these survey results demonstrate a "severe disconnect between the knowledge and skills that students learn in high school and the knowledge and skills they need to succeed in college."[1] Fixing the academic disconnect between high school and college is a key step in the movement to increase college readiness, and thereby increase college graduation rates.

High school and college alignment is particularly important for closing college attainment gaps between whites and minorities and wealthy and poor students. A significant number of students who are not prepared for college are minority, low-income and first-generation students. Schools are not equally able to prepare students for higher education, and underrepresented students are more likely to attend a school where few resources are devoted to college preparation. Schools in low-income neighborhoods are less likely than schools in wealthier areas to offer a rigorous college-preparatory curriculum or to have enough school counselors to provide college and career guidance.

Lack of counseling is most detrimental to first-generation students. They often lack the parental guidance to take college preparation steps. One study found that only 33 percent of first-generation students graduated academically prepared for college, compared to 78 percent of students whose parents have a bachelor's degree.[2]

First-generation students who take a rigorous curriculum that includes advanced math are twice as likely as their peers to enroll in a four-year college.

Statewide action on aligning high school standards with college requirements can have a positive effect for underrepresented students. Many of these students excel when given the opportunity to take more difficult classes. Research finds that first-generation students who take a rigorous curriculum that includes advanced math are twice as likely as their peers to enroll in a four-year college.[3] Ensuring that all students have access to a college preparatory curriculum and counseling can improve college readiness and close postsecondary attainment gaps.

Preparation for College Can Begin in Middle School

Closing the academic gap between high school and college is crucial. However, it is also important that middle schools prepare students for rigorous high school curriculums. Otherwise, students will not be prepared for high school's challenging courses and diplomas. One study by the University of Illinois found that middle school math is linked to academic achievement in high school, particularly for African American students in urban schools. Those who took advanced math in middle school were more likely to take higher-level math in high school and, all around, perform better academically. The study found the opposite to be true as well. African American students who took lower-level math in middle school were behind their peers in high school and had poor academic achievement.[4]

Florida's school accountability system considers how many students take advanced courses in high school, specifically Advanced Placement (AP) courses. One district increased the number of AP courses offered, but recognized that students might not be prepared for the classes if they took less difficult courses in middle school. That district is now working with the College Board to create a special "pre-AP" program to prepare middle school students for advanced courses in high school. (Refer to the *Raising Awareness: College Planning Strategies* brief for more ways to encourage early preparation.)

The Consequences of Unprepared Students

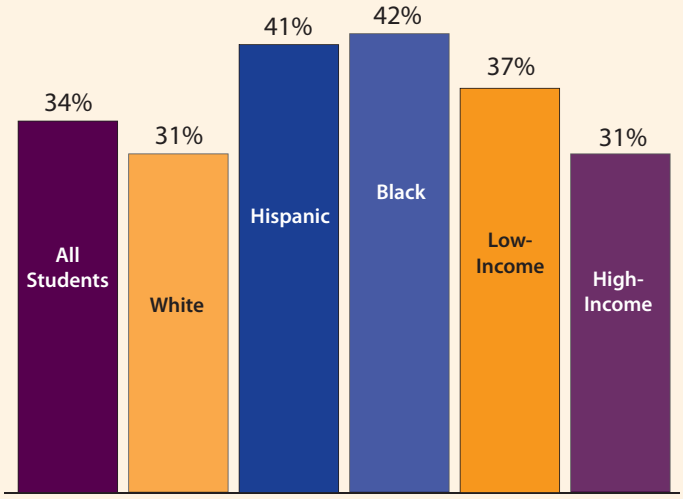
Focusing on college readiness in secondary school is important because students who fail college placement exams must enroll in remedial courses (also referred to as developmental courses). Data from the National Center for Education Statistics reveals that 34 percent of all undergraduates in public colleges in 2004 reported enrolling in at least one remedial course. At community colleges, the number was 43 percent; at four-year institutions, 29 percent of students needed remedial classes. Remediation rates fluctuate widely among institutions. At some community colleges, 60 percent to 80 percent of incoming freshmen need remediation. The fact that more than one third of students in all public institutions need to learn basic math and English skills that should have been acquired in high school is disheartening for policymakers, education leaders, students and families alike. The numbers do not even reveal the full extent of the problem because they do not include students in private schools or students who drop out. In 2004, 1.2 million students dropped out of college, many because they were not academically prepared.[5]

The fact that more than one third of students in all public institutions need to learn basic math and English skills that should have been acquired in high school is disheartening for policymakers, education leaders, students and families alike.

Underrepresented students are most in need of remediation because they are likely to be inadequately prepared. Thirty-seven percent of low-income students enroll in remedial

education, compared to 31 percent of the high-income students. Forty-two percent of African American and 41 percent of Hispanic college students were enrolled in remediation in 2004, compared to 31 percent of white students (Figure 2).[6]

Figure 2. Percentage of Students Who Need Remediation, by Race and Income



Source: Strong American Schools, *Diploma to Nowhere*, 2008.

These statistics come with a high cost. Strong American Schools estimates the costs of developmental education to states and students as $2.3 billion to $2.8 billion per year. Of that cost, students pay $706 million to $886 million per year in tuition, and schools pay $1.6 billion to $2.1 billion.[7] Not calculated in that figure is the loss of state revenue incurred when students drop out of college.

One study that followed a cohort of 1992 high school graduates found that, eight years later, 57 percent of students who had not taken a developmental class graduated with a bachelor's degree, while only 29 percent of students who took one or two developmental classes earned their degree. The need for remediation in reading is particularly hazardous for students—only 16 percent of those enrolled in developmental reading earned a bachelor's degree.[8]

Research indicates that students drop out during remediation. A study by the Community College Research Center found that 60 percent to 70 percent of community college students who required more than one remedial course did not complete the classes. Nearly half failed their first remedial course and did not return to finish college. However, research also indicates that students who complete remedial courses have nearly the same rate of success in credit-bearing courses as those who went directly into them.

To increase success rates in remedial courses, colleges are redesigning how the classes are delivered. In Tennessee, for example, six institutions are participating in redesign efforts guided by the Board of Regents and the National Center for Academic Transformation (NCAT). The NCAT project on redesigning introductory courses, described in *Engaging Students Academically and Socially: College Success Strategies*, is the basis for the Tennessee community college redesign of developmental courses.

State and institutional efforts to help students already in remedial classes advance to credit-bearing classes are important for increasing college completion, but states ultimately want to eliminate the need for remediation. The Alliance for Excellent Education estimates that reducing the need for remediation could generate an extra $3.7 billion annually from reduced spending for delivery of developmental education and increased tax revenue from students who graduate with a bachelor's degree.[9] Recognizing the urgency of the situation, states have taken a variety of actions to help high school students graduate ready for college.

State Standards, Graduation Requirements, Assessments and Accountability

Preparation of students for college and the workforce is the responsibility of both the K-12 and higher education systems. Postsecondary institutions need to define the skills and knowledge necessary to be successful in first-year, credit-bearing courses. K-12 systems need to consider those benchmarks and align curriculum standards and graduation requirements. Legislators can play an important role in this process by encouraging collaboration between K-12 and postsecondary institutions and by constructing policy on high school standards, graduation requirements, college readiness assessments and accountability systems. The following sections highlight legislative activity in these four areas.

Standards

Aligning high school course standards with college and workplace requirements is an important step in ensuring that all students, particularly those who are underserved, receive an education that adequately prepares them for life after high school. According to the education organization Achieve, "Standards provide the underpinning for decisions on curriculum, instruction and assessment, and they communicate core knowledge and skills to teachers, parents and students."[10] Standards provide consistency in what students learn—naming a course "Algebra I" does not mean it covers

all necessary aspects. Standards help clarify what should be included in a course curriculum.

American Diploma Project In 2004, Achieve's American Diploma Project (ADP) brought together business and higher education leaders to analyze the skills necessary to succeed in college and the workforce and to examine what current high school students are learning. The project reached two main conclusions: 1) both employers and colleges require the same basic knowledge and skill set; and 2) most students do not receive that knowledge and skill set in high school.[11] From the findings, the American Diploma Project created a list of recommended academic standards to fully prepare students for both the workplace and higher education. For example, project standards for English recommend four years that cover subjects such as writing, literature, oral and written communication, and logic and reasoning. The American Diploma Project also recommends four years of math, covering topics such as algebra, geometry, statistics, data analysis and problem solving.

Almost all states have considered reassessing their high school standards to better align with college and career requirements. The American Diploma Project reports that, as of 2009, ADP-recommended standards are in place in 23 states, and another 14 states plan to have college- and career-ready standards in place by 2010.[12]

Common Core State Standards Initiative Although some states have improved their standards, they have done so individually, with the result that each state has a different set of academic standards. This can be a problem for today's increasingly mobile students, who often cross state lines to attend college or find jobs. Students currently may be deemed proficient by one state's math standards, but may be considered less than proficient by another state's benchmarks. A new movement is under way to create a set of state-led, voluntary common standards in English and mathematics. The Common Core State Standards Initiative is led by the National Governors Association and the Council of Chief State School Officers. According to the initiative, "These standards will be research and evidence-based, internationally benchmarked, aligned with college and work expectations and include rigorous content and skills."

The two groups are developing the standards by building upon existing research on standards, such as that by the American Diploma Project. Content experts from Achieve, ACT and the College Board are writing the standards, which will undergo an extensive review and validation process. It is expected that 85 percent of the standards for English and math will be common, leaving 15 percent for states to develop at their discretion. Forty-eight states, the District of Columbia, Puerto Rico and the Virgin Islands have joined the Common Standards Initiative.

Texas In 2006, the Texas Legislature enacted the "Advancement of College Readiness in Curriculum" initiative, which required a realignment of high school standards to increase the number of Texas high school graduates ready for college. The legislation brought together the higher education and K-12 communities to investigate and determine what students must learn in K-12 in all subject areas to be ready for entry-level college courses. More than 800 postsecondary instructors participated in the alignment analysis. The resulting College and Career Readiness Standards, adopted in 2008, now are being integrated into the Texas public education curriculum. By working with both the higher education and K-12 communities, the Texas Legislature fostered a cohesive discussion on what is required of postsecondary institutions and how high schools can adjust to meet those prerequisites. Figure 2 on page 6 provides examples of the Texas standards on writing, numeric reasoning and algebraic reasoning.

Graduation Requirements

With standards for course content in place that meet the expectations of the higher education and business communities, states can consider which courses should be required for graduation. One discussion concerns the appropriate math requirements. Some groups recommend requiring four years of math, including Algebra II, for graduation, while others assert that three years are sufficient.

Many argue that the more math students take, the more prepared they will be for higher education. The *Diploma to Nowhere* report found that students who take four years of math are much less likely to need remediation than those who take only three years. In addition to the number of courses, the level of math attained also is important. Students who take a Calculus class, for example, are half as likely to need remediation than students who complete only Algebra II.[13] This is especially true for underrepresented stu-

Figure 2. Excerpt from the Texas College and Career Readiness Standards

English Standards

I. Writing

A. Compose a variety of texts that demonstrate clear focus, the logical development of ideas in well-organized paragraphs, and the use of appropriate language that advances the author's purpose.

1. Determine effective approaches, forms, and rhetorical techniques that demonstrate understanding of the writer's purpose and audience.
2. Generate ideas and gather information relevant to the topic and purpose, keeping careful records of outside sources.
3. Evaluate relevance, quality, sufficiency, and depth of preliminary ideas and information, organize material generated, and formulate a thesis.
4. Recognize the importance of revision as the key to effective writing. Each draft should refine key ideas and organize them more logically and fluidly, use language more precisely and effectively, and draw the reader to the author's purpose.
5. Edit writing for proper voice, tense, and syntax, assuring that it conforms to standard English, when appropriate.

Mathematics Standards

I. Numeric Reasoning

A. Number representation

1. Compare real numbers.
2. Define and give examples of complex numbers.

B. Number operations

1. Perform computations with real and complex numbers.

C. Number sense and number concepts

1. Use estimation to check for errors and reasonableness of solutions.

II. Algebraic Reasoning

A. Expressions and equations

1. Explain and differentiate between expressions and equations using words such as "solve," "evaluate," and "simplify."

B. Manipulating expressions

1. Recognize and use algebraic (field) properties, concepts, procedures, and algorithms to combine, transform, and evaluate expressions (e.g., polynomials, radicals, rational expressions).

C. Solving equations, inequalities, and systems of equations

1. Recognize and use algebraic (field) properties, concepts, procedures, and algorithms to solve equations, inequalities, and systems of linear equations.
2. Explain the difference between the solution set of an equation and the solution set of an inequality.

D. Representations

1. Interpret multiple representations of equations and relationships.
2. Translate among multiple representations of equations and relationships.

Source: Texas Higher Education Coordinating Board and Texas Education Agency, 2008.

dents. Studies have shown that low-income, minority and first-generation students who take advanced math are much more likely to attend college and graduate. The degree attainment gap between whites and minorities drops by half when minorities take math through at least Algebra II.[14]

Others argue that advanced math is not necessary for high school graduation and that not all students are capable of passing higher level math classes. Students who are required to take advanced math and cannot pass the course may be more likely to drop out of school. Districts also may struggle to find qualified math teachers, so requiring four years for all students could be a burden on schools.[15]

States that require four years of math for graduation do so as part of a college- and career-ready diploma. In this curriculum, students take not only advanced math, but also rigorous science, English, and social studies classes. The curriculum is designed to prepare students for success in credit-bearing college courses and postsecondary training programs.

Twenty states and the District of Columbia currently offer a college- and career-ready diploma that schools require all students to take. Of those states, 14 allow students with parental approval to opt out of the advanced math course or the diploma as a whole, in which case they enroll in a less rigorous diploma track. In Delaware, the District of Columbia, Georgia, Kentucky, Minnesota, New York and Tennessee there is no alternative to the college- and career-ready diploma.[16]

National Advanced Placement Program

The Advanced Placement program consists of classes that give students the opportunity to learn college-level material while in high school. Many colleges award credit for AP classes, providing students the option to graduate early and potentially save money. Students who pass an AP course in high school are more likely to enroll in college, perform academically well and persist to graduation. AP classes give students the chance to experience college-level rigor and position them for college success.

Historically, minorities and low-income students have been underrepresented in AP courses. The College Board's 2009 *AP Report to the Nation* indicates that 18 states have closed the equity gap for Hispanic or Latino students, so that the percentage of Latinos passing an AP class is equal to or higher than their percentage of the student population. Statewide efforts to increase participation in AP classes occurred in California, Florida and Texas, which have large Latino populations. In Texas, for example, Hispanic or Latino students comprise 37.6 percent of the student population and 32 percent of students passing an AP course. Nationally, Hispanics comprised 15.4 percent of the 2008 public high school graduation class and 14.8 percent of students taking an AP course. Comparatively, whites represented 62.8 percent of the 2008 graduation class and 61 percent of AP students.

Although Hispanic students are taking AP classes at the same rate as white students, a large gap in enrollment still persists for African American students. They made up 14.4 percent of the 2008 graduation class but only 7.8 of the AP student population and only 3.5 percent passed the AP course. The *AP Report to the Nation* suggests that, for African Americans, classes taken during their middle and early high school years are not preparing them for Advanced Placement courses.

Some states reward schools for the number of students that take AP classes. In its school evaluation process, Florida considers how many students take at least one AP course. Including AP enrollment as an indicator of high school performance encourages schools to promote AP classes for all students. It is important, however, to ensure that all schools have the resources to offer AP classes at a similar level. A study of California public high schools indicated that schools with high numbers of low-income students offered fewer AP courses than schools with a wealthier populace. When enacting policies to encourage AP enrollment, states can verify that all schools are equitably offering AP classes.[18]

Many states supplement rigorous high school curriculum with college-level courses through programs such as the International Baccalaureate, Advanced Placement or dual enrollment. Exposing students to the challenges of college courses while they are in high school can increase their preparedness and ease the transition to college. Such programs also can help students build their confidence to succeed in college. In fact, studies suggest that taking college-level courses in high school can improve results for many struggling students and returning dropouts. State polices that support such programs can help to increase the college readiness and success of students.[17] (See box on the National Advanced Placement Program.)

Assessing College and Career Readiness

Many states are developing assessments to measure college readiness. Postsecondary institutions in these states use the assessment results to place freshmen into first-year courses.

ACT Five states use the ACT college admission and placement test to evaluate if a student is college and career ready. Colorado, Illinois, Kentucky, Michigan and Tennessee require all students to take the ACT during their junior year of high school, and the states cover the costs of the test. Illinois and Michigan supplement the ACT with WorkKeys, a test to measure workforce skills, and with state-developed tests. The ACT is administered during junior year of high school to allow students who score poorly an opportunity to take the needed classes their senior year, catch up academically, and decrease the chance that they will need remediation in college. Colleges use the ACT scores to place students who do well on the test into first-year courses.

In addition to assessing college readiness, the ACT can be used to encourage students to apply for college—students who score at a college-ready level may be more likely to apply to college. This is particularly the case for underrepresented students who may not sign up for the ACT. Colorado and Illinois—which have had the ACT as a requirement since 2001—have shown increased college enrollment and retention. An average of 15 percent of students who said at the time of test-taking that they did not plan to enroll in college later did so.[19]

California The California Department of Education and the State Board of Education collaborated with the California State University (CSU) system to develop the Early Assessment Program in 2004. The goal of the program is to decrease the large number of students who need remediation in English and math at CSU campuses. To meet that goal, test questions were added to the required 11th grade state math and English tests. Answering the extra questions is optional, but students who take the test and meet CSU expectations need not take placement tests when they enroll at a CSU campus. Students who score poorly can take courses in 12th grade to prepare for college-level work.[20] A 2009 study of Sacramento State found that, in the five years since the program's implementation, remediation rates dropped by 6 percent for English and 4 percent for math.

A 2009 study of Sacramento State found that, in the five years since implementation of California's Early Assessment Program, remediation rates dropped by 6 percent for English and 4 percent for math.

Florida In 2008, the Florida Legislature required that high schools use the 10th grade Florida Comprehensive Assessment Test (FCAT) to evaluate college readiness. Students who score poorly on the FCAT are given the option to take college placement tests during their junior year. Students who pass the placement tests are guaranteed admission to a Florida community college with no requirement for remediation. Students who do not pass are offered a postsecondary readiness curriculum in their senior year to gain the needed competencies before they graduate.

The legislation specifies that high schools and postsecondary institutions should collaborate on developing the 12th grade readiness curriculum. High schools will base the readiness curriculum on community college remedial courses. As in California, Florida's goal for the early assessment is to decrease the need for remediation in college. In Florida, 55 percent of students who enter a public postsecondary institution need at least one remedial class in math, reading or writing.

End-of-Course Exams Another strategy states use to evaluate college readiness is to administer end-of-course exams in key subjects. These exams measure student proficiency in core subject matter and help to identify those who need extra support. The exams also reflect how rigorous the curriculum is and indicate if adjustments are needed to course standards. Sixteen states use end-of-course exams as a part of their statewide assessment system.[21]

Achieve's American Diploma Project is leading an effort with 15 states to develop and implement common end-of-course exams in core subjects. In 2009, 13 states participated for the second year in a pilot program to use a standardized Algebra II end-of-course exam. Eighty percent of students who took the exam scored below the standard that indicated readiness for entry-level college math. Although test results are poor, the movement has fostered discussion between states, high schools and postsecondary institutions about college readiness. Many view the multi-state collaboration to develop an exam as encouraging, including the U.S. Department of Education, which provides competitive funding for states that pool resources and develop effective shared assessments.

Accountability for College and Career Readiness

Many states are moving toward rigorous standards and college- and career-ready diplomas and assessments, but few factor those measures into school accountability systems. Accountability systems currently measure student proficiency on eighth and ninth grade content. Policymakers who want to stress the importance of graduating more high school students who are ready for success in higher education and the workplace can consider including college- and career-ready indicators in accountability systems.

The cohort graduation rate, which calculates how many students from a ninth grade class graduate on time, is being implemented by all states as a result of 2008 federal regulations. States can use the cohort graduation rate as an accountability indicator to promote a focus on graduating every student—especially underrepresented students who are at-risk of dropping out of high school. In conjunction with the focus on graduating all students, indicators can encourage the preparation of college-ready graduates by measuring the number who earn a college- and career-ready diploma, how many earn college or industry credits in high school, and how many pass college-ready assessments.

Eighteen states already monitor and publicly report college remediation rates, but only two states factor that rate into their accountability system. Using remediation rates as an accountability indicator can be another way for states to en-

courage schools to focus on college preparation. Further, by incorporating college- and career-ready indicators into the accountability system, states can accurately see how their schools perform in those areas. States then can target incentives and resources to schools that are struggling to meet state standards and goals.[22]

Louisiana In Louisiana's accountability system, 30 percent of the high school performance score is based on a point system that measures how well schools are graduating students and preparing them for college and the workforce. Schools receive zero points for dropouts, 30 points for students who attend, and 120 points for students who graduate. Schools receive more points for students who earn college or industry credit while in high school and the most points—180—for students who graduate college-ready. In this system, schools receive more points for retaining students, even if they score low on statewide assessments. Schools are encouraged by this system to provide a rigorous curriculum and other opportunities such as dual enrollment and AP classes.[23]

Texas The 2009 Texas Legislature enacted a bill to revamp its school accountability system by including college readiness as an indicator of school performance. The legislation establishes two standards—a passing standard and a higher college readiness standard—for end-of-course exams in English III and Algebra II. To earn accreditation, school districts must have a certain number of students who meet the passing and college readiness standards. Students who meet the college readiness standard on the exams are guaranteed enrollment in credit-bearing courses in that subject at Texas postsecondary institutions. By holding schools accountable for their students' college readiness, Texas reinforces the importance of college access and success as a state goal.

Conclusion

Ensuring educational opportunities for all students is an increasing priority. Many students discover too late that they are not academically prepared to succeed in college. Others find that their high school diplomas do not equip them to succeed in a career after high school.

The high number of students who need remedial education indicates that academic preparation is inadequate in many high schools. Studies show that the knowledge and skills students acquire in high school do not match those required by the workforce and higher education.

To better prepare students for success after high school, states are realigning high school standards, adjusting graduation requirements, offering college-ready assessments, and refocusing accountability systems to measure college- and career- readiness. As legislators enact policy changes in these areas, some key points to consider include the following.

- More than one third of students in public institutions require at least one remedial education course.
- First-generation, low-income and minority students are more likely to need remediation in college.
- Studies indicate that higher education and the workforce require that high school graduates have the same knowledge and skill set.
- To graduate college- and career-ready students, high school standards must be aligned with college requirements.
- Legislators can facilitate discussion between higher education and K-12 leaders on aligning standards.
- Studies indicate that students, especially those who are underrepresented, who take a rigorous curriculum in high school and earn a college- and career-ready diploma are better prepared for college success.
- Administering assessments that measure the college readiness during the junior year of high school allows students to use their senior year to improve deficient skills so they can avoid remediation and be successful in college.
- Shifting state accountability systems to focus on college- and career-ready indicators (e.g., college credit earned in high school, remediation rates, and college- and career-ready diplomas) can encourage schools to focus on preparing graduates to be ready for the workforce and higher education.

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National Conference of State Legislatures
William T. Pound, Executive Director

7700 East First Place
Denver, Colorado 80230
(303) 364-7700

444 North Capitol Street, N.W., #515
Washington, D.C. 20001
(202) 624-5400

www.ncsl.org

Improving College Affordability for Underrepresented Students: Financial Aid Strategies

By Brenda Bautsch *November 2009*

Access to higher education is not equal. Only 55 percent of the poorest high school graduates enroll in college the next fall, compared to 78 percent of the wealthiest students. Seventy percent of white high school graduates immediately enroll in college, compared to 56 percent of blacks and 61 percent of Hispanics.[1] Many low-income, minority and first-generation students do not enroll in college because they cannot afford the cost, and many are unaware of available financial aid. According to the Advisory Committee on Student Financial Assistance, during this decade financial barriers will prevent approximately 4.4 million low- to moderate-income high school graduates from attending a four-year college, and 2 million from attending college at all.[2]

Although low-income students are less likely to attend college than wealthier students in good economic times and bad, economic downturns hit low-income students disproportionately hard. The same economic problems facing state budgets also affect family incomes, but low-income students have fewer savings, loans and work options than their higher-income counterparts to help them endure the tough times. Further, policies and programs for these students often are an easy target for cuts. Payoffs for state investment in these programs can be significant, however. Low-income minorities are the fastest growing student population and traditionally are the least successful in the education system. Improving college affordability and access for low-income, minority and first-generation students—underrepresented students—not only improves their individual lives, but also improves state economies, increases per-capita income and fills workforce needs.

What Does Affordability Mean?

When addressing the issue of college affordability for underrepresented students, it is important for states to consider it as more than the tuition price tag. Rather, affordability can be considered the total price of an education—calculated by adding tuition, room and board expenses and subtracting financial aid—and, most important, how that cost affects particular families. Using the "family ability to pay" measurement, the poorest families spend 55 percent of their median family income on the total cost to attend a four-year public college, while the wealthiest families spend only 9 percent.[3] From this perspective, it is crucial to discuss tuition, room and board, and financial aid when examining affordability since all are factors in the amount families pay for college. State appropriations to higher education also are fundamental components of affordability because legislative funding directly affects tuition and financial aid.

Tuition, financial aid and state appropriations often are described as the three legs of the higher education finance stool. When one leg is changed, the other two also must be considered to keep the stool level and stable. These policies typically are not determined together, however, because the decision-making occurs in different places. For example, a higher education governing board may set tuition levels, while one committee in the legislature sets appropriations and another determines financial aid. This can lead to disjointed policymaking, with unintended consequences for students and institutions. Taking steps to ensure that tuition, appropriations, and financial aid policy are considered in a cohesive manner is important for an effective higher education finance system.[4]

Tuition Policy

Tuition is the most obvious indicator of affordability, and an issue that policymakers hear about often from constituents. Students and their families want to know why tuition costs are rising so fast and by so much. They want to know who decides tuition amounts and what is driving the higher prices.

The responsibility for setting tuition varies widely among states. More than half have a decentralized policy where institutions or governing boards set tuition. The other half give tuition-setting authority to the legislature, the governor or statewide agencies. The philosophy that drives how tuition is set also varies among states. Most have a tuition-setting philosophy, whether official or informal, that takes into account both tuition and financial aid levels.

There are three categories of tuition-setting philosophy. The first, "high tuition, high aid," is largely represented in the Northeast and Midwest. States such as Ohio and Pennsylvania that employ this practice have higher than average tuition rates at their public institutions, but they provide high levels of financial aid to preserve access for all students. By allocating state funds to student aid rather than using them to subsidize the cost of college, these states say they are more directly increasing access for students. A second tuition-setting philosophy is "low tuition, low aid," which has strong representation in the South and West. States such as Arizona and Tennessee historically have kept tuition low at their postsecondary institutions, which they argue encourages more students to attend who otherwise might have turned away because of high sticker prices. States with that philosophy have fewer resources dedicated to financial aid. The third philosophy is "moderate tuition, moderate aid." Iowa and Oregon take this approach; they use national averages to set both tuition and financial aid levels. They argue that this model encourages more equal state and student contributions and preserves both quality and access.

Although tuition philosophies differ among states, the rise of tuition costs has been a national trend. Institutional spending—on items such as capital construction, faculty increases and technological upgrades—can affect tuition prices. The Delta Cost Project found that from 1998 to 2005, spending by public research institutions rose 3 percent.[5] During the same time, tuition and fees at public four-year institutions increased on average by 4 percent each year, accounting for inflation.[6] This suggests that spending increases account for only part of tuition increases.

State Higher Education Appropriations

Other data from the Delta Cost Project reveals a direct correlation between tuition prices and state appropriations—as appropriations decline, tuition increases. During the last decade there has been a significant decline in state appropriations to higher education. With decreased state funds, institutions have shifted the financial burden to students and their parents through higher tuition. At public four-year institutions in 1998, students paid for 35 percent of the cost of their education, and state appropriations subsidized the remaining 65 percent. By 2005, those figures had shifted so that students covered 47 percent of the cost and states 53 percent. Although these numbers show the long-term trend, appropriations vary more in the short-term depending on the fiscal climate. In good times, higher education receives a boost in funding, but in tough times, appropriations are cut, sometimes drastically. The unstable nature of higher education appropriations can negatively affect student access and success. However, financial aid can be a tool for states to maintain affordability.

In good times, higher education receives a boost in funding, but in tough times, appropriations are cut, sometimes drastically.

Financial Aid

The three main approaches to financial aid are need-based, merit-based and mixed aid programs. Need-based aid is awarded to students based on a formula that considers family income, while merit-based aid is awarded to students who meet a predefined merit requirement such as grade point average. Recently, states also have implemented mixed aid programs that combine both need and merit requirements. These three approaches target different students. Effective policymakers will determine which financial aid strategy is best for their state by evaluating state needs and goals.

Need-Based Aid Traditionally, the federal government has been the main source of financial aid for low-income students. The Higher Education Act of 1965 created the Basic Educational Opportunity Grant Program, now called the Federal Pell Grant Program, to increase college access by providing low-income undergraduate students with need-based grants. Grant amounts depend on expected family contribution, cost of college attendance, and part-time or full time status.

Funding for the Federal Pell Grant Program has increased over the years but has not kept pace with increased tuition costs. The American Recovery and Reinvestment Act of 2009 supplemented the Federal Pell Grant Program with $17 billion in funding to close the previous funding shortfall and to increase the maximum award from $4,850 to

$5,350. According to the U.S. Department of Education, this additional funding will serve approximately 7 million low- and moderate-income students.

Another federal need-based aid program is the Federal Work-Study program. It provides postsecondary institutions with funding to employ low- and moderate-income students in part-time positions. A wide-range of jobs are available to eligible students, including community service positions and jobs related to the student's field of study. Research has linked the work-study program with increased student success. Most students are employed during college, but research shows that those who are employed in part-time work-study jobs have a better chance of graduating than students who hold full-time off-campus jobs.[7]

State need-based aid programs began evolving after creation of the Federal Pell Grant and Work-Study programs. The federal Leveraging Educational Assistance Partnership (LEAP) program created the largest incentive for states to develop need-based aid programs. LEAP provides matching grants to states that have financial aid programs targeted to low-income students. Many states created need-based programs to be eligible for federal LEAP funding.

States with a policy of high tuition and high aid, such as Ohio and Pennsylvania, developed larger need-based financial aid programs than other states. New York also developed a robust need-based aid program, the Tuition Assistance Program, which currently is the nation's largest. Considering the amount of need-based aid available per full-time equivalent undergraduate student, New York is at the top with $1,049; the national average is $440.[8]

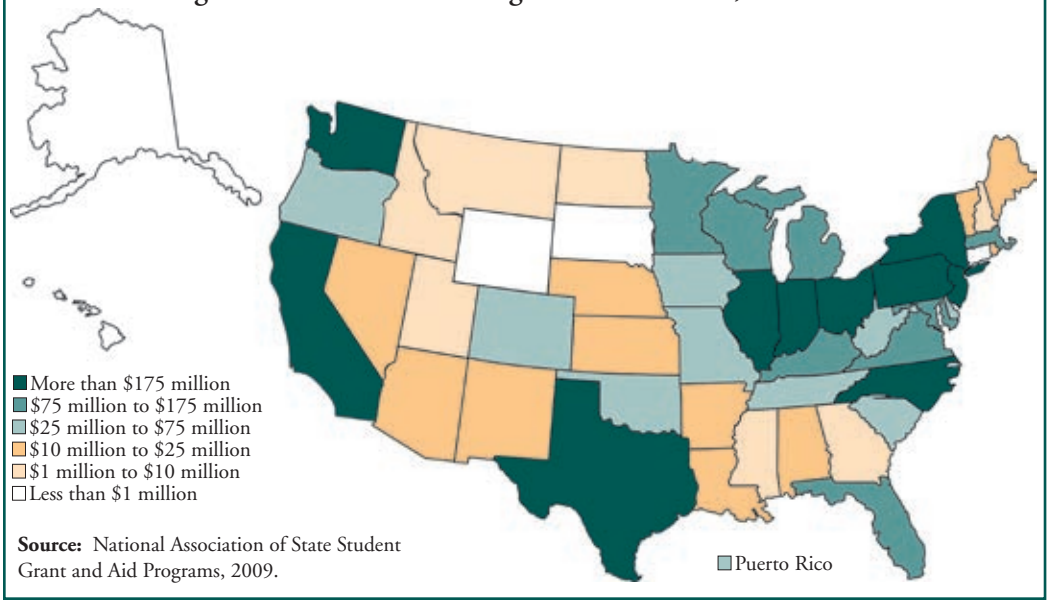
Depending on their level of need, students in New York can receive grants of up to $5,000. The program supplements Pell grants for low-income students and provides aid to middle-income students who are not eligible for Pell grants. In fiscal year 2006, New York awarded $862 million in Tuition Assistance Program grants to 323,290 students, about 15 percent of the total amount all states spent on need-based aid that year.[9] California, Illinois, Indiana, New Jersey, New York, North Carolina, Pennsylvania, Texas and Washington together account for almost 70 percent of all state need-based grant aid.[10] Figure 1 depicts need-based financial aid levels.

Merit-Based Aid Beginning with the Georgia Helping Outstanding Pupils Educationally (HOPE) scholarship program in 1993, merit-based financial aid programs emerged as a popular policy option. Financed by the Georgia lottery, HOPE scholarships reward academic achievement by covering tuition, fees and books at in-state public colleges or universities. Students must graduate from a state high school with a B average or higher to qualify, and they must maintain that average throughout college to renew the grant. The HOPE scholarship program has awarded more than $4.9 billion to more than 1.2 million students since its inception, and it continues to be the largest program of its kind.[11]

Georgia's goal for the HOPE scholarship was to increase enrollment at Georgia colleges and universities, particularly of the state's top students. Research indicates the program has met that goal. Overall, the HOPE scholarship program tends to benefit middle- and upper-income students and to influence where, not whether, these students attend college. When the program first began, only 23 percent of HOPE-eligible high school graduates enrolled in Georgia institutions. By 1999, that percentage had risen to 70 percent.[12] The HOPE scholarship seems to have had little effect on access—getting someone to go to college who was not planning to attend—but that was not the primary aim of the program.

States such as Arkansas, Florida, Kentucky, Louisiana, Mississippi, Nevada, New Mexico, South Carolina, South Dakota, Tennessee and West Virginia have replicated the HOPE program during the past decade by implementing

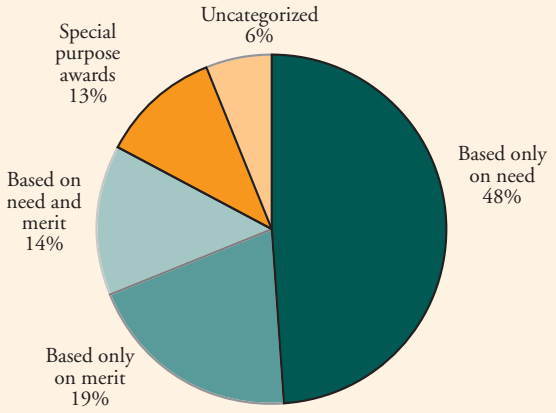
Figure 1. Need-Based Undergraduate Grant Aid, 2007-2008



Source: National Association of State Student Grant and Aid Programs, 2009.

merit-based aid programs. As a result, merit-based aid has grown proportionately faster than need-based aid, although need-based aid still receives more appropriations overall. In 1997-1998, states spent $2.79 billion on need-based aid and $603 million on non-need-based aid. During the next 10 years need-based aid grew by 110 percent, while non-need-based aid increased by 267 percent. In 2007-2008, states spent $5.8 billion on need-based aid and $2.2 billion on non-need-based aid.[13] As shown in Figure 2, almost half of total state grant aid spent in 2007-2008 was based only on need, 19 percent was based only on merit, and 14 percent was based on a combination of need and merit.

Figure 2. Total State Undergraduate Aid by Standard for Award, 2007-2008



Source: National Association of State Student Grant and Aid Programs, 2009.

As the HOPE scholarship example demonstrates, merit programs are useful in meeting state goals such as keeping the highest achieving students in state. In addition, many low-income and minority students meet the merit requirements and receive the HOPE scholarship. However, because research indicates that merit-based aid tends to disproportionately benefit upper-income students, it may not be the best policy option for increasing the enrollment of low-income students. Rather, need-based aid may be a more effective approach to improve college access for underrepresented students.[14]

Mixed Aid Many states are finding mixed financial aid programs to be effective and appealing because they can serve multiple state goals. Mixed financial aid programs reward merit but also recognize need. One example is the Cal Grant program. Students who meet both the income and high school grade point average requirements are guaranteed a Cal Grant that ranges from stipends for books to full tuition at a state college.

Indiana and Oklahoma also have incorporated merit and need requirements into their comprehensive early commitment programs (also referred to as promise scholarships). The programs require an early commitment from low-income students to take a rigorous high school curriculum and stay out of trouble. In exchange for the student's pledge, the state promises to provide four years of tuition and fees at an in-state college or university.

The theory behind early commitment programs is that, if students are guaranteed a free college education and made aware of the possibilities higher education offers, they will be more dedicated to working hard in class, staying out of trouble and graduating from high school. Some low-income students see a college education as unattainable because of its high costs and essentially give up in middle or high school. Early commitment programs aim to catch those students before they drop out and steer them toward college.

Indiana's Twenty-First Century Scholars Program

Indiana's Twenty-First Century Scholars program was created to increase college enrollment among low- to moderate-income families in order to improve individual economic circumstances and create a stronger Indiana economy. To be eligible for the program, students must live in a household at about 185 percent of the federal poverty level. (In 2008-2009 this translated into a maximum annual income for a family of four of $39,220.)

Eligible students sign up for the Twenty-First Century Scholars program during middle school and commit to taking Indiana's Core 40 curriculum, comprised of rigorous college preparatory classes. The students also agree to stay out of legal trouble and maintain at least a 2.0 GPA. Students who meet both the need and merit requirements are guaranteed four-year tuition at an in-state public school, or the equivalent amount toward an in-state private school.

To help students fulfill their commitment, the Twenty-First Century Scholars program provides ongoing support from sign up through high school graduation. The program offers tutoring and counseling and organizes college visits and planning activities for students and their parents.

Oklahoma's Promise Program

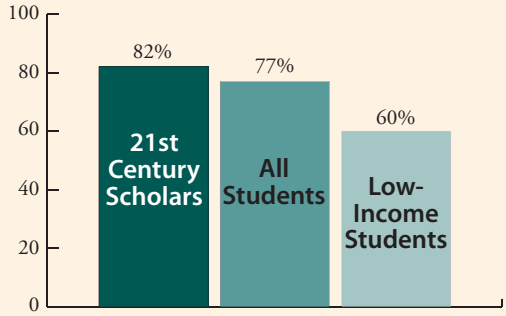
Oklahoma devised a similar plan to increase college degree attainment rates and bolster its economy. The Oklahoma

Promise program began as the Oklahoma Higher Learning Access Program (OHLAP) in 1992. The program requires students to sign up before their sophomore year in high school and make a commitment to maintain a 2.5 GPA, complete rigorous college preparatory classes, and meet behavioral standards. In return for the student's commitment, Oklahoma promises to pay the student's tuition at an in-state public two-year or four-year school, or part of the tuition at an in-state private school.

In 2009, students' annual family income had to be below $50,000 when they applied for the scholarship in middle or high school. The family also must earn less than $100,000 when the student begins college. The Legislature is considering basing the formula for income eligibility on adjusted gross income minus personal and dependent exemptions.

Effectiveness of Indiana and Oklahoma Programs The Institute for Higher Education Policy conducted a rigorous evaluation of Indiana's Twenty-First Century Scholars program and found that it has improved high school graduation rates for low-income students. Scholars have higher graduation rates than Indiana students overall—82 percent of scholars in the class of 2006 graduated, compared to 77 percent of all Indiana students. Scholars also are more likely to graduate than their low-income peers who did not participate in the program—only 60 percent of low-income students graduated from high school in 2006 (see Figure 3).[15] The report also indicates that Scholars are more likely to enroll in college than their peers.

Figure 3. Percentage of Indiana High School Seniors Graduating from High School, 2006



Source: Institute for Higher Education Policy, 2008.

The report reveals that college graduation rates are not improving, however. The class of 1999 was tracked through college, and the report found that 50 percent of scholars received a bachelor's degree—the same rate as other low-income students in Indiana.[16] These results highlight the need for college retention and success programs, especially those geared toward low-income students. Programs such as Indiana's Twenty-First Century Scholars can improve access, but college programs such as tutoring, learning communities and mentoring also are needed to ensure success. (See the brief *Engaging Students Academically and Socially: College Success Strategies.)*

Students participating in the Oklahoma Promise program also have demonstrated improvement. The students have better high school GPAs and standardized test scores than their non-Promise peers, and they enroll in college at higher rates. Eighty-one percent of the 2007 Promise high school graduates enrolled in college the following fall, compared with 57 percent of all Oklahoma high school graduates.

In addition to increasing college access, the Oklahoma Promise program has improved student preparation. In 2007, 89 percent of Promise freshmen college students had at least a 2.0 GPA, compared to 70 percent of all Oklahoma freshmen. Promise students also have lower dropout rates during their first year of college compared to non-Promise students.[17]

As in Indiana, however, college degree completion rates are still low for Promise students. The six-year degree completion rate is 51 percent for Promise students and 43 percent for all Oklahoma students.[18] Although the figure for Promise program participants is higher, it still is low and lags behind national averages.

Alternative Financial Aid Options

Statewide promise scholarships like those in Indiana and Oklahoma require significant coordination and outreach. Although the programs can influence many students, it also can mean state costs are higher. In 2007-2008, Oklahoma spent $43 million on the Promise program, awarding 16,920 scholarships.[19] Indiana appropriated $25.4 million to the Twenty-First Century Scholars program in 2006–2007, which provided 8,949 scholarships.[20]

To supplement state funding for financial aid programs for low-income students, legislatures can seek matching grant programs, such as those provided by private donors and foundations. These programs often provide other services in addition to awarding student financial aid. Programs in Colorado and Massachusetts, for example, offer scholarships and provide extensive financial aid counseling services to help low-income students find and apply for other aid. Partnering with such organizations can be an effective way for states to ensure college affordability for all students.

Massachusetts: ACCESS

Historically, Massachusetts has not had a large state grant aid program for students. In response, private organizations have developed financial assistance programs. One example is the Action Center for Education Services and Scholarships (ACCESS), which provides financial aid counseling to low-income students in Boston and Springfield. An endowment created by the founders and supported by corporations, foundations and individuals provides funding for ACCESS. In the past, ACCESS also has received funding from the legislature.

In 1999-2000, 1.7 million low- to moderate-income students did not fill out the FAFSA, thus missing out on available federal, state and institutional funding.

ACCESS advisors help students and parents fill out state and federal financial aid forms and search and apply for scholarships and loans. ACCESS also provides financial aid through its Last Dollar Scholarship program. All Boston Public School students—most of which are low-income minorities—are eligible for the program. In the 2008-2009 school year, 72 percent of Boston Public School students were at or below the federal poverty level. The schools' populations are 39 percent African American, 37 percent Hispanic and 13 percent white.

Effectiveness ACCESS attempts to ensure that every student is aware of available funding and perceives college as affordable. Many families are unaware of the financial aid options available to them. A study by the American Council on Education found that, in 1999-2000, 1.7 million low- to moderate-income students did not fill out the Free Application for Federal Student Aid (FAFSA).[21] By not filling out the FAFSA, students miss out on available federal, state and institutional funding.

Reviews of ACCESS efforts indicate that the program does help students apply for and earn financial aid. In the 2007-2008 school year, ACCESS helped students acquire $34.2 million in financial aid. In the 2008-2009 school year, that figure increased to $45 million, which equaled a return on investment of $57 in aid for each $1 ACCESS spent on advising programs. The program is growing each year, improving its return on investment, and helping more students afford college.

ACCESS provides Last Dollar Scholarships to fill any remaining gaps in financial need. These scholarships go to high school seniors and current college students who are struggling to pay for the remainder of their education. The scholarship program exists to ensure that finances are not a barrier to graduation. In 2009, ACCESS provided $600,000 in Last Dollar Scholarships.

The scholarships and financial aid advising provided by ACCESS have a clear effect on college completion. A 2008 study found that 75 percent of Boston Public School students who received both advising and a Last Dollar Scholarship from ACCESS graduated with an associate's or bachelor's degree within seven years, compared to only 35 percent of all Boston Public School students.[22]

Colorado: Denver Scholarship Foundation

In 2006, private donors created the Denver Scholarship Foundation (DSF) to increase college access and affordability for low-income Denver students. DSF currently is raising funds for its endowment, which will be used to build a permanent source of postsecondary, need-based scholarships for Denver public school students. The DSF founders have agreed to match all endowment money raised, dollar for dollar, making it a good investment for donors and for state funding. In addition to need-based scholarships, the organization also provides college guidance counseling and college retention services.

The Denver Scholarship Foundation operates "Future Centers" in Denver public high schools that provide a wide range of college guidance counseling services. These college resource centers, open during and after school hours, are professionally staffed with a full-time DSF employee. The Future Center helps students with every aspect of postsecondary planning, ranging from assistance with financial aid forms to help with choosing a college.

Another component of the Denver Scholarship Foundation is its need-based scholarship, which is provided to eligible Denver public school graduates who enroll in any one of Colorado's 39 participating technical, community, or four-year colleges and universities. DSF scholarship awards range from $1,650 to $5,000 per year. The foundation requires that students apply for three other scholarships in order to qualify for the foundation scholarship. This requirement acts as a leveraging tool to help students acquire money from other sources and increase their ability to afford college.

The Denver Scholarship Foundation recognizes the need to follow through with support for students who receive DSF scholarship money while they are in college. The foundation tracks and supports DSF scholarship recipients throughout their postsecondary education to ensure that they graduate. The foundation is developing relationships with Colorado postsecondary institutions to collaborate on support services for the scholarship students.

Effectiveness The Denver Scholarship Foundation helps students from a school district with a large population of low-income minorities. In the Denver Public School system, 55 percent of students are Hispanic, 23 percent are white and 18 percent are African American. About 66 percent of the students are eligible for free or reduced lunch, and 40 percent speak Spanish. During the 2008-2009 academic year, DSF awarded $2.6 million to help 712 of these students attend a Colorado postsecondary institution. By making college more affordable for these students, the Denver Scholarship Foundation is improving college-going rates. In fact, of the students receiving a DSF Scholarship in 2008-2009, 73 percent were the first in their families to attend a postsecondary institution.

The foundation also provides a valuable service through its Future Centers. The Denver Public School system has a high ratio of students to counselors, so some students may not receive the attention they need from school counselors. DSF has an official partnership with Denver Public Schools to ensure that students are reached most effectively and take full advantage of the services provided in Future Centers.

66	The percent of Denver Public School students eligible for free or reduced price lunch
40	The percent of Denver Public School students who speak Spanish
712	The number of students who received a DSF Scholarship in 2008-2009
510	The number of students who received a DSF Scholarship in 2008-2009 and were first in their families to attend college

Finally, the Denver Scholarship Foundation demonstrates the effects local programs can have. The University of Colorado system recently recognized the value of the foundation's efforts and announced it would provide additional grant money, up to $3,000, for recipients of the foundation's scholarship who attend any University of Colorado campus. Such partnerships between DSF and Colorado postsecondary institutions will help even more students afford college.[23]

Conclusion

Low-income, minority and first-generation students are much less likely to attend college than wealthier students—in part because they cannot afford the education. In tough economic times, college affordability is even more important for underrepresented students and families. As states work to preserve and improve access for those students, it is important to discuss affordability as the result of legislative policy choices on tuition, financial aid and appropriations. Because these policies are interconnected, a cohesive state higher education policy is crucial.

Many state higher education finance decisions are made without a focus on family ability to pay. Given that low-income families can spend more than half of their annual income on a college education, financial aid programs can make or break their ability to succeed. Programs that reach out to low-income, minority and first-generation students can be a powerful tool to preserve affordability and close the college attainment gap.

States have different options for financial aid programs, but those that are most significant for underrepresented students are need-based aid, mixed aid and early commitment programs. Early commitment programs guarantee students that they will be able to attend college if they want to, and if they complete the necessary work and preparation in high school. If such programs are to be effective, students need to be aware of them. State partnerships with private foundations and organizations can be an effective way to disseminate information about financial aid programs. Organizations such as ACCESS and the Denver Scholarship Foundation work closely with underrepresented students to help them find and apply for the necessary financial aid, and they also award scholarships. Investing in and encouraging such programs can be a good way for legislatures to supplement state funding for financial aid.

As policymakers address college affordability, some key points to consider include the following.

- Prioritizing and preserving college access for underrepresented students can improve the state's economy; increase per-capita income; improve individual lives; and fill workforce needs.

- Need-based aid typically is more effective than merit-based aid to increase access for underrepresented students.
- Mixed aid programs such as California's Cal Grant are good options for states that want to incorporate both merit and need requirements into financial aid programs.
- Indiana's and Oklahoma's early commitment programs incorporate need and merit components and also provide incentives and support for middle and high school students to work hard and take challenging courses in preparation for college.
- As studies on the early commitment programs show, financial aid alone is not enough to guarantee success; students need additional support throughout college in order to improve completion rates.
- Matching grant programs, such as those provided by private donors and foundations, can help supplement state funding for financial aid programs for low-income students.
- Local programs also can provide financial aid counseling—helping students find and apply for existing financial aid—which can play a vital role in increasing college access.

Notes

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7700 East First Place
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(303) 364-7700

444 North Capitol Street, N.W., #515
Washington, D.C. 20001
(202) 624-5400

www.ncsl.org

Engaging Students Academically and Socially: College Success Strategies

By Brenda Bautsch *November 2009*

America is losing its lead as the country with the highest percentage of college-educated citizens. According to the Organisation for Economic Co-operation and Development (OECD), America and Germany are the only two OECD countries with a younger generation that is less educated than the older generation. While college access for underrepresented students is still a concern, overall, America ranks high in the world for the proportion of high school graduates that enroll in college. The problem is that too few of America's college students complete their degrees.

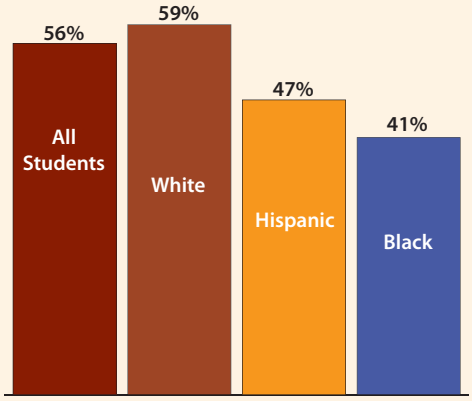
Just over half—56 percent—of students that enroll in a four-year institution earn a bachelor's degree within six years. Only 28 percent of associate degree-seeking students earn their degree within three years.[1] The statistics for students of color are even worse—just 41 percent of black and 47 percent of Hispanic college students attain their bachelor's degree in six years, compared to 59 percent of white students (Figure 1).[2] Just over one third of students who are both low-income and first-generation earn a bachelor's degree within six years at public four-year institutions, compared to 66 percent of their more advantaged peers.[3] These low graduation rates translate into missed economic opportunities for states and for the nation.

People with bachelor's degrees earn 61 percent more during their lifetime than those with only a high school diploma, and 42 percent more than those with some college but no degree.[4] Students who leave college without completing a degree lose money spent on tuition and fees and may incur loan debt. The gaps in completion across groups of students have implications that go beyond the individual. Federal and state governments incur losses when money spent on higher education appropriations and financial aid supports a student who does not complete college. Moreover, college graduates bolster state economies. Not only do college graduates pay more in taxes, they also save states money because they rely less on social programs such as welfare or Medicaid. College graduates participate in more civic activities, such as voting, and in charitable activities, such as donating blood. In addition, children of college graduates are more likely to achieve higher levels of education, so society continues to reap benefits generation after generation.[5]

College success programs are designed to help at-risk students graduate from postsecondary education. Given their vested interest in having as many college-going students as possible graduate, states will want to consider which programs and policies represent the soundest investment for their limited resources. Various programs that focus on improving college success differ with respect to structure, identified student population, and the amount of financial support required. College success programs include academic counseling and student support services administered in and out of the classroom. These programs are usually targeted to students who are most at-risk of dropping out of college—low-income, minority and first-generation students, and those students who score low on placement exams.

Consensus has emerged that students who are academically and socially engaged during college are more likely

Figure 1. Six-Year Graduation Rates for Four-Year Institutions, By Race



Sources: National Center for Higher Education Management Systems, 2009; National Center for Public Policy and Higher Education, 2008.

to graduate. A student is academically engaged when he or she interacts with faculty and finds learning meaningful. Social engagement refers to participation in campus activities and multiple connections with other students. Programs that increase academic and social engagement improve the degree attainment of underrepresented students.

Many postsecondary institutions design and implement college success programs, but state legislators can play an important role by providing incentives, funding and reporting requirements. Several states—such as Arkansas, Illinois and South Carolina—have created task forces to develop a state agenda on college success, set state goals, and provide recommendations for increasing degree attainment. Legislatures can require institutions of higher education to report student data on enrollment, retention and graduation so the legislature can track and monitor progress. In Massachusetts, for example, public two-year and four-year colleges are required by law to report annually to the governor and the legislature on a variety of higher education performance measures, including student success.

Successful state policies and programs recognize and address the factors that cause students to drop out of college.

This brief describes barriers to graduation for underrepresented students, highlights college success programs that researchers have found to have the most effect on increasing retention and graduation rates, and provides examples of legislative action that encourages and supports such programs.

Barriers to College Graduation

Several factors increase the likelihood that a student will drop out of college. For example, full-time employment, dependent children, weak academic preparation, off-campus residency and college affordability can negatively affect student retention and graduation. Low-income, minority and first-generation students likely face one or more of these factors. Low-income students are more likely to work full-time during college. This places them at a disadvantage, since research shows that working more than 20 hours per week hurts student academic performance.[6] Some estimates suggest that as few as 25 percent of low-income youth are academically well-prepared for college, compared to 60 percent of high-income youth.[7]

It is important to note that the issue of academic preparation can lead to discussion of inadequate high school preparation and remedial education. Those discussions are covered in the brief *Increasing College and Workforce Readiness.*

In particular, many community college students face barriers to graduation. The Community College Survey of Student Engagement found that 75 percent of students at public two-year colleges face at least one risk factor, compared to 14 percent of students at four-year universities. The survey also found that 25 percent of community college students had children living with them, 25 percent were not native English speakers, and 50 percent worked more than 20 hours per week.[8]

Successful state policies and programs recognize and address the multiple factors that cause students to drop out of college. Factors such as full-time employment, off-campus residency and family responsibilities keep students from having time to engage in campus activities or receive needed academic help. By not integrating with the larger campus community, students do not make the personal connections with peers or with faculty that often motivate them to stay in school. College success programs that work with a student's over-loaded schedule by using class time to promote academic engagement or that have flexible hours for support services can be helpful. Such programs can be most effective if they reach out to at-risk students during their first year of college.

First-Year Retention Strategies

Research indicates that students who return for their second year of college have a higher chance of graduating. Twenty-five percent of students who enroll at four-year colleges and one-half of those at two-year colleges do not continue to their second year on campus.[9] Six in 10 low-income and first-generation students who do not complete their college education drop out after their first year.[10] Because of this, many colleges focus success programs on retaining first-year students through bridge and orientation programs, first-year seminars and learning communities. These programs help underrepresented students engage academically and socially, increasing the chance that they will persist to graduation.[11]

Summer Bridge and Orientation Programs To help high school graduates prepare for their first year of college, summer bridge and orientation programs take place before classes convene. They vary in length; orientations usually last a day or two, and bridge programs unfold over a one- to

eight-week period. The goal is to better equip students for their first year in college by helping them build the necessary academic and personal skills. Bridge and orientation programs administer remedial coursework, teach study skills, and provide opportunities to adjust to campus life and meet other students.

Many programs specifically target low-income, first-generation and minority students. Colorado State University's Bridge Scholars program, for example, hosts underrepresented students on campus for eight weeks. Students take classes, learn study skills, and become familiar with the campus and its support services. The Bridge Scholars program recognizes the special needs of underrepresented students and provides them with the opportunity to catch up or even get a head start for college.

Some research indicates that summer bridge and orientation programs can increase retention rates and student participation in campus activities. According to the Pell Institute, bridge programs at Georgia State University, the University of California-San Diego, the University of Maryland-College Park, and California State University contributed to retention gains from freshman to sophomore year. Other studies indicate that bridge and orientation programs increase the likelihood that community college students will become academically engaged. The Community College Survey of Student Engagement found that 40 percent of students have participated in an orientation program.[12]

First-Year Seminars Another retention strategy is first-year seminars, which are small classes, typically of 10 to 25 students, that usually are taught by a faculty member. Since most freshmen enroll in large introductory courses with a lecture format and little interaction with faculty members, the seminars give students an opportunity to connect with faculty and receive personal attention and frequent feedback. The small class setting encourages participation in group discussion and fosters development of critical thinking and collaborative learning skills. The relationships with faculty and other students increase the level of academic and social integration for students who participate.[13]

According to the National Resource Center's 2006 survey on first-year seminars, 43 percent of the responding institutions credited the first-year seminar with increasing student persistence to sophomore year. About one third of the institutions indicated that the seminars increased the students' satisfaction with the school and faculty, and reported higher levels of student participation in campus activities. Seminars also have been linked to better chances of graduation; some research suggests that students who complete freshman seminar courses are 5 percent to 15 percent more likely to earn their bachelor's degrees in four years.[14]

Other research, such as that conducted by the Policy Center on the First Year of College, makes the case that seminars are most effective if they are linked to one or more other courses, a practice commonly referred to as a learning community.

Learning Communities Like first-year seminars, the learning community concept is based on the notion that small class size promotes academic and social engagement. Students take two or more classes together as a group, often with an overarching theme that connects the classes. By keeping the same group of students together for multiple classes, learning communities create more opportunities for social integration. Creating opportunities for social and academic engagement during class time when students are already on campus is an effective retention strategy for low-income and minority students.

There are various examples of the positive effects of learning communities. At the University of Southern Maine, a commuter school, the learning communities have had positive results for at-risk students. The students who participate in learning communities have higher persistence rates than students who participate in other retention programs. Similarly, students who participate in the Seattle Central Community College learning community exhibit higher rates of retention than do nonparticipants. The students in the Seattle Central learning communities also tend to express higher levels of social and academic satisfaction. The research organization MDRC conducted an experimental program at Kingsborough Community College in which some freshmen participated in a learning community that included remedial English. Students who participated in the learning community were more likely than nonparticipants to take and pass the English skills assessment tests necessary to enroll in college-level English.[15]

In both first-year seminars and learning communities, a major focus is on giving the student personal attention, which translates into small class sizes. However, many required introductory courses are taught in lecture format to large numbers of students, a format in which students can easily feel lost. To ensure that students receive the attention and support they need to be successful in larger courses, many colleges and universities have redesigned their introductory classes.

Redesigning Courses for Success

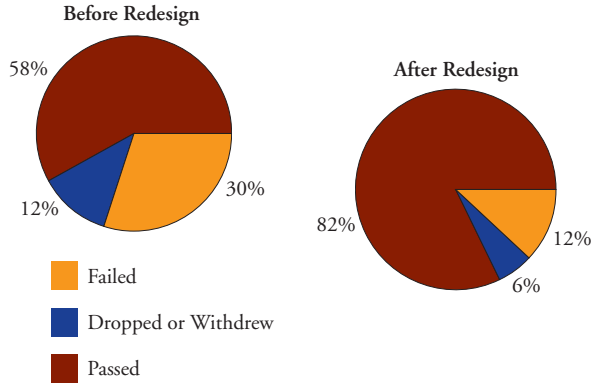
Not surprisingly, large and often impersonal introductory courses have high failure and dropout rates. About 25 introductory courses serve half the student population at community colleges and one third of the students at four-year colleges. These 25 courses have high drop, failure and withdrawal rates, and the rates can vary dramatically across institutions. At four-year institutions the drop, failure and withdrawal rates average from 22 percent to 45 percent, while at community colleges the rates average 40 to 50 percent, but can be much higher. Since these few courses affect such a large proportion of college students, restructuring them to improve student success can significantly affect retention and graduation rates.[16]

The National Center for Academic Transformation (NCAT) conducted research to redesign one introductory course at 30 postsecondary institutions. After evaluating the newly designed courses, the center found that 25 of the 30 colleges showed significant improvement in student performance in class, and all 30 cut costs by an average of 37 percent. According to the project report, "Collectively, the 30 redesigned courses affect more than 50,000 students nationwide and produce a savings of $3.1 million in operating expenses each year."[17] Half of the institutions were studied closely to evaluate the effect on low-income and minority students; of those, 90 percent demonstrated positive effects on student learning.

University of New Mexico At the University of New Mexico, 47 percent of students are minorities, most of whom commute to school and work more than 30 hours per week. The introductory psychology course, one of the largest classes, had one of the highest failure rates. This course is taken by more than 2,000 students each year; of those students, 30 percent failed and another 12 percent dropped out or withdrew. To increase student success, the University of New Mexico worked with the National Center for Academic Transformation to redesign the course.

The new psychology course employed the main NCAT strategies: reduced lecture time and increased time for activities and group work, frequent quizzes, and computer-based learning techniques. The results from the newly designed course were positive—the failure rate dropped 18 percentage points and the drop/withdrawal shrunk by half (Figure 2). At the same time, due to the weekly quizzes and in-class study time, students covered the material more thoroughly than before. Student grades rose, and the learning quality improved. Yet another positive result was the cost savings. The redesigned course cost almost 50 percent less, from $72 per student to $37 per student.

Figure 2. Redesigning the University of New Mexico's General Psychology Course: Student Success Rates



Source: The National Center for Academic Transformation, 2005.

The cost savings realized by the University of New Mexico—and the 29 other institutions that participated in the redesign project—demonstrate that improving student success need not cost more money, but can be accomplished by changing how courses are taught to be more relevant and more effective for today's generation of students. Further, by using technology, some tasks become more efficient. Quizzes and assignments can be administered and graded through automated computer programs, thus increasing feedback to students and freeing time for faculty and teaching assistants.[18]

Technology in Redesigned Math Courses Computer-based practices can be used to redesign a wide range of courses—from psychology and literature to statistics and math. *MyMathLab* is an example of a computer program used in math courses. The software allows students to do as many math problems as they need and receive instant feedback on their answers. The program also sends faculty detailed information on student progress. The University of Alabama uses *MyMathLab* in its redesigned intermediate algebra course. Students are required to spend time working on problems

in the math computer center using the software. Faculty or graduate students staff the center to help students when needed.

Within four years, the University of Alabama saw a significant increase—from 44 percent to 80 percent—in the number of students who receive a C- or better in the class. In the redesigned algebra course, African Americans, who comprise 14 percent of the undergraduate population, scored significantly higher than their peers in the traditional course. As in the University of New Mexico example, the gains did not come at a higher cost; rather the cost-per-student dropped 33 percent, saving the university about $60,000 per year.[19]

First-year retention strategies such as redesigned courses, summer bridge and orientation programs, first-year seminars and learning communities are key to helping underrepresented students continue to their second year of college. Legislators can provide important support and incentives for institutions to implement such practices. Although the focus on first-year retention programs is crucial, it is not sufficient. An effective state strategy also requires that programs and activities be in place to move students from the second year of college to graduation.

From Second Year to Graduation: Practices to Increase Degree Attainment

For college students to persist to graduation, they need to remain engaged academically and socially beyond their first year. Students who participate in activities such as internships, faculty-guided research, and service learning are more likely to remain engaged. If students receive the information and support they need when they need it, they have a greater chance of attaining a degree. Support services can provide students with needed help through academic advising, career counseling, mentoring, tutoring, and financial aid guidance. One program that includes all these services is the federally funded TRIO Student Support Services program.

Federal TRIO Program: Student Support Services The federal TRIO Student Support Services program helps low-income, first-generation and disabled students attain a college degree. Of the students participating in TRIO, two-thirds must be both low-income and first generation. Institutions of higher education can apply to the Student Support Services program for competitive grants to fund student support projects on campus.

Recognizing that students who are both first-generation and low-income are more at-risk of dropping out of college, Student Support Services program staff meet often with participating students to monitor their academic progress and track their use of available services. For many students, the Student Support Services office is a "home base" for them on campus—a place they can go at any time and receive needed help or guidance, whether for academic or personal reasons. For those in need of academic help, the program provides supplementary instruction through tutoring, workshops, group study sessions and computer-based exercises.

Effective support services help students stay enrolled in college by targeting those in need before they drop out.

Research indicates that Student Support Services programs have had positive results on student retention and persistence. Overall, the 950 programs nationwide serve more than 200,000 students. According to the U.S. Department of Education's analysis of the program, those students are more likely to persist through college and attain a degree than other low-income and first-generation students. The more involved the students are—by spending more time in the program or using more services—the more likely they are to complete college.[20]

State Educational Opportunity Programs Legislators can encourage colleges to apply for federal Student Support Services grants or can provide state funding for institutions to provide similar services. California and New York, for example, have state-funded Educational Opportunity Programs to help low-income, academically disadvantaged youth succeed in college through financial aid and comprehensive student support. Implementation varies by college; while some require participants to enroll in summer bridge programs or orientations, others require a specific course load. Institutions provide Educational Opportunity Program students with individual attention and extensive academic and personal counseling. Nyack College in New York testifies that it has seen noticeable positive effects from the program. Many of its program students have become leaders on campus, have made the dean's list and have graduated with honors.[21]

Early Warning Systems Effective support services help students stay enrolled in college by proactively targeting those in need before they drop out. Many postsecondary institutions have early warning systems to identify students who are struggling academically and provide them with immediate help. At Hudson Valley Community College, for

example, faculty use the early warning system to alert academic counselors of students who are struggling in class, are misbehaving or are frequently absent. Faculty members notify counselors early in the semester to give students ample time to improve. The early warning system provides training and support to help faculty identify at-risk students.

High-Impact Practices In addition to providing support services for students, colleges and universities can promote other practices that increase degree attainment. Student research, service-learning courses, and internships have proven to help students remain in college and graduate.

The Association of American Colleges and Universities considers research with faculty, service learning and internships "high-impact practices" because of their positive results. Students that participate in these activities not only have higher rates of persistence and graduation, but also gain more personally, intellectually and culturally from their education. These positive results apply to all students, but appear to be even more evident in minorities and low-income students. Compared to non-Hispanic students, Hispanic students that participated in "high-impact" activities had better grade point averages, and African American students had higher chances of persisting in college than whites.[22]

Research Experience Undergraduate research opportunities give students the chance to work closely with faculty. Research experience can motivate students to continue their education toward advanced degrees. According to the *High-Impact Educational Practices* report, "Students who do research with faculty also are more likely to persist, gain more intellectually and personally, and choose a research-related field as a career."[23] The report also indicates that students have positive and supportive relationships with the faculty.

Service Learning Service learning courses require that students apply what they are learning in class to a community service experience. For example, a public policy course on women as leaders could have its students mentor at-risk girls at local middle schools. The students then would reflect on their mentoring experiences in class. By connecting the classroom with the community, learning becomes more meaningful and engaging—the students integrate what they learn in school into their lives and careers. They also learn the importance of civic responsibility and giving back to their communities. Further, by having a service project that classmates work and reflect on together, service learning courses can increase the social connection among students.

Internships Internships embed students in a job in a career field of interest and enable them to see how their degree can help them. These experiences can lead to greater persistence because students see a tangible result of their educational efforts. Internships also allow students to encounter a work environment with which they may not be familiar, increasing student confidence that they can do the job. If the internship leads them to see that job is not something they want to do after college, students still have time to change their major.

Encouraging underrepresented students to participate in activities such as research with faculty, service learning and internships can be an effective strategy for increasing graduation rates and overall student success. Although most institutions develop and implement their own programs, legislators can offer funding or other incentives to promote high-impact activities. A state plan or agenda on higher education is a good place for legislators to encourage institutions to provide and promote high-impact practices.

Creating State Agendas that Promote College Success

State legislators can take leadership to improve college completion by letting institutions know that student retention and success are state priorities and that the institutions will be held accountable for results. A state agenda on college success can send that signal. These agendas identify priorities, set goals, and recommend policies and practices to improve college completion. Several legislatures have created task forces that bring together policymakers and higher education stakeholders to articulate state agendas.

Arkansas In 2007, the Arkansas General Assembly passed Act 570, creating the Legislative Task Force on Higher Education Remediation, Retention and Graduation Rates. The task force consisted of the governor, legislative leaders, college administrators, faculty and state education board members. The task force was charged with researching and analyzing Arkansas trends and data on student success, and creating a plan to decrease remedial education and increase student retention and graduation. The task force held 16 meetings, during which outside stakeholders presented members with comprehensive testimony and information.

In 2008, the task force released a report of its findings with a set of recommendations, incorporating many of the practices highlighted in this brief.

For example, the task force suggests requiring colleges and universities to use an early warning system to identify students struggling academically. The report also encourages colleges to increase student support services and recommends appropriating $500,000 for the expanded services. Specifically, the task force mentions such strategies as learning communities, academic help measures and personal support services. Another recommendation is for colleges to take into special consideration the needs of underrepresented students and the fact that they are most likely to drop out during their first year. The task force suggests that colleges offer first-year experiences and evaluate how introductory courses could be redesigned to improve student success. Finally, the task force proposes an annual statewide conference where two- and four-year institutions could share strategies on retention and graduation. The conference could be valuable in continuing reform efforts and providing an opportunity for collaboration.[24]

Illinois In 2007, the Illinois General Assembly adopted House Joint Resolution 69, which created the Public Agenda Task Force and directed it to study higher education challenges and opportunities. As in Arkansas, the task force consisted of policymakers, state education leaders, and administrators and faculty from postsecondary institutions. The task force held six formal meetings and conducted regional forums and special briefings. The task force developed a state plan for higher education, taking into consideration input from a wide range of stakeholders. The final report, the *Public Agenda for College and Career Success*, lays out the state plan and serves as a guide for policymakers and higher education institutions as they consider policies, priorities and funding. It defines four main goals for Illinois: to increase access to postsecondary education; to make affordability a priority; to increase the number of degree holders in the state; and to use education, research and innovation to meet economic needs.

Legislators played an integral part in developing the public agenda, and also have a key role in implementing it and monitoring institutional progress. To facilitate institutional accountability to the legislature, the public agenda report advocates more robust state data systems that can accurately track retention and graduation rates.[25]

South Carolina In South Carolina, the Higher Education Study Committee was formed by the General Assembly to create a state agenda to improve the higher education system. To accomplish that task, the study committee developed a project plan involving participants from the education, business and government sectors. Subcommittees and additional task forces were formed to study specific issues in depth. The result, a comprehensive report titled *Leveraging Higher Education for a Stronger South Carolina*, includes detailed analysis and recommendations. The report provides information regarding cost, priority, timeline and responsibility for each recommendation.[26]

The report highlights the need for redesigning introductory courses that currently have high failure rates. Another recommendation urges institutions to develop early warning systems to provide students with immediate academic help, particularly during their first year. The report also advises continuing and expanding support for retention programs such as "academic support services, new student orientation, service learning, academic advisement, counseling, tutoring, cultural enrichment, 'freshman year' and 'sophomore year' programs."[27] Summer transition and bridge programs also are mentioned as useful to help students adapt to college.

Conclusion

To maximize a state's investment in higher education and reach state goals for higher college completion rates, state legislators will want to understand the array of college success programs and know which are effective. Students who are supported in their classes and involved on campus are more likely to graduate. Therefore, student success programs should aim to increase the academic and social engagement of the students beginning in the first year of college and continuing until graduation.

As policymakers work to improve college success for underrepresented students, some points to consider include the following.

- Recognize the common risk factors that underrepresented students face and consider them in developing success programs.
- Use funding or other incentives to encourage institutions to target programs to first-year students.
- Encourage institutions to promote first-year programs such as learning communities, bridge and orientation programs, and first-year seminars to help students remain in school.

- Press institutions to measure the comparative effectiveness of the success programs.
- Support the redesign of introductory courses that have high failure rates to help students be more successful, and use technology to lower costs and improve efficiency.
- Consider funding or incentives to help institutions expand student support services that help students progress from first year to graduation.
- Fully leverage federal funding such as the TRIO programs, which award grants to institutions for student support.
- Recommend that institutions expand programs that keep students engaged academically and socially, such as research with faculty, service learning and internships.
- Create legislative task forces to bring together various stakeholders to develop a state agenda on student success. Institutions need clear signals from state legislatures that retention and success are priorities and that they will be held accountable for results.

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National Conference of State Legislatures
William T. Pound, Executive Director

7700 East First Place
Denver, Colorado 80230
(303) 364-7700

444 North Capitol Street, N.W., #515
Washington, D.C. 20001
(202) 624-5400

www.ncsl.org

What You Need to Know About Minority-Serving Institutions

By Brenda Bautsch

November 2009

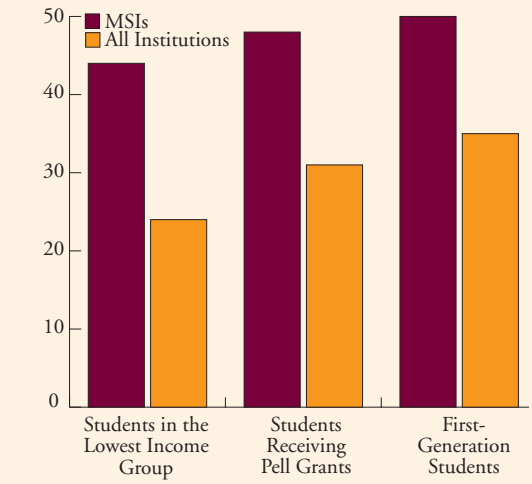
Minority-serving institutions (MSIs) are a group of colleges and universities that educate a large percentage of minority students. They traditionally include historically black colleges and universities (HBCUs), Hispanic-serving institutions (HSIs) and tribal colleges and universities (TCUs). More recently, others such as predominantly black institutions and Asian-serving institutions have been included. This brief focuses on HBCUs, HSIs and TCUs, which collectively educate more than one-third—more than1.3 million—of students of color.

Whom Do MSIs Serve?

Minority-serving institutions play an important role in America's higher education system, educating a significant number of minority, low-income and first-generation students. At historically black colleges and universities, an average 85 percent of the total student enrollment is African American. At Hispanic-serving institutions, the average Hispanic enrollment constitutes 44 percent of the student body. Minorities other than Hispanics make up more than 20 percent of the student population at HSIs, bringing the total minority enrollment to around 64 percent.[1] Eighty-two percent of first-time students at tribal colleges and universities are American Indian.[2]

In 2004, 44 percent of students at minority-serving institutions were in the lowest income group, and almost half received Pell Grants. By comparison, 24 percent of students at all institutions were in the lowest income group, and 31 percent received Pell Grants. Almost 50 percent of students at MSIs are first-generation, compared to 35 percent of students at all institutions (see Figure 1).

Figure 1. Student Characteristics



Source: Institute for Higher Education Policy, 2009.

While African-American students at HBCUs are more likely to be low-income or first-generation, they do not display increased levels of other nontraditional characteristics (i.e., over age 24; single parents; delayed college entry; attending part-time; employed full-time; financially independent; no high school diploma). Hispanic students at HSIs are more likely to be of independent status and over age 24 than those at non-HSIs.[3] Most TCU students are traditional college age but are more likely that other undergraduates to be single parents and hold GEDs.[4]

Nearly all the 104 HBCUs are four-year public or private institutions. Most of the 35 TCUs are two-year institutions; only seven offer bachelor's degrees.[5] The 268 HSIs are split almost evenly—48 percent are public two-year institutions, and 47 percent are either private or public four-year institutions.[6]

Why Do Students Choose MSIs?

The type of minority-serving institution affects why students enroll at MSIs. Historically black colleges and universities are defined by their historical mission to serve African-American students. Their long presence in the educational system has earned a reputation for successfully meeting the needs of black students. HBCUs are known for employing diverse faculty to serve as role models for students of color, and faculty members frequently interact with students. Students at HBCUs have a supportive cultural environment that encourages learning, leadership and commu-

nity involvement. Many students choose to attend HBCUs because of their mission and reputation.

In contrast, Hispanic-serving institutions are defined by the percentage of enrolled students who are Hispanic, not by a mission to serve those students. Most HSIs began enrolling large numbers of Hispanic students as a result of demographic trends. As Hispanic communities grew in certain regions, the colleges and universities in those areas by default served those students. Today, HSIs use their high Hispanic enrollment to receive federal funding, but some do not include in their mission the charge to serve Hispanic students. Others have embraced the mission and make concerted efforts to support their Hispanic students' success. Nonetheless, the HSI label does not largely affect students' college choices. Many students at HSIs do not know that they attend a Hispanic-serving institution. A report by a Latino advocacy organization, *Excelencia* in Education, found the top reasons for enrollment at HSIs were low costs, proximity to home, and an approachable campus environment.[7]

Tribal colleges and universities attract students for the same reasons as both HBCUs and HSIs. Like HBCUs, TCUs have a specific mission to serve American Indian students. According to the American Indian Higher Education Consortium, TCUs "offer higher education that is uniquely tribal with culturally relevant curricula, extended family support, and community educational services." Like HSIs, TCUs appeal to students because of low costs and proximity to home; most are located on reservations. The specialized mission of tribal colleges receives positive reviews from TCU graduates. Eighty-eight percent say they were satisfied or very satisfied with their college experience.[8]

How Effective Are MSIs?

Minorities are less likely to be academically prepared for college than white students. Math and reading levels of African-American and Hispanic high school graduates are, on average, at that of an 8th grade white student. Accordingly, minorities have higher rates of remediation and are less likely to complete college. White students are twice as likely to earn a four-year degree by age 29 than African American students, and two-thirds more likely than Hispanic students.[9]

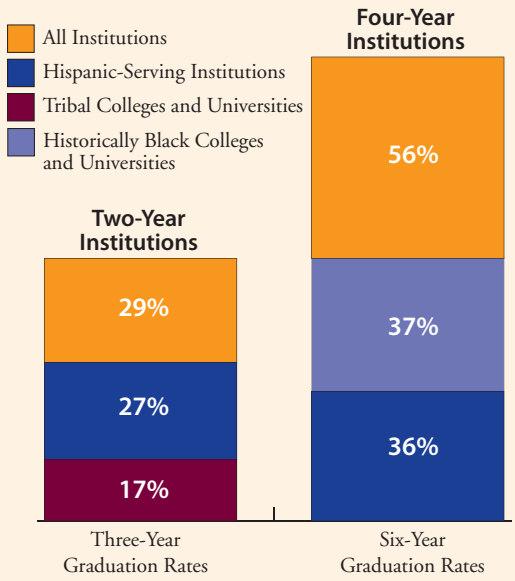
Since minority-serving institutions educate a large number of minorities, they are in a position to help close the achievement gap. Evaluating how successful MSIs are at closing the achievement gap is difficult, however. Some point to dismal graduation rates as a sign of failure (see Figure 2).

The latest data indicate that 17 percent of students at two-year tribal colleges and 27 percent of students at two-year Hispanic-serving institutions earn an associate's degree within three years.[10] The national average three-year graduation rate for all students at any two-year institution is 29 percent. At four-year historically black colleges and universities, 37 percent of students earn a bachelor's degree within six years. Four-year HSIs have a similar graduation rate—36 percent.[11] Nationally, 56 percent of all students at any four-year institution graduate within six years.

Others argue that graduation rates cannot be used to evaluate the success of MSIs because the institutions serve a unique and disadvantaged population, and they do so with fewer resources than majority institutions. MSIs receive less funding and tuition revenues than other institutions. Students at MSIs are more likely to come from low-income high schools that did not offer college preparatory curriculums or have counselors on staff. Many MSIs have an open admission policy; they accept all students regardless of their academic qualifications. In 2003-2004, 60 percent of Hispanic-serving institutions had an open admission policy, compared to 44 percent of all institutions.[12] As a result, MSIs spend more money on remedial education and student support services.

Despite the challenges MSIs face, there are several positive results. The institutions play an important role in graduating students with degrees in fields where minorities traditionally are underrepresented. Almost half of all Hispanic, African-American and Native American teachers, for example, graduate from minority-serving institutions. Minorities

Figure 2. Graduation Rates



Sources: National Center for Education Statistics, 2007; American Indian Higher Education Consortium, 2008.

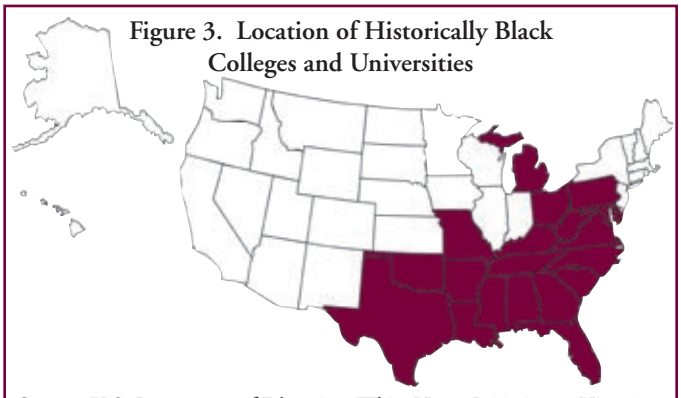
who major in science, technology, engineering and math (STEM) fields disproportionately attend MSIs. HBCUs also have a high number of students that continue their education at graduate and professional schools. Two HBCUs—Spelman and Bennett—graduate 50 percent of all African-American women in science graduate programs. Xavier University produces the most African-American graduates who attend medical school and pass board exams—about 100 graduates per year. Xavier also has low admission standards, so it accepts students with poor academic records and makes them successful.[13]

MSIs also try to tailor the educational experience to meet their students' needs. Knowing that their students are at-risk, many minority-serving institutions require students to participate in retention-increasing activities such as community service or service learning courses. MSI students receive more substantive faculty interaction, which has also been linked to increased student success.

Overview: Historically Black Colleges and Universities

Historically black colleges and universities are degree-granting institutions that were established before 1964 primarily to serve African Americans. HBCUs began forming in the 19th century to educate African Americans who were excluded from white colleges and universities. One hundred four HBCUs currently are located in 20 eastern and midwestern states and the District of Columbia (see Figure 3).

Figure 3. Location of Historically Black Colleges and Universities



Source: U.S. Department of Education, White House Initiative on Historically Black Colleges and Universities, 2009.

Constituting just 3 percent of all postsecondary institutions, HBCUs educate 13 percent of African Americans and award 30 percent of African-American bachelor's degrees.[14] Nearly 90 percent of students enrolled at an HBCU attend a four-year institution; the remaining 10 percent attend a two-year HBCU. The effect of historically black colleges and universities on bachelor's degree attainment is important because disparities between white and black students exist. Only 41 percent of African-American students earn a bachelor's degree, compared to 59 percent of white students.[15]

HBCUs also play an important role in educating African Americans in disciplines where they traditionally are underrepresented. Of the top 10 institutions that graduate African-American engineers, eight are HBCUs. Further, two-fifths of all African American students who major in a STEM field earn their degree from an HBCU, as do more than half of all African-American public school teachers and more than two-thirds of African-American dentists. Almost 85 percent of African-American doctors graduated from an HBCU.[16]

Overview: Hispanic-Serving Institutions

Federal and state policymakers began recognizing in the 1980s that Hispanic-serving institutions educated a large proportion of the Hispanic population and were inadequately funded. In 1992, Hispanic-serving institutions were formally recognized and defined in the Higher Education Act, which created a grant program to provide federal funding to qualifying institutions. In 1998, the definition of HSIs was changed to its current status—institutions where 25 percent of the undergraduate full-time equivalent (FTE) enrollment is Hispanic. In 1995, the first year of federal funding, $12 million was appropriated for HSIs. In 2009, $93.2 million of federal funding was appropriated to these institutions.[17]

In the 2005-2006 academic year, 51 percent of all Hispanic undergraduates were enrolled in one of the 268 Hispanic-serving institutions in the United States and Puerto Rico. As shown in Figure 4, these institutions are clustered in 13 states and Puerto Rico; California, New Mexico, Texas and Puerto Rico host the majority. Overall, Hispanic-serving

Figure 4. Location of Hispanic-Serving Institutions

Source: Hispanic Association of Colleges and Universities, 2008.

institutions constitute 8 percent of all U.S. postsecondary institutions. More than half are two-year public or private colleges, 26 percent are private four-year, and 21 percent are public four-year institutions.[18]

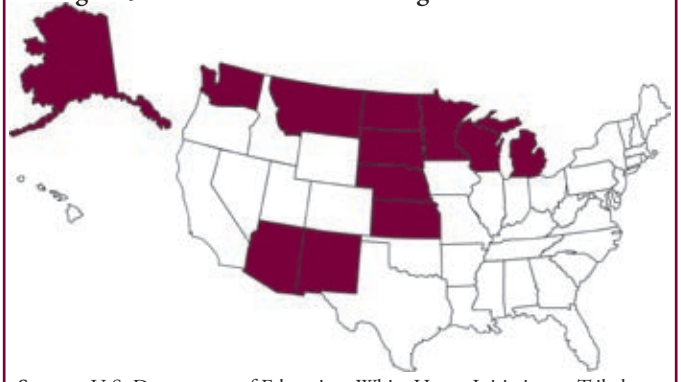
Hispanic-serving institutions award a high number of diplomas to Hispanic students. In 2003-2004, HSIs represented 5 percent of all two-year institutions but awarded 42 percent of all Hispanic associate degrees. In the same year, HSIs represented 2 percent of four-year institutions but awarded 40 percent of all Hispanic bachelor's degrees.[19]

In comparison to white students, Hispanics' participation and graduation rates overall remain low. According to the U.S. Census Bureau, 58 percent of Hispanic high school graduates in 2006 enrolled in college the next fall, compared to 69 percent of whites. Only 47 percent of Hispanic students who enroll in a four-year institution graduate with a bachelor's degree within six years, compared to 59 percent of white students.[20] In 2008, 19 percent of Hispanic adults over age 25 held at least an associate's degree, compared to 39 percent of white adults.[21] Given the low college attainment of the Hispanic population and the fact that currently half of all Hispanic students are enrolled at HSIs, it is important to support these institutions and improve student completion rates.

Overview: Tribal Colleges and Universities

The first tribal colleges and universities emerged in 1968 to promote higher education among American Indians living on reservations. A decade later, President Jimmy Carter signed the Tribally Controlled Community College Assistance Act of 1978, providing tribal colleges with stable federal funding. To be considered a tribal college, an institution's student population must be more than 50 percent American Indian. Most tribal colleges are chartered by an American Indian tribe and are located on a remote reservation. They are fully accredited institutions, held to the same standards as all other colleges. The 35 federally recognized tribal colleges and universities all began as two-year colleges. Now, seven are four-year universities that offer bachelor's degrees, and two offer master's degrees. The TCUs, located in 12 western and midwestern states, serve approximately 30,000 students (see Figure 5).

Figure 5. Location of Tribal Colleges and Universities



Source: U.S. Department of Education, White House Initiative on Tribal Colleges and Universities, 2009.

Tribal colleges and universities play an important role in improving the poor economic conditions of their students and communities. Poverty is a major factor for American Indian students—more than 85 percent of students enrolled at a TCU live at or below the poverty level. TCUs serve many students who would not be able to go to college if a tribal college were not located nearby. The integration of Indian culture with academics makes the TCUs appealing to tribal members and increases participation. According to the American Indian College Fund, 64 percent of TCU graduates say they want to use their knowledge and skills to benefit their tribes and better their communities.

During the last 30 years, the number of American Indians with postsecondary degrees has more than doubled, and TCUs have contributed to this increase.[22] Although they educate only 6 percent of American Indians, TCUs award 17 percent of associate degrees earned by this group.[23] Further, 56 percent of students who graduate from a two-year tribal college enroll at a four-year institution, which is a high percentage compared to the overall community college transfer rate.[24]

Trends and Challenges for MSIs

Enrollment Growth In the last two decades, Hispanic, African-American and American Indian populations have been growing at a faster pace than whites, and they are expected to continue to do so. In the 1990s, the Hispanic population grew by 58 percent, the African-American population by 16 percent, and the American Indian population by 132 percent, compared to a 6 percent growth in the white population. In 1995, whites comprised 73.6 percent of the population, and Hispanics made up 10.2 percent. It is projected that, by 2050, the Hispanic population share will have more than doubled and will make up 24.5 percent of Americans. The white population share, on the other hand, will decrease and will comprise 52.8 percent in 2050.[25]

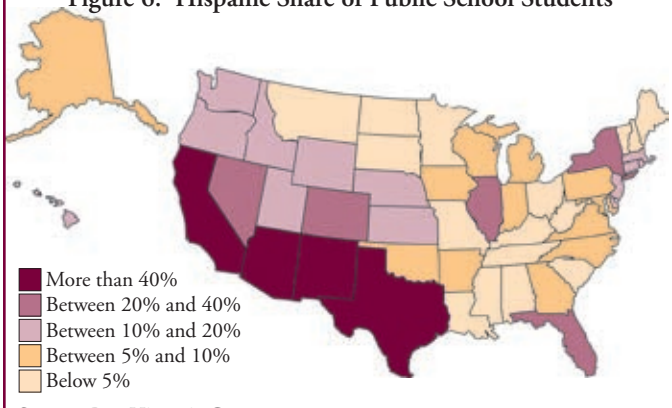
As minority populations grow, more minority students are participating in higher education. Enrollment at tribal colleges and universities grew by 32 percent between 1997 and 2002, while enrollment at postsecondary institutions overall increased by 16 percent.[26] Hispanic college enrollment also is on the rise, re-

sulting in an increase of approximately 100 Hispanic-serving institutions between 1995 and 2006.[27]

Enrollment growth at minority-serving institutions is expected to continue because of the large number of minorities currently in the K-12 system. According to the U.S. Census, 42 percent of elementary and secondary students in 2007 were minorities. That figure is expected to exceed 50 percent by 2023, making minority children the majority.

Currently, one in five students in the nation's K-12 public schools is Hispanic. Figure 6 depicts the percentage of Hispanic students in public schools by state. In Arizona, California, New Mexico and Texas, two in five public school students are Hispanic. The U.S. Census Bureau predicts that the Hispanic school-age population will increase by as much as 166 percent in the next 30 years, compared to a 4 percent growth for all non-Hispanic school-age populations.[28] As the number of minorities in elementary and secondary schools increases, more of those students will apply to and enroll in college, likely resulting in an increased enrollment at MSIs.

Figure 6. Hispanic Share of Public School Students



Source: Pew Hispanic Center, 2008.

Financial Woes Minority-serving institutions receive special funding from the federal government, but their financial resources often are limited compared to other institutions. Average MSI revenues are 36 percent lower than the average revenues at all institutions, partly due to lower tuition levels at MSIs. Because minority-serving institutions serve more low-income students, they strive to keep tuition and fees below national averages to help students afford college.

In the 2003-2004 academic year, tuition and fees for full-time undergraduates at all postsecondary institutions averaged $6,814, while the average was $3,986 at HBCUs and HSIs and $1,951 at TCUs. According to an Institute for Higher Education Policy report on minority-serving institutions, "Low tuition and fees, along with other limited resources, constrain the revenue an institution has available for faculty salaries, infrastructure expenses, and technology updates."[29] Recognizing the financial struggles many MSIs face, the federal government provides supplemental funding through the Higher Education Act. For many institutions, however, this does not significantly close the funding gap between MSIs and predominantly white institutions.

Hispanic-serving institutions compete for designated federal funding, but they are not distinguished from other institutions for state-level funding. State funding for public HSIs is the same as for other public institutions. Many HSIs struggle financially to support a student body composed of low-income, minority students who require more resources. Leaders at Hispanic-serving institutions commit significant time and effort to raise funds to help finance student support services.[30]

Tribal colleges and universities are considered federal trust territories; as a result, most TCU funding comes from the federal government, and they receive little or no state or local funding. TCU federal funding is distributed mainly through the Tribally Controlled College or University Assistance Act of 1978. TCUs also receive some funding through the minority-serving institution provision of Title III of the Higher Education Act and through 1994 federal legislation that classified TCUs as land-grant institutions.

Funds distributed under the Tribal College Act have never met authorized levels. Under Title I of the act, for example, TCUs receive funding based on enrollment. The act authorizes $6,000 per Indian student, but in FY 2008, TCU appropriations were $5,304 per student. Accounting for inflation, that amount is actually $1,400 less per student than the first appropriation under the act in 1981 of $2,831 per student. Many TCUs find that federal funding is insufficient—especially with recent and continuing growth in enrollment. With limited resources, tribal colleges offer students little institutional aid. Most TCU students rely on federal and state financial aid, increasing the importance of those programs. (For more information about financial aid, see the brief *Improving College Affordability for Underrepresented Students: Financial Aid Strategies*.)

Historically black colleges and universities receive federal and state funding, but state funding often is less than that for other state institutions. For example, a study found that, in 2007, the University of North Carolina-Chapel Hill received $15,700 per student in state appropriations, while

two North Carolina HBCUs—Fayetteville State University and North Carolina A&T—received $7,800 per student.[31] In North Carolina, a budget process that includes input from administrators and leaders in the University of North Carolina system and the Board of Governors determines funding for public universities. The General Assembly reviews the budget request and determines final appropriations.

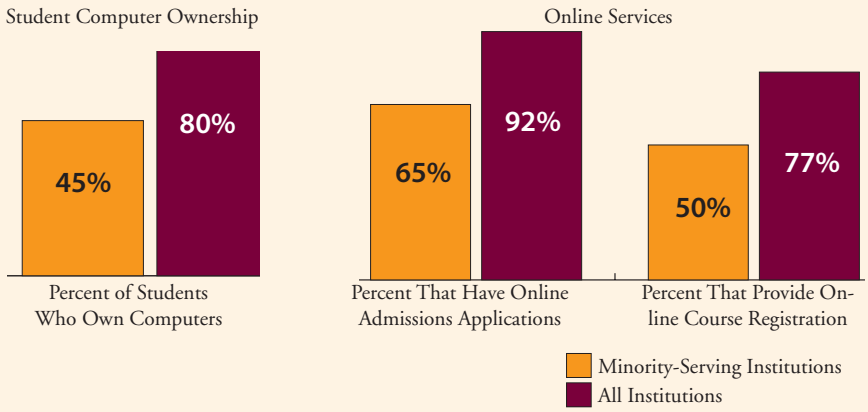
Other states have different budget processes or use funding formulas to calculate budget allocations. Regardless of the budget process, however, research indicates that institutions with larger enrollments and a greater variety of academic programs and degree opportunities receive significantly more money.

Larger schools tend to receive more money than smaller schools because they serve more students. As exemplified by North Carolina, however, per-student funding reveals discrepancies between majority and minority institutions. Further, some argue that, although some HBCUs are small, they serve a needy, disadvantaged population and so require more resources than other small institutions. Limited funding, coupled with a predominantly low-income student body, has created financial challenges for many HBCUs. According to researcher Dr. James T. Minor, "Current appropriation processes essentially ignore institutions most capable of educating those least likely to receive postsecondary degrees. There are few instances where state appropriations are directly used to narrow gaps in degree attainment by investing in institutions most capable of serving underrepresented populations."[32]

The North Carolina legislature recently passed an initiative to fund capacity-building projects at seven four-year public institutions that have growth potential. All five North Carolina HBCUs were included in the initiative. Many HBCUs nationwide have similar growth possibilities that could be developed if resources are available. Taking advantage of capacity-building opportunities at HBCUs could improve their ability to graduate African Americans.

Digital Divide Due to limited resources, minority-serving institutions face challenges in equipping their campuses and students with modern digital infrastructure. According to the Institute of Higher Education Policy, MSIs are behind other institutions in faculty use of technology, student computer ownership and provision of online student services, such as admissions applications, financial services and class registration. Figure 7 highlights these differences.

Figure 7. Digital Divide



Source: Institute for Higher Education Policy, *Serving the Nation*, 2004.

Some MSIs have developed programs to increase student computer access and use. Most campuses have computer labs, but many have a limited number of computers. Further, staying on campus to use a school computer may not be an option for students with long commutes, jobs or family responsibilities. As a response, tribal colleges such as Northwest Indian College and Diné College created laptop loan programs that allow students to check out laptops at no cost. In addition, TCUs, HBCUs and HSIs have joined under the Alliance for Equity in Higher Education to support federal legislation that appropriates funding to eligible MSIs for digital and wireless technology improvements. This legislation was incorporated into the reauthorized Higher Education Act in 2008 and provides program funding for FY 2009 through FY 2012.

Recruiting and Retaining Faculty Average faculty salaries at minority-serving institutions are 10 percent lower than salaries at other institutions, which can be a deterrent for recruiting and retaining excellent faculty.[33] Tribal colleges and universities in particular struggle with recruiting and retaining faculty and staff members because many TCUs are located in remote areas. Because there are few American Indian professors, TCUs must recruit non-Indian faculty, and the location and low-pay often are disincentives. One recruiting strategy TCUs employ is to encourage students who pursue academic professions to remain on campus to teach after they graduate.

Buildings and Facilities Maintaining old buildings and constructing new ones can be a challenge for MSIs. Minority-serving institutions with limited resources often cannot spend money on buildings and facilities, even if the project is a priority. TCUs report that they need classrooms, science and math labs, and libraries. Several tribal colleges have received private or government grants to fund new construction. Bay Mills Community College, for example, received grants in 2005 and 2006 from the U.S. Department of Education and the U.S. Department of Housing and Urban Development to build a large facility for classrooms, computer labs and dorm rooms. HSIs and HBCUs also actively seek federal and private grants for infrastructure projects.

Partnerships Partnerships with majority institutions can effectively supplement limited MSI resources. Such partnerships allow MSIs to take advantage of the research and program resources of majority institutions and allow majority institutions to gain diverse perspectives from MSI students and faculty. In a partnership dating back to 1964 between Tougaloo College, an HBCU, and Brown University, the two institutions conduct student and faculty exchanges and collaborate on research initiatives. Advisory boards at each school oversee the partnership and conduct an annual evaluation to ensure that both institutions benefit from the partnership. Similar partnerships exist between majority institutions and TCUs and HSIs. The University of Texas, El Paso, a Hispanic-serving institution, partners with the University of Texas, Austin; and Diné College, a tribal college, partners with the University of California, Los Angeles. [34]

Conclusion

Focusing on the educational attainment of fast-growing minority populations is essential for America's continued economic prosperity. Minority-serving institutions are in a unique position to educate these students. MSIs vary by mission, type of institution and geographic region, but they share the common trait of serving a large number of minority students. Historically black colleges and universities and tribal colleges and universities have focused missions to successfully educate African-American and American Indian students, respectively. Since their inception, these institutions have provided students with academic and cultural support, preparing them for the workforce or for graduate education. Hispanic-serving institutions are defined by the number of enrolled Hispanic students rather than a specific mission, but many are dedicated to promoting Hispanic students' educational success.

MSIs face numerous challenges, from limited resources to serving students who are at high risk of dropping out. Despite these challenges, promising results exist. MSIs educate one-third of all students of color, but educate half of all minority teachers. A high number of MSI graduates continue to medical school or graduate school in STEM fields. Above all, enrollment at minority-serving institutions is growing. For that reason, it is important to assess how to best support minority-serving institutions so they can fully serve their students.

As policymakers consider this issue, some action steps to take include the following.

- Get to know the minority-serving institutions in your state. Where are they? Who are they? Whom do they serve? How many students are enrolled? What are their retention and graduation rates?
- Study how minority-serving institutions are funded and consider if there are gaps in legislative policy that need to be addressed.
- Identify minority-serving institutions that have growth potential and support them in capacity-building projects.
- Encourage minority-serving institutions to partner with majority institutions to supplement their resources.
- Consider how to leverage state, federal and private-

sector resources for minority-serving institutions' technology and infrastructure improvements and student financial aid.

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7700 East First Place
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(303) 364-7700

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Washington, D.C. 20001
(202) 624-5400

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