

Native American Students Going to and Staying in Postsecondary Education:  
An Intervention Perspective

Howard S. Adelman, Linda Taylor, & Perry Nelson  
University of California, Los Angeles

Address correspondence to: Howard Adelman, Department of Psychology, UCLA, Box 951563, Los Angeles, CA 90095-1563; E-mail: [adelman@psych.ucla.edu](mailto:adelman@psych.ucla.edu) Phone: 310/825-1225; Fax: 310/206-8716

Note: Support for this work comes in part from the Office of Adolescent Health, Maternal and Child Health Bureau (Title V, Social Security Act), Health Resources and Services Administration (Project #U45 MC 00175) and from the Center for Mental Health Services, Substance Abuse and Mental Health Services Administration. Both are agencies of the U.S. Department of Health and Human Services, Public Health Service.

## Abstract

This paper explores and analyzes what is done for students in general and for Native American students in particular to (a) support readiness for postsecondary education, (b) increase recruitment and access, (c) improve transitions, and (d) support survival to completion. Recommendations are offered for moving beyond the current fragmented and marginalized approaches in order to develop a comprehensive system of student and learning supports.

Native American Students Going to and Staying in Postsecondary Education:  
An Intervention Perspective

Getting to postsecondary education requires graduating from high school; surviving at a postsecondary institution requires more than academic competence. At every step of the way, some students need a considerable array of supportive interventions.

THE PROBLEM

It has long been argued that access to quality education K-16 is “key to closing the economic and social gap” (Institute for Higher Education Policy, 2007). Given this, it is undeniable that Native American youth are part of a large cadre who deserve a better system of student and learning supports to enable them to have an equal opportunity to succeed at each level of their formal education.

With specific respect to postsecondary education, a consistent set of findings underscores how poorly U.S. postsecondary education institutions serve segments of the population (Choy, 2002; Ryu, 2008). As one example: of the 42% of Native American students who pursued some form of higher education, only 13% attained a bachelor's degree or higher, compared with 53% and 28% of the general population (U.S. Census Bureau, 2000).

In general, students of color make up about 29% of the nearly 17.5 million students on U.S. campuses (Ryu, 2008). About 20% of the college students designated as minorities were born outside the United States or have a foreign-born parent, and 11% spoke a language other than English while growing up (U.S. Census Bureau, 2000). About 11% of students in higher education are diagnosed as having disabilities and special needs. A significant proportion of this diverse range of students are ill-served by postsecondary education institutions. They are underrepresented among those admitted and overrepresented among the dropouts. A 2009 report from the Education Trust indicates that, of all freshmen entering two-year institutions in 1999, only one-third ended up with a certificate, associate's degree, or transferred to a four-year college within four years. For underrepresented minorities (i.e., “blacks, Latinos, Native Americans”), the success rate was only 24% as compared to 38% for other students. And only

7% of the underrepresented students who had entered community colleges ended up with a bachelor's degree within a 10 year period. Of those entering four year colleges, only about 45% of underrepresented students who entered as freshmen had received a bachelor's degree six years later as compared to 57% of other students.

The institutional problem is understood to be even greater when one factors in how many students never graduate from high school. While the data are imperfect, few doubt that too many youngsters are dropping out before high school graduation. And this is particularly the case for some subgroups. For example, in the U.S., there are about 53 million students in K-12, with about 17 million in 9-12. About three-fourths of Asian American and White ninth graders graduate from high school within four years; the combined figure for African Americans, Hispanics, and Native Americans is about half of that (Cataldi, Laird, & KewalRamani, 2009).

### **Education Data on Native Americans**

Disaggregated data for Native Americans suggest that from 20-28% do not graduate from high school (DeVoe, Darling-Churchill & Snyder, 2008). Recent reports tend to rely on data from the U.S. Census 2004 update on the highest level of educational attainment for Native Americans 25 years and older. That data set indicates that about 28 percent did not graduate from high school compared to 15 percent nationally. Of those who had graduated, 30% did not continue on to a postsecondary institution.

With respect to Native Americans who do graduate and go on to postsecondary education, only about half of those who enroll in major colleges and universities survive the first year as compared to almost 70% of the general population (Education Trust, 2010; Offenstein, Moore, & Shulock, 2010; U.S. Department of Education, 1998). The Institute for Higher Education Policy (2007) indicates that "The percentage of American Indians who have at least a bachelor's degree is the lowest of all racial/ethnic groups. The numbers are even lower for those who live on reservations and other AIAs." And, Native Americans are among the most underrepresented subgroup in graduate programs.

Even though data are limited, the Alliance for Excellent Education (2007) stresses that the

evidence is clear about the striking disparities in the educational achievement and attainment levels of Native Americans. The degree to which some tribes may do better than others is unclear. Too little data are available to compare tribal graduate rates, whether graduation is related to gender and economic differences, and so forth.

**What are some of the factors that lead to and maintain disparities?**

Viewed from a broad transactional perspective, schooling outcomes are seen as reciprocally determined, and the fundamental concern is person-environment match or fit. Many facets of family, school, and neighborhood life, including peer subcultural considerations, are all recognized as of major relevance in shaping any student's development, learning, engagement, disengagement, and performance at school (Adelman & Taylor, 2006, 2010; Center for Mental Health in Schools, 2010a). And of particular concern are variables such as poverty and cultural identity and native language. A few examples from the research literature relating these particular variables to schooling are highlighted below.

*Poverty.* The many correlates of economic disadvantage play a major role in determining the quality of the person-environment match for formal teaching and learning and underscore the need for compensatory interventions to enable equity of opportunity for Native Americans. As the Institute for Higher Education Policy (2007) emphasizes: "Poverty is not just an economic phenomenon; it is a cyclical condition that affects multiple generations and is often accompanied by a range of social problems which greatly affect a person's ability and desire to pursue education." (p. 16)

In 2006, 27% of American Indian/Alaska Natives lived in poverty compared to 13% of the general population; 36% of families on reservations lived in poverty (DeVoe, Darling-Churchill & Snyder, 2008). Eighth grade students who attend high-poverty schools lag behind low-poverty students by 34 points in reading and 38 points in math (National Center for Education Statistics, 2010). And a larger percentage of American Indian/Alaska Native 8<sup>th</sup> grade students (66%) reported more absences from school than any other racial/ethnic group (DeVoe, Darling-Churchill & Snyder, 2008). With respect to postsecondary education, only about 28% of students

from high poverty schools attend four year institutions after graduation, compared with 52% of high school graduates from low poverty schools.

*Cultural identity and native language.* The Institute for Higher Education Policy (2007) also stresses that “Children who grow up in poverty also may lack role models and a societal and familial culture that encourages and supports educational aspirations” (p. 17). Research on Native American parents found they had significantly more negative perceptions than their children of school with respect to values, communication, and the cultural competence of the staff and curricula (Mackety & Linder-VanBershot, 2008). Researchers suggest that parents’ negative views reflect the continuing influence of the history of coercive assimilation in Native American education and policy. Some refer to these experiences and other historical events as having produced “historical trauma” (Brave Heart, 2004; Gone, 2009; McLeigh, 2010) that continues to make many Native Americans vulnerable to problems in various facets of their lives.

With respect to staying in school, Huffman (2001) uses resistance theory and the transculturation hypothesis to suggest that Native American students who draw on their cultural identity are more likely to succeed academically than those who have become culturally assimilated. At the same time, on predominantly white campuses, those with a strong Native American identity report perceiving and experiencing significant racism and harassment (Perry, 2002).

Another concern related to person-environment fit is the degree to which American Indian/Alaska Native children are bilingual. More than 25% of this group in grades 4 and 8 reported use of a traditional language within the family at least half of the time (DeVoe, Darling-Churchill & Snyder, 2008). While it is unclear the degree to which this raises problems at some schools, it certainly must be considered a contributing factor.

#### ADDRESSING THE PROBLEM IN TERMS OF EQUITY OF OPPORTUNITY AND SOCIAL JUSTICE

Whatever the causes of the many disparities, it is clear that a large proportion of Native

American students are not experiencing an equal opportunity to succeed at school. This is the case from their preschool years through high school and with respect to going on to and completing postsecondary education. With this in mind, it is essential to use the lenses of equity and social justice in rethinking education policies and practices at every level.

Policies and practices aimed at enhancing equity of opportunity and social justice focus on a variety of compensatory interventions. These include a focus on improving health and welfare, prenatal care, early childhood enrichment, readiness to enter K-12, student and family engagement and re-engagement in schools, personalizing instruction to appropriately account for diversity, and ensuring effective student and learning supports are used to enable learning (International Labour Organisation, 2009; McLeigh, 2010; United Nations, 2007).

### **Enhancing High School Graduation Rates**

Given that getting to postsecondary education requires graduating from high school, improving K-12 in ways that reduce dropouts is of particular concern. Analyses of practices for dropout prevention have been a prominent product of the *What Works Clearinghouse* (Dynarski, Clarke, Cobb, Finn, Rumberger, & Smink, 2008). The clearinghouse guide for dropout prevention stresses six foci for improving K-12: (1) rigorous and relevant instruction to better engage students in learning, (2) personalized learning environments and instructional processes, (3) academic support and enrichment to improve academic performance, (4) use of data systems to identify students at high risk of dropping out, (5) assignment of adult advocates to students at risk of dropping out, and (6) programs to improve students' classroom behavior and social skills.

Learning from states that are showing better graduation outcomes for Native Americans is another avenue that needs to be pursued in identifying what works. For example, of the seven states with the highest percentage of American Indian/Alaska Native students, Oklahoma's graduation rate of 61% is significantly higher than the other states; for instance, New Mexico's rate is 39%, South Dakota's is 28% (Faircloth & Tippeconnic, 2010). These differences certainly warrant analyses.

At the same time, it is important to recognize that recommendations for dropout prevention usually assume school settings have adequate resources (e.g., high quality teachers, student

support staff, well equipped schools and classrooms). Unfortunately, 46% of American Indian/Alaska Native students attend schools in distant or remote rural areas as contrasted to 34% for other racial/ethnic groups (DeVoe, Darling-Churchill & Snyder, 2008). In general, these schools are difficult to staff and extra resources are in short supply. These contextual conditions need to be factored into discussions of what works.

Moreover, creating a good personalized learning environment for many Native American students involves integrating traditional culture with mainstream learning. These cultural considerations are longstanding concerns that continue to be poorly addressed. As the National Indian Education Association (nd) has stressed, culturally based education is “more than teaching language and culture as special projects, it is a systematic approach fully incorporating and integrating specific cultural ways of thinking, learning, and problem-solving into educational practice.”

### **Enhancing Postsecondary Success**

To address the inequities related to postsecondary education, policies have emphasized programs to bolster recruitment, access, transition, and retention. These stress:

- cultivating early attitudes, a college going culture, and readiness
- recruitment outreach including involvement on K-12 campuses of postsecondary institutions and K-12 students coming to postsecondary sites
- financial aid such as scholarships and loans
- first-year transition programs including welcoming and support networks
- academic advising before the first year
- monitoring to provide further advice, learning supports and special assistance when problems are noted.

Despite all that has been discussed, proposed, and implemented to date, equity of opportunity and social justice remain elusive for groups such as Native Americans. Because of the growing recognition that reducing the high rate of secondary school dropouts represents an economic necessity as well as a public health and a civil rights imperative, we expect increasing attention will be given to enhancing equity of opportunity for success at school. It is unclear, however,

that this attention will spill over in ways that increase the number of Native Americans and other underrepresented subgroups of students who are able to move on and succeed in postsecondary education.

Elsewhere, we explore in greater detail interventions to support readiness, recruitment, access, transition, and retention for postsecondary education success (Center for Mental Health in Schools, 2010b). In the following sections of this paper, we focus mainly on what is done to (a) support readiness for postsecondary education, (b) increase recruitment and access, (c) improve transitions, and (d) support survival to completion. It must be noted at this point in time that, because of the relative dearth of appropriately designed research on prevailing interventions, few data on program effectiveness are available. We will conclude with recommendations for new directions based on our analysis of current intervention limitations.

#### SUPPORT FOR GOING ON TO POSTSECONDARY EDUCATION

Taking a transactional perspective, a report from the Center for American Progress concludes: “America’s higher education system has a readiness problem. Students are not ready for college, colleges are not ready for students, and public policy, long focused on making college more affordable, is not yet ready to take on the complex challenge of ensuring people successfully complete college degrees and transition into rewarding careers, as opposed to just getting in” (Soares & Mazzeo, 2008).

For the most part, federal and state policies for postsecondary education preparation, recruitment, access, transition, and retention have been formulated in an ad hoc and piecemeal manner and are disconnected from each other. Relevant programs exist in many federal offices. Within the Department of Education alone, major programs are managed by the Office of Elementary and Secondary Education, the Office of Postsecondary Education, and the Office of Vocational and Adult Education. The lack of integration among the offices and programs is common knowledge. A similar disconnect exists between these offices and relevant programs offered by other federal agencies, including the Bureau of Indian Affairs. The impact of the disconnect has been the emergence of a host of fragmented practices. One current driver for improvement is concern for preparing *all* students for the global marketplace. However, so far

this concern has not moved the focus on equity of opportunity in postsecondary education out of the margins of national and state education policy discussions (Soares & Mazzeo, 2008).

On the following pages, we highlight various practices that have emerged. We group them as efforts to (1) support readiness for postsecondary education, (2) increase recruitment and access, and (3) improve transitions.

### **Supporting Readiness for Postsecondary Education**

Everyone understands that preparation for postsecondary education is a PreK-12 concern. The understanding has been translated into an emphasis on high expectations and high standards around academics as measured by achievement tests. This emphasis has become the hallmark of the school improvement movement and is a primary shaper of what is in place to support the development of readiness for postsecondary education.

Estimates in the U.S. indicate there are thousands of programs focusing on college prep strategies (Gándara, 2001). According to a report from the U.S. Secretary of Education's *High School Leadership Summit*, such programs vary from minimal academic counseling to those offering:

- *Academic enrichment* activities that enhance the curriculum including tutoring, summer school, after-school programs, and extra coursework;
- *Information sharing* to educate students and parents about college options, testing and admission requirements, financial aid procedures, and campus life;
- *Mentoring* by a peer or adult that provides educational and social support; and
- *Social enrichment* activities that provide students with the opportunity to learn leadership skills, set-goals, visit college campuses, and explore the arts (U.S. Department of Education, 2003a).

Descriptions of programs funded by the Office of Indian Education are illustrative of the strengths and weaknesses of current efforts to support readiness for postsecondary education (see <http://indianeducation.org/index.cfm?page=DemoGrantAbstracts.html#2006> ). Here's one example:

“The Arlee High School [Arlee School District, MT], a public school on the Flathead

Reservation in western Montana, has designed a college preparatory program targeting students in grades 9-12. The project will provide increased rigor, enrichment, summer support programs and specialized tutorial services provided by highly qualified certified teachers. Job embedded professional development provided by an outside service provider, emphasizes meeting high academic standards and enhances implementation of Montana's standards for Indian Education for All. The project elevates expectations and rigor in the core curriculum while providing focused temporary supports so every American Indian child is well prepared and motivated to go to college. Number of participants: 117"

Based on analyses of current high school programs designed to help students navigate the path to college, a practice guide from the *What Works Clearinghouse* offers three readiness and two transition recommendations to high schools and school districts (Tierney, Bailey, Constantine, Finkelstein, & Hurd, 2009). The first readiness recommendation focuses on preparing students academically for college by offering a college preparatory curriculum; the second emphasizes assessing whether students are building the knowledge and skills needed for college. "These two recommendations reflect the panel's belief that students are best served when schools develop a culture of achievement and a culture of evidence." The third readiness recommendation describes how high schools can build and sustain college aspirations by surrounding students with adults and peers who support these aspirations. Recommendations 4 and 5 stress how high schools should assist students in completing college entry steps (e.g., entrance exams, financial aid applications).

As the above underscores, considerable attention is given to the knowledge and skills related to college readiness (e.g., Conley, 2007; U.S. Department of Education, 2003b); less attention is given to engendering an early desire for continuing formal education beyond high school and doing so through pathways that fit personal goals for the future (College Board, 2006; Corwin & Tierney, 2007; McDonough, 2004a).

*Cultivating awareness and readiness.* In general, key factors shaping attitudes about going on to postsecondary education include success at school, a curriculum that encourages students

to prepare for postsecondary schooling and effectively supports their preparation, and a communal sense that formal education beyond high school is the norm rather than the exception. Creating such a norm involves a variety of activity that (a) provides classroom and schoolwide supports to address barriers to learning and teaching, (b) engenders hope about a future that is built on postsecondary education, and (c) underscores the value and attractiveness of postsecondary education. And, with a focus on diversity and individual differences, many argue that subgroups of high school youth need different pathways and competencies in preparing for postsecondary education and the workplace and making the transition to adulthood in general.

As stressed by the National Governors Association (2009a), “Most American teenagers aspire to postsecondary education, but only a quarter of them enter college ready to do the work.” Readiness is even worse among students who come from economically disadvantaged backgrounds. Both private and federal programs have attempted to address the problem. Examples of the federal effort include *Upward Bound*, *Talent Search*, and GEAR UP.

*Career academies.* As described by the American Youth Policy Forum, “career academies (1) are smaller learning communities taught by a team of interdisciplinary teachers, (2) provide a rigorous academic curriculum based on a career theme that demonstrates how knowledge is used and applied in career fields, and (3) partner with colleges and employers to provide opportunities for dual enrollment, internships, and increased mentoring by adults. ... Career academies are founded on the concept of academic technical instructional integration, which is a fundamental distinction between career academies and traditional vocational education ... and have been shown to have positive impacts on attendance, earned credits, and high school graduation and college attendance rates. Additionally, participation in a career academy increased post-high school employment rates and earnings, particularly for at-risk young men”(Brand, 2009).

*Creating multiple pathways.* Discussion of enhancing a culture for going on to postsecondary education includes the need to recognize and provide multiple pathways to adulthood and to the labor market (Hughes & Karp, 2006). The emphasis on multiple pathways is meant to counter the overemphasis on college as the main postsecondary education opportunity. It also is seen as helping improve the climate for going on to postsecondary education by making high school

more personally relevant.

*Providing low income high school students with early access to college courses.* There is increasing interest in policies to encourage ways to engage high school students in college coursework (Hoffman & Vargas, 2005). Rhode Island offers a recent example of a policy effort to cultivate a going-to-college culture as well as a way to enable students to complete college faster. *The Providence Journal* (2009) reports that the state has passed legislation for a pilot program to enable low-income students to take college courses while still in high school. *The Bachelor Degree in Three* program provides state funding for “low-income students to take up to a year’s worth of college courses while still enrolled in high school, shortening the time they spend in college to three years. ... Currently, between 250 and 300 low-income students participate in state-financed dual-enrollment programs, earning college credit while still in high school.” The newspaper notes that the practice has long been popular with middle-income students in Rhode Island (who pay \$150 or more per class). The program is described as helping students and their families save thousands of dollars by cutting off a year’s tuition and fees.

*Special supports to enable equity of opportunity.* Over the years, data from the National Center for Education Statistics highlight specific subgroups that enroll at much lower rates and dropout at higher rates than other students. For example, with respect to enrollment, students whose parents have not attended postsecondary education are reported to experience disparities at all stages of moving along the path to college.

A related set of concerns centers around strengthening communities where underrepresented youth and their families reside. Improving neighborhood life has long been recognized as an essential facet of preparing students academically and psychologically for graduating high school and pursuing postsecondary education. Some of the focus is on economic development, but there also has been continuous litigation around matters such as the need for equity in access to instructional materials, safe and decent school facilities, and qualified teachers (Oakes, 2004). These are all concerns that need to be part of the renewed attention to the Native American communities stemming from the November 2009 White House summit at which President Obama met with 386 tribes and promised to redeem broken promises..

A perspective on current federal education policy and programs is provided by the TRIO programs. Note that the GEAR UP program discussed earlier is part of this package of programs. This set of discretionary/competitive grant programs began with *Upward Bound*, which emerged out of the Economic Opportunity Act of 1964 in response to the administration's War on Poverty. In 1965, *Talent Search*, the second outreach program, was created as part of the Higher Education Act. In 1968, *Student Support Services*, which was originally known as Special Services for Disadvantaged Students, was authorized by the Higher Education Amendments and became the third in a series of educational opportunity programs. By the late 1960's, the term 'TRIO' was coined to describe these federal programs.

In sum, policy and practice designed to enhance the ways schools create readiness for postsecondary education have yet to be comprehensively conceived and well informed by research. As the analysis by Hooker and Brand (2009) indicates, one area in need of greater attention is the development of a full continuum of supports encompassing the most promising interventions. And because the emphasis on readiness at all levels of education focuses mainly on *skills*, policy must enhance the priority given to practices for enhancing students *attitudes* about preparing to go on to postsecondary education.

### **Recruiting Students and Enhancing Access to Postsecondary Education**

Recruitment overlaps with efforts to create the norm for formal education beyond high school (Hossler, Schmit, & Vesper, 1999; Sevier, 2000). Advanced placement courses and higher education and career counseling and financial aid information have a long-standing tradition. So do college outreach and scholarship programs (Kinzie, Palmer, Hayek, Hossler, & Cummings, 2004; McDonough, 2004b). Postsecondary institutions also may involve themselves on K-12 campuses (e.g., sponsoring extracurricular programs before, during, and after school, providing academic tutors and mentors, making guest appearances to enrich courses).

With specific respect to Native Americans, recruitment and retention are a concern of every institution of higher education that has an American Indian Studies Programs and all tribally controlled colleges (TCUs). TCUs have been described as having little control over recruitment (National Academy of Engineering, 2006). There is inadequate data on the degree to which other

colleges and universities focus on recruitment of Native Americans.

An example of one social networking based effort is illustrated by the Native American Recruitment and Retention Center (Native Pride!) which is on Facebook. Based on the University of California campus, the organization is referred to as NARRC and described as “consisting of university faculty, staff and undergraduate students who realize the significance of keeping higher education open to Native Americans.” The intent is to play “a key role in establishing a balance between achieving individual academic success and maintaining a strong sense of pride in their cultural heritage.” They outreach in various communities to “generate positive relationships with the Native American community and build bridges so that higher education reveals itself as an attainable and practical goal” (<http://www.facebook.com/group.php?gid=2200225318&v=info> ).

*Recruitment and marketing.* Efforts to recruit students to postsecondary education tend to be broad-band and vary by type of institution and the subgroups they seek to enroll. For example, high prestige institutions vie for the best high school graduates, usually with targeted outreach to attract students from demographic groups that are underrepresented on their campuses. Such institutions often use the latest marketing tools to gather and analyze data on demographics, attitudes, and preferences, and to monitor the effectiveness of recruitment practices.

Less prestigious postsecondary programs reach out to a broad segment of the population. Active recruitment by such programs varies with enrollment capacity and budget availability. For example, community colleges traditionally have tried to be open to all, and of those who enroll

in community college, about 40% matriculate to 4 year colleges. Vocational and career education programs have focused on enrolling those pursuing adult education and literacy and career and technical education and have tapped into state formula and discretionary grant programs under the federal Carl D. Perkins Career and Technical Education Act.

Recruitment interacts with gatekeeping procedures. Attractive institutions tend to key their

recruitment to targeted demographics and establish stringent gates to limit access. Stringent gates include high tuitions and admission requirements that emphasize specific types of preparation and background experiences, high grades, high scores on admission tests, and high costs.

Those institutions determined to recruit a larger pool of underrepresented students tend to convey a picture that is a good match with the interests and needs of specific subgroups and design application procedures with such students in mind. Efforts also are made to counter the backlash to affirmative action in recruiting underrepresented groups. For example, as a result of the backlash, the state constitution in California now prohibits the state from “discriminating against, or granting preferential treatment to, any individual or group on the basis of race, sex, color, ethnicity, or national origin in the operation of public employment, public education, or public contracting.” This has led to legislative proposals to ensure that the prohibition does not prevent state institutions of higher education “from implementing student recruitment and selection programs permissible under the Equal Protection Clause of the 14th Amendment of the United States Constitution.”

Research is clarifying that strategic planning for recruitment is not a strength for many campuses, and that while the use of technology is increasing, the impact of some of the newer applications has yet to be demonstrated. One recent survey of 365 U.S. colleges and universities found that less than half reported having a strategic, multi-year enrollment plan that they felt good about (Noel-Levitz Report, 2009). As to practices being used, the survey results indicate:

- The most effective recruitment practices in 2009 included face-to-face, in-person events such as open houses and visit days, as well as telecounseling, interaction with enrolled students, and practices that make it easy to visit, apply, and enroll;
- Compared to two years ago, more enrollment teams are now using e-mail, the Web, and a variety of online tools ranging from virtual financial aid estimators to personalized home page portals to social media sites such as MySpace;
- Among the least-effective practices listed were newer technologies such as podcasting and RSS/XML syndicated feeds.

*Financial aid recruitment and access.* In general, financial aid is a major recruiting and

marketing tool. Financial aid awards are used to discount tuition and leverage increased enrollments. For example, employing needs- and merit-based criteria, many colleges and universities use institutional funds to augment federal and state grant and loan programs.

Given that the economic realities of the global economy call for increasing the number of individuals who have access to and who complete some form of postsecondary education, federal policy makers are striving to enhance the amount of available student financial aid. For example, as part of the American Recovery and Reinvestment Act of 2009 (ARRA), the federal government made a significant infusion of funds to increase the Pell Grant Program so the maximum award would rise to \$5,350 for the 2009-2010 school year. (The Federal Pell Grant Program provides need-based grants to low-income undergraduate and certain post baccalaureate students to promote access to postsecondary education and help offset the costs of postsecondary education. Students may use their grants at any one of approximately 5,400 participating postsecondary institutions.)

Another example is that the stimulus also provides an additional \$200 million in the Federal Work-Study Program for eligible students through September 20, 2011. These funds are need-based and available to students at the undergraduate and graduate levels (National Governors Association, 2009b).

All this said, it is ironic that the high rate of unemployment caused by the recent recession has produced a sharp increase in minority student postsecondary education enrollment. As reported by the Pew Research Institute (2010), "freshman enrollment at the nation's 6,100 postsecondary institutions surged by 144,000 students from the fall of 2007 to the fall of 2008. This 6 percent increase was the largest in 40 years, and almost three-quarters of it came from minority freshman enrollment growth."

In sum, it is clear that there is considerable agreement about an array of factors that should be proactively addressed in efforts to improve recruitment and enhance access. At the same time, research findings on what interventions are most effective are debated. As a result, policies and practices continue to reflect a combination of limited planning, traditional wisdom, adaptation of successful commercial marketing strategies, and insufficient financial support.

## **Initial and Extended Transition Programs**

Approaches to enhancing readiness, recruitment, and access are important, but a student's experiences after enrolling are even more critical to successful transition into the academic and social life of a postsecondary institution (Larimore & McClellan, 2005). And because there is a high rate of dropout during the first year, it is essential to provide social supports as early in the transition period as is feasible and to plan for extended transition interventions as soon as the need is identified.

As the time for transition approaches, broad-band, but limited scope direct interventions usually are relied on to support the initial transition. These can be categorized as: (1) awareness and orientation activities, (2) counseling and referral activities, and (3) coordination of transition preparation and induction programs. Such direct strategies may or may not be student-centered and culturally sensitive or woven into a well-designed structured academic pathway to enrollment in postsecondary institutions.

*Awareness and orientation.* As an initial transition activity, official orientations involve much more than providing general information and providing tours. After receiving basic information and being offered a welcoming tour, students usually have many more questions arise as they are making their decisions, writing applications, and planning for the transition. With this in mind, students may be provided with interactive opportunities (e.g., using personal contact or email) to ask probing questions and to dig deeper into the initial information they received. They also can review any of the many online lists of tips for surviving and thriving at college (e.g., Quintessential Careers, no date, online at [www.quintcareers.com/printable/first-year\\_success.html](http://www.quintcareers.com/printable/first-year_success.html) ).

*Counseling and referral activities.* Counseling for postsecondary education usually is seen as the most fundamental transition intervention (McDonough, 2004a). It is supposed to be done early enough to guide students to necessary coursework and as a mechanism for providing support and feedback as they plan, decide, and prepare applications. Included in all this may be survival courses in high school or on admission to college (focused on providing information and teaching coping skills and attitudes).

To ensure equity of opportunity, special attention is supposed to be given to students who because of their background and/or disabilities require considerable personalized support to cope effectively with transitions. This includes those in adult education programs. For Native Americans, examples are seen in institutions of higher education that have developed “American Indian Student Support Services,” such as Arizona State University and the University of Montana. For those with disabilities, the Individuals with Disabilities Education Act (IDEA) has long required that transition planning begin by age 14 and that transition services begin by age 16. (See *Transition 101* on the National Dissemination Center for Children with Disabilities’ website– <http://www.nichcy.org/resources/transition101.asp> – also see the University of Kansas’ *Transition Coalition* <http://www.transitioncoalition.org/cgiwrap/tcacs/new/resources/index.php> ) It should be noted that, in recent years, as many as 90,000 American Indian/Alaska Native students were served under the Individuals with Disabilities Education Act.

Referral for additional transition support may be considered for any student. However, access to such support usually is less available to students in subgroups for whom the interventions are not mandated.

*Coordination of preparation and transition/induction programs.* Some places aspire to providing students with an extensive orientation, exploration, transition coursework, application assistance, induction programs, remedial courses, and ongoing academic and social supports. Several states have established major initiatives to enhance successful transition and induction. For example, North Carolina’s *Transition Planning for the 21st Century* is designed to guide schools in enhancing PreK-12 transitions (SREB, 2005). The initiative recognizes success in postsecondary education is dependent on previous successful school transitions. Another example is Pennsylvania’s focus on enhancing access and creating seamless transitions from high school to higher education as part of “Transforming Pennsylvania’s High Schools.” As part of a series of general reforms, this initiative places a strong emphasis on exploring the use of different assessments for college entrance and establishing a statewide transfer policy between two- and four-year public higher education institutions that ensures students can move their credits from one to the other.

*Extended transition interventions.* As they begin coursework at their new institution, many students will readily connect with peers, academic counselors and advisors. But a significant number will not. For those who do not make a good transition, monitoring and outreach processes may be used to connect them with a support system and involvement in campus life. Such extended transition support can be seen as a first order dropout prevention strategy.

At institutions of higher education, extended transition supports have been a consistent theme of advocates for minorities and disability subgroups. While the importance of establishing transition programs for postsecondary education is widely acknowledged, research on developing and evaluating such programs is sparse. Thus, those studies that are available warrant special attention. One recent report that analyzed student transition from six Texas community colleges to 4 year institutions indicates that the characteristics that led to “higher than- expected” transfer rates were: (1) a structured academic pathway designed to prepare students for enrollment in 4 year institutions, (2) a student-centered culture emphasizing personal attention, and (3) culturally sensitive leaders who understood the students’ backgrounds (Smith, Miller, & Bermeo, 2009). Community college, of course, often is recommended as a transition step to four year colleges. At the same time, there is increasing concern about the community college dropout rate and the need for programs to increase successful transition from community colleges to four year institutions (Smith, Miller, & Bermeo, 2009).

#### RETAINING STUDENTS IN HIGHER EDUCATION

The 2009 Education Trust report stresses that disparities with respect to the retention of low-income and underrepresented minority students by colleges are “alarming.” We cited data they report at the beginning of this paper. With specific respect to retention, it is noteworthy that the community college students in the sample who were recipients of the federal Pell grant program (for low-income students) completed their studies at the same rate (32%) as other students and those who transferred to four-year colleges graduated at the same rate (60%) as other students.

Habley and McClanahan (2004) have identified 82 retention strategies. And, they suggest that the practices having the most impact on retention fall into three categories:

- *First-year programs:* including freshman seminar/university 101 for credit, learning

communities, and integration of academic advising with first-year programs

- *Academic advising*: including advising interventions with selected student populations, increased advising staff, integration of advising with first-year transition programs, academic advising centers, and centers that combines academic advising with career/life planning
- *Learning support*: including a comprehensive learning assistance center/lab, reading center/lab, supplemental instruction, and required remedial/developmental coursework

However, as Larimore and McClellan (2005) note: “One of the difficult truths is that although campuses provide a wide array of support services, many do not do an effective job of coordinating the delivery of multiple services to the same students. The end result can be poor coordination and worse, an environment in which students simply slip through the cracks and terminate their studies. ... Our experience in student services leads us to believe that what is needed is an institutional instigator or catalyst to cultivate a more coordinated and comprehensive approach to retaining Native American students. ... Admissions counselors, coordinators of orientation programs and advising, financial aid advisers, and representatives from residential life, student health staff, and other support personnel should meet periodically to discuss how they can work together in better serve Native American students. ... The meetings should serve as a reminder that each office or program shares in the responsibility to improve retention and the overall educational experience for Native American students” (p.25).

An area for further research is whether tribally controlled colleges and colleges with American Indian Studies Programs have developed better retention policies and practices. Some of this research can be facilitated through the White House Initiative on Tribal Colleges and Universities.

### **Factors Addressed by Attrition and Retention Efforts**

With specific respect to retaining minority students, Swail, Redd, and Perna (2003) offer the following five factors:

- *Academic Preparedness*. “Research shows that between 30 and 40 percent of all entering freshmen are unprepared for college-level reading and writing ....”

- *Campus Climate*. “While researchers agree that “institutional fit” and campus integration are important to retaining college students to degree completion, campus climate mediates undergraduates’ academic and social experiences in college. Minority students inadequately prepared for non-academic challenges can experience culture shock. Lack of diversity in the student population, faculty, staff, and curriculum often restrict the nature and quality of minority students’ interactions within and out of the classroom, threatening their academic performance and social experiences.”
- *Commitment to Educational Goals and the Institution*. “The stronger the educational goal and institutional commitment, the more likely the student will graduate. Research shows that congruence between student goals and institutional mission is mediated by academic and social components, and that increased integration into academic and social campus communities causes greater institutional commitment and student persistence.”
- *Social and Academic Integration*. “The process of becoming socially integrated into the fabric of the university has also been found to be both a cumulative and compounding process, and the level of social integration within a given year of study is part of a cumulative experience that continues to build throughout one’s college experience. The establishment of peer relations and the development of role models and mentors have been defined in the literature as important factors in student integration, both academically and socially.”
- *Financial Aid*. “For many low-income and minority students, enrollment and persistence decisions are driven by the availability of financial aid. In 1999–2000, 77 percent of financially dependent students from families with less than \$20,000 in family income received some financial aid, with an average award of \$6,727. In contrast, 44 percent of those from families with income of \$100,000 or more received aid, with an average award of \$7,838. Low-income and minority students who receive grants generally are more likely to persist than those who receive loans. However, given the rising costs of attending college, it is unlikely that low-income students will be able to receive bachelor’s degrees without *any* loan aid. At the same time, the research also suggests that

the shifts in aid from grants to loans and from need-based to merit-based programs adversely affects both enrollment and persistence for minority students. Reversing these shifts may be needed to increase college access and success for low-income and minority students.”

In a qualitative interview of 15 students who grew up on reservations, Jackson, Smith, and Hill (2003) identified nine themes related to persistence in college. The first six they labeled surface themes, the other three were viewed as deep themes. The nine are: (1) family support, (2) structured social support, (3) faculty/staff warmth, (4) previous exposure to college experiences and possible vocations, (5) developed independence and assertiveness, (6) reliance on spiritual resources, (7) dealing with racism, (8) nonlinear path to the degree (e.g., several institutions, breaks in attendance, academic struggles), and (9) paradoxical cultural pressure (i.e., to be successful at school and still maintain identity with their reservation community). Particular emphasis was placed on the need for stable mentoring relationships and programmatic support. Others support the above and add motivation, sense of identity and self, and language development (Demmert, Jr., 2001).

Clearly, the type of correlational findings reported related to retention practices cannot answer questions about the nature, scope, and quality of interventions. Moreover, categorizations of programs and practices mask the efforts for extended transition and induction and the ways in which activity helps improve faculty capacity to respond to transition and survival needs (including early alert and monitoring systems; extended assistance – outreach, one-to-one coaching). Added to all this is the likelihood that technology will add a variety of additional support mechanisms to enhance retention (networking; use of targeted web portals).

### **Addressing Psychosocial Problems and Disability Accommodation**

Stress is a fundamental psychosocial concern related to retention in postsecondary education. Academics and social factors are major sources of stress. Concerns about identity and the future become more pressing. For those leaving home, stress can be exacerbated by being removed from one’s support networks and having to deal with the logistics of independent living (Bewick, Mulhern, Barkham, Trusler, Hill, & Stiles, 2008; Misra & Castillo, 2004). With respect

to Native American students, the concern is that they bring high levels of stress with them and the intervention responses tend to be Euro-American rather than culturally responsive to various subcultural groups (Gone & Alcántara, 2007; Heinrich, Corbine, & Thomas, 1990). One counselor told us recently that she rates postsecondary education institutions on a Native American Friendly Index (e.g., How many Native American staff? Native American counselors and tutors? Is there a longhouse on campus?)

While interventions to address psychosocial concerns are related to student transition and retention, they clearly are guided as much by policies designed to ensure campuses are perceived as safe places that care about student health and wellness. Formal efforts to plan and implement interventions to address psychosocial concerns on a campus generally are not well organized and in too many cases are not oriented to subgroup needs. Problems are dealt with in relative isolation of each other, with administrators and staff assigned in an ad hoc manner and student leaders included as appropriate. A dean of students, academic counselors, an academic senate committee, a campus ombudsperson, campus security personnel, faculty and other personnel with special expertise, all may be involved. So may faith-based leaders associated with the campus. Fairly common resources for personal problems are student health and psychological counseling centers. Some campuses have programs labeled Student Assistance Programs, Student Support Services Programs, and Student Success Centers. Another common resource is an office for "Extended Opportunity Programs and Services." To support students in transition, some campuses have "Transfer Centers/Academies." There also are various ways campuses organize support for racial and ethnic groups. To provide affirmative support for students with disabilities, some campuses have "Disability Resource Centers." The overall picture is one of fragmented and marginalized approaches to what often are overlapping concerns.

Given that psychosocial concerns are an inevitable facet of the human condition and are a constant on campuses, postsecondary institutions find the need to address them daily. To do so requires moving away from ad hoc, piecemeal, and shifting intervention priorities and practices. For this to happen, we have stressed that postsecondary policy must be expanded to include a

primary focus on developing, over time, a system for comprehensively and cohesively addressing a full range of psychosocial concerns (Adelman & Taylor, 2006). And this must be done in ways that create a campus climate that supports all students (e.g., is minority friendly).

The number of students with disabilities attending postsecondary education institutions currently represent 11% of the student population and the numbers are growing (U.S. Government Accountability Office, 2009). This includes the increase in numbers of students diagnosed as having learning disabilities and attention deficit hyperactivity disorders and returning veterans with newly acquired disabilities. As the number of students with disabilities attending expands, the imperative increases for enhancing institutional attention to their needs and improving retention rates among this subgroup (Stodden, 2005). And besides students directly diagnosed with mental disorders, a postsecondary institutional focus on mental health is relevant for all students.

While students with disabilities are entitled to a free and appropriate public education through age 21, the Individuals with Disabilities Education Act (IDEA) does not apply to postsecondary schools. And the responsibilities of postsecondary schools for such students are significantly different from school districts.

In 1973, Congress passed Section 504 of the Rehabilitation Act of 1973 (Section 504), a law that prohibits discrimination on the basis of physical or mental disability. The regulations implementing Section 504 apply to all recipients of federal funding, including colleges, universities, and postsecondary vocational education and adult education programs. Section 504 regulations stress a postsecondary school's obligation to provide auxiliary aids to qualified students who have disabilities.

Title II of the Americans with Disabilities Act of 1990 (ADA) prohibits state and local governments from discriminating on the basis of disability. The requirements regarding the provision of auxiliary aids and services in higher education institutions described in Section 504 regulations are generally included in the nondiscrimination provisions of the Title II regulation.

Practically every postsecondary school in the United States is subject to one or both of these laws. In the U.S. Department of Education, the Office for Civil Rights has responsibility for

enforcing both laws. Failure by such postsecondary education schools to provide auxiliary aids to students with disabilities “that results in a denial of a program benefit” is discriminatory and prohibited. To help institutions of higher education improve their ability to provide a quality postsecondary education for students with disabilities, the U.S. Department of Education’s Program Office for Teacher and Student Development Programs Service offers discretionary/competitive grants.

Throughout their lives students who need special assistance encounter problems accessing help and accommodations. With respect to postsecondary education, these include a range of societal, institutional, interpersonal, and personal barriers that interfere with preparation and transition, access and admission, academic adjustment, and retrieving auxiliary aids and services essential for program completion.

#### ANALYSIS OF POLICY AND PRACTICE AND RECOMMENDATIONS FOR DEVELOPING A COMPREHENSIVE SYSTEM OF STUDENT AND LEARNING SUPPORTS

Current policy has led to a variety of ad hoc, piecemeal, and categorical programs, services initiatives, and projects. The result is fragmentation, marginalization, redundancy, and maintenance of practices that have too limited an effect and that generate counterproductive competition for sparse resources (Adelman & Taylor, 2006; Center for Mental Health in Schools, 2005a, 2005b). In addition, there is relatively little investment in evaluative research.

As concerns are raised about the fragmentation of interventions and the limited payoff for underrepresented subgroups, the tendency is to recommend fixes through additional piecemeal policy. This includes focusing on specific subgroups such as Latinos, African Americans, and Native Americans and on ways to increase coordination, consolidation, and cohesion. But the problem is not just that of ensuring the needs of one minority group are met. And while coordination and coherence certainly are desirable, these qualities must be pursued in the context of a broad unifying vision for how to enhance postsecondary education readiness, recruitment, access, transition, and retention for a full range of students. Such a vision recognizes the

imperative of addressing, as much as feasible, major factors interfering with students having an equal opportunity to succeed

Available data clearly indicate that at every stage in the progression from preK-16 too many students are falling by the wayside. And a particular concern, of course, is how to expand the pool of qualified applicants from underrepresented demographic groups. Given the deficiencies of current approaches, new directions are called for. This includes initiatives to coalesce school and community efforts to address the full range of barriers to school success preK-12 in order to increase college going rates (Adelman & Taylor, 2006; Axelroth, 2009).

As Larimore and McClellan (2005) note: “The literature on Native American student retention reveals a complex situation that involves the elaborate interplay of individual characteristics and actions on the one hand and institutional factors on the other. ... We must consider Native American student retention in secondary school and higher education as related parts of a seamless whole.”

In revisiting policy using the lenses of equity of opportunity and social justice, our analysis suggests the need for policy that can guide development of a *comprehensive*, multifaceted, and cohesive *system* of interventions. That system should begin preK and continue in a fully interconnected way through postsecondary graduation. The focus is on enhancing equity of opportunity by addressing barriers to learning and teaching and re-engaging disconnected students.

Developing a comprehensive system requires establishing a unified component for enabling success at school. This involves

- adopting a comprehensive intervention blueprint for student and learning supports and identifying which current strategies are worth keeping and what major gaps need to be filled
- redeploying available resources in keeping with priorities for system development
- revamping school-community infrastructures to weave resources together to enhance and evolve the system and align interventions horizontally and vertically
- supporting the necessary systemic changes in ways called for by comprehensive

transformation, scale-up, and sustainability.

To these ends, we offer three recommendations:

**(1) *Move Beyond the Current Marginalized and Fragmented Approaches to Initiate Development of a Comprehensive PreK-16 System of Student and Learning Supports.***

Specifically, we propose

- moving the current preK-16 school policy framework to a three-component blueprint so that the many fragmented efforts to address barriers to success at school and re-engage disconnecting/nonpersevering students are unified under one umbrella concept and developed into a comprehensive system of student and learning supports
- ensuring that this third component is treated as equal to the others in policy priority so that the interventions are no longer designed in a piecemeal and ad hoc manner and the entire enterprise is no longer marginalized
- expanding the school accountability framework to encompass the third component and drive development of a comprehensive system.

**(2) *Revamp and Interconnect Operational Infrastructures.*** Developing and institutionalizing a comprehensive system of student and learning supports requires a well designed and effective set of operational mechanisms. The existing ones must be modified in ways that guarantee new policy directions are implemented effectively and efficiently. How well these mechanisms are connected horizontally and vertically determines cohesiveness, cost efficiency, and equity.

**(3) *Support Transformative and Sustainable Systemic Change.*** Systemic transformation to enhance equity of opportunity across preK-16 requires new collaborative arrangements and redistributing authority (power). Policy makers must provide support and guidance not only for implementing intervention prototypes, but for adequately getting from here to there. This calls for well-designed, compatible, and interconnected operational mechanisms at many levels and across agencies.

In sum, current policies and practices are unlikely to effectively increase the number of students who engage and succeed in postsecondary education. It is time to move beyond

piecemeal and marginalized policy and fragmented practices. The need is to develop a comprehensive and cohesive system of interventions that address barriers to students having an equal opportunity to succeed at school at every stage from prekindergarten through postsecondary. Establishment of such a system is a public education, public health, and civil rights imperative.

## References

- Adelman, H.S. & Taylor, L. (2006). *The school leaders guide to student learning supports: New directions for addressing barriers to learning*. Thousand Oaks, CA: Corwin Press.
- Adelman, H.S. & Taylor, L. (2010). *Mental health in schools: Engaging learners, preventing problems, and improving schools*. Thousand Oaks, CA: Corwin Press.& Taylor, 2010;
- Alliance for Excellent Education (2007). *American Indian and Alaska Native Students and U. S. high schools*. [Http://www.all4ed.org](http://www.all4ed.org)
- Axelroth, R. (2009). *Raising graduation and college going rates: Community high school case studies*. Washington, D.C.: Coalition for Community Schools, Institute for Educational Leadership.
- Brave Heart, M.Y.H. (2004). The historical trauma response among Natives and its relationship to substance abuse: A Lakota illustration. In E. Nebelkopf & M. Phillips (Eds.), *Healing and mental health for Native Americans: Speaking in red* (pp. 7-18). Lanham, MD: AltaMira.
- Bewick, B.M., Mulhern, B., Barkham, M., Trusler, K., Hill, A.J., Stiles, W.B. (2008). Changes in undergraduate student alcohol consumption as they progress through university. *MBC Public Health*, 8, 163-170. <http://www.biomedcentral.com/1471-2458/8/163/>
- Brand, B. (2009). *High school career academies: A 40-year proven model for improving college and career readiness*. Washington, D.C.: American Youth Policy Forum.  
<http://www.aypf.org/documents/092409CareerAcademiesPolicyPaper.pdf>
- Cataldi, E.F., Laird, J., and KewalRamani, A. (2009). *High school dropout and completion rates in the United States: 2007* (NCES 2009-064). Washington, D.C.: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education.
- Center for Mental Health in Schools (2005a). *School improvement planning: What's missing?* Los Angeles: Author at UCLA. <http://smhp.psych.ucla.edu/whatsmissing.htm>
- Center for Mental Health in Schools (2005b). *Addressing what's missing in school improvement planning: Expanding standards and accountability to encompass an enabling or learning supports component*. Los Angeles: Author at UCLA.  
<http://smhp.psych.ucla.edu/pdfdocs/enabling/standards.pdf>

Center for Mental Health in Schools, (2010a). *Turning around, transforming, and continuously improving schools: Federal proposals are still based on a two- rather than a three-component blueprint*. Los Angeles, CA: Author at UCLA.

<http://smhp.psych.ucla.edu/pdfdocs/turning.pdf>

Center for Mental Health in Schools (2010b). *Interventions to support readiness, recruitment, access, transition, and retention for postsecondary education success: An equity of opportunity policy and practice analysis*. Los Angeles, CA: Author at UCLA.

<http://smhp.psych.ucla.edu/pdfdocs/postsecondary.pdf>

Choy, S. (2002). *Access and persistence: Findings from 10 years of longitudinal research on students*. Washington, D.C.: American Council of Education.

College Board (2006). *Creating a college going culture*. New York: College Ed.

[www.collegeboard.com/prod\\_downloads/collegeed/collegeEd-create-college-going-culture.pdf](http://www.collegeboard.com/prod_downloads/collegeed/collegeEd-create-college-going-culture.pdf)

Conley, D. T. (2007). *Redefining college readiness, Volume 3*. Eugene, OR: Educational Policy Improvement Center. <http://cepr.uoregon.edu/upload/Gates-College%20Readiness.pdf>

Corwin, Z.B. & Tierney, W.G., (2007). *Getting there--and beyond: Building a culture of college-going in high schools*. Los Angeles: Center for Higher Education Policy Analysis at USC. [www.usc.edu/dept/chepa/working/Getting%20There%20FINAL.pdf](http://www.usc.edu/dept/chepa/working/Getting%20There%20FINAL.pdf)

DeVoe, J., Darling-Churchill, K., Snyder, T. (2008). *Status and trends in the education of American Indians and Alaska Natives: 2008*. Washington, D.C.: National Center for Education Statistics, U. S. Department of Education.

Demmert, Jr., W.G. (2001). *Improving academic performance among Native American students: A review of the research literature*. Charleston, VA: ERIC Clearinghouse on Rural Education and Small Schools.

Dynarski, M., Clarke, L., Cobb, B., Finn, J., Rumberger, R., and Smink, J. (2008). *Dropout prevention: A practice guide (NCEE 2008-4025)*. Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. <http://ies.ed.gov/ncee/wwc>.

- Education Trust (2009). *Charting a necessary path: The baseline report of public higher education systems in the access to success initiative*. Washington, D.C.: Author.  
<http://www.nashonline.org/System%20Profiles/NASH-EdTrust.BaselineReport.pdf>
- Education Trust (2010). *College results online*.  
<http://www.edtrust.org/issues/higher-education/college-results-online>
- Faircloth, S. & Tippeconnic, J. (2010). *The dropout/graduation crisis among American Indian and Alaska Native Students: Failure to respond places the future of Native Peoples at risk*. Los Angeles, CA: The Civil Rights Project at UCLA
- Gándara, P. (2001). *Paving the way to education: K-12 intervention programs for underrepresented youth*. Washington, D.C.: U.S. Department of Education, NCES.
- Gone, J.P. (2009). A community-based treatment for Native American historical trauma: Prospects for evidence-based practice. *Journal of Consulting and Clinical Psychology*, 77, 751-762.
- Gone, J.P. & Alcántara, C. (2007). Identifying effective mental health interventions for American Indian and Alaska Natives: A review of the literature. *Cultural Diversity and Ethnic Minority Psychology*, 13, 356-363.
- Habley, W.R. & McClanahan, R. (2004) *What works in student retention – Four-year public institutions*. ACT, Inc. <http://www.act.org/path/postsec/droptables/pdf/FourYearPublic.pdf>
- Heinrich, R.K., Corbine, J.L., & Thomas, K.R. (1990). Counseling Native Americans. *Journal of Counseling and Development*, 69, 128-133.
- Hoffman, N. & Vargas, J. (2005). *Integrating grades 9 through 14: State policies to support and sustain early college high schools*. Boston: Jobs for the Future.  
[http://www.eric.ed.gov/ERICWebPortal/custom/portlets/recordDetails/detailmini.jsp?\\_nfpb=true&\\_ERICExtSearch\\_SearchValue\\_0=ED486161&ERICExtSearch\\_SearchType\\_0=no&accno=ED486161](http://www.eric.ed.gov/ERICWebPortal/custom/portlets/recordDetails/detailmini.jsp?_nfpb=true&_ERICExtSearch_SearchValue_0=ED486161&ERICExtSearch_SearchType_0=no&accno=ED486161)
- Hooker, S. & Brand, B. (2009). *Success at every step: How 23 programs support youth on the path to college and beyond*. Washington, D.C.: American Youth Policy Forum.  
<http://www.aypf.org/publications/SuccessAtEveryStep.htm>

- Hossler, D., Schmit, J., & Vesper, N. (1999). *Going to college: How social, economic, and educational factors influence the decisions students make*. Baltimore: The Johns Hopkins University Press.
- Huffman, T.E. (2001). Resistance theory and the transculturation hypothesis as explanations of college attrition and persistence among culturally traditional American Indian students. *Journal of American Indian Education, 40*, 1-23.
- Hughes, K.L. & Karp, M.M. (2006). *Strengthening transitions by encouraging career pathways: A look at state policies and practices*. New York: Community College Research Center, Institute on Education and the Economy, Teachers College, Columbia University.
- Institute for Higher Education Policy (in collaboration with the American Indian Higher Education Consortium and the American Indian College Fund (2007). *The path of many journeys: The benefits of higher education for native people and communities*. Washington, D.C.: Author.
- International Labour Organisation (2009). *Indigenous and tribal people's rights in practice: A guide to the ILO Convention No. 169*. Geneva, Switzerland: Author.
- Jackson, A.P., Smith, S.A., & Hill, C.L. (2003). Academic persistence among Native American college students. *Journal of College Student Development, 44*, 548-565.
- Kinzie, J., Palmer, M., Hayek, J., Hossler, D., Jacob, S., & Cummings, H.. (2004). *Fifty years of college choice: Social, political and institutional influences on the decision-making process*. Indianapolis, IN: Lumina Foundation for Education, New Agenda Series.
- Larimore, J. & McClellan, G. (2005). *Native American student retention in U. S. postsecondary education*. In *Serving Native American Students, New Directions for Student Services*, 109, 17-32
- Mackety, D. & Linder-VanBerschoot, J. (2008). *Examining American Indian perspectives in the Central Region on parent involvement in children's education*. Regional Educational Laboratory at MidContinent Research for Education and Learning.
- McDonough, P. M. (2004a). *The school to college transition: Challenges and prospects*.

Washington, DC: American Council on Education.

[http://www.acenet.edu/bookstore/pdf/2004\\_IPtransitions.pdf](http://www.acenet.edu/bookstore/pdf/2004_IPtransitions.pdf)

McDonough, P. M. (2004b). Counseling matters: Knowledge, assistance, and organizational commitment in college preparation. In W. G. Tierney, Z. B. Corwin, & J. E. Colyar (Eds.), *Preparing for college: Nine elements of effective outreach*. Albany, NY: State University of New York Press.

Misra, R. & Castillo, L.G. (2004). Academic stress among college students: Comparison of American and international students. *International Journal of Stress Management*, *11*, 132–148. [http://www.coe.tamu.edu/~lcastillo/publications/international\\_stress.pdf](http://www.coe.tamu.edu/~lcastillo/publications/international_stress.pdf)

McLeigh, J.D. (2010). What are the policy issues related to the mental health of Native Americans? *American Journal of Orthopsychiatry*, *80*, 177-182.

National Academy of Engineering (2006). *Engineering studies at tribal colleges and universities*. Washington, D.C.: National Academies Press.

National Center for Education Statistics (2010). *The condition of education*. Washington, D.C.: Author. <http://nces.ed.gov/programs/coe/>

National Governors Association (2009a). *Increasing College Success: A Road Map for Governors*. Washington, DC: Center for Best Practices.  
<http://www.nga.org/Files/pdf/0912INCREASINGCOLLEGESUCCESS.PDF>

National Governors Association (2009b). *Postsecondary Education*. Washington, DC: Center for Best Practices. <http://www.nga.org/Files/pdf/ARRAPOSTSECONDARYEDU.PDF>

National Indian Education Association (n.d.) *Using culturally based education to increase academic achievement and graduation rates*. <Http://www.niea.org/issues/policy.php>

Noel-Levitz Report (2009). *2009 student recruitment practices and strategies at four-year and two-year institutions*. <https://www.noellevitz.com/NR/rdonlyres/C6B5DC90-92FB-46CF-81D8-8655D1D6E5D7/0/StudentRecruitmentPracticesandStrategies09.pdf>

Oakes, J. Investigating the claims in Williams vs. state of California: An unconstitutional denial of education's basic tools? *Teachers College Record*, *106*, 1889-1905.

- Offenstein, J., Moore, C. & Shulock, N. (2010). *Advancing by degrees: A framework for increasing college completion*. Sacramento, CA and Washington, D.C.: Institute for Higher Education Leadership & Policy and The Education Trust.
- Perry, B. (2002). American Indian victims of campus ethnoviolence. *Journal of American Indian Education*, 41, 35-55.
- Pew Research Center (2010). *Minorities and the recession-era college enrollment boom*. Washington D.C.: Author. <http://pewsocialtrends.org/assets/pdf/757-college-enrollment.pdf>
- Providence Journal (Dec. 3, 2009). *State to help low-income students complete college in 3 years*. [http://www.projo.com/news/content/education\\_bills\\_signed\\_12-03-09\\_HNGL759\\_v23.36160bb.html](http://www.projo.com/news/content/education_bills_signed_12-03-09_HNGL759_v23.36160bb.html)
- Ryu, M. (2008). *Minorities in higher education 2008 Twenty-third status report*. Washington, DC: Center for Policy Analysis, American Council for Education.
- Sevier, R.A. (2000). Building an effective recruiting funnel." *Journal of College Admission* 169,10-19.
- Smith, C. T., Miller, A., & Bermeo, C.A. (2009). *Bridging the gaps to success: Promising practices for promoting transfer among low-income and first generation students*. Washington, D.C.: The Pell Institute.
- Soares, L. & Mazzeo, C. (2008). *College-ready students, student-ready colleges: An agenda for improving degree completion in postsecondary education*. Washington, DC: Center for American Progress. [www.americanprogress.org/issues/2008/08/college\\_ready.html](http://www.americanprogress.org/issues/2008/08/college_ready.html)
- Stodden, R.A. (2005). Supporting individuals with disabilities in postsecondary education and life long learning. *Journal of Vocational Rehabilitation* 22, 1-2.
- Swail, W., Redd, K., & Perna, L. (2003). *Retaining minority students in higher education: A framework for success*. San Francisco, CA: Jossey-Bass.
- Tierney, W. G., Bailey, T., Constantine, J., Finkelstein, N., & Hurd, N. F. (2009). *Helping students navigate the path to college: What high schools can do: A practice guide (NCEE #2009-4066)*. Washington, D.C.: National Center for Education Evaluation and Regional

Assistance, Institute of Education Sciences, U.S. Department of Education.

<http://ies.ed.gov/ncee/wwc/publications/practiceguides/>

United Nations (2007). *Declaration on the rights of indigenous peoples, G.A. Res. 61/2975.*

<http://www.un.org/esa/socdev/unpfii/en/declaration.html>

U.S. Census Bureau (2000). *Special Reports.* Washington, DC: U.S. Census Bureau.

U.S. Census Bureau (2003). *Survey of income and program participation, 1996 Panel, Wave 6.*

[www.census.gov/population/socdemo/well-being/p70-89/98tabD13.pdf](http://www.census.gov/population/socdemo/well-being/p70-89/98tabD13.pdf)

U.S. Census Bureau (2004). *Current population survey, March Supplement.* Washington, D.C.

<http://dataferrett.census.gov/>

U.S. Department of Education (1998). *American Indians and Alaska Natives in postsecondary education.* Washington, D.C.: Government Printing Office.

U.S. Department of Education (2003a). *College transition programs: Promoting success beyond high school.* Washington, D.C.: Author.

<http://www.ed.gov/about/offices/list/ovae/pi/hsinit/papers/trans.pdf> .

U.S. Department of Education (2003b). *National evaluation of GEAR UP: A summary of the first two years.* Washington, D.C.: Office of the Under Secretary, Policy and Program Studies Service. <http://www2.ed.gov/rschstat/eval/highered/gearup.pdf>

U.S. Government Accountability Office (2009). *Higher education and disability: Education needs a coordinated approach to improve its assistance to schools in supporting students.*

Washington, D.C.: Author. <http://www.gao.gov/new.items/d1033.pdf>