Introduction

According to the Education at a Glance – OECD Indicators 2002, in 2000 the United States was “tied for 13th place in the percentage of the population that entered postsecondary education leading to a bachelor’s degree or higher; was tied for 7th place for entry into postsecondary education leading to less than a baccalaureate degree; and ranked 4th in the participation rate for continuing education among adults age 25 – 64.”\(^1\) The OECD data shows that the United States lags behind a number of other nations in terms of the access of its citizens to higher education. This less than desirable ranking of the United States, compared to other nations, comes at a time when increasing levels of educational attainment are being required to obtain a well paying job. It also comes at a time when global competition and technological innovation allows increasing numbers of jobs, especially low skilled jobs that do not require a college education, to be automated or outsourced to developing nations that pay significantly lower wages than are paid in the United States.

In addition, because a U.S. worker with a bachelor’s degree earns nearly a million dollars more over his/her lifetime than a worker with just a high school diploma, there is a very real

\(^1\) Closing the College Participation Gap: A National Summary, by Sandra S. Ruppert, Education Commission of the States, Copyright October 2003.
economic impact on the lives of those who do not earn at least a bachelor’s degree.\(^2\) As to the impact of equal access to higher education on the nation’s economy, according to one study, “if minority participation in higher education equaled that of Whites, over $300 billion would be added in gross national product and tax revenues.”\(^3\) Finally, from 1998 – 2008, the total number of jobs for college graduates is projected to grow at over twice the rate as non-college level jobs.\(^4\) The net result is that a college education has ceased being a luxury and has increasingly become a necessity.

These observations come at a time when a number of initiatives are underway to improve the educational system within the United States. Many of these efforts are designed to end the educational paradigm of the agricultural and factory age, which is no longer appropriate. This paradigm is one that was built around a philosophy that provided one-third of our young people with an education that was sufficient to prepare them for college, provided one-third with just enough of an education to work in a factory or on a farm, and provided one-third with an education that prepared them for nothing at all.\(^5\) This paradigm was reinforced by socio-economic expectations, educational funding formulas, and public policy. The net impact of this paradigm was and is that within the United States for “every 100 students in the U.S. who begin ninth grade, 67 finish high school in four years, 38 go to college and only 18 earn associate’s degrees within three years or bachelor’s degrees in six years.”\(^6\)

However, while the above statistics are discouraging they do not provide the entire picture of access to higher education within the United States. The fact is that access to higher education varies widely within the United States according to economic status, race, and sex. More specifically:

\(^3\) A Shared Agenda: A Leadership Challenge to Improve College Access and Success, by Pathways to College Network, Foreword, copyright 2004, page 15.
\(^6\) Ibid, page 10.
• In 2000, 82 percent of high school graduates from the top income quartile enrolled in college, while only 57 percent of students from the bottom income quartile did so.7
• A child from a family in the top income quartile is five times more likely to earn a bachelor’s degree by age 24 than is a child from the bottom income quartile.8
• More than 65 percent of White high school graduates in 2000 continued on to college compared with 56 percent of African American and 49 percent of Hispanic high school graduates.9
• By their late 20s, more than one-third of Whites have at least a bachelor’s degree, but only 18 percent of African Americans and 10 percent of Hispanics have attained degrees.10
• In 2000, 51 percent of the students in elementary and high school were male compared with 49 percent female, reflecting a greater number of boys than girls born each year. Yet, at the college level in 2000, female students outnumbered the male students, accounting for 55 percent of undergraduate and 54 percent of graduate students.11

The potential impact of the above statistics becomes even clearer when one considers that in 2040 whites in the United States are projected for the first time to comprise less than 50 percent of the school-age population.12

This paper examines various administrative policies and programs designed to increase access to higher education. In discussing the administrative policies and programs that can increase access to higher education, it is instructive to note that during the past thirty years a number of programs, studies, and initiatives have been undertaken to improve educational success. A number of these approaches have been shown to be successful at increasing access to higher education of traditionally underserved groups. The term underserved students, in this paper is defined as low-income students, students who are the first generation in their families to go to college, underrepresented minorities, and students with disabilities.13 A number of these initiatives and programs are enumerated in the “Student Success: Statewide P-16 Systems” report by the State Higher Education Executive Officers (SHEEO) association, and in “A Shared Agenda: A Leadership Challenge to Improve College Access and Success” by the Pathways to College Network.

7 Ibid, page 10.
8 Ibid, page 11.
9 Ibid, page 11.
13 Pathways to College Network web site, http://www.pathwaystocollege.net/
The SHEEO is a nonprofit nationwide association of the chief executive officers serving statewide coordinating and governing boards for postsecondary education. SHEEO identifies and develops the interests of states in the study of higher education; supports and emphasizes the importance of state planning and coordination in higher education; and encourages cooperative relationships between government, colleges, and universities. SHEEO also provides policy analyses, studies, and information exchanges; and develops positions on federal and state policies. 14 The Pathways to College Network is an alliance of national organizations established in 2001 to improve college access and success for young people from underserved groups. It is a national alliance of organizations committed to using research-based knowledge to improve postsecondary education access and success for the nation’s underserved students.

One of the key findings of both groups is that to significantly improve access to college and the number of people obtaining a bachelor’s degree requires that policymakers and educators view education as being an integrated system beginning shortly after birth and continuing through adulthood. It is this central conclusion that has led to the coining of the terms K – 16 and P – 16. The term K – 16 is used to refer to the traditional years of schooling beginning with kindergarten and continuing through a four-year baccalaureate degree. The term P – 16 is used to acknowledge that pre-school and early childhood experiences are also extremely important to student success in school.

While there are a number of components involved in an integrated educational system, the following are five key components identified by SHEEO:

- Early outreach – which motivates parents and students to have high educational aspirations and shows them what is required for postsecondary educational achievement;
- Curriculum and assessment systems – which specify the knowledge and skills that students need and helps teachers and their students to assess progress;
- High quality teaching – which is essential for enabling students to achieve at higher levels;
- Student financial assistance – which is increasingly essential as a means to enable and encourage participation in postsecondary education; and

• Data and accountability systems – which allow educators and policymakers to monitor progress and guide their efforts to promote and enable greater achievement.

While many of the policies and initiatives included in the discussion of each of the above five components are more applicable to state and local governments than higher education institutions, there are a number of policies, initiatives, and programs that involve higher education institutions as partners or primary players in the above efforts to increase access to higher education.

Grouping the above components into initiatives that are primarily focused on the role of postsecondary education in providing access to higher education leads to the following three categories:

• Recruitment and Retention
• High Quality Teaching
• Early Outreach.

**Recruitment and Retention**

Fueled by changing labor markets that place a high premium on the knowledge and skills possessed by college graduates, the desire of young Americans to pursue a postsecondary education has reached record levels. In the decade of the 1990's alone, the college-going rate of recent high school graduates increased by almost twenty percentage points. Currently, over 75 percent of high school graduates enroll in some form of postsecondary education within two years of high school graduation. In addition, national surveys of younger students and their parents suggest that, in the future 90 percent of high school students plan to earn a college degree.15

Unfortunately, increased numbers of students attending college has not yielded a commensurate increase in degrees completed. This is visible in the fact that during a ten-year period when college entry increased by twenty points, the rate of degree completion only increased by nine percentage points. As also noted earlier, the gap between college access and success is even

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15 Student Success: Statewide P-16 Systems, State Higher Education Executive Officers, copyright 2003, pages 10 and 27.
greater for minority students. During the ten year period when overall degree completion rates increased nine percentage points the percentage of degrees completed by African American students only increased by seven points. Among Latinos, the fastest growing of all minority groups, while college going fluctuated during the decade, overall there was a net increase of only 2 percent and completion rates actually declined.\textsuperscript{16}

While the above situations are not new, the gap in the earning potential of those who do and do not obtain a college degree is widening. As a result the issue of access to higher education is gaining more and more attention.

For many colleges and universities the issue of access to higher education begins with their recruitment programs. One of the many factors associated with successful recruitment programs is the availability of financial aid both on a factual and on a perceived level.

Currently tuition costs are increasing in both public and private institutions of higher education at rates that substantially exceed inflation. Given the forces driving the cost structure within higher education, there is reason to believe these rates of increase will continue into the indefinite future especially given the likelihood that current economic hard times will constrain state support for public colleges and universities, forcing them in turn to rely more heavily on tuition revenue to support their operations. However exacerbating this legitimate concern about college costs are the many portrayals, some of them less than accurate, of college costs by a variety of entities. For example, investment firms often advertise the “run-away costs of college” as a way to encourage parents of prospective students to invest more in their funds. Politicians periodically rail against the outrageous costs of a college education when they perceive that it will garner them political support. Even some public agencies that sell college savings plans try to worry parents into investing in the agency’s particular tuition savings plan products. Whatever the intent of these groups, their efforts can confuse both parents and prospective students about the reality of college costs. In a poll conducted in 2000 by the American Council on Education, most respondents estimated community college tuition and

\textsuperscript{16} Student Success: Statewide P-16 Systems, State Higher Education Executive Officers, copyright 2003, pages 10 and 27.
fees to be 300 percent higher than they actually are, and respondents overestimated public four-year institutions’ tuition and fees by more than 200 percent.  

Overestimating the cost of higher education can have a number of perverse affects on the actual and perceived access to higher education and the recruitment efforts of colleges and universities. For prospective students from middle-income families, research shows that misperceiving the cost of attending college in not likely to affect the student’s decision to attend college though it might affect where he/she chooses to apply and attend. For students from low-income families, however, misperceiving costs can have much more far reaching affects. In general financial barriers are generally much more prevalent for underserved students than for others, and the amount of tuition and availability of financial aid are more important factors for these groups than for students in other income levels in deciding not only where to go to college but if they can go to college. In general African American, Hispanic, and low-income students tend to be more price sensitive (i.e., are less likely to enroll in college, or change the type of institution in which they enroll, in the face of tuition increases) than are white, middle-income, and upper-income students. Hence, if a low-income student overestimates the costs of a postsecondary education he/she is much more likely to be dissuaded from even trying to attend college. This means that higher education institutions seeking to improve their recruitment of low-income and first generation students must do a better job of informing students about the interplay between tuition prices and financial aid.

Colleges and universities wanting to attract students from underserved groups can work with counseling services, outreach programs, and community-based support groups to get accurate information to potential students as early as middle school or early high school about how much financial aid is available, in what forms, and how to access it. By reaching out to students in these early years a college or university is more likely to impact a prospective students thought processes as he/she begins to assess the affordability of receiving any form of college education. Without comprehensive information and an assurance that adequate aid will be there when they graduate, students, especially low-income students, may be less likely to

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prepare academically, to look at their postsecondary options seriously, and to begin their financial planning.\textsuperscript{19}

Additional suggestions for how to use financial aid to attract underserved students are:\textsuperscript{20}

- Target low-income students for need-based aid, make grants the primary form of aid for the neediest students, limit loan burdens and the necessity for students to work more than 15 hours a week.
- Use equitable criteria for merit aid so that underserved students are not excluded from these programs.
- Offer low-income students more grant aid in their first two years. Monitor the effects of different types of financial aid packages on the level of student engagement and student work hours.
- Design aid programs that commit grant aid to students in middle school or early in high school.

However, while making financial aid and financial aid information available to underserved students can help encourage them to attend college, a current trend at both the state and private college and university levels, to award an increasing percentage of aid on a merit basis, seems to be having an adverse affect on educational access for underserved students. Exacerbating this trend are the diminished “purchasing power” of Pell grants and the increasing dominance of loans in aid packages at colleges and universities.\textsuperscript{21} Each of these practices is likely to widen the gap in college participation between underserved and other students. An indication of this shift in aid is visible in the fact that between “1991 and 2001 spending by the states on need-based scholarships for undergraduates increased 7.7 percent annually, while spending on merit programs increased at an 18.3 percent annual rate.”\textsuperscript{22} The use of merit-based scholarships by states is seen as a way to promote college access, encourage and/or reward students who work hard and perform well academically, and to reduce the outflow of a state’s

\textsuperscript{19} Ibid, page 50.
\textsuperscript{20} A Shared Agenda: A Leadership Challenge to Improve College Access and Success, by Pathways to College Network, Foreword, copyright 2004, page 29.
\textsuperscript{21} Ibid, page 22.
best and brightest students to colleges and universities in other states.\textsuperscript{23} For individual colleges and universities, to include private institutions, between 1989 and 1995 institutions began to use merit financial aid for more strategic enrollment-management purposes where the use of merit-based aid can enable them to improve the yield of those students who the institution really hopes to attract.\textsuperscript{24}

Recent research on the impact of the use of merit-based grant aid instead of need-based grant aid has concluded that the groups of students least likely to be awarded these scholarships are those populations of students who have traditionally been underrepresented in higher education.\textsuperscript{25} In addition, from the 1992-1993 to the 1999-2000 school years, the “increase in institutional grants protected only the wealthiest students and white students from the overall effect of tuition increases during this period.”\textsuperscript{26}

In addition to the impact of financial aid on the recruitment process there are also a number of other factors that impact the success of a college or university in attracting and maintaining an institution’s enrollment numbers. For some higher education institutions this is seen as the job of the admissions office. Other institutions understand that the impact of recruitment on an institution’s overall enrollment levels can be limited if serious attention is not also paid to retention activities. Many institutions concerned with both recruitment and retention activities understand that it is vital for the admissions, financial aid, bursars, and registrar offices to work closely together to optimize the results of both recruitment and retention activities. However, while having the bursar, admissions, registrar, and financial aid offices work together in a coordinated fashion can enhance an institution’s recruitment and retention activities, experience with a number of colleges and universities has shown that advisement can also play a key role in their retention efforts.

In discussing advisement, it is important to note that this includes the general institutional advising efforts with freshmen and sophomores and the academic advising done by faculty with

\textsuperscript{23} Ibid, page, 13.  
\textsuperscript{24} Ibid, page, 21.  
\textsuperscript{25} Ibid, page, 19.  
\textsuperscript{26} Ibid, page, 22.
juniors and seniors in a given major. While some faculty do not understand that they can and should play a critical role in the recruitment and retention process at their college or university, an increasing number of colleges and universities have come to understand that an effective recruitment and retention program must involve a significant role for their faculties especially in the areas of academic advising.

Additional efforts to impact the retention of students are the creation and maintenance of the following forms of support programs:27

- Address the concerns and expectations of parents regarding their children's college experience; and provide them with information and advice to help support their children's college achievement.

- Develop systems to identify underprepared students early in order to accelerate their learning. These systems should also monitor a student’s progress over time.

- Focus efforts on first-year students, providing comprehensive services that are prescriptive and proactive.

- Integrate academic support with teaching and learning, including tutoring, supplemental instruction, learning communities, tailored developmental instruction, and study skills instruction.

- Provide social activities and personal counseling that affirm the cultural, linguistic, and social backgrounds of underserved students.

- Strengthen relationships between community colleges and baccalaureate institutions to support the transition of students to four-year degree programs.

- Provide support to help underserved students make successful transitions to work and/or graduate school.

One approach for helping an institution understand the extent to which all of the units within a college or university are involved with the recruitment and retention process is to embrace the concept of enrollment management. Enrollment management is defined as “a process that brings together often disparate functions having to do with recruiting, funding, tracking,

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retaining, and replacing students as they move toward, within, and away from the university.”

However, to be most effective enrollment management should be tied to the strategic direction of the institution wherein it resides. This need to align the recruitment and retention processes with the strategic direction of a college or university has led to the concept of Strategic Enrollment Management (SEM). SEM is defined as “a comprehensive process designed to help an institution achieve and maintain the optimum recruitment, retention, and graduation rates of students where ‘optimum’ is defined within the academic context of the institution. As such, SEM is an institution-wide process that embraces virtually every aspect of an institution’s function and culture.”

Because SEM integrates strategic planning and enrollment management, an institution can utilize this concept and process to determine its optimum recruitment, retention, and graduation rates. SEM processes are typically built around strong leadership that allows the recruitment and retention process to incorporate planning for strategic and tactical enrollment and registration services that can be built on an operational plan that delineates who is to do what, when, how, and for how much. Finally, SEM must continuously assess and measure external and internal factors and how they affect an institution’s ability to achieve its Goals and Vision.

Another important element of recruitment and retention activities is having an understanding of the factors that can help students graduate successfully. This requires that colleges and universities disaggregate their student populations into key groups based on their ability to successfully graduate. For example, one institution that admits around fifty percent of its applicants has observed that students who apply less than a month before the start of fall classes are at much higher risk of not completing their degree than students who apply in the spring. Nationally, research has shown that the single most important predictor of which students will successfully finish college is which students complete a rigorous college preparatory curriculum in high school, not the student’s high school grades, SAT, or ACT scores.

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29 Ibid., p. 77.
30 Student Success: Statewide P-16 Systems, State Higher Education Executive Officers, copyright 2003, pages 10 and 31 and 32.
However, while college completion rates are a function of the rigorousness of the college preparatory curriculum in high school, the task of defining a standard high school college preparatory curriculum has, for the most part, not occurred. This is in part due to the fact that the standards movement in K-12 education was underway before most educational policymakers or educators came to understand the extent to which the demands of the workforce and postsecondary education had begun to converge. In addition, while the role for establishing these standards tends to reside with state educational boards, higher education has been a missing partner in many of the serious discussions about P – 12 curriculum standards. In many states, institutions of higher education have yet to come to agreement on either the numbers of courses or topics (even for reading comprehension, writing, and mathematics) needed to adequately prepare students for college-level study.31 And even though many standard-setting commissions include one or two professors, they have generally been there as disciplinary experts not as representatives of their universities. This paper therefore proposes that institutions of higher education take more seriously the P-16 education movement and position themselves to:

- Work through their professional associations to establish the appropriate numbers of courses and topics in the areas of reading comprehension, writing, and mathematics to prepare K-12 students for college-level study;
- Urge their professional associations to work with state and federal education officials to set standards to prepare students for college-level study; and
- Work to become involved in the P-16 movements promoted by the educational commissions and boards within their states.

Another tool that colleges and universities can use to improve their recruitment and retention efforts is assessment data to diagnose student needs, target interventions, track progress, and ensure that all students are being reached. A number of studies have shown that assessment data are at the heart of successful school reform initiatives.32 “At the postsecondary level, tracking data allows higher education leaders to assess an institution’s overall effectiveness at recruiting and retaining various categories of students. This tracking data can also enable an institution to assess the effectiveness of specific recruitment and retention programs and identify which ones can or should be expanded, modified, or eliminated. For colleges and

universities with teacher preparation programs, tracking data allows the institution to assess its effectiveness in preparing teachers and school leaders.\textsuperscript{33} Especially helpful in assessing success are the use of longitudinal data to track how well various groups of students perform over time due to specific programs and interventions. However, all too often, colleges and universities tend to shy away from using this data to assess themselves and the success of their programs.

Some of the ways that colleges and universities can use assessment data to increase the access of underserved students to a college education are:\textsuperscript{34}

- Implement measurable goals for retaining underserved students and evaluation processes that provide for program improvement and evidence of effectiveness.
- Track and follow up on underserved students to determine the effectiveness of specific retention interventions and use the insights gained from this data to provide feedback for program improvements.
- Disaggregate data to identify and address gaps in performance based on income, race, and other factors.

Taken as a whole, the recruitment and retention activities and approaches discussed in this section can help colleges and universities improve their recruitment and retention of underserved students. However, as noted at the beginning of this paper, of every 100 students in the US who begins ninth grade only 67 finish high school. In addition, the percentage of underserved students who complete high school is even lower. Hence, no matter how much a college or university does to increase access for underserved students, at the point in time when it begins recruiting high school juniors and seniors, many underserved students are no longer in the pool of prospects for applying to college.

To compensate for the limited number of prospective underserved students many institutions have engaged in some form of preferential or affirmative action admissions policies. However, over the past dozen or so years there have been a number of challenges, both legal and political, to the use of affirmative action admissions policies.

\textsuperscript{33} Ibid, page 23.
\textsuperscript{34} Ibid, page 29.
For many, the use of affirmative action admissions policies evokes images of race-based admissions and financial aid. Among the challenges to race-based affirmative action programs are “the Podberesky (1994) case, challenging the use of race-based scholarships at the University of Maryland; the Hopwood (1996) case, challenging the use of race in admissions at the University of Texas Law School; the decision of the Regents of the University of California to drop the use of race in admissions, followed by the passage of Proposition 209 in California mandating the same at all public institutions in the state; and Initiative 200 in Washington, which mandated the elimination of the use of race in admissions.”35

However, challenges to the use of affirmative admissions have also begun to arise in the case of sex based admissions that seek to compensate for the decline in the percentage of males enrolled in college by giving preferential admissions treatment to young men. Some years ago the University of Georgia developed a system that favored males in the numerical formula that was used to admit students. However, the University dropped this practice in 1999 when a female applicant filed a lawsuit.

The above suggests that there is a limit to how far preferential admissions policies can go towards improving access for underserved and underrepresented groups. Given the constraints on preferential admissions practices, higher education institutions need to concentrate on efforts that increase the pool of potential applicants. Two approaches that colleges and universities can pursue to increase the applicant pool are improvements in college teacher preparation programs and early outreach strategies that give life and meaning to the concept of P – 16 education systems.

The next two sections of this paper discuss teacher preparation and early outreach programs and strategies.

**High Quality Teaching**

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A number of studies have shown that high quality teaching can have a remarkable impact on encouraging, motivating, and preparing underserved students to pursue a rigorous high school curriculum and a postsecondary education. Therefore, if America is to increase the pool of underserved students in its colleges and universities, it is imperative that the number of high quality teachers be increased and maintained in the K-12 education system.

However, simply producing high quality teachers, while helpful, is not sufficient to increase and maintain high quality teachers in the K-12 educational system due to the large number of teachers who leave the teaching profession each year. According to “data from the National Center for Education Statistics … approximately a third of America’s new teachers leave teaching sometime during their first three years of teaching; almost half may leave during the first five years” of teaching.\(^{36}\) Of equal concern is the fact that the attrition rate is highest in low-income urban schools.\(^{37}\) It is useful to note, however, that some of the methods used to produce high quality teachers, which are discussed in this paper, can help reduce the attrition rates of teachers. Hence, to have a sufficient number of high quality teachers in K-12 educational systems, it is necessary to impact both the supply and retention aspects of the current shortage of high quality teachers.

Many of the challenges associated with student learning and achievement at the K-12 level involve policies and practices that must be addressed at the level of federal, state, and local governmental and educational governance organizations. Currently, a number of these entities are engaged in reforming the way teachers are trained, recruited, supported, and licensed to insure an adequate supply of quality teachers. Many of these reforms are targeted at changing the teacher preparation programs at colleges and universities. And, even though independent colleges and universities are not governed by states, they are subject to state laws and regulatory policies that affect their teacher preparation programs. Hence, a crucial role for higher education in improving the quality of instruction at the K-12 level is the preparation of high quality teachers through their teacher education programs.

\(^{36}\) No Dream Denied: A Pledge to America’s Children, National Commission on Teaching and America’s Future, Hon. James B. Hunt, Jr. Chairman and Thomas G. Carroll, Ph.D., Executive Director, copyright 2003, page 10.

\(^{37}\) Idem.
Creating quality teachers requires that educators and policy makers agree on the attributes of a high quality teacher. Three organizations that are very much involved in identifying these attributes and promoting them through the development of teacher education standards are the National Commission on Teaching and America’s Future (National Commission), the Interstate New Teacher Assessment and Support Consortium (INTASC), and the National Board for Professional Teaching Standards (NBPTS). Much of the discussion of what constitutes high quality teaching in this paper is taken from the work of these three organizations.

The National Commission was created to identify the implications on teaching of school reform; to examine steps to guarantee that all children have access to skilled, knowledgeable, and committed teachers; and to develop a comprehensive blueprint for recruiting, preparing, and supporting an exemplary teaching force. The National Commission is a nonprofit organization dedicated to providing every child with competent, caring, and qualified teachers. In addition, as noted in the “Student Success: Statewide P-16 Systems” report by the State Higher Education Executive Officers (SHEEO) association, the “recent report of the National Commission on Teaching and America’s Future, … No Dream Denied: A Pledge to America’s Children … offers a comprehensive definition of high quality teaching.”

Created in 1987, the INTASC is a consortium of state education agencies and national educational organizations dedicated to the reform of the preparation, licensing, and on-going professional development of teachers. The INTASC’s primary constituency is state education agencies responsible for teacher licensing, program approval, and professional development. A key initiative of the INTASC has also been working to develop model policies that states can refer to as they work to revise their teacher licensing systems.

NBPTS is an independent, nonprofit, nonpartisan organization governed by a board of directors, the majority of whom are classroom teachers. In addition to classroom teachers, NBPTS members include school administrators, school board leaders, governors and state

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legislators, higher education officials, teacher union leaders, and business and community leaders. One of the services offered by the NBPTS is a National Board Certification certificate. A teacher receiving an NBPTS certificate has been judged by his or her peers as someone who is accomplished, makes sound professional judgments about students’ best interests, and acts effectively on those judgments. National Board Certifications are offered to teachers on a voluntary basis, are open to anyone with a baccalaureate degree and three years of classroom experience in either a public or private school, and are valid for 10 years, after which a teacher must seek a renewal. Where state licensing systems are intended to set entry-level standards for novice teachers, the National Board Certification establishes advanced standards for experienced teachers. Hence, the National Board Certifications are intended to complement, not replace, state licensing requirements.

In general, high quality teachers are individuals who:

- Know and use teaching skills and a complete arsenal of assessment strategies to diagnose and respond to individual learning needs;
- Know how to use the Internet and modern technology to support their students' mastery of content;
- Are eager to collaborate with colleagues, parents, community members, and other educators;
- Are themselves active learners cultivating their own professional growth throughout their careers;
- Take on leadership roles in their schools and profession;
- Have a deep understanding of the subjects they teach;
- Work with a firm conviction that all children can learn; and
- Are models, instilling a passion for learning in their students.

To ensure that beginning teachers are prepared to meet high standards, the National Commission advocates a set of criteria as benchmarks for teacher preparation, licensing, and hiring. These criteria are designed to capture an emerging, research-based consensus that has emerged from more than a decade of policy development, experience, research, and classroom practice about what teachers should know and be able to do to support student learning. These

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43 No Dream Denied: A Pledge to America’s Children, National Commission on Teaching and America’s Future, Hon. James B. Hunt, Jr. Chairman and Thomas G. Carroll, Ph.D., Executive Director, copyright 2003, page 19.
criteria have lead to the identification of the following attributes of a high quality, beginning teacher:44

- Possesses a deep understanding of the subjects he/she teaches;
- Provides evidence of a firm understanding of how students learn;
- Demonstrates the teaching skills necessary to help all students achieve high standards;
- Creates a positive learning environment;
- Uses a variety of assessment strategies to diagnose and respond to individual learning needs;
- Demonstrates and integrates modern technology into the school’s curriculum to support student learning;
- Collaborates with colleagues, parents and community members, and other educators to improve student learning;
- Reflects on his/her practice to improve future teaching and student achievement;
- Pursues professional growth in both content and pedagogy; and
- Instills a passion for learning in his/her students.

One of the above attributes of a beginning teacher, understanding how students learn, is receiving new challenges as educators begin to come to grips with the recent decline in the percentage of young men attending colleges and universities. To successfully address the recent decline in the percentage of young men attending college, more research into how boys learn will need to occur.

While progress has been made toward the National Commission's goal of providing every child with competent, caring, and qualified teachers, the nation is still far from providing every child with Quality teaching. The impact of this shortfall is most severe in low-income communities and rural areas, where inexperienced and under-prepared teachers are too often concentrated in schools that are structured for failure, rather than success. However, to help meet this shortfall, the National Commission has also identified the following six dimensions of quality teacher preparation programs:45

1. Careful recruitment and selection of teacher candidates;
2. Strong academic preparation for teaching;
3. Strong clinical practice to develop effective teaching skills;
4. Entry-level teaching support in residencies and mentored induction;

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44 Ibid, pages 5.
5. Modern learning technologies;

Taken together, these six teacher preparation components are designed to provide clear steps to a successful teacher preparation program. In addition, research has shown that when teacher preparation programs are organized around a coherent approach to building knowledge and developing strong teaching skills; include extensive clinical practice designed to meet the needs of schools and students; and provide early teaching support to their graduates, the rates of beginning teacher attrition are almost half the level found for beginning teachers who have not had this kind of preparation.46 Hence, creating teacher preparation programs with these six components can impact both the supply and retention aspects of the current shortfall of high quality teachers discussed at the start of this section.

Some of the attributes of each of the above-mentioned components of quality teacher preparation programs are:47

1. **Careful recruitment and selection of teacher candidates**

   The thoughtful selection of teacher candidates increases the likelihood that a teacher preparation program will successfully develop individuals who are academically well prepared and appropriately suited to work with young children and youth.

2. **Strong academic preparation for teaching**

   Teacher candidates, no matter what their experience or the type of preparation program they attended, must have a sound knowledge base for teaching; and must become actively engaged with the content and methods of inquiry that make up an academic discipline. However, simply having had a college major or minor, or professional experience in a given field, guarantees neither a command of subject matter nor the ability to successfully teach it. Hence, the knowledge base of teaching is incomplete unless candidates master both

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the what of course content and how to teach it. To this end, teacher candidates should develop a clear understanding of professional, state, and district standards of learning in their discipline. Teachers should also understand what research has shown about how people learn and how that applies to how people learn in their particular content area.

3. **Strong clinical practice to develop effective teaching skills**

It is essential for the development of highly qualified teachers that they be able to integrate knowledge and skills in well-designed and supervised clinical practice, in diverse settings, under the supervision of faculty and accomplished teachers. The lack of clinical skills and classroom experience for many new teachers is a significant factor in the high levels of burnout and attrition found among new teachers throughout the country.

4. **Entry-level teaching support in residencies and mentored induction**

Teachers are not “finished products” when they complete a teacher preparation program. Strong residency and mentored induction experiences during their initial years in the classroom provide beginning teachers with invaluable support as they lay the groundwork to become accomplished teachers. A well-planned, systematic induction program for new teachers is vital to maximize their chances of being successful in any school setting, but it is especially critical in high-need schools.

5. **Modern learning technologies**

Teachers in 21st century schools must become technology-proficient educators who are well prepared to meet the learning needs of students in a digital age. During their preparation and clinical practice experiences, teachers should become fluent in the use of the powerful technology tools available to promote student learning, diagnose stumbling blocks, use alternative strategies to address learning styles, and track and analyze student and class progress. Teachers should also be prepared to use technologies to support their own professional growth, participate in networked professional learning communities.
during their induction years, and share and expand their expertise through regular interactions with colleagues and other educators throughout their careers.

6. Assessment of teacher preparation effectiveness

Programs that assess the performance of their teacher candidates are in a better position to improve. Assessment of teacher preparation means that teacher candidates are evaluated by more than final exams in their courses, the "comps" required by their degree programs, or by other graduation requirements. Ongoing formative assessments should encourage teachers to continually reflect on their learning and how it will be applied and improved in the classroom.

Unfortunately, while entities like the National Commission have developed guidelines for a successful teacher preparation program, reports by organizations like SHEEO have concluded that for “education faculty as well as their arts and sciences counterparts, faculty reward systems can often be a barrier to effective teacher preparation programs.”48 However, while SHEEO may have concerns about the potential barriers to the creation of effective teacher preparation programs, it nevertheless recommends that teacher preparation programs should include a greater mastery of content knowledge. To accomplish this, a SHEEO report recommends that extensive arts and sciences involvement occur in order to impart the required knowledge. Hence, higher education leaders need to “reexamine their standards for teacher preparation programs, look at the content of those programs course-by-course, and hold programs accountable for quality outcomes.”49 In addition, the SHEEO report recommends that courses should be based on the standards of the INTASC and the NBPTS.50

At the same time that organizations, like SHEEO, are raising questions about the potential barriers to the ability of traditional four-year higher education institutions to produce effective teacher preparation programs, there is a growing challenge to these programs. Increasingly

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48 Student Success: Statewide P-16 Systems, State Higher Education Executive Officers, copyright 2003, page 42.
49 Ibid, page 43.
50 Ibid, page 43.
teacher education programs are being housed in community colleges, school districts and non-profit organizations such as Teach for America.

Teach for America (TFA) is a non-profit organization that recruits high-achieving seniors from top colleges and asks them to commit themselves to two years of teaching in inner-city or rural schools. TFA was founded in 1989 by a then recent Princeton graduate who was troubled in her senior year by the educational inequities facing children in low-income communities across the United States, and was convinced that many in her generation were searching for a way to make a real difference in the world. According to TFA, since its inception it has directly impacted the lives of more than 2 million students.\(^{51}\)

In addition, to organizations like TFA, a number of teacher preparation programs are being offered by profit-making entities. Growth in these alternative programs has been stimulated by the need for teachers and the frustration by some politicians, government agencies, and donors at the pace of change in traditional higher education. In this regard, the Bush Administration has taken a stand in favor of “alternative certification” that downplays the quality and role of traditional providers. The administration’s position is embodied in the Elementary and Secondary Education Act (ESEA), in its approach to reauthorization of the Higher Education Amendments (HEA), in education roles and regulations, and in the directing of federal education funds to organizations that are committed to alternative certification and highly critical of traditional approaches to teacher preparation.\(^{52}\) And, while most new teachers in the United States continue to be prepared at programs housed in traditional colleges and universities, the fastest growing aspect of teacher preparation is the above-mentioned alternatives.\(^{53}\)

Hence, unless traditional colleges and universities meet the challenge of creating teacher preparation programs that produce high quality teachers, the critics are likely to win the argument and win the “war” between competing approaches to preparing teachers. Therefore, statements by traditional higher education institutions indicating a willingness to commit to

\(^{51}\) Teach for America website, http://www.teachforamerica.org/impact.html
\(^{52}\) Student Success: Statewide P-16 Systems, State Higher Education Executive Officers, copyright 2003, page 44.
\(^{53}\) Ibid, page 44.
change must be matched by real action - policy changes, resource expenditures, and meaningful accountability. Among the examples of reform in teacher preparation is the “Teachers for a New Era” program.

The Teachers for a New Era program is an initiative designed to strengthen K-12 teaching by developing state-of-the-art teacher preparation programs at selected colleges and universities. Institutions of higher education in programs like TNA exemplify steps in the right direction for reforming teacher preparation at traditional colleges and universities. The Carnegie Corporation of New York, the Annenberg Foundation, and the Ford Foundation fund this initiative. This initiative has established the following three guiding principles as critical to the redesign of schools that prepare teachers:

- Leadership on the part of the presidents of supported institutions that elevates the role and importance of schools of education within the university community and a design that builds on research evidence;
- Top-level collaboration between university faculty in the arts and sciences with the school of education faculty to ensure that prospective teachers are well grounded in specific disciplines and provided a liberal arts education; and
- Establishment of teaching as a clinical profession, with master teachers mentoring students in a formal two-year residency as they make the transition from college to classroom.

Currently the following eleven colleges and universities are listed as TNE institutions on the TNE web site:

- Bank Street College of Education
- Boston College
- California State University, Northridge
- Florida A&M University
- Michigan State University
- Stanford University
- University of Connecticut
- University of Texas at El Paso
- University of Virginia
- University of Washington
- University of Wisconsin, Milwaukee.

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54 Ibid, page 44.
Hence, to increase the pool of underserved students who are adequately prepared to seek and attend higher education institutions there must be reform in teacher preparation programs. The criteria and programs discussed in this section provide some guidelines for these reform efforts. This section also presents some of the reform efforts currently underway. However, should the reform efforts underway at traditional colleges and universities not prove successful, national foundations, states, and the federal government may eventually turn away from traditional higher education institutions to achieve the goal of quality teachers in K-12 schools and invest resources elsewhere out of frustration at the pace and sustainability of campus-based reform.56

**Early Outreach**

Two approaches to increasing the pool of underserved and underrepresented students available to apply to college are remedial programs and early outreach. Like affirmative action measures created in the 1960s, remedial education programs were implemented at postsecondary institutions throughout the U.S. to promote access and equity for underserved populations. Similar to affirmative action programs, these remedial programs were seen as a way to provide underserved students with an opportunity to enroll and succeed in college. By 1982-83, remediation programs were sufficiently popular that approximately 82 percent of higher education institutions that enrolled freshman offered at least one remedial reading, writing, or mathematics course.57

However, by the 1990s, remedial programs at colleges and universities began to come under attack as many policymakers began to see them as representing the failure of the K-12 system, the erosion of standards at American colleges and universities, and an inefficient use of economic resources instead of a means to provide a path toward educational opportunity.58 As a result, at least sixteen states and New York City have implemented remediation reform initiatives.

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56 Student Success: Statewide P-16 Systems, State Higher Education Executive Officers, copyright 2003, pages 44 and 45.
58 Ibid, page 5.
Analysis of reports from the States shows that in general, states and individual systems have adopted at least one of five approaches to remedial education reform where the bulk of reform efforts involve approaches that contain college level remedial programs. The five approaches are: limit the number of remedial students accepted for admission; limit the time allowed for students to complete remedial courses; limit remedial courses to community colleges; limit funding for remedial education; and implement stricter admissions and/or placement standards at four-year institutions. Although different in approach, these initiatives all tend to funnel under-prepared students to two-year institutions.

Relative to the issue of educational access, although remedial reform initiatives may appear to be neutral in their shifting of remedial education away from four-year institutions to community colleges, their implementation has a disparate impact on minority and low-income students who are disproportionately represented in both the remedial and community college student populations.

This channeling of students away from four-year campuses can exacerbate a national “tracking” effect for low income and minority students evident since the late 1970s and heightened in the 1980s and early 1990s as tuition at public and private four-year institutions rose and federal financial aid decreased in relation to tuition prices. According to national enrollment data, throughout the 1990s, the proportion of white students at two-year colleges decreased every year from a high of 75 percent in 1990 to a low of 66.3 percent in 1998. During this same time period, the proportion of all minority groups increased every year (nonresident aliens are not included), especially Hispanics. The net result is that while minority students together accounted for only 23.1 percent of the enrollment at two-year colleges in 1990, they accounted for 32.5 percent in 1998.

60 Ibid, page 7.
64 Ibid, page 10.
The impact on shifting students requiring remedial education to community colleges on access to a baccalaureate degree is visible in the rate of transfers between community colleges and four-year institutions. According to a U.S. Department of Education's study of transfer rates, the overall rate of transfer to a four-year institution is only 25%, and even for the 70 percent of community college students who aspire to earn a bachelor's degree or higher, the rate of transfer is only 36 percent. In addition, the transfer rate for African American and Hispanic students is between 8 and 12 percentage points lower than that for Whites.

Add to the above statistics on transfer rates the ability of community colleges to meet the demand of students seeking to enroll and the impact of channeling remedial education students to community colleges on the ability of underserved students to gain access to four-year higher education institutions becomes even clearer. For example, the executive director of California’s postsecondary coordinating commission projected that community colleges in that state would be turning away up to 500,000 students by 2005. And, in other states, such as Louisiana, which do not have a widespread community college system, geography alone will impose limits on access for students channeled away from four-year institutions.

Hence, the net effect of the above reforms in remedial education is that efforts to eliminate or reduce the need for remediation and shift most or all remedial education responsibilities to two-year institutions could both stratify the flow of students entering higher education by race, ethnicity, and income, and drive some students entirely out of the system of postsecondary education.

Given the above, it is critical that policies, programs, and strategies be developed that can reduce the need for remediation while increasing the pool of underserved students who are prepared to succeed in a college or university. One strategy for accomplishing this goal,

discussed in the last section, is to reform the teacher preparation programs at colleges and universities to create larger numbers of high quality teachers who will remain in the K-12 school systems. Another approach is the creation of early outreach programs.

While early outreach programs may seem to have little if anything to do with the policies and programs at the postsecondary education level, many successful early outreach programs involve partnerships between colleges and universities, K – 12 systems, community groups, and state and federal government agencies. Among the elements of successful pre-college outreach programs are: 69

- A primary person who monitors and guides the student over time. This could be a teacher, mentor, counselor, or program director.
- Good instruction coupled with a challenging curriculum that is carefully tailored to students’ learning needs.
- Long-term versus short-term interventions. The longer students participate in a program, the more benefits they report from having been in the program.
- Cultural awareness of the students’ background. Many programs find that they have more success with some groups of students over others. Establishing cultural connections with students may be due, in part, to staff background and experience.
- Positive peer support. Students are more likely to succeed when they have a peer group that provides academic, social, and emotional support.
- Financial assistance and incentives. For many low-income students who identify postsecondary education as a goal, scholarships and grants can make the difference between realizing that goal or not.

As noted in the Recruitment and Retention section of this paper, given the heightened sensitivity of low-income and first generation students to college costs, helping these students become aware of how college will be financed must become a necessary and integral component for early outreach programs. In addition, past experience suggests that building this awareness entails two steps: 1) providing clear information that college is affordable through

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financial aid; and 2) constantly underscoring the message that a student will have to earn this affordability through rigorous preparation.\textsuperscript{70}

Currently, the TRIO and GEAR-UP programs are two widely cited early outreach programs that are funded by the federal government and involve colleges and universities as partners. The early origins of these programs began forty years ago. More specifically, Federal efforts at encouraging early outreach programs began with the Economic Opportunity Act of 1964 (the original War on Poverty statute) that created the Upward Bound program.\textsuperscript{71}

**GEAR-UP Programs**

GEAR UP is an acronym for Gaining Early Awareness and Readiness for Undergraduate Programs. The GEAR UP program is a discretionary grant program designed to increase the number of low-income students who are prepared to enter and succeed in postsecondary education. GEAR UP provides five-year grants to States and partnerships that are targeted to serve middle school students from traditionally underserved populations. GEAR UP grantees serve an entire cohort of students beginning no later than the seventh grade and follow the cohort through their high school graduation. GEAR UP funds are also used to provide college scholarships to low-income students. These programs are built around K – 16 partnerships and include comprehensive service (to include tutoring, mentoring, and counseling), parental involvement activities, curriculum and staff development, financial aid, postsecondary education information, college preparation, counseling, and college visits.\textsuperscript{72}

The GEAR UP K-16 partnerships involve institutions of higher education, local schools, community-based organizations, businesses, and State agencies. GEAR UP partnerships supplement (not supplant) existing reform efforts, offer services that promote academic preparation and the understanding of necessary costs to attend college, provide professional

\textsuperscript{70} Student Success: Statewide P-16 Systems, State Higher Education Executive Officers, copyright 2003, page 48.
\textsuperscript{71} Ibid, page 48.
\textsuperscript{72} Ibid, page 13.
development, and continuously build capacity so that projects can be sustained beyond the term of the grant.\textsuperscript{73}

In 1998-1999, there were 102 programs with an average of 2,585 students served per program.\textsuperscript{74}

**TRIO Programs**

TRIO Programs are federally funded programs designed to serve economically disadvantaged, first-generation college, and disabled students. The TRIO programs are funded under Title IV. As mandated by Congress, two-thirds of the students served must come from families with incomes under $28,000, where neither parent graduated from college. According to the Council for Opportunity In Education’s website, more than 2,700 TRIO Programs currently serve nearly 866,000 low-income Americans. Many programs serve students in grades six through 12. Of the students served, thirty-seven percent of TRIO students are Whites, 35% are African-Americans, 19% are Hispanics, 4% are Native Americans, 4% are Asian-Americans, and 1% are listed as “Other,” including multiracial students. Twenty-two thousand students with disabilities and more than 25,000 U.S. veterans are also currently enrolled in the TRIO Programs.

The TRIO program has evolved over four decades, beginning with the Upward Bound program that was created with the Economic Opportunity Act of 1964. The original Higher Education Act of 1965 created the Talent Search program and in 1968, the first reauthorization of the Higher Education Act created Special Services. Hence, by 1968, the original TRIO programs – Upward Bound, Talent Search and Special Services – had been created. Also in 1968, Upward Bound was transferred out of the Office of Economic Opportunity and into the Higher Education Act. In 1972, the second reauthorization of the Higher Education Act created the Educational Opportunity Centers and in 1976, the staff and leadership training authority was created. With the reauthorization of 1980 two key concepts for the TRIO programs: first

\textsuperscript{74} Student Success: Statewide P-16 Systems, State Higher Education Executive Officers, copyright 2003, page 13.
First generation in college defines the eligibility of students for the TRIO programs and moved the programs in a more inclusive direction of looking at the origin and the impact of non-financial barriers to access and success in postsecondary education. Prior performance means that TRIO programs are, and should be, a permanent part of every institution's student aid program and not just demonstration programs. Hence, prior performance means that TRIO programs should be an integral part of student aid and that ideally, everywhere that student financial aid exists, so also should the full range of TRIO programs and services exist.

Currently TRIO programs are built around the following core services:

- Educational Opportunity Center;
- Student Support Services;
- Talent Search;
- Dissemination Partnership Program;
- Upward Bound;
- Training; and
- McNair Post-baccalaureate Achievement.

The Educational Opportunity Centers (EOCs) help people obtain a college education and a better future. The Centers provide a range of free services that assist program participants in understanding their educational options and in navigating admissions and financial aid processes in order to reach their goal of a college education. Institutions eligible to receive a grant to carry out an Educational Opportunity Centers project are higher education institutions and/or public or private agencies or organizations. The Educational Opportunity Centers program provides grants for projects designed to provide:\(^75\)

- Information regarding financial and academic assistance available for individuals who desire to pursue a program of postsecondary education; and
- Assistance to individuals in applying for admission to institutions that offer programs of postsecondary education, including assistance in preparing necessary applications for use by admissions and financial aid officers.

An Educational Opportunity Centers project may provide the following services:76

- Public information campaigns designed to inform the community about opportunities for postsecondary education and training.
- Academic advice and assistance in course selection.
- Assistance in completing college admission and financial aid applications.
- Assistance in preparing for college entrance examinations.
- Guidance on secondary school reentry or entry to a General Educational Development (GED) program or other alternative education program for secondary school dropouts.
- Personal counseling.
- Tutorial services.
- Career workshops and counseling.
- Mentoring programs involving elementary or secondary school teachers, faculty members at institutions of higher education, students, or any combination of these persons.
- Activities as described in the above bulleted items that are specifically designed for students of limited English proficiency.

**Upward Bound** is a college preparatory program for low-income and educationally disadvantaged high school students. Upward Bound works long term and intensively with selected high school students to help generate the skills they need to successfully complete a post-secondary education. Students in the Upward Bound program are four times more likely to earn an undergraduate degree than those students from similar backgrounds who did not participate in TRIO.77 The Upward Bound Program provides Federal grants for the following three types of projects:

- Regular Upward Bound projects designed to prepare high school students for programs of postsecondary education;
- Upward Bound Math and Science Centers designed to prepare high school students for postsecondary education programs that lead to careers in the fields of math and science;
- Veterans Upward Bound projects designed to assist veterans to prepare for a program of postsecondary education.

**Student Support Services (SSS)** is designed for those students who are low-income, disabled, or first generation college students. The primary goal of this program is to increase the college retention and graduation rates of its participants and facilitate the process of transition from one level of higher education to the next. The SSS program provides opportunities for academic

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76 Idem.
development, assists students with basic college requirements, and serves to motivate students towards the successful completion of their postsecondary education. The SSS program may also provide grant aid to current SSS participants who are receiving Federal Pell Grants. Students in the Student Support Services program are more than twice as likely to remain in college than those students from similar backgrounds who did not participate in the program. The Student Support Services Program provides grants for projects designed to:

- Increase the retention and graduation rates of eligible students;
- Increase the transfer rate of eligible students from two-year to four-year institutions; and
- Foster an institutional climate supportive of the success of low-income and first-generation college students and individuals with disabilities.

Services provided by the program include:

- Instruction in basic study skills
- Tutorial services
- Academic, financial, or personal counseling
- Assistance in securing admission and financial aid for enrollment in four-year institutions
- Assistance in securing admission and financial aid for enrollment in graduate and professional programs
- Information about career options
- Mentoring
- Special services for students with limited English proficiency
- Direct financial assistance (grant aid) to current SSS participants who are receiving Federal Pell Grants.

The goal of the Talent Search program is to provide supportive services to individuals who have been underrepresented in the access of educational goals. To accomplish this the Program is designed to assist middle school/high school students and high school dropouts with the necessary understanding, knowledge, skills, and self-esteem to continue in and graduate from high school. The Educational Talent Search program also helps traditionally underrepresented

78 Utah Valley State College’s website, http://72.14.203.104/search?q=cache:Pyw42Y2p2ggJ:familyosite.cc/uvsc/self%2520study%2520final/TRIO%2520Student%2520Support%2520Services.pdf+%22increase+the+transfer+rate+of+eligible+students+from+two%22+aid+for+enrollment%22+and+financial+aid+for+enrollment%22+2&hl=en
students to explore training and educational options, and enroll in postsecondary institutions. The Talent Search program provides grants for projects designed to:  

- Identify qualified youths with potential for education at the postsecondary level and encourage them to complete secondary school and undertake a program of postsecondary education;  
- Publicize the availability of student financial assistance for persons who seek to pursue postsecondary education; and  
- Encourage persons who have not completed education programs at the secondary or postsecondary level, but who have the ability to do so, to reenter these programs.

The Ronald E. McNair Post-Baccalaureate Achievement Program was named after the African American astronaut who died in the Challenger space shuttle explosion. This Program provides grants for institutions of higher education to prepare low-income, first-generation college students and students underrepresented in graduate education for doctoral study. Services to program participants include academic counseling, tutoring, test preparation for the Graduate Record Exam, paid research internships, mentoring, advocacy and help in applying to graduate schools, plus seminars to help prepare for graduate study.

The Dissemination Partnership program provides TRIO grantees, with proven and promising programs and practices, with the opportunity to work with other institutions and community-based organizations that are serving low-income and first-generation college students but that do not have TRIO grants. More specifically, the Dissemination Partnership Program provides grants to enable TRIO projects to work with other institutions and agencies, that are serving low-income, first-generation college students but that do not have TRIO grants, in replicating or adapting successful TRIO program components, practices, strategies, and activities at their institutions and agencies. This program provides a means for increasing the impact of the TRIO programs in order to reach more low-income, first-generation college students.

The Training program for Federal TRIO Programs provides Federal financial assistance to train the staff and leadership personnel employed in, or preparing for employment in, Federal TRIO Program projects.

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Currently, over 1,000 colleges, universities, community colleges, and agencies offer TRIO Programs in America. TRIO funds are distributed to institutions through competitive grants.

In addition to the above named federal programs there are a large number of state sponsored programs that can enable higher education institutions become involved with early outreach programs.

However, regardless of whether programs are federally or state funded, many of the pre-college outreach programs are either sponsored by post-secondary institutions or involve post-secondary institutions in partnership arrangements with state, community, and business organizations. In these programs the post-secondary institution plays a critical role in the creation of a P-16 system of education, which will create a more seamless education system that can allow all students to meet higher standards and move easily from one level to the next with the hope that all students will know what is expected of them as they transition from grade to grade – and that there will not be as big a division between secondary and postsecondary education as there is now.\textsuperscript{81}

**Conclusion**

Increasingly there is a need for persons to have a bachelor’s degree or higher if they want to be able to earn a reasonable salary. However, at the same time that a college degree is becoming increasingly necessary for a “good life”, the percentage of African-American, Hispanic, and other underserved peoples who traditionally attend college at a lower percentage rate than whites is increasing as a percentage of the total United States workforce. In addition, males, who have traditionally been the majority of college students have within the past twenty years become a minority of college enrolled students.

Improving access to these and all other groups of students is, and will continue to be, a significant challenge in the United States. What is more, failure to improve educational access

\textsuperscript{81} Student Success: Statewide P-16 Systems, State Higher Education Executive Officers, copyright 2003, pages 10 and 11.
to all students could have major negative impacts on the ability of the United States to remain competitive in a world that is becoming increasingly interconnected with both global markets and labor forces.

This paper has explored three initiatives that higher education institutions can undertake to help increase the access of underserved and underrepresented students to higher education institutions and the graduation rates of these students from higher education institutions. Central to these three initiatives are:

- The use of recruitment and retention efforts to target financial aid in ways that encourages underserved students to attend and remain in college and the use of recruitment and retention efforts to build the support and tracking mechanisms needed to retain students and help them graduate;

- Improving the quality of the teachers produced by college and university teacher preparation programs;

- The formation of partnerships with K-12 institutions, state agencies, community groups, and other organizations to develop P-16 Early Outreach programs.