Improving Schools, Engaging Students

A Policy and Practice Analysis Report

Interventions to Support Readiness, Recruitment, Access, Transition, and Retention for Postsecondary Education Success: An Equity of Opportunity Policy and Practice Analysis

Winter, 2010

The center is co-directed by Howard Adelman and Linda Taylor and operates under the auspices of the School Mental Health Project, Dept. of Psychology, UCLA, Los Angeles, CA 90095-1563 Phone: (310) 825-3634.

Support comes in part from the Office of Adolescent Health, Maternal and Child Health Bureau (Title V, Social Security Act), Health Resources and Services Administration, U.S. Department of Health and Human Services (Project #U45 MC 00175).

Please reference this document as follows: Center for Mental Health in Schools. (2010). *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.

Download at no cost from: http://smhp.psych.ucla.edu/pdfdocs/postsecondary.pdf

If needed, hard copies may be ordered from:
Center for Mental Health in Schools
UCLA Dept. of Psychology
P.O.Box 951563
Los Angeles, CA 90095-1563

The Center encourages widespread sharing of all resources.

Executive Summary

Interventions to Support Readiness, Recruitment, Access, Transition, and Retention for Postsecondary Education Success: An Equity of Opportunity Policy and Practice Analysis*

Recognition is growing about the public health and civil rights imperative for reducing the high rate of school dropouts. However, too little policy attention is paid to enhancing equity of opportunity for those transitioning from adolescence to young adulthood by increasing enrollment and success in postsecondary education.

Previous policy and practice reports from our Center have provided analyses indicating that reducing dropouts, increasing graduation rates, and closing the achievement gap require more than improving preK-12 instruction and enhancing school management. This previous work clarified fundamental flaws in prevailing school improvement policies and practices for addressing barriers to learning and teaching and recommended transformative changes. This report extends the earlier work by analyzing postsecondary education with a specific focus on policies and practices related to enhancing readiness, recruitment, access, transition, and retention.

Because who does and doesn't end up in postsecondary institutions is affected by school dropout rates, we begin by underscoring the national dropout problem. Then, we highlight current approaches to enhancing readiness for going on to postsecondary education, bolstering recruitment and access, and improving transition and survival in postsecondary education; special attention is given to underrepresented and underserved student subgroups. Finally, we offer our analyses and recommendations for improving intervention policies and practices.

We find prevailing policies primarily support broad-band, but limited scope direct strategies to enhance engagement and success in postsecondary education. These include interventions focused on

- 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.

*This report comes from the *Center for Mental Health in Schools* at UCLA.
The full report is online at:
http://smhp.psych.ucla.edu/pdfdocs/postsecondary.pdf

Available evidence highlights that such direct strategies are useful in increasing the pool of applicants for postsecondary education, improving transitions, and enhancing retention, but the evidence also suggests that the prevailing set of interventions is insufficient for enhancing equity of opportunity.

As is widely acknowledged, the factors interfering with student engagement and success in a formal education environment are complex, and complex problems require comprehensive solutions. Prevailing policies have led to fragmented and marginalized interventions that connect with relatively few of the many students in need.

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 much more 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 such a comprehensive preK-16 system requires developing a unified component for enabling success at school by

- reframing current student support programs and services, and integrating, at every stage, the best broad-band, but limited scope direct strategies
- redeploying available resources and aligning them horizontally and vertically
- revamping school-community infrastructures to weave resources together to enhance and evolve the system
- supporting the necessary systemic changes in ways called for by comprehensive innovation, scale-up, and sustainability.

To these ends, we offer three recommendations:

(1) *Move Beyond Broad-Band, But Limited Scope Direct Strategies to Initiate Development of a Comprehensive PreK-16 System*

Specifically, we propose

- moving preK-16 school policy from a two to a three component framework with the third component directly focused on addressing barriers to learning and teaching and re-engaging disconnected students; this third component must be treated as equal and primary to the others in policy so that it is not marginalized in practice,

- embedding under the component to address barriers to learning all efforts to address factors interfering with students having an equal opportunity to succeed at school
- expanding the school accountability framework to encompass the three component framework.

(2) *Revamp and interconnect Operational Infrastructure*s.

Conceiving a comprehensive system is one thing; implementing it is quite another. Developing and institutionalizing a component to address barriers to learning and teaching 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 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 learning and teaching and re-engage disconnected students at every stage from prekindergarten through postsecondary. Without such a system there is no equity of opportunity.

The Center is co-directed by Howard Adelman and Linda Taylor and operates under the auspices of the School Mental Health Project, Dept. of Psychology, UCLA, Box 951563, Los Angeles, CA 90095-1563 website: http://smhp.psych.ucla.edu
Phone: (310) 825-3634 Fax: (310) 206-8716 Toll Free: (866) 846-4843 email: smhp@ucla.edu

Support comes in part from the Office of Adolescent Health, Maternal and Child Health Bureau (Title V, Social Security Act), Health Resources and Services Administration U.S. Department of Health and Human Services (Project #U45 MC 00175)

Preface

As is evident from the many reports and resources generated over the years by our Center at UCLA, our mission and aims are to improve outcomes for young people by enhancing school and community policies and practices. The core of the work focuses on addressing barriers to learning and development; such barriers encompass neighborhood, family, school, peer, and personal factors that interfere with emotional, physical, social, and economic well being. And because so many barriers arise from a lack of equity of opportunity, our analyses and recommendations stress systemic and institutional changes that can improve interventions in ways that enhance equity and social justice.

With the problems experienced during adolescents clearly in mind, our reciprocal determinist developmental and holistic perspective also emphasizes interventions experienced both before and after adolescence that enhance, support, or interfere with subsequent well being and success. A growing concern is with what happens during the transition from adolescence to adulthood. This report focuses on that developmental period with a specific look at postsecondary education.

Given concerns about diversity and the degree to which some subgroups are underrepresented in postsecondary education, it is essential to use the lenses of equity of opportunity and social justice in rethinking postsecondary education policies and practices. Particular attention is required to interventions for improving K-12 in ways that reduce dropouts and improve readiness for postsecondary education, programs for bolstering recruitment and access, and efforts to facilitate transition and retention.

In touching on all these matters, the present report builds on and extends previous analyses and recommendations from the Center. We think this work is particularly timely given the many calls for enhancing enrollment in and completion of postsecondary education programs and for ensuring inclusion of more and more students from subgroups that have been underrepresented for too long.

As always, we owe many folks for their contributions to this report, and as always, we take full responsibility for its contents and especially any misinterpretations and errors.

Finally, we want to acknowledge that portions of the work were done as part of a cooperative agreement funded by the Office of Adolescent Health, Maternal and Child Health Bureau (Title V, Social Security Act), Health Resources and Services Administration, Department of Health and Human Services. At the same time, we stress that the report is an independent work.

Howard Adelman & Linda Taylor
Center Co-directors

Interventions to Support Readiness, Recruitment, Access, Transition, and Retention for Postsecondary Education Success: An Equity of Opportunity Policy and Practice Analysis

Introduction 2

I. We're Losing Too Many 4

Impact of Losing So Many 5

Reasons for Postsecondary Education Dropouts 7

II. Readiness, Recruitment, Access, Transition, and Retention: What's Commonly Done? 9

Federal and State Interests 10

Supporting Readiness for Postsecondary Education 15
Cultivating Awareness and Readiness 16
Career Academies 19
Creating Multiple Pathways 19
Providing Low-income High School Students with Early Access to College Courses 21

Recruiting Students and Enhancing Access to Postsecondary Education 23
Recruitment and Marketing 23
Financial Aid and Recruitment 24

Initial and Extended Transition Programs 26
Awareness and Orientation 26
Counseling and Referral Activities 26
Coordination of Preparation and Transition/induction Programs 27
Extended Transition Interventions 27

Retention 29
Current Practices 29
Addressing Psychosocial Problems 31
Analyses of Attrition and Retention 32

A Note About Technology and Recruitment, Transition, and Retention 35

A Note About Dwindling Resources and Affordability 35

III. About Special Supports to Enable Equity of Opportunity for Designated Subgroups 37

Policy at Issue 38

Underrepresented and Economically Disadvantaged Groups 39

Disability Groups 40
Current Policies 40
Assistive and Accommodative Practices 45

IV. Analysis of Policy and Practices 49

Needed: PreK-16 Policy that Comprehensively Addresses Barriers to Equity of Opportunity 51

Needed: A Unifying Intervention Framework 54
About a Full Continuum of Interventions 54
Each Level of the Continuum Has Content 56
Continuum + Content = a Unifying Intervention Framework 56

V. Recommendations for a Comprehensive Approach to Enhance Student Engagement and Success in Postsecondary Education 58

Concluding Comments 64

References 65

Exhibits

1. Public School Enrollment and Completion: Tracking of one-cohort from 2nd grade through college entry 6
2. About Office of Postsecondary Education's Higher Education Programs 11
3. Policy Levers States Can Use to Create Change to Improve Postsecondary Readiness, Recruitment, Access, Transition, and Retention 14
4. GEAR UP Kentucky 18
5. Defining Multiple Pathways for High School Graduation 20
6. Steps Advocated for Transition Planning 27
7. Items on the *College Retention Practices Survey* 30
8. President Obama's Agenda for College Affordability 36
9. Federal TRIO Programs 41
10. An Enabling or Learning Supports Component to Address Barriers and Re-engage Students in Classroom Instruction 52
11. Moving from a Two- to a Three-component PreK-16 Policy Framework 53
12. Levels of Intervention: Connected Systems for Meeting the Needs of All Students 55
13. A Unifying Umbrella Framework for Student and Learning Supports PreK-16 57
14. Linking Logic Models for Designing School Improvement and Systemic Change 63

Interventions to Support Readiness, Recruitment, Access, Transition, and Retention for Postsecondary Education Success: An Equity of Opportunity Policy and Practice Analysis

Today's world demands that educational systems at all levels support high achievement and the development of life-long learning skills for *all* students, regardless of background. If the United States is to remain competitive in a global economy, and to attain the goal of being a truly integrated society, we must ensure that all young people are able to achieve at the postsecondary level.

Pathways to College Network (2004)

Good education predicts good health, and disparities in health and in educational achievement are closely linked. Despite these connections, public health professionals rarely make reducing the number of students who drop out of school a priority, although nearly one-third of all students in the United States and half of black, Latino, and American Indian students do not graduate from high school on time.

Freudenberg & Ruglis (2007).

The nation and most of the 50 states are making some advances in preparing students for college and providing them with access to higher education. However, other nations are advancing more quickly than the United States; we continue to slip behind other countries in improving college opportunities for our residents. In addition, large disparities in higher education performance by race/ethnicity, by income, and by state limit our nation's ability to advance the educational attainment of our workforce and citizenry and thereby remain competitive globally.

Patrick M. Callan (2008)
President of the National Center for Public Policy and Higher Education

Enrollments of traditional college-age students are expected to increase by 2.3 million, or 13%, from 2000 to 2015. Correcting historic patterns of under-enrollment by certain racial groups and low-income students should push that number even higher. But these new demands are outpacing higher education's ability to adapt and respond. Changes in student demographics and state support are forcing public officials to rethink some fundamental assumptions about how to achieve the public purposes of higher education. Budget cuts, decreasing financial aid, tuition, declining capacity and enrollments place unprecedented stress on postsecondary education at a time when Americans of all ages need it the most. Getting students into college is only half the battle. Ensuring they graduate — and learn what they need to know and be able to do in the process — is just as important.

Education Commission of the States (2009)

Today I'm announcing the most significant down payment yet on reaching the goal of having the highest college graduation rate of any nation in the world. We're going to achieve this in the next 10 years. And it's called the American Graduation Initiative. It will reform and strengthen community colleges like this one from coast to coast so they get the resources that students and schools need -- and the results workers and businesses demand. Through this plan, we seek to help an additional 5 million Americans earn degrees and certificates in the next decade.

President Barack Obama (July 14, 2009)

Introduction

At every step of schooling, the tendency is to breathe a sigh of relief when a youngster moves on to the next grade. Concern for specific individuals creeps in when learning, behavior, and emotional problems interfere with progress. Public health concerns arise when large numbers of youngsters are reported as not doing well. Civil rights concerns spring forth when large scale disparities become evident. And economic concerns emerge with enhanced visibility about the costs to society of so many students dropping out before high school graduation and the impact on global competitiveness of too few students going on to and succeeding in postsecondary education.*

While there is growing recognition that reducing the high rate of school dropouts represents both a public health and a civil rights imperative, too little policy attention is paid to enhancing equity of opportunity for those transitioning from adolescence to young adulthood by increasing enrollment and success in postsecondary education. In clarifying the problem, the place to start is with the question: How well do postsecondary education institutions serve the United States' increasingly diverse population?

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. Available data suggest increasing diversity on higher education campuses. At the same time, the underrepresentation of some subgroups is widely recognized (Choy, 2002; Ryu, 2008).

Given the diversity and the degree of subgroup underrepresentation, an indepth commitment to ensuring that everyone has an equal opportunity to benefit from postsecondary education is essential. Current policies and practices must be analyzed using the lenses of equity and social justice. A particular emphasis must be on how the many factors that interfere with successfully pursuing postsecondary education are addressed. The need for such an analysis is dramatically underscored by how many and which students dropout before high school graduation and from postsecondary education institutions.

In various policy and practice reports, journal articles, and books, we have reported analyses indicating that reducing dropouts, increasing graduation rates, and closing the achievement gap requires more than improving preK-12

*Postsecondary education institutions include universities, four- and two-year colleges, and vocational/technical institutions offering "high-skill certificates."

curriculum/instruction and enhancing school management/ governance (e.g., Adelman & Taylor, 2006a, 2006b; Center for Mental Health in Schools, 2005a, 2005b). This previous work clarified fundamental flaws in prevailing school improvement policies and practices for addressing barriers to learning and teaching and recommended transformative changes. This report extends the earlier work by analyzing postsecondary education with a specific focus on policies and practices related to enhancing readiness, recruitment, access, transition, and retention.

Because who does and doesn't end up in postsecondary institutions is affected by school dropout rates, we begin by underscoring the national dropout problem. Then, we highlight current approaches to enhancing readiness for going on to postsecondary education, bolstering recruitment and access, and improving transition and survival in postsecondary education; special attention is given to underrepresented and underserved student subgroups. Finally, we offer our analyses and recommendations for improving intervention policies and practices.

It is worth noting at the outset that concerns about postsecondary education readiness, recruitment, access, transition, and retention are relevant for *all* students. At the same time, it is widely acknowledged that graduation from high school and postsecondary education institutions is highly correlated with income and other demographic factors. As a result, much of the work we analyze in this report has focused on specific subgroups for whom such factors are seen as creating vulnerabilities as they transition from youth to adulthood (Lippman, Atienza, Rivers, & Keith, 2008; Macomber & Pergamit, 2009; Ruppert, 2003). Note, for example, that U.S. Department of Education programs often are designated specifically for economically disadvantaged students, with a particular focus on those who are limited in English proficiency, those traditionally underrepresented in postsecondary education, those with disabilities, homeless children and youth, those in foster care or aging out of the foster care system, and other disconnected students.

I. We're Losing Too Many

Impact of Losing So Many

Reasons for Postsecondary Education Dropouts

I. We're Losing too Many

While the data are imperfect, few doubt that too many youngsters are dropping out before high school graduation. And the data are particularly troublesome with respect to some subgroups (see Exhibit 1). For example, in the U.S., there are about 53 million students in K-12, with about 17 million in 9-12. While about three-fourths of Asian American and White ninth graders graduate from high school within four years, the figure for African Americans, Hispanics, and Native Americans is about half of that (Cataldi, Laird, & KewalRamani, 2009).

According to U.S. Census data, 86% of parents want their children to pursue postsecondary education (U.S. Census Bureau, 2003). And longitudinal data from the U.S. Department of Education 1988-1994 study indicates that 88% of 8th graders expected to go on to postsecondary education (U.S. Department of Education, 1996).

Making it to any postsecondary institution is a significant accomplishment. The reality is that enrollment in some form of higher education each year is only about 2.8 million students. Reports note that about 70% of those who graduate from high school find their way to college within two years of graduating (Education Trust, 1999; National Center for Education Statistics, 2007).

For too many, however, staying in college until graduation is too great a challenge. U.S. Census Bureau data for 2000 indicate that one in three drop out. Findings from various reports indicate that about 50% of those who enroll in community colleges and about 25% of those at four year colleges do not stay for a second year. Only one in five of those who enroll in two-year institutions earn an associate degree within three years, and only two in five of those who go on to four-year colleges complete their degrees within six years. Among those enrolling as full-time freshmen in four-year colleges and universities with a B.A. as their goal, on average only 62.7% graduate within six years. When all who enter are considered, only 58% graduate within six years. And the majority of dropouts are disproportionately low-income and minority students. Data indicate that only about 12% of college dropouts reenter and graduate (Berkner, He, & Cataldi, 2002; Choy, 2002; Johnson, Rochkind, Ott, & duPont, 2009; National Center for Education Statistics, 2007).

Current estimates suggest the problem will worsen (Ruy, 2008). This is the case despite the fact that 80% enroll in postsecondary institutions that have what some refer to as relaxed admission criteria. (Michael Kirst calls these broad-access postsecondary institutions.)

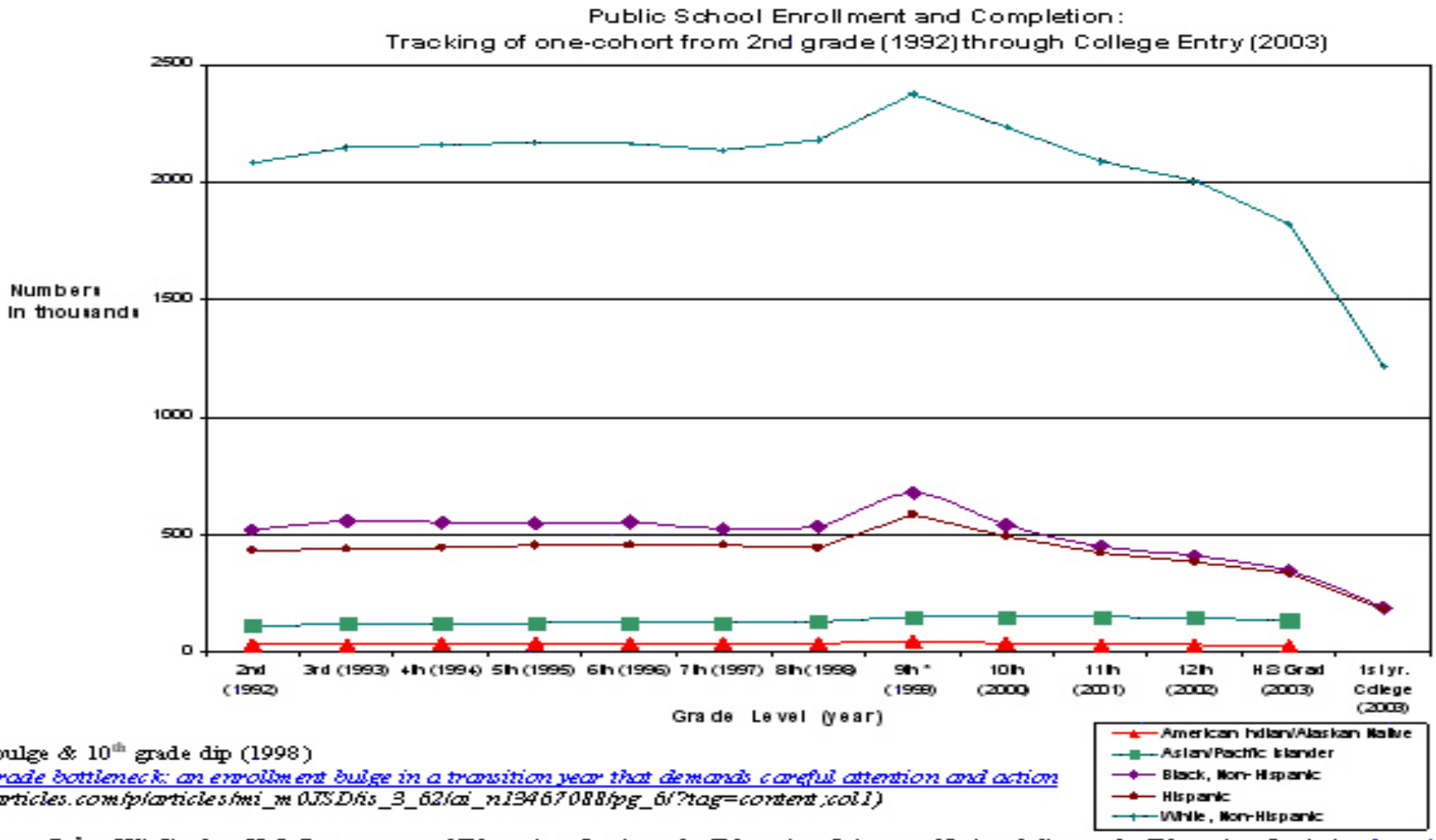
Impact of Losing so Many

As Gary Orfield, Director of the Civil Rights Project has stressed:

> There is a high school dropout crisis far beyond the imagination of most Americans, concentrated in urban schools and relegating many thousands of minority children to a life of failure. ... Only half of our nation's minority students graduate from high school along with their peers. For many groups – Latino, black, or Native American males-graduation rates are even lower. ... this [is an] educational and civil rights crisis.

The reality of large numbers of students not graduating from high school reverberates in many directions for individuals and society. For individuals, their chances of living a healthy and productive life are diminished; society pays the price in terms of enhanced costs for a range of social, physical and mental health problems, including increased crime and incarceration and added expenditures and distractions related to school improvement efforts.

Exhibit 1



*9th grade bulge & 10th grade dip (1998)

The ninth-grade bottleneck: an enrollment bulge in a transition year that demands careful attention and action (http://findarticles.com/p/articles/mi_m0JSD/is_3_62/ai_n13467088/pg_6/?tag=content;col1)

Data Sources: (2nd – HS Grad) - U.S. Department of Education, Institute for Education Sciences, National Center for Education Statistics, http://nces.ed.gov/ (1st year College) - American College Testing Program, unpublished tabulations, derived from statistics collected by the U.S. Bureau of the Census; and U.S. Department of Labor. http://nces.ed.gov/programs/digest/d03/tables/dt186.asp (For this cohort, no data were available for Asian/Pacific Islander or American Indian/Alaska Native groups entering college)

Focusing on the nation's fifty largest cities and their surrounding areas, the Alliance for Excellent Education (2009) reports that 599,755 students dropped out of high school from the Class of 2008. The economic impact to themselves and their communities was extensive. The Alliance's economic models suggest that if the number had been halved the impact on the localities involved would have been significantly reduced. This would have resulted from

(1) *increased wages*
"By earning their diplomas—and in many cases, continuing their education—these new high school graduates would together earn over $4.1 billion in additional wages over the course of an average year compared to their likely earnings without a diploma."

(2) *increased human capital*
"After earning their high school diplomas, many new graduates would not stop there. An estimated 65 percent of these students are projected to continue their education after high school, some earning as high as a PhD or other professional degree."

(3) *additional tax revenue*
"As these new graduates' incomes grow, local tax revenues will also increase. Annual state and local property, income, and sales tax revenue in these jurisdictions would grow by nearly $536 million during the average year as the result of increased spending and higher salaries."

Secondary school dropouts exacerbate the difficulty for postsecondary education institutions trying to enroll greater numbers of underrepresented and underserved students. With so many dropping out, diversity among those applying is significantly depleted (Carey, 2004; Cataldi, Laird, & KewalRamani, 2009; National Center for Public Policy and Higher Education, 2008; Soares & Mazzeo, 2008).

Reasons for Postsecondary Education Dropouts

Lists abound of reasons for students leaving/dropping out of postsecondary education. Refined data sets, however, are sparse.

One safe conclusion is that for most who drop out, the problem didn't start as a personal dysfunction. They may drop out because of poor academic performance and physical, mental health, and substance abuse problems. However, more often than not these problems stem from a variety of contemporary external factors that interfere with succeeding at college (e.g., inadequate finances, insufficient academic and personal support networks, problem relationships with family and peers, immigrant status). For others, such factors have affected their earlier schooling and diminished their preparation for postsecondary education and their ability to cope with the demands of the institution, especially if they no longer have a support system that enabled them to succeed previously. Over time, not doing well at school festers into an emotional overlay and leads to additional problems that interfere with performance and contribute to dropping out.

Clearly, financial pressures play a significant role. A 2009 Public Agenda survey suggests that the main reason many dropout of college is an inability to juggle school and work and cover basic expenses. Students often have jobs that interfere with their studying. Of students surveyed, 58% said they did not receive financial help from their families to pay tuition or fees, and 69% had no financial aid. It is noteworthy that almost three-quarters of those who completed a degree had household incomes above $35,000, while more than half the dropouts did not (Johnson, Rochkind, Ott, & duPont, 2009). Relatedly, the U.S. Department of Education reports that 70% of the college graduates surveyed had parents who had done some college work; 40% of the parents of dropouts had nothing beyond a high school diploma.

The U.S. Department of Education also reports that in four year institutions only 41% of low-income, as contrasted with 66% of higher income students, graduate within five years. Of the low income students who dropped out, 47% left in good academic standing.

Some students, of course, simply don't like the situation in which they find themselves. Their academic and/or social expectations for college life may not fit with the realities they encounter. They may dislike the major they have chosen. Socially they may not be accepted, or they may pursue campus social life at the expense of grades. Some students merely tire of going to school.

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).

II. Readiness, Recruitment, Access, Transition, and Retention: What's Commonly Done?

Federal and State Interests

Supporting Readiness for Postsecondary Education
- *Cultivating Awareness and Readiness*
- *Career Academies*
- *Creating Multiple Pathways*
- *Providing Low-income H.S. Students with Early Access to College Courses*

Recruiting Students and Enhancing Access to Postsecondary Education
- *Recruitment and Marketing*
- *Financial Aid and Recruitment*

Initial and Extended Transition Programs
- *Awareness and Orientation*
- *Counseling and Referral Activities*
- *Coordination of Preparation and Transition/induction Programs*
- *Extended Transition Interventions*

Retention
- *Current Practices*
- *Addressing Psychosocial Problems*
- *Analyses of Attrition and Retention*

A Note About Technology and Recruitment, Transition, and Retention

A Note About Dwindling Resources and Affordability

II. Readiness, Recruitment, Access, Transition, and Retention: What's Commonly Done?

Given that we are losing too many students, the question arises: What is in place to enhance interest and success in postsecondary education? We begin by highlighting the programs offered by federal departments and the position of the states with respect to federal policy.

Federal and State Interests

A perspective on prevailing federal policy related to enhancing equity of opportunity for postsecondary education success is provided by reviewing the various ways the federal government is involved. A reasonable place to start is with the Department of Education's *Office of Postsecondary Education.* Exhibit 2 highlights that department's current service areas.

In addition to the Office of Postsecondary Education, the Department's Office of Vocational and Adult Education administers and coordinates programs related to community colleges, career and technical education, and adult education and literacy. And, of course, most of the functions of the Office of Elementary and Secondary Education have relevance for efforts to enhance equity of opportunity for engaging and succeeding in postsecondary education.

Federal involvement relevant to postsecondary education includes other agencies. For example:

> *Federal Work Study Program* – helps cover the costs of providing part-time work for students with financial need who qualify under federal student aid guidelines at institutions that request the program.

Many federal agencies offer programs relevant to enhancing equity of opportunity for engaging and succeeding in postsecondary education.

> *Shared Youth Vision Federal Collaborative Partnership* – composed of the U.S. Departments of Labor, Housing and Urban Development, Health and Human Services, Justice, Education, Transportation, the U.S. Social Security Administration, and the Corporation for National and Community Service. The intent is "to improve outcomes for the neediest youth" (defined by a White House Report as dropouts, foster youth, juvenile offenders, children of incarcerated parents, and migrant youth and expanded by the Partnership to include American Indian and Alaska Native youth along with youth with disabilities). Such youth are described as "an important part of the new workforce 'supply pipeline' needed by businesses to fill job vacancies in the knowledge economy." The Collaborative works with states to support teams at both the state and local level.

> *Department of Agriculture* – (a) provides high school and college internships geared toward combining academic studies with on-the-job training and experience, (b) operates the National Scholars Program which is a joint effort between USDA and 18 historically black land-grant institutions that awards scholarships for students to attend these universities, and (c) offers tuition assistance, mentoring, and summer work to college students interested in pursuing a career related plant pathology, biology, virology, ecology, and entomology.

Exhibit 2

About the Office of Postsecondary Education's Higher Education Programs

As stated on the U.S. Department of Education website, the unit for Higher Education Programs (HEP) administers and supports projects that broaden access to higher education. HEP projects are awarded to institutions of higher education, non-profit organizations and agencies, and state agencies (http://www.ed.gov/about/offices/list/ope/hep.html).

HEP is divided into the following service areas:

- Accreditation and State Liaison (ASL) has responsibility for the accrediting agency recognition process and for the coordination of activities between states and the U.S. Department of Education that impact institutional participation in the federal financial assistance programs.

- The Fund for the Improvement of Postsecondary Education provides grants to colleges and universities to promote reform, innovation, and improvement in postsecondary education. The Comprehensive Program is FIPSE's primary grant competition, supporting innovative, replicable education improvement projects that respond to problems of national significance at the postsecondary level. FIPSE also administers four international consortia programs that are co-funded by FIPSE and its foreign government partners.

- The Higher Education Preparation and Support Service (Federal TRIO Programs) administers the eight TRIO outreach and support programs targeted to help disadvantaged students progress from middle school to postbaccalaureate programs, as well as programs related to preparation for postsecondary education.

- The Institutional Development and Undergraduate Education Programs Service administers several national Title III programs designed to help higher education institutions that serve a large proportion of disadvantaged students improve their academic programs and administrative capabilities. IDUES also administers the Title V, Developing Hispanic-Serving Institutions Program, whose purpose is to assist eligible Hispanic-serving institutions of higher education to expand their capacity to serve Hispanic and low-income students. In addition, IDUES is responsible for undergraduate incentive programs, and for managing and collecting college facilities construction loans made to higher education institutions.

- The International Education Programs Service administers the Title VI (HEA) domestic international education programs, and programs authorized by the Fulbright-Hays Act.

- The Teacher and Student Development Programs Service administers programs supporting teacher preparation, graduate fellowships, and early college preparation and support.

> *Department of Defense* – (a) offers its ROTC program at over 1000 colleges and universities to pay for college education in exchange for a commitment to serve in the military after graduation and (b) provides four tuition support programs to help service-members obtain further education (i.e., Tuition Assistance, Post-9/11 GI Bill, College Fund Programs, Loan Repayment Programs).

> *Department of Justice* – supports a range of school and education programs, as well as mentoring and truancy reduction programs.

> *Department of Labor* – provides several relevant programs, notably (a) *YouthBuild* – provides at-risk youth ages 16-24 job training and educational opportunities as part of a program to construct/rehabilitate affordable housing for low-income or homeless families. Youth split time between a construction site and the classroom, earning their GED or high school diploma, learning to be community leaders, and preparing for college and other postsecondary opportunities. The program includes participation in community service and civic engagement and provides mentoring, follow-up education, employment, counseling services. (b) *Multiple Education Pathways* – funds seven cities to "blueprint" and implement a system that can reconnect dropouts to a variety of education pathways offering alternative learning environments that engage youth in academic studies and workforce preparation while preparing and connecting them to post-secondary education opportunities. (c) In addition, because the workforce investment administration has a demand-driven focus, the department promotes employer-education partnerships to develop those skills regarded as essential for success in high-growth, high-demand industries (e.g., science, technology, engineering, and math fields).

Work-study, internships, mentoring, scholarships, tuition assistance, loans, transition programs

> *Department of Veterans Affairs* – offers a *Survivors' and Dependents' Educational Assistance Program* to provide education and training opportunities to eligible dependents of certain veterans. The program offers up to 45 months of education benefits that may be used for degree and certificate programs, apprenticeship, and on-the-job training. Spouses can take a correspondence course. Remedial, deficiency, and refresher courses may be approved under certain circumstances.

> *Department of Energy* – offers internships and a co-op program which employs students in work related to their academic field and which can provide academic credit for the work and can lead to a permanent position at the department.

> Other federal departments and agencies provide a variety of grant, career orientation, scholarship, internship, and employment programs that have an impact on recruitment, transition, and retention. For example: the *Department of State* offers internships for high school and college students; the *Department of Transportation* and other departments offer programs for career orientation and other educational experiences to interest students in the fields they represent; *Housing and Urban Development* provides grants to

Hispanic colleges and universities to help revitalize neighborhoods, promote affordable housing and stimulate economic development in their communities; *the Department of Interior* participates in offering the Student Educational Employment Program which provides federal employment opportunities to students who are enrolled or accepted for enrollment as degree seeking students taking at least a half-time academic, technical, or vocational course load in an accredited high school, technical, vocational, 2 or 4 year college or university, graduate or professional school; the *Environmental Protection Agency* maintains a Careers, Internships, and Scholarships website.

> *Corporation for National and Community Service* is a public-private initiative that provides students and educational institutions with support through its Americorps and Learn and Serve America Programs

In 2003, to "refocus postsecondary education policy on the needs of state residents," several organizations joined together to form the National Collaborative for Postsecondary Education Policy. This collaboration was created as a partnership of the Education Commission of the States, the National Center for Public Policy and Higher Education, and the National Center for Higher Education Management Systems. In 2006, the collaborative released a report with the conclusion that state leaders can get better returns on education investments by focusing postsecondary education policy on the needs of residents rather than institutions. In coming to this conclusion, it was stressed that: "This does not diminish the importance of colleges and universities. On the contrary, it focuses attention on their crucial role in a technologically advanced society [by treating] the institutions of postsecondary education as a means to an end: greater educational opportunities for all state residents"(Davies, 2006).

The nation's governors want Congress to provide states with maximum flexibility and authority to align education systems and standards.

With respect to state policy, the National Governors Association avers that the nation's governors want Congress to provide states with maximum flexibility and authority to align education systems and standards. "Federal education laws should no longer be isolated silos, but should instead be coordinated and aligned." That is, states would like all five major federal education laws aligned in ways that relate, support and build upon one another (National Governors Association, 2007).

Focusing on ways to increase U.S. college completion rates, a 2009 issue brief from the National Governors Association's Center for Best Practices recommends ways for states to: (1) improve students' readiness for college and careers, (2) provide necessary supports to students as they enter into college and persist in earning a degree, (3) remove barriers that make it hard for students to transfer from two- to four-year programs, and (4) experiment with performance-based funding (National Governors Association, 2009a). These recommendations are consistent with those stemming from a four-state study of efforts to improve college readiness and success (see Exhibit 3).

Exhibit 3

Policy Levers States Can Use to Create Change to Improve Postsecondary Readiness, Recruitment, Access, Transition, and Retention

In their research, Venezia, Callan, Finney, Kirst, and Usdan (2005) stress that the need is for K-16 reforms. They emphasize that such reforms must be pursued with an understanding of the culture and history of educational institutions and must avoid "a one-size-fits-all model." They also stress that the work requires "supportive leadership, the willingness to evoke change ..., and a careful planning effort. If any of these factors are missing, the chances for success are limited." Of particular concern is that there is unequivocal support from education policy makers, administrator, and other key stakeholders "in shaping program operations and ... keeping ideology focused on the student."

They highlight four policy levers as particularly promising for states interested in creating sustained K-16 reform:

> **"Alignment of Courses and Assessments.** States need to make sure that what students are asked to know and do in high school is connected to postsecondary expectations-both in coursework and assessments. Currently, students in most states graduate from high school under one set of standards and face a disconnected and different set of expectations in college. Many students enter college unable to perform college-level work.
>
> **Finance.** State education finance systems must become K-16; this includes the legislative committees and staff functions that oversee finance and budgetary decisions. State finance structures are lagging behind other areas in existing K-16 reform. If education finance can span education systems, it has the potential to drive change in many other policy arenas as well.
>
> **Data Systems.** States must create high-quality data systems that span the K-16 continuum. K-16 data systems should identify good practices, diagnose problems, provide information about all education levels, provide students with diagnostic information to help them prepare better, assess and improve achievement, and track individual students over time across levels. Without such systems, it is impossible to assess needs effectively, understand where the problems are, gain traction for changes needed, and evaluate reforms.
>
> **Accountability.** States need to connect their accountability systems to span K-12 and postsecondary education. Currently, accountability systems are usually designed for either K-12 or postsecondary education without much attention to the interface between the two. Accountability systems need to reflect, better, the reality of students' educational paths."
>
> In a follow-up brief, Michael Kirst (2009) notes that state policy agenda have increasingly focused on college-transition problems, and 37 seven states have established P-16 councils to deal with these problems. However, referring to the above policy levers, he concludes that few are addressing "the magnitude or many dimensions of the problem, particularly financial incentives to increase college completion and aligned classroom instruction. Action beyond agenda-setting and policy discussions has been shallow and limited."

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. The disconnect among the Office of Elementary and Secondary Education, the Office of Postsecondary Education, and the Office of Vocational and Adult Education is widely acknowledged. A similar disconnect exists between these offices and relevant programs offered by other federal agencies.

The impact of the disconnect has been the emergence of a host of fragmented practices. The current driver for improvement is concern for preparing *all* students for the global marketplace. However, so far this concern had not moved the focus on equity of opportunity in postsecondary education from the margins to the center of national and state education policy discussions (Soares & Mazzeo, 2008).

We turn now to the practices that have emerged. In the following discussion, we group these interventions in terms of efforts to (1) support readiness for postsecondary education, (2) increase recruitment and access, (3) improve transitions, and (4) support survival to completion. Unfortunately, because of the relative dearth of appropriately designed research on prevailing interventions, few data on program effectiveness can be included in this report.

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 specific, broad-band, but limited scope direct college prep strategies (Gandara, 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, 2003).

Based on analyses of current programs, the *What Works Clearinghouse* practice guide offers three readiness and two transition recommendations to high schools and school districts. 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) (Tierney, Bailey, Constantine, Finkelstein,& Hurd, 2009).

As the above analyses underscore, considerable attention is given to the knowledge and skills related to college readiness (e.g., Conley, 2007; U.S. Department of Education, 2003); 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).

Considerable attention is given to knowledge and skills; less attention is given to engendering motivation for postsecondary education.

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.

Cultivating Awareness and Readiness

As stressed by the National Governors Assocation (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. A brief look at GEAR UP (Gaining Early Awareness and Readiness for Undergraduate Programs) outlines the nature of such interventions.

The U.S. Department of Education's GEAR UP discretionary grant program was established in 1998. The program provides six-year grants to states and partnerships to provide services at high-poverty middle and high schools.

It is part of the early college preparation and support interventions offered through the Teacher and Student Development Programs Service area. The program's focus is on increasing the number of low-income students who are prepared to enter and succeed in postsecondary education. The 2003 evaluation report indicates that the program served an estimated 1.2 million students in fiscal year 2002 (U.S. Department of Education, 2003).

As described on the department's website, the services provided by GEAR UP may include: tutoring, mentoring, college field trips, career awareness, college-readiness counseling, classes, meetings, parent education about access to higher education, curriculum reform, and teacher training. These can be provided to students, parents and teachers at high-poverty schools that have at least 50 percent of students eligible for free or reduced-price lunches. While participation is voluntary, grantees are required to offer services according to needs to all students in a target grade or grades. Services must begin no later than the seventh grade and must follow a cohort through high school. The GEAR UP model stresses partnerships of schools, districts, community organizations and postsecondary institutions. (See Exhibit 4 for an example of how one state describes its GEAR UP efforts.)

Gear Up has helped me understand that just because I am Hispanic and don't have much money, I can still go to college no matter what.

10th grader
Greeley, CO.

Evaluations of GEAR UP reported to date have provided descriptive information on the early implementation of the program and data on "the association between GEAR UP participation, and student and parent outcomes." To provide the descriptive information, a study was conducted in which site visits were made to a sample of 20 of the initial projects. From these, a sample of 18 middle schools and 18 matched comparisons schools was selected and up to 140 seventh-grade students were randomly selected from each school. Student and parent surveys were administered midway through the seventh grade and near the end of the eighth grade. Student school records and GEAR UP participation records were also obtained. While the value of such programs is noted by the reported findings from GEAR UP as well as from evaluations of *Upward Bound*, the U.S. Department of Education stresses the outcome data are only suggestive because of methodological limitations (Cabrera, Deil-Amen, Prabhu, Terenzini, Lee, & Franklin, 2006; Myers, Olsen, Seftor, Young, & Tuttle, 2004; U.S. Department of Education, 2003).

Another federal program that has potential for cultivating awareness and readiness is the College Access Challenge Grant Program (CACGP). As described by the U.S. Department of Education, this program is aimed at increasing the number of low-income students prepared to enter and succeed in postsecondary education. The is to be accomplished by fostering partnerships among federal, state, and local governments and philanthropic organizations through matching challenge grants. Projects provide information to students and families regarding postsecondary education and career preparation; promote financial literacy and debt management; conduct outreach activities; assist students in completing the Free Application for Federal Student Financial Aid (FAFSA); provide need-based grant aid; conduct professional development for guidance counselors at middle and secondary schools, financial aid administrators, and college admissions counselors; and offer student loan cancellation or repayment or interest rate reductions for borrowers who are employed in

Exhibit 4

GEAR UP Kentucky

Kentucky's program illustrates how the program tries to cultivate a college going culture. *GEAR UP Kentucky* operates host institutions designed to ensure that entire cohorts of students have access to *essential activities*, beginning at the seventh grade level. Participating schools must ensure all students have access to activities and are expected to facilitate participation by students, parents and school personnel as appropriate. The emphasis is on enhancing:

AWARENESS—providing counseling and information for students about the value of postsecondary education, pre-college preparation, college admissions requirements, costs and financial aid. (e.g., *Newspaper in Education Program*, established student accounts Internet resources from the GoHigher Kentucky web portal, career-college EXPOs, campus visits, academic planning and guidance about college preparatory coursework, information and counseling about financial aid, college admissions, and applications)

RIGOR ensuring that all students have access to rigorous coursework; improving teaching practices; and enriching instruction (e.g., individual student-level assessments, *Common Ground Institute* for school personnel)

ENGAGEMENT—involving parents in setting high expectations for students and providing information about college planning (e.g., development of small communities of parents, college access summit)

ACCESS—ensuring that no student is denied college for financial reasons, and providing information about financial aid and planning (e.g., financial aid information and workshops, including *College-goal Sundays*, personalized 21st Century Scholars certificates for students)

SUPPORT—preventing students from failing by providing academic and developmental support. (e.g., annual academic advising conferences—students and parents, systematic use of web-based academic planners, academic and developmental support such as developmental instruction, mentoring, outreach)

http://cpe.ky.gov/policies/academicinit/gearup/

a high-need geographical area or a high need profession. (Funds cannot be used to promote any lender's loans.)

Until well designed evaluation studies are conducted, the degree to which the above programs cultivate awareness and readiness will remain promising but unproven. The data are clearer with respect to the reach of such federal programs. A reasonable estimate is that they provide services to less than ten percent of the eligible students who might benefit (Swail & Roth, 2000).

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).

Research on career academies has yet to provide clear evidence that such academies increase the numbers ready for postsecondary education. Findings from an independent research group's study that randomly assigned applicants to the academy at their school or to the regular high school program indicate that academy students were more likely to complete the requirements for high school graduation. The rate was 32% for academy student,16% for the control group. These results, however, were not reflected in high school graduation rates. The study did find significant labor market gains, particularly for at-risk males. Eight years after expected high school graduation, academy participation was associated with "increased post-high school employment rates and earnings, without reducing the chances of going to college or completing a postsecondary credential" (Kemple, 2008). Studies in California report career academy graduates are more likely to (1) pass the California High School Exit Exam as sophomores, (2) complete the entrance requirements needed for admissions eligibility to California's public universities, (3) graduate high school, (4) attend a postsecondary institution, (5) attend a four-year college, and (6) complete their bachelor's degrees (Maxwell & Rubin, 2000, 2001; Studier, 2008). However, the methodological limitations of these studies makes generalization premature.

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 (see Exhibit 5).

Exhibit 5

Defining Multiple Pathways for High School Graduation

[From: Saunders, M., & Chrisman, C. A. (2008). *Multiple Pathways: 21st Century High Schools that Prepare All Students for College, Career and Civic Participation.* http://epicpolicy.org/publication/multiple-pathways]

With a specific focus on the need for high school reform, there is a growing movement for revisiting multiple pathway approaches in preparing 21st century students for college, career and civic participation. Saunders and Chrisman argue this is based on the fundamental insight that career and technical education – previously called vocational education – can be academically rigorous. The following excerpt from their writings on the topic illustrates their argument.

"Multiple Pathways programs connect rigorous academic preparation, technical knowledge, and opportunities to learn from adult, real-world settings, including the workplace. The approach rests on three research-based propositions:

- Learning both academic and technical knowledge is enhanced when the two are integrated and contextualized in authentic situations;
- Connecting academics to real-world contexts promotes student interest and engagement;
- Students who gain both academic and career education stand the best chance of accessing the full range of postsecondary options and a solid start toward a personally and socially productive middle-class life.

That being said, Multiple Pathways is not a 'one-size-fits-all' approach to high school education. Rather, students and their families choose among a variety of high school programs that provide the academic and real-world foundations that students need for advanced learning, training, and responsible public participation. While each pathway is academically challenging, the various 'pathways' differ in their curricular emphasis (e.g., the thematic or career focus), in how courses are organized, in the extent to which students spend time on and off campus, in their relationship with colleges, and in their partnerships with business and industry. Pathways can be offered through a variety of school structures, including career academies, industry/career majors in large high schools, magnet schools, small learning communities, and Regional Occupational Programs/Centers.

Despite their thematic and structural differences, each pathway consists of four essential components to ensure high standards, program coherence, and personalized learning:

- A college-preparatory academic knowledge core (satisfying the course requirements for entry into a state's flagship public university), delivered through project-based learning and other engaging instructional strategies that bring real-world context and relevance to the curriculum where broad themes, interest areas, and/or career and technical education (CTE) are emphasized;
- A professional/technical knowledge core, well-grounded in academic and real-world standards;
- Demanding opportunities for field-based learning that deepen students' understanding of academic and technical knowledge through application in authentic situations; and
- Support services to meet the particular needs of students and communities, which can include such elements as supplemental instruction, counseling, and transportation.

Most important, every pathway leads to the same destination: preparation to succeed in both college and career, not one or the other. It assumes that almost all students will eventually end up in the workplace and that most workers will need to learn advanced knowledge and skills to sustain or advance their careers. Although any given student may decide to bypass college in favor of directly entering the workforce, a pathways approach offers all students the preparation to seek the college option and/or do well whenever the need for additional learning arises.

Notably, the 'single destination' approach of Multiple Pathways—preparing all students for both college and career—defies and seeks to change a long-standing social hierarchy that makes college 'better than' work, and makes 'work' preparation the default for those who cannot succeed in college preparation. It firmly rejects a tracking system that provides different curriculum for students perceived to be headed for very different post-high school opportunities."

In exploring vulnerable subgroups of youth and their transition to adulthood, Kuehn, Pergamit, Macomber, and Vericker (2009) stress: "Youth transitioning to adulthood follow multiple pathways to education and employment. Since there is no typical youth experience, a broad policy approach to promote connectedness may be optimal. ...all youth might benefit from a stronger institutional acknowledgment of the transition to adulthood as a dynamic and diverse period in a person's life." Kuehn and colleagues identify four patterns of connection to education and the labor market between ages 18 and 24: "consistently-connected youth, later-connected youth, initially-connected youth, and never-connected youth," and they stress that "the characteristics of these groups, as well as their employment and school enrollment dynamics, have implications for which policy approaches might be most appropriate to addressing their needs."

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.

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 indicates, one area in need of greater attention is the development of a full continuum of supports encompassing the most promising interventions (see box on next page). 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. We have more to say about all this in our analysis in Section IV of this report.

A large number of students are ill-equipped for the challenges of college; students devote so much time to the admissions process, they forget to focus on what lies ahead: challenging academics, living away from home, maintaining their finances, learning time management skills, and taking responsibility for their own lives.
Vincent Tinto

What Researchers are Saying About Enhancing Early Attitudes and Readiness

Hooker & Brand (2009) reviewed 23 wide ranging intervention programs "that have been proven to help young people successfully complete high school and be prepared for success in postsecondary education and careers." The programs included school-wide reform initiatives, community-based afterschool services, work-based learning opportunities, and college access programs.

Their analysis used a logic model that posits that young people need "a Foundation for Learning and Growth that consists of knowledge, skills, and abilities, such as academic content; academic success behaviors; technical, problem-solving, teamwork, and goal-setting skills; and college and career knowledge. Personal resources, such as motivation, self-efficacy, resilience, and financial support for postsecondary education, also play a crucial role in the Foundation for Learning and Growth. The logic model holds that if young people possess this foundation, they will have a greater likelihood of achieving positive academic, professional, and personal outcomes across the short-term, intermediate, and long-term future."

Using the logic model, their analysis underscores the following:

> "The short-term outcomes of the programs included in the compendium take place during the middle and high school years and measure academic performance, planning for college and careers, and the development of personal resources. Commonly measured indicators of success include improved academic performance, engagement in school, high school graduation, and planning for college.
>
> Intermediate outcomes take place during postsecondary education and occupational training, and include indicators of postsecondary academic performance (such as credit accrual or degree attainment), career-related outcomes (employment, wages, attainment of industry credentials), and the development of higher-level personal resources such as increased independence and maturity.
>
> The long-term outcomes of the logic model are career success, civic engagement, and the capacity for lifelong learning. ...the ultimate goal of any effort to help students become college and career-ready is to develop economically independent adults, who are involved in their communities and civic life, and who value and participate in continuous learning.
>
> ...Youth need a continuum of supports to develop their knowledge, skills, abilities, and personal resources at each level of the educational and developmental pipeline. Services and programs can be provided by many different individuals and types of organizations across the public and private spheres. Key providers of supports include the family and caregivers, schools, medical and social service providers, community-based organizations, private providers of academic support, employers, and institutions of higher education."

Hooker and Brand conclude: "Sometimes it is easy for youth to access these institutions and individuals, but in many cases youth need direction and guidance to such resources. Providers of education and youth services influence young people's trajectory by setting high expectations; serving as caring role models; providing guidance, counseling, and assistance in completing college applications; offering academic support through tutoring or enrichment activities; providing financial support through scholarships; and exposing youth to college, internships, work-based experiences. ...if young people have access to a range of quality supports that lead to the attainment of foundational knowledge, skills, abilities, and personal resources, they will achieve positive outcomes at every stage of the educational and developmental process."

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).

Ironically, one of the early effects of the downturn in the economy was to create a bubble of increased postsecondary education enrollment. However, as tuition, fees, and other education costs rise and budgets are reduced, it is expected that the bubble will disappear. For example, as state budgets are cut significantly, public two and four year institutions already are cutting back on enrollment. The tighter budget and the reduced number of spaces will certainly impact recruitment strategies (e.g., less money for recruitment, more targeting of subgroups).

Recruitment and Marketing

Broad-band, but limited scope direct efforts to recruit students to postsecondary education 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 underrepesented 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 tutitions 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."

Criteria differ for elite vs. broad-access institutions, but gatekeeping remains the name of the game.

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).

Overall, however, financial aid remains an area where policy makers have much more to address in order to enhance equity of opportunity. As Michael Kirst (2009) notes:

> "Financial aid is not designed well for 75% of the community college students who attend part-time and live off campus. Financial aid is insufficient, and hard for part-time community college students to obtain. Federal financial aid is less for part-time students, aid forms must be filed before students decide to go to community college, and there are not enough counselors for evening students. The Obama administration has proposals to solve some of these issues.... In addition, the use of state financial incentives to encourage college and universities to improve student outcomes has been largely unexplored. It is less expensive for most broad access public colleges to recruit a new student rather than provide services to retain a struggling student."

What Researchers are Saying About Access Services and Programs

The *What Works Clearinghouse* practice guide on helping students navigate the path to college states: "The existing research on college access services and programs is not at a level to provide conclusive evidence of best practices. Studies of promoting college access generally look at specific programs that provide a bundle of services, and not at individual services, making it difficult to isolate a specific service's contribution to college readiness and enrollment. In addition, [there are] varying impacts across college access programs with ostensibly similar services. The reasons for the varying impacts are difficult to determine. In some cases, the programs are serving different populations of students. For example, some may target students who already have some interest in attending college, whereas others may focus on students who are unlikely to attend college due to difficulty with achievement, attendance, or behavior in high school"(Tierney, Bailey, Constantine, Finkelstein,& Hurd, 2009).

However, McDonough (2004a) states: "A convergence of research evidence indicates the clearest priorities for shrinking the college access gap. These priorities are to: lower financial barriers to college affordability; ensure better academic preparation for college; encourage counselors to advise students for college and focus schools on their college preparatory mission; increase the quality and quantity of college entrance and financial aid information; engage families as college preparation partners; and create more equitable admissions policies. Removing financial barriers and academic preparation are widely acknowledged as the two first-order priorities in improving college access."

In sum, it is clear that there is considerable agreement about an array of factors that should be 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 have relevance to initial transition from high school to postsecondary education and the degree to which extended transition interventions are needed. 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).

When the institution of choice is a local one, initial transition may also involve early induction by going to the campus and taking a course during the student's senior year in high school. And, any student might ease their transition by taking a summer course at their new institution. Where distance is a factor, the internet increasingly is called on to fill gaps.

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 the transition. This includes those in adult education programs. For example, 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 website of the National Dissemination Center Children with Disabilities – http://www.nichcy.org/resources/transition101.asp also see the *Transition Coalition* at the University of Kansas http://www.transitioncoalition.org/cgiwrap/tcacs/new/resources/index.php.)

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.

Exhibit 6 provides an example of steps that have been advocated related to college transition planning.

Exhibit 6

Steps Advocated for Transition Planning

[From the Center for Mental Health in Schools, 2009]

(1) *Develop an Individual Transition Plan.* Student works up an individualized transition plan with the support of those with whom s/he has a good working relationship (e.g., a family member, high school counselor, therapist, peer support group, etc.). In developing the plan, it will help to contact the college (e.g., email the student counseling center, disability office, etc.) to determine what that institution provides to facilitate effective transition and to garner advice about facilitating a successful transition. It is important in developing the plan to anticipate specific problems that will arise and write up how to address them.

(2) *Easing Anxieties and Strengthening Specific Coping and Self-advocacy Attitudes and Skills.* To increase the likelihood that the transition plan is successful, additional time should be devoted to working with the student to (a) anticipate and alleviate worries about the transition and (b) enhance specific coping and self-advocacy attitudes and skills related to the type of personal, interpersonal, and academic challenges s/he will likely encounter during the period of transition.

(3) *Ensuring Availability and Access to Relevant Support Mechanisms.* Some will be available on campus; others will have to be accessed off campus. It is essential to be certain that the student will have ready access to tutoring, counseling, continued treatment, etc. There also needs to be a regular schedule for student family communication.

(4) *Easing into College Demands.* In high school, advanced placement courses provide an initial sampling of what to expect. Well-orchestrated visits to and orientations at the college are imperative. These should include a focus on both the physical plant and resources and on social and cultural facets. If feasible, this is a good time to connect the student with someone who agrees to be the student's college mentor/advisor/counselor/coach. After graduation, a summer college course can be a next transition experience. For some students, community college is a useful transition step to university enrollment. During the first term at college, many students need to avoid taking too heavy a course load. For those with special needs, all necessary accommodations should be established upon enrollment. And, this is the time to ensure the student is effectively connected to someone on the staff who can do some mentoring, advising, counseling, and coaching and is involved with some peers who can facilitate access to social activity and support networks.

(5) *Minimizing Financial Concerns.* Specific attention needs to be paid to financial concerns, including care in budgeting, how to access financial aid/loans/scholarships, and likely problems that will arise if a student has to supplement income by taking a part time job.

(6) *Monitoring, Problem Solving, and Celebrating Successes.* Obviously, there must be a means for monitoring the student's reactions to college and general life stressors and providing relevant support and enhanced coping and problem solving strategies as necessary. Special emphasis needs to be given to critical times in the college schedule and calendar (e.g., enrolling in classes, dealing with major assignments, mid term and final exams, vacation periods). From a psychological perspective, it is important to watch for and take steps to minimize threats to feelings of competence, self-determination, and interpersonal relationships with significant others. And, it is important not to forget about taking time to celebrate each significant accomplishment.

(7) *Revamping Plans and Supports.* In addition to difficulties that may arise in successfully implementing the transition plan, provision must be made for regular evaluation and adjustment of plans and supports. This is essential not only to react to problems, but to address natural developmental changes in students during the first year in college. It is common, for example, for students to go through considerable changes in their goals, peer group and intimate interpersonal relationships, and values (e.g., they change majors, rethink career goals, fall in love, etc.).

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 an first order dropout prevention strategy.

What Researchers are Saying About Initial Transition Programs

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 warrent 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).

Retention

It is clear that institutions of higher education have difficulty retaining students (Braxton, Bier, & Steele, 2007-08; Carey, 2004; Jones & Braxton, 2009-10; Postsecondary Education Opportunity, 2002; Seidman, 2005). Degree-attainment rates are increasing in almost all industrialized countries in the world except the United States (Lumina Foundation for Education, 2009; National Center for Public Policy and Higher Education, 2008).

A related concern is the degree gap. As is the case with the achievement gap, there are large scale disparities with respect to who survives and receives a postsecondary degree/ceriticate.

Disparities with respect to the retention of low-income and underrepresented minority students by colleges are "alarming."
Education Trust

A 2009 Education Trusts' report stresses that disparities with respect to the retention of low-income and underrepresented minority students by colleges are "alarming." The report indicates that, in the colleges sampled, only about 45% of such students who entered as freshmen in 1999 had received a bachelor's degree six years later as compared to 57% of other students. Of all freshmen, only one-third entering two-year institutions 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. It is noteworthy that at community colleges 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.

The U.S. Department of Education's National Center for Educational Statistics (2009) disaggregates types of degree and offers some hope by stressing that the total number of certificates and associate's degrees increased 28% (to a total of 1.5 million) between 1997 and 2007 and that such certificates and degrees constitute a growing segment of postsecondary credentials. In 2007, almost 40% of undergraduate credentials conferred in postsecondary institutions that participate in federal financial programs (Title IV) were below the bachelor's degree.

Current Practices

Hably and McClanahan (2004) have identified 82 retention strategies (see Exhibit 7). 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

Exhibit 7

Items on the *College Retention Practices Survey**

[From: Habley and McClanahan, 2004]

First-Year Programs
1. Pre-enrollment orientation
2. Extended freshman orientation (non-credit)
3. Extended freshman orientation (credit)
4. Freshman seminar/university 101 (non-credit)
5. Freshman seminar/university 101 (credit)

Academic Advising Program
6. Advising interventions with selected student populations
7. Advisor training
8. Increased advising staff
9. Integration of advising with first-year transition programs
10. Academic advising centers
11. Centers that combine advisement and counseling with career planning and placement
12. Advisor manual/handbook
13. Application of technology to advising

Assessment Programs
14. Classroom assessment
15. Course placement testing (mandated)
16. Course placement testing (recommended)
17. Outcomes assessment
18. Diagnostic academic skills test(s)
19. Learning styles inventory(ies)
20. Motivation assessment(s)
21. Values inventory(ies)
22. Interest inventory(ies)
23. Vocational aptitude test(s)
24. Personality test(s)

Career Planning and Placement Programs
25. Career development workshops or courses
26. Internships
27. Cooperative education
28. Individual career counseling services
29. Computer-assisted career guidance
30. Job shadowing

Learning Assistance/Academic Support/Intervention Programs
31. Learning communities
32. Supplemental instruction
33. Summer bridge program
34. Remedial/developmental coursework (required)
35. Remedial/developmental coursework (rec.)
36. Comprehensive learning assistance center/lab
37. Mathematics center/lab
38. Writing center/lab
39. Reading center/lab
40. Foreign language center/lab
41. Tutoring program
42. Study skills course, program, or center
43. Early warning system
44. Mid-term progress reports
45. Performance contracts for students in academic difficulty
46. Degree guarantee program
47. Organized student study groups
48. Service learning programs

Mentoring Programs
49. Peer mentoring
50. Faculty mentoring
51. Staff mentoring
52. Community member mentoring

Faculty Development Programs
53. Teaching techniques
54. Assessing student performance
55. Instructional use of technology
56. Writing across the curriculum
57. Interdisciplinary courses
58. Enhanced/modified faculty reward system

Parent Programs
59. Parent newsletter
60. Parent orientation
61. Advisory group

Campus Programs
62. Freshman interest groups (FIGS)
63. Diversity information/training
64. Residence hall programs
65. Fraternities/sororities
66. Recreation/intramurals
67. Academic clubs
68. Cultural activities program
69. Leadership development

Programs for Sub-populations
70. Adult students
71. Commuter students
72. Gay/lesbian/bisexual/transgender students
73. Women
74. Racial/ethnic minorities
75. Honor students

Additional Activities
76. Time management course/program
77. Health and wellness course/program
78. Personal coping skills course/program
79. Social skills course/program
80. Required on-campus housing for freshmen
81. Library orientation, workshop, and/or course
82. Motivation and goal setting workshop/program

*Note that many of the interventions have relevance for transition.

Efforts such as the President's *American Graduation Initiative* have potential to address some institutional factors affecting retention. On a more modest level, system improvements can be expected from projects such as the National Association of System Heads and the Education Trust *Access to Success Initiative* (A2S). This project works with 24 public higher education systems that have pledged to cut the college-going and graduation gaps for low-income and minority students in half by 2015. The intent is to pursue eight lines of work to (1) build system capacity to lead change and (2) engage and mobilize campuses around critical issues. The systems change work focuses on assessing and building capacity, managing and leveraging costs and resources, and using "leading indicator" data to track progress. The campus-change work focuses on such issues as using enrollment management to increase campus diversity, redesigning developmental math courses, and improving degree completion. (See http://www.edtrust.org/issues/higher-education/access-to-success)

Addressing Psychosocial Problems

Psychosocial concerns can have a profound impact on campus life and personal functioning. A shooting on campus, substance abuse, sexual harassment, date rape, wild parties, relationship conflicts, emotional reactions to academic problems, suicide – all are examples of occurrences that affect students to varying degrees.

Interventions to address psychosocial concerns are implied but not well indicated in the "additional activities" listed in Exhibit 7. Missing are interventions that range from programs for responding to and minimizing violence and substance abuse on campus to the provision of personal counseling for relationship and mental health difficulties.

Our college is committed to providing a safe environment for all students and staff. Programs and resources have been established to protect your physical safety and provide support services if you seek assistance.

From a college website

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. As a result, the pressure to pursue specific concerns often reflects current media stories. A high visibility campus shooting leads campuses across the country to bolster their crisis response procedures and enhance violence prevention plans. A death stemming from binge drinking at fraternity parties generates wild party raids, punitive consequences, and campaigns against substance abuse. A student suicide leads to exploration of ways the campus should beef up its personal counseling services. For the most part, the attention is reactive and shifts as a particular concern gains prominence.

Formal efforts to plan and implement interventions to address psychosocial concerns on a campus generally are not well organized. Problems are dealt with in silo fashion, 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, 2006a).

Analyses of Attrition and Retention

While indepth research on the factors that lead to attrition and retention is sparse, various explanations have been offered based on what data are available (Astin & Oseguera, 2005; Bound, Lovenheim, & Turner, 2009; Braxton, Hirschy, & McClendon, 2004; Cunningham, Cardenas, Martinez, & Mason, 2006; Habley & McClanahan, 2004; Jones & Braxton, 2009-10; Laden, Milem, & Crowson, 2000; Smith, Miller, & Bermeo, 2009; Swail, Redd, & Perna, 2003; Tinto, 1993). For example:

- In summarizing institutional characteristics identified as playing a key role in increasing college and university retention rates, Jones and Braxton (2009-10) state such institutions "have a clear mission and an atmosphere in which all students are welcomed and feel comfortable.... Other institutional practices which have been found to increase student retention include the fair implementation of administrative and academic regulations, the support and development of active and collaborative learning strategies in the classroom, and the development of orientation and residential life practices that support frequent and significant student interactions with peers." At the same time, these researchers stress that "little is known about efforts, resources, or programs institutions of higher education are devoting to improving student retention due to the fact that little effort has been made to systematically catalog institutional activity addressing retention."

- Bound, Lovenheim, and Turner (2009) suggest increases in attrition are due to the greater proportion of first-time college students matriculating to community colleges and non-flagship public postsecondary institutions and the decline in per-student resources in those institutions.

- Investigators at UCLA's Higher Education Research Institute suggest that "Two-thirds of the variation among institutions in their degree completion rates is attributable to differences in their entering classes rather than to differences in the effectiveness of their undergraduate retention programs" (Astin & Oseguera, 2002).

When I came to the school, I did not know of any support programs or people in place.
a student's feedback

> Swail, Redd, and Perna (2003) suggest that three sets of forces account for college persistence and achievement: cognitive, social, and institutional factors. They note: "Briefly stated, the cognitive factors form the academic ability—the strengths and weaknesses—of the student, such as the level of proficiency in reading, writing, and mathematics. Social factors, such as the ability to interact effectively with other persons, personal attitudes, and cultural history, form a second set of external factors that characterize the individual. The third set of factors, institutional, refers to the practices, strategies, and culture of the college or university that, in either an intended or unintended way, impact student persistence and achievement. Examples include faculty teaching ability, academic support programming, financial aid, student services, recruitment and admissions, academic services, and curriculum and instruction."

> Smith, Miller, and Bermeo (2009) report that factors leading to high rates of success in transferring from two-year to four-year colleges include structured academic pathways, student centered culture, and culturally sensitive leaders.

> Habley and McClanahan (2004) report that institutions are far more likely to attribute attrition to student characteristics then they are to attribute attrition to institutional characteristics.

What are postsecondary institutions doing to provide essential supports for vulnerable students?

- Of 24 institutional characteristics contributing to attrition, respondents identified only two factors that made a moderate or higher contribution: amount of student financial aid available and student-institution fit.
- Of 20 student characteristics contributing to attrition respondents identified, there were13 factors that made a moderate or higher contribution. Student characteristics cited as having the greatest impact were lack of motivation to succeed, inadequate financial resources, inadequate preparation for college, and poor study skills.

It is worth noting that Habley and McClanahan (2004) also report that only 51.7% of campuses have identified an individual responsible for coordinating retention strategies. Moreover, only 47.2% of campuses have established an improvement goal for retention of students from the first to second year.

> 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."

Is there a retention program and who's accountable for its effectiveness?

- **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."

About Research on Retention Practices

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).

A Note About Technology and Recruitment, Transition, and Retention

Technology already is playing a greater role in all facets of recruitment, transition, and retention. An additional policy stimulus for all this is likely to come from the Obama administration's aim of doubling the number of college graduates. Toward this end, in July 2009 the President announced the *American Graduation Initiative* with its emphasis on reforming community colleges. The intent is to invest an unprecedented $12 billion in reforming the nation's community colleges over the next decade with the goal of producing an additional 5 million community college graduates by 2020. This includes students who earn certificates and associate degrees or who continue on to graduate from four-year colleges and universities.

The intended increases in enrollment resulting from the *American Graduation Initiative* will require many institutional changes, including the need to provide instruction and supports in nontraditional ways that enhance transition and retention efforts. Increased use of technology, especially online distance learning and learning supports, will be one of these.

Note that *Campus Technology*'s July 2009 issue highlights targeted web portals designed to help freshman make the transition to college life and survive the first year. The December 2009 issueoutlines the strategic use of technology related to five key retention practices: (1) targeting learning support to students who need it the most, (2) using data to identify students at risk of dropping out, (3) creating learning communities for a diverse and desipersed population, (4) modernizing facilities to meet new curriculum demands, and (5) creating corporate-college partnerships for jobs training that teaches more than narrow skill sets.

A Note About Dwindling Resources and Affordability

Resources, of course, play a fundamental role in all this. The cost of postsecondary education is increasingly expensive (Heller, 1999). Currently, a large proportion of students and their families find it essential to obtain financial aid in the form of scholarships, grants, or loans.

At the same time, both personal and institutional resources at all levels of schooling currently are dwindling. Budgets for interventions that were already underfunded and being cut. The impact for preparation and transition is seen in the increasing ratio of student-to-support staff (e.g., counselors) in high schools and the pull back on admissions at two- and four-year colleges. Dwindling resources work against retention by increasing fees and tuition and preventing the type of systemic changes that would enable more students to complete school. The impact is especially felt by those subgroups of students who need special supports to enable equity of opportunity. It drains their sparse resources and prevents increasing the range of systemic accommodations needed to enable access and success (e.g., scheduling more night and weekend classes, providing financial aid for part-time students, providing child care, increasing the availability of sophisticated technology for students with disabilities).

With little financial relief in sight, policy makers naturally are looking at ways to increase income, redeploy existing resources, and restructure in ways that will yield economic benefits. A major example is seen in efforts to link P-16 education reform and local and regional economic development. As implemented in Ohio, the aim is to use P-16 initiatives as a basis for pursuing "a comprehensive vision of local and regional development that can maximize resources by aligning and coordinating programs" (McGrath, 2008). Efforts to restructure to enhance the institutions economic viability has increased discussion about quasi-privatizing public institutions.

On the federal level, the Obama administration has outlined an agenda for college affordability. The agenda is designed to "build the country's capacity, innovation and confidence to drive the nation to first place in the highly skilled workforce crucial for success in the 21st century" (see Exhibit 8).

Exhibit 8

President Obama's Agenda for College Affordability

The administation has set forth the following six point agenda:

- **Expanding Pell Grants and College Tax Credits**: "The Recovery Act increased Pell Grants by $500 to $5,350 and created the $2,500 American Opportunity Tax Credit for four years of college tuition. Now, the Administration is working to make these policies permanent and ensure the Pell Grant continues to grow faster than inflation. Together, the Recovery Act and President's Budget call for nearly $200 billion in college scholarships and tax credits over the next decade."

- **Reforming the Student Loan Program to Save Billions**: "Guaranteed student loans earn banks and other lenders large profits set by the political process rather than won in a competitive marketplace. The Administration will replace guaranteed loans with direct loans, which are administered by private-sector companies, like Sallie Mae and Accenture, selected through a competitive process and paid based upon performance. Direct loans have essentially the same terms for students, are more reliable and efficient, and will save billions of dollars to finance these investments in community colleges as well as increase Pell Grant scholarships and other investments in college opportunity."

- **Simplifying the Student Aid Application**: "The application for federal student aid has as many as 153 questions, creating major obstacle in the path of aspiring college students. More than a million students fail to apply for aid because of the application''s complexity. The Obama Administration is simplifying the financial aid process by modernizing the online application, seeking legislation that will eliminate unnecessary questions, and creating an easy process for students to use tax data to apply. The end result will be a modernized application that requests only easily obtainable personal information."

- **Helping Unemployed Workers Get New Skills**: "In May, President Obama expanded opportunities for unemployed workers to go to a community college and earn new skills. The Department of Education has clarified that these workers should not be denied student aid based upon incomes they no longer earn, and the Department of Labor is working with states to allow workers to keep their unemployment benefits while receiving education and training."

- **Expanding the Perkins Loan Program**: "The low-cost Perkins loan program is an important option for students who need to borrow more than allowed under the larger Stafford loan program. The Administration will expand it from $1 billion a year to $6 billion a year, making loans available to 2.7 million more students and at 2,600 additional colleges and universities."

- **Helping Families Save for College**: "The President's Middle Class Task Force has directed the Department of the Treasury to investigate improvements to 529 savings plans to help families save for college more effectively and efficiently."

[Online at http://www.whitehouse.gov/the_press_office/excerpts-of-the-presidents-remarks-in-warren- michigan-and-fact-sheet-on-the-american-graduation-initiative/]

III. About Special Supports to Enable Equity of Opportunity for Designated Subgroups

Policy at Issue

Underrepresented and Economically Disadvantaged Groups

Disability Groups

Current Policies

Assistive and Accommodative Practices

III. About Special Supports to Enable Equity of Opportunity for Designated Subgroups

Disabilities, disorders, young people aging out of foster care, underrepresented minorities, students with special talents, returning veterans, and older adults – all these and other subgroups are the focus of additional concerns with respect to postsecondary education recruitment, transition, and retention. It is about such designated subgroups that there has been so much discussion of concepts such as discrimination, affirmative action, civil rights, stigma, prolonged dependency, paradoxical group pressure, gender bias, ageism, stereotype threat and vulnerability, low aspirations and expectations, lack of assertiveness, institutional racism, cultural discomfort, and many other topics.

Over the years, data from the U.S. Department of Education's 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. Many of these families earn less than $25,000 per year. Students coming from such a background clearly are underrepresented in postsecondary education. This includes subgroups such as African Americans, Hispanics, and Native Americans. In 2001, for instance, only 55 percent of African American and 52 percent of Hispanic high school graduates enrolled immediately in college, compared to 64 percent of Whites (U.S. Department of Education, 2003). And the majority of dropouts are disproportionately low-income and minority students.

Policy at Issue

Legislation and litigation have continuously pushed postsecondary education institutions to recruit and provide additional supports and accommodations to increase equity of opportunity for subgroups. In the U.S. Department of Education, the Office for Postsecondary Education and the Office of Civil Rights play a significant role in ensuring compliance and translating equity of opportunity into programs. Efforts to ensure racial and gender equity provide prominent large scale illustrations.

Equity of opportunity or reverse discrimination?

The dramatic changes related to college recruitment and support of females highlights one particularly vibrant policy and practice example. In 1972, Title IX became part of the federal Civil Rights Act (Carpenter & Acosta, 2005; Gender Equity in Sport, 2006; NOW, 2007; Valentin, 1997). Title IX states: "No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance...." It applies to an entire school or institution and all its educational activities if any part of the school receives federal funds. This includes athletic programs even though school sports receive little direct federal dollars. The legislation covers and has had major implications for enhancing recruitment and support not only of female athletes, but also those pursuing postsecondary education in fields such as science, math, music, and so forth. In the U.S. Department of Education, Title IX is administered by the Office for Civil Rights.

As with other efforts to increase specific segments of the population at colleges, Title IX has been criticized (Shelton, 2001). Critics state that dramatic acceleration since 1972 in the recruitment and support of

talented women by postsecondary institutions has contributed to less space for qualified males and the reduction of programs for male athletes. Given this criticism, it is perhaps ironic that athletes, in general, provide a widespread example of an arena where a college's economic and other special interests have resulted in allocating extra resources to attracting and retaining those with exceptional talents. Colleges with major investments in intercollegiate athletics clearly have demonstrated a remarkable capacity for recruiting athletes, providing them with substantial financial and academic supports, and arranging accommodations in class schedules and test dates.

Fostering special talent or exercising institutional interests?

Not surprisingly, over the years, there has been a backlash to singling out any subgroup for recruitment and extra support. A prominent example is seen in the "whiplashing" policy across the United States related to affirmative action (Frum, 2000; Garry, 2006). Initiated in the 1960s, affirmative action was intended as a tool to address the long-standing inequalities experienced by African Americans. In recent years, the policy has been attacked through litigation and legislation.

The competition for limited resources always results in conflicts related to selection criteria that favor any subgroup. And, of course, every postsecondary education institution has a set of gateway criteria that favors some and excludes others. Moreover, such criteria reflects marketplace influences.

For our purposes here, it will suffice to briefly highlight current federal policy and programs focusing on subgroups designated as underrepresented and economically disadvantaged and those having special education needs. These subgroups clearly demonstrate the challenge for policies and practices designed to ensure equity of opportunity.

Underrepresented and Economically Disadvantaged Groups

Over the latter half of the 20th century, significant progress was made with respect to reaching out and enrolling demographic groups that were underrepresented in postsecondary education. This is not the place to reiterate that history nor is it the place to explore the shortcomings of what has been done to date; there are ample resources on these matters (Cabrera, Deil-Amen, Franklin, Lee, Prabhu, Terenzini, 2006; National Postsecondary Education Cooperative, 2007; Swail & Williams, 2004; Tippeconnic Fox, Lowe, & McClellan, 2005).

The current situation is that, with the backlash against affirmative action, greater attention is paid to (1) addressing the factors that undercut effective recruitment and enrollment of underepresented and disadvantaged groups and (2) increasing the supports for transition and retention. This increased attention is contributing to the renewed commitment to ensuring equity of opportunity for all students. Of particular concern are efforts to enhance

> quality preK-12 instruction and a system of supports to address barriers to learning, development and teaching

- comprehensive recruitment for attending postsecondary institutions
- financial aid and opportunities for paid work that don't completely undermine a student's academic efforts
- a structured network (e.g., family, staff, faculty, mentors, peers) that ensures supportive relationships, advocacy, and appreciation for cultural identity and diversity
- programs keyed to the special needs of specific subgroups to prepare them for the transition to and provide an extended induction into postsecondary education
- coursework that is a good fit with differences in capability and motivation/interest
- a comprehensive system of learning supports at the postsecondary institution that is designed with special attention to individual and group differences

By 2050, non-Hispanic whites will constitute less than 53% and "minorities" will constitute more than 47% of the American population.
U.S. Census Bureau

A related set of concerns centers around strengthening communities where underepresented 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).

A perspective on current federal education policy and programs is provided by the TRIO programs (see Exhibit 9). Note that the GEAR UP program discussed earlier in this report is part of this package of programs (see the area of Teacher and Student Development Programs Service – Early Intervention Programs).

Disability Groups

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, 2001). And besides students directly diagnosed with mental disorders, a postsecondary institutional focus on mental health is relevant for all students.

Current Policies

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 those of school districts.

Exhibit 9

Federal TRIO Programs

[The following information is adapted from the U.S. Department of Education website – http://www.ed.gov/about/offices/list/ope/trio/triohistory.html]

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.

Over the years, the TRIO Programs have been expanded and improved to provide a wider range of services and to reach more students who need assistance. The Higher Education Amendments of 1972 added the fourth program by authorizing the Educational Opportunity Centers. The 1976 Education Amendments authorized the Training Program for Federal TRIO Programs. Amendments in 1986 added the sixth program, the Ronald E. McNair Postbaccalaureate Achievement Program. Additionally, in 1990, the Department created the Upward Bound Math/Science program to address the need for specific instruction in the fields of math and science. The Upward Bound Math/Science program is administered under the same regulations as the regular Upward Bound program, but it must be applied for separately. Finally, the Omnibus Consolidated Appropriations Act of 2001 amended the Student Support Services (SSS) program to permit the use of program funds for direct financial assistance (Grant Aid) for current SSS participants who are receiving Federal Pell Grants. The legislative requirements for all Federal TRIO Programs are in the Higher Education Act of 1965, Title IV, Part A, Subpart 2. The requirements for the SSS Grant Aid are in Public Law 106-554.

The Programs

Upward Bound – goal is to increase the rate at which participants complete secondary education and enroll in and graduate from institutions of postsecondary education. Provides fundamental support to participants in preparing for college entrance. Includes opportunities for participants to succeed precollege and ultimately in higher education. Upward Bound serves: high school students from low-income families ans from families in which neither parent holds a bachelor's degree.

Upward Bound projects must provide academic instruction in mathematics, laboratory sciences, composition, literature, and foreign languages. Activities include tutoring, counseling, mentoring, cultural enrichment, work-study programs, education or counseling services designed to improve the financial and economic literacy of students. These activities are specially designed for students who are limited in English proficiency, traditionally underrepresented in postsecondary education, those with disabilities, homeless children and youth, those in foster care or aging out of the foster care system or other disconnected students. Other services include information on the full range of Federal Student Financial Aid programs and benefits and guidance and assistance on secondary school re-entry, alternative education programs, or entry into general educational development programs or postsecondary education.

(cont.)

Talent Search – goal is to increase the number of youth from disadvantaged backgrounds who complete high school and enroll in and complete postsecondary education. The program identifies and assists individuals from disadvantaged backgrounds who have the potential to succeed in higher education, provides academic, career, financial counseling, assists with postsecondary applications, and encourages graduation from high school and continuing on to and completion of postsecondary education. Talent Search also encourages persons who have not completed education programs at the secondary or postsecondary level to enter or reenter and complete postsecondary education.

Projects provide tutorial services, career exploration, aptitude assessments, counseling, mentoring programs, workshops for students and their families, sSpecial activities for sixth, seventh, and eighth graders, information on postsecondary institutions; education or counseling services designed to improve the financial and economic literacy of students; guidance on and assistance in secondary school reentry, alternative education programs for secondary school dropouts, entry into general educational development programs or postsecondary education, exposure to college campuses, and assistance in preparing for college entrance exams . These activities are specially designed for students who are limited in English proficiency, traditionally underrepresented in postsecondary education, those with disabilities, homeless children and youth, those in foster care or aging out of the foster care system or other disconnected students.

Student Support Services (SSS) – goal is to increase the college retention and graduation rates. Funds are awarded to institutions of higher education to provide opportunities for academic development, assist students with basic college requirements and to motivate students toward successful completion of postsecondary education. Student Support Services projects also may provide grant aid to current SSS participants who are receiving Federal Pell Grants.

All SSS projects must provide: academic tutoring, which may include instruction in reading, writing, study skills, mathematics, science, and other subjects; advice and assistance in postsecondary course selection, assist student with info on the full range of student financial aid programs, benefits and resources for locating public and private scholarships; and assistance in completing financial aid applications. Education or counseling services are designed to improve the financial and economic literacy and assist students in applying for admission to graduate and professional programs; and assist students enrolled in two-year institutions and applying for admission to, and obtaining financial assistance for enrollment in four-year programs. The SSS projects may also provide individualized counseling for personal, career, and academic information, activities, and instruction designed to acquaint students with career options; exposure to cultural events and academic programs not usually available; mentoring programs, securing temporary housing during breaks for students who are homeless youths and students in foster care or aging out of the foster care system.

Educational Opportunity Centers – goal is to increase the number of adult participants who enroll in postsecondary education institutions. Provides counseling and information on college admissions to qualified adults who want to enter or continue a program of postsecondary education. The program also provides services to improve the financial and economic literacy of participants. An important objective is to counsel participants on financial aid options, including basic financial planning skills, and assist in the application process.

Projects include academic advice, personal counseling, and career workshops; information on postsecondary education opportunities and student financial assistance; help in completing applications for college admissions, testing, and financial aid; coordination with nearby postsecondary institutions; media activities designed to involve and acquaint the community with higher education opportunities; tutoring; mentoring; education or counseling services designed to improve the financial and economic literacy of students. These activities are specially designed for students who are limited in English proficiency, traditionally underrepresented in postsecondary education, those with disabilities, homeless children and youth, those in foster care or aging out of the foster care system or other disconnected students.

(cont.)

Training Program for Federal TRIO Programs – funds are awarded to institutions of higher education and other public and private nonprofits to support training to enhance the skills and expertise of project directors and staff employed in the TRIO Programs. Funds may be used for conferences, seminars, internships, workshops, or the publication of manuals. Training topics are based on priorities established by the Secretary of Education and announced in Federal Register notices inviting applications.

Annual training is provided via electronic and live conferences and webinars; internships, seminars, workshops, and the publication of manuals designed to improve the operation of TRIO projects. These trainings are carried out in various regions to ensure that growth opportunities are available to all TRIO personnel in the local projects. The topics covered include but are not limited to legislative and regulatory requirements, assisting students in receiving adequate financial aid, the design and operation of model programs, the use of appropriate educational technology, and strategies for recruiting and serving hard to reach populations.

Ronald E. McNair Postbaccalaureate Achievement Program – goal is to increase the attainment of Ph.D. degrees by students from underrepresented segments of society who have demonstrated strong academic potential. Funds are awarded to institutions of higher education to prepare eligible participants for doctoral studies through involvement in research and other scholarly activities. Institutions work closely with participants as they complete their undergraduate requirements, encourage enrollment in graduate programs, and then track progress through to the successful degree completion.

All McNair projects must provide opportunities for research or other scholarly activities, summer internships, seminars and other educational activities designed to prepare students for doctoral study, tutoring, academic counseling, and activities designed to assist students in securing admission to and financial assistance for enrollment in graduate programs. McNair projects may also provide education or counseling services to improve student financial and economic literacy, mentoring programs involving faculty members at institutions of higher education or students, or any combination of such persons, and exposure to cultural events and academic programs not usually available to disadvantaged students.

Upward Bound Math-Science – goal is to help students recognize and develop their potential to excel in math and science and encourage them to pursue postsecondary degrees in math and science, and ultimately careers in math and science professions. Program services include summer programs with intensive math and science training, instruction in reading, writing, study skills, and other subjects necessary for success in education beyond high school, tutoring, year-round counseling and advisement, exposure to university faculty members who do research in mathematics and the sciences, computer training, and participant-conducted scientific research under the guidance of faculty members or graduate students, who are serving as mentors, education or counseling services designed to improve the financial and economic literacy of students, exposure to cultural events and academic programs not usually available to disadvantaged students, information on postsecondary education opportunities, assistance in completing college entrance and financial aid applications, asistance in preparing for college entrance exams, information on the full range of Federal Student Financial Aid programs and benefits, and guidance and assistance on secondary school re-entry or alternative education programs and on entry into general educational development programs or postsecondary education. These activities are specially designed for students who are limited in English proficiency, traditionally underrepresented in postsecondary education, those with disabilities, homeless children and youth, those in foster care or aging out of the foster care system or other disconnected students.

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. It states:

> No otherwise qualified individual with a disability in the United States . . . shall, solely by reason of her or his disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance . . . .

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 regulation stresses a postsecondary school's obligation to provide auxiliary aids to qualified students who have disabilities:

> A recipient . . . shall take such steps as are necessary to ensure that no handicapped student is denied the benefits of, excluded from participation in, or otherwise subjected to discrimination under the education program or activity operated by the recipient because of the absence of educational auxiliary aids for students with impaired sensory, manual, or speaking skills.

The university's disabled population faces a range of issues every day, from ..."disrespectful". employees to an "apathetic" administration....
University of Maryland Student Newspaper

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. The Title II regulation states:

> A public entity shall furnish appropriate auxiliary aids and services where necessary to afford an individual with a disability an equal opportunity to participate in, and enjoy the benefits of, a service, program, or activity conducted by a public entity.

The regulations make it clear that it is the school's responsibility to provide the necessary auxiliary aids and services in a timely manner to ensure effective participation by students with disabilities. During the period when the eligibility of students is being evaluated, essential auxiliary aids must be provided.

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. These grants are designed to promote development of "innovative,

effective, and efficient teaching methods and other strategies to enhance the skills and abilities of postsecondary faculty and administrators in working with disabled students. Activities include, but are not limited to: in-service training; professional development; customized and general technical assistance workshops; summer institutes; distance learning; training in the use of assistive and educational technology; and research related to postsecondary students with disabilities."

In 2009, the U.S. Government Accountability Office (2009) reviewed how the U.S. Department of Education provides assistance to postsecondary schools to support students with disabilities. The resulting report indicates that the Department does so through three offices – Office for Civil Rights, Office of Special Education and Rehabilitative Services, and Office of Postsecondary Education. The report notes that "School officials told GAO they need more guidance and information about serving students with disabilities." And the GOA expresses concern that "the agency has no mechanism to systematically share information across offices and coordinate their technical assistance efforts."

The problem of coordination at all levels of interface with populations in need of assistance is a long-standing policy problem. With specific respect to interagency coordination of supports and postsecondary education, some progress has been made because of the strong federal support for developing systems of care. However, as noted by the National Council on Disability (2003):

> "... many students still face the challenge of uncoordinated services as offered by varying agencies and different funding sources. Consumers are left confused, not knowing which supports will work for them or how to obtain them. The dropout rate at the postsecondary level reflects the frustration experienced by people with disabilities attempting to coordinate and access services or programs that would expedite their accommodation. ... the provision of educational and related services and supports necessary for people with disabilities in postsecondary education remain fragmentary, marked by inconsistencies across types of services from one provider to another, with each agency continuing to function independently, and often without knowledge of the mission and philosophy of other agencies."

Assistive and Accommodative Practices

Throughout their lives students with disabilities encounter problems that require special assistance and accommodation. 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.

(1) *Preparation and transition.* One aim of the Individuals with Disabilities Education Act is to enable elementary and secondary schools prepare as many students with disabilities for postsecondary education as is feasible. For example, prek-12 special education programs and services are supposed to help address academic and social skill

deficiencies and provide career and college counseling, transitional planning, and guidance about admission testing.

In their 2003 analysis, the National Council on Disability raised the following preparation concerns:

> In order to access postsecondary education, students with disabilities must first successfully complete a recognized program of academic study in secondary education. During secondary school, the emphasis is often on providing youth with disabilities with prescriptive, specialized services and supports focused specifically upon remediating learning or behavior deficits experienced by the student. Students with disabilities are often not active participants in the decision making process around the determination of their supports (Abery & Stancliffe, 1996). They often leave secondary school without advocacy skills and without knowledge of the impact that their disability has upon their learning or of the related modes of assistance which can help mitigate this impact. Furthermore, they are without an understanding of how to negotiate postsecondary settings, where the focus is on providing "reasonable accommodations" rather than on detailing services focused upon meeting individual needs (Stodden, Conway, & Chang, 2003; National Center for the Study of Postsecondary Educational Supports, 2002). Therefore, students with disabilities are leaving the secondary education setting without the essential skills of access to higher education: self-determination and self-advocacy.

At a SAT exam session at a Ivy League prep private school on the Upper West Side in NY, the examiner asked all those with an extra time accommodation to stand to the side. Half the long line of teenagers stepped out of line.

With all that has been written about transition-age youth, the transition needs of students with disabilities into postsecondary education are well delineated. As a result, by the time most students with disabilities leave high school, they usually have a transition plan, and some have received transition services, including evaluations and services provided by the state Vocational Rehabilitation agency. However, as the National Council on Disability (2003) stresses “endeavors to promote a smooth transition from secondary to postsecondary education have not met the goals of federal laws and initiatives, such as IDEA and Section 504 of the Rehabilitation Act.”

Factors responsible for this state of affairs have been attributed to (1) transition planning which does not involve the students themselves, (2) inadequate allocation of resources, (3) a shortage of qualified personnel to serve youth with disabilities, (4) failure of secondary and postsecondary schools to establish communication and coordination mechanisms, and (5) a general lack of awareness among educators and parents about policy and practices related to postsecondary students with disabilities. One poignant result is that many families are "caught unawares when the level of service provision drops off and/or is not automatically extended following high school” (Stodden, Conway, & Chang, 2003).

Given that the ability for self-determination and self-advocacy are key components in accessing and succeeding in postsecondary education, the

potential value for students with disabilities of developing skills for decision-making, problem-solving, and goal-setting and attainment is widely recognized. However, practices to develop such skills are not being extensively implemented at secondary schools, never mind at postsecondary institutions.

(2) *Access/admissions.* There is no obligation for students to inform an institution of postsecondary education about their disability, unless a student wants academic adjustments or assignment to accessible housing or other facilities or other disability-related services. With specific reference to admission tests, changes in testing conditions may include, but are not limited to Braille, large print, fewer items on each page, tape recorded responses, responses on the test booklet, frequent breaks, extended testing time, testing over several sessions, small group setting, private room, preferential seating, and the use of a sign language interpreter for spoken directions.

(3) *Academic adjustments and auxiliary aids and services.* The costs of support services and adapted rehabilitation equipment can be extremely expensive for students with higher levels of disability. The reality is that, after graduating from high school or its equivalent, education institutions are no longer required to provide aids, devices, or services of a personal nature to students with disabilities. Students going on to postsecondary schools that receive federal financial assistance can ask for effective nonpersonal auxiliary aids and accommodations that they need to enable success in the classroom.

When nonpersonal auxiliary aids and accommodations are requested, a student may be asked to provide supporting evidence for the need (e.g., diagnostic test results, professional prescriptions for the auxiliary aids), and the institution may obtain its own professional determination of whether the requested aids are necessary. Given validated need, such aids must be provided unless provision would cause an "undue burden" for the institution. For example, technological advances can greatly enhance participation in educational activities by students with disabilities. However, postsecondary institutions are not required to provide the most sophisticated auxiliary aids available. They have considerable leeway in providing ways to effectively meet the needs of a student with a disability after analyzing the specific learning contexts and with the understanding that under Title II of the ADA determining what is necessary must give primary consideration to the requests of individuals with disabilities.

Students cannot be required to pay any part of the costs of an aid or service. However, an institution may meet its obligation by assisting a student in obtaining an aid or reimbursement for the cost of an aid from an outside agency or organization (e.g., a state rehabilitation agency, a private charitable organization). The institution does remain responsible for providing the aid.

Examples of resources to aid and accommodate include special transition services, a Disability Services Office, health services, a Counseling and Psychological Services Center, support groups, tutoring supports, a website with information on a range of available supports on campus and in the community, programs for first generation and/or minority students, a resource guide for students in financial distress, year round 24/7 phone

support, student monitoring processes, staff consultation and response teams, and accommodations and auxiliary aids and services. Strategies and devices may include extended time on tests, taped texts, notetakers, interpreters, readers, videotext displays, television enlargers, talking calculators, electronic readers, Braille calculators, printers, or typewriters, telephone handset amplifiers, closed caption decoders, open and closed captioning, voice synthesizers, specialized gym equipment, calculators or keyboards with large buttons, reaching device for library use, raised-line drawing kits, assistive listening devices, assistive listening systems, and telecommunications devices for deaf persons.

About Academic Adjustments

Academic adjustments are defined in the Section 504 regulations as:

> [S]uch modifications to the academic requirements as are necessary to ensure that such requirements do not discriminate or have the effect of discriminating, on the basis of [disability] against a qualified ... applicant or student [with a disability]. Academic requirements that the recipient can demonstrate are essential to the instruction being pursued by such student or to any directly related licensing requirement will not be regarded as discriminatory within the meaning of this section. Modifications may include changes in the length of time permitted for the completion of degree requirements, substitution of specific courses required for the completion of degree requirements, and adaptation of the manner in which specific courses are conducted.

Academic adjustments also may include a reduced course load, extended time on tests and the provision of auxiliary aids and services. Auxiliary aids and services are defined in the Section 504 regulations, and in the Title II regulations. They include note-takers, readers, recording devices, sign language interpreters, screen-readers, voice recognition and other adaptive software or hardware for computers, and other devices designed to ensure the participation of students with impaired sensory, manual or speaking skills in an institution's programs and activities. Institutions are not required to provide personal devices and services such as attendants, individually prescribed devices, such as eyeglasses, readers for personal use or study, or other services of a personal nature, such as tutoring. If institutions offer tutoring to the general student population, however, they must ensure that tutoring services also are available to students with disabilities. In some instances, a state VR agency may provide auxiliary aids and services to support an individual's postsecondary education and training once that individual has been determined eligible to receive services under the VR program.

IV. Analysis of Policy and Practices

Needed: PreK-16 Policy that Comprehensively Addresses Barriers to Equity of Opportunity

Needed: A Unifying Intervention Framework

About a Full Continuum of Interventions
Each Level of the Continuum Has Content
Continuum + Content = a Unifying Intervention Framework

IV. Analysis of Policy and Practices

> For too long, policy has emphasized college access without enough organizational practices to ensure students, especially those from low-income families, are successful. ... Private two-year colleges have much higher graduation rates than public two-year colleges, even though they enroll similar students. The private colleges recognize they have nontraditional students who need different types of support. They provide them with clear pathways to degrees, information systems to track their progress, mandatory advising, and active job placement assistance. Colleges that spend more money on supporting students generally have higher rates of degree attainment.
>
> National Governors Association (2009a)

As the National Governors Association suggests, the need is for systemic changes that ensure the type of supports necessary to enhance equity of opportunity for engaging and succeeding in postsecondary education. In the 21st century, the priority can no longer be to just promote a few direct practices for some. It is imperative to develop a comprehensive and coherent system of interventions that reaches everyone.

Because recommendations for enhancing postsecondary education readiness, recruitment, access, transition, and retention have mainly come from those concerned with identifying broad-band, but limited scope direct practices, it is understandable that the emphasis mainly has been on formulating policies to develop and implement the most promising of these practices. The result has been a variety of ad hoc, piecemeal, and categorical programs, services initiatives, and projects, with relatively little investment in evaluative research.

Piecemeal policy leads to fragmentation, marginalization, redundancy, maintenance of practices that should be replaced by more effective practices, and counterproductive competition for sparse resources (Adelman & Taylor, 2006a; Center for Mental Health in Schools, 2005a, 2005b). As such negative effects become apparent, the tendency is to recommend correcting the problems through policies and practices focused on increasing coordination, consolidation, and cohesion. But the need is not just for better integration and coherence. While integration 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 preK-16.

And, of particular concern is how to expand the pool of qualified applicants from underrepresented groups. Available data clearly indicate that at every stage in the progression from preK-16 too many students are falling by the wayside, especially those from underrepresented demographic groups. It is evident that existing opportunities and supports are inadequate to stem the tide (never mind turning things around). This awareness has given rise to broad-based 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 (Axelroth, 2009).

Needed: PreK-16 Policy that Comprehensively Addresses Barriers to Equity of Opportunity

> In the United States, secondary and postsecondary education have developed divergent histories, governance structures, policies, and institutional boundaries. As a result, there are few widespread practices or traditions for these two systems of education to communicate with each other, much less to collaborate to improve student achievement across institutions.
>
> Callahan, Finney, Kirst, Usdan, & Venizia (2006)

We find prevailing policies primarily support broad-band, but limited scope direct strategies to enhance engagement and success in postsecondary education. The strategies for which there is reasonable consensus, if not always adequate evaluation data, focus on (a) cultivating early attitudes, a college going culture, and readiness, (b) recruitment outreach including postsecondary institution involvement on K-12 sites and K-12 students coming to postsecondary campuses, (c) financial aid such as scholarships and loans, (d) first-year transition programs including welcoming and support networks, (e) academic advising before the first year, and (f) monitoring to provide further advise, learning supports, and special assistance when problems are noted. Such direct strategies are useful for increasing the pool of qualified applicants for postsecondary education, improving transitions, and enhancing retention, but the evidence is the prevailing set of interventions is insufficient for enhancing equity of opportunity.

As is widely acknowledged, the factors interfering with student engagement and success in a formal education environment are complex, and complex problems require comprehensive solutions. That is why current broad-band, but limited scope direct strategies to facilitate postsecondary readiness, recruitment, access, transition, and retention are insufficient.

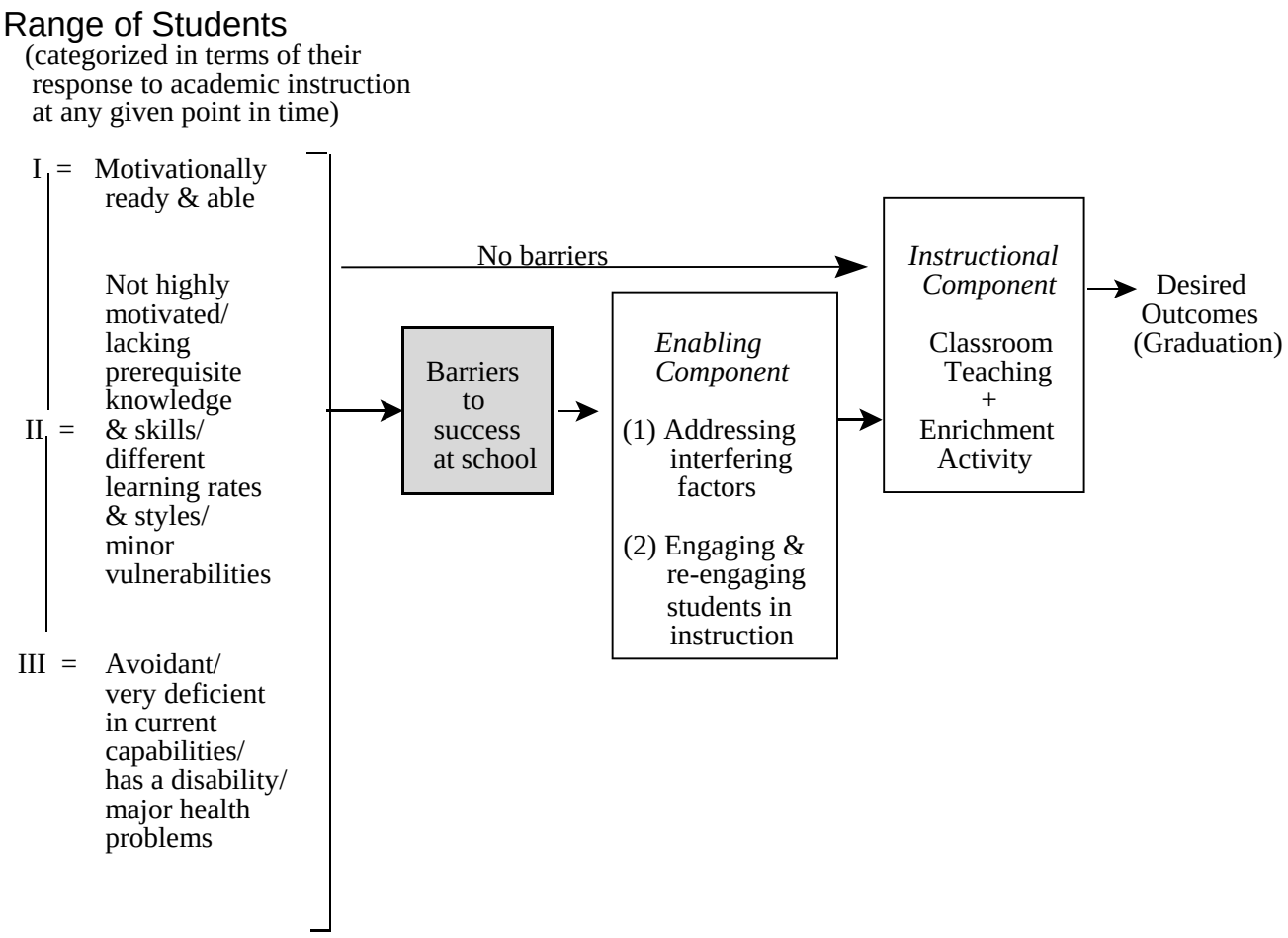
Needed are (1) a unifying concept and (2) expanded policy for developing a much more comprehensive, multifaceted, and cohesive system of interventions that begins preK and continues in a fully interconnected way through postsecondary graduation. The focus is on enhancing equity of opportunity by addressing barriers to learning and teaching and re-engaging disconnected students (see Exhibit 10).

Establishing such a comprehensive preK-16 system requires developing a unified component for enabling success at school by

- reframing current student support programs and services, and integrating, at every stage, the best broad-band, but limited scope direct strategies
- redeploying available resources and aligning them horizontally and vertically
- revamping school-community infrastructures to weave resources together to enhance and evolve the system
- supporting the necessary systemic changes in ways called for by comprehensive innovation, scale-up, and sustainability.

Exhibit 10

A PreK-16 Component to Enable Equity of Opportunity for Engagement and Success in Postsecondary Education



***Examples of Risk-Producing Conditions that Can be Barriers to Learning**

Environmental Conditions*			**Person Factors***
Neighborhood	***Family***	***School and Peers***	***Individual***
>extreme economic deprivation >community disorganization, including high levels of mobility >violence, drugs, etc. >minority and/or immigrant status	>chronic poverty >conflict/disruptions/violence >substance abuse >models problem behavior >abusive caretaking >inadequate provision for quality child care	>poor quality school >negative encounters with teachers >negative encounters with peers &/or inappropriate peer models	>medical problems >low birth weight/ neurodevelopmental delay >psychophysiological problems >difficult temperament & adjustment problems >inadequate nutrition

**A reciprocal determinist view of behavior recognizes the interplay of environment and person variables.

Without a *comprehensive system*, transition and other supportive interventions tend to represent just another piecemeal and fragmented effort to assist some but not all students. Indeed, the failure to ensure all students have an equal opportunity to succeed in K-12 makes it inevitable that in too many schools efforts to promote interest in going on to higher education and interventions to assist with the transition to higher education probably are relevant for fewer than half the students. And of these, relatively few fall into the subgroups that are underrepresented on most higher education campuses.

In terms of framing policy, the need is for a unifying conceptual approach that expands the vision guiding decision making for transforming education at all levels. An example of such a unifying approach is seen in the proposals for

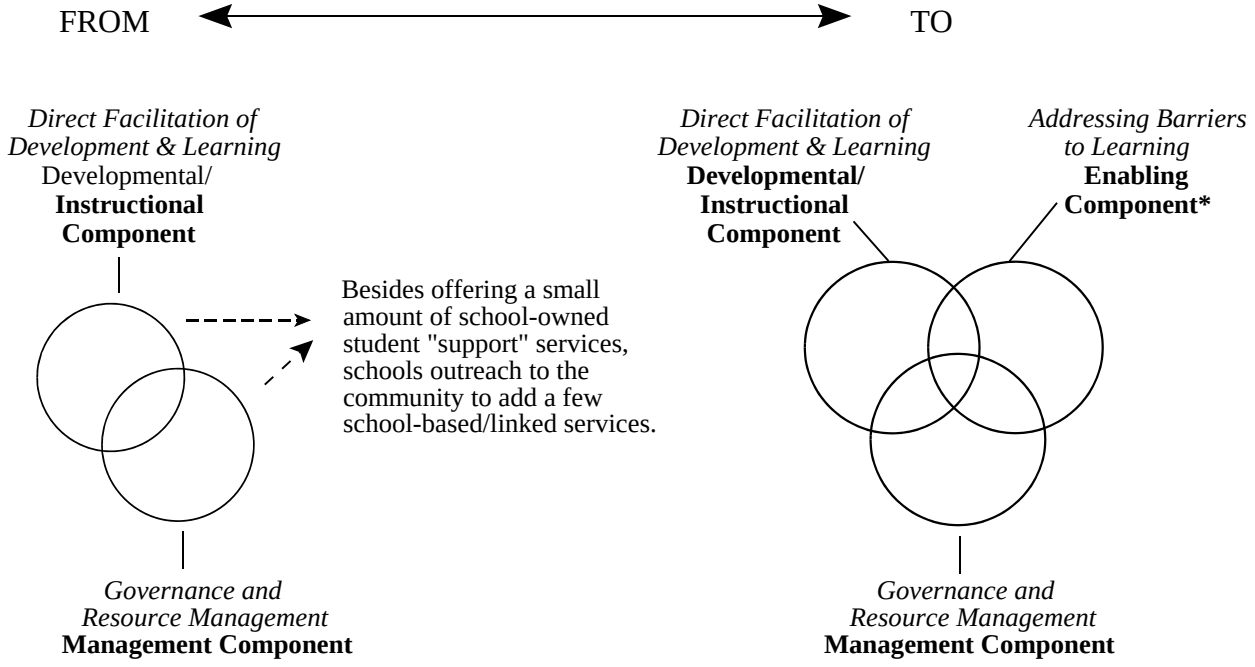
(1) moving preK-16 school policy from a two to a three component framework with the third component directly focused on addressing barriers to learning and teaching and re-engage disconnected students; this third component must be treated as equal and primary to the others in policy so that it is not marginalized in practice (see Exhibit 11),

(2) embedding all efforts to address factors interfering with students having an equal opportunity to succeed at school under the component to address barriers to learning, and

(3) expanding the school accountability framework to encompass the three component framework.

Exhibit 11

Moving from a Two- to a Three-component PreK-16 Policy Framework



*The third component (an enabling or learning supports component) is established in policy and practice as primary and essential and is developed into a comprehensive approach by weaving together school and community resources.

Needed: A Unifying Intervention Framework

In other reports, we have stressed that a comprehensive system of student and learning supports to address barriers to learning and teaching requires developing, over time, a full *continuum* and organizing intervention *content*. Properly designed, such a system embeds strategies specifically designed to promote interest in going on to higher education and interventions to assist with the transition and survival.

About a Full Continuum of Interventions

One facet of establishing the intervention framework for a system of student and learning supports is to conceptualize a full intervention continuum. The range of interventions encompass

- promoting healthy development and preventing problems
- intervening early to address problems as soon after onset as is feasible
- assisting with chronic and severe problems.

Exhibit 12 graphically illustrates the continuum as three levels of subsystems. The subsystems overlap, embrace school and community resources, and require processes to integrate the continuum into an cohesive system. Note that, unlike the popular trend in education to describe the range of interventions simply in terms of tiers, the emphasis in this conceptualization is on developing a subsystem at each level.

A full continuum requires weaving together the resources of school, home, and community. The intent is to interconnect all levels through effective collaboration. The collaboration involves horizontal and vertical restructuring of programs and services within and between jurisdictions.

The school and community examples listed in the exhibit highlight programs involving individuals, families, and the contexts in which they live, work, and play. There is a focus on mental and physical health, education, and social services. Some of the examples, however, reflect the type of categorical thinking about problems that contributes to fragmentation, redundancy, and counterproductive competition for sparse resources. Many problems are not discrete and must be addressed holistically and developmentally and with attention to root causes. An appreciation of these matters helps minimize tendencies to develop separate programs for each observed problem. In turn, this enables moving away from "silo" approaches and improves coordination and integration of resources, all of which can increase impact and cost-effectiveness.

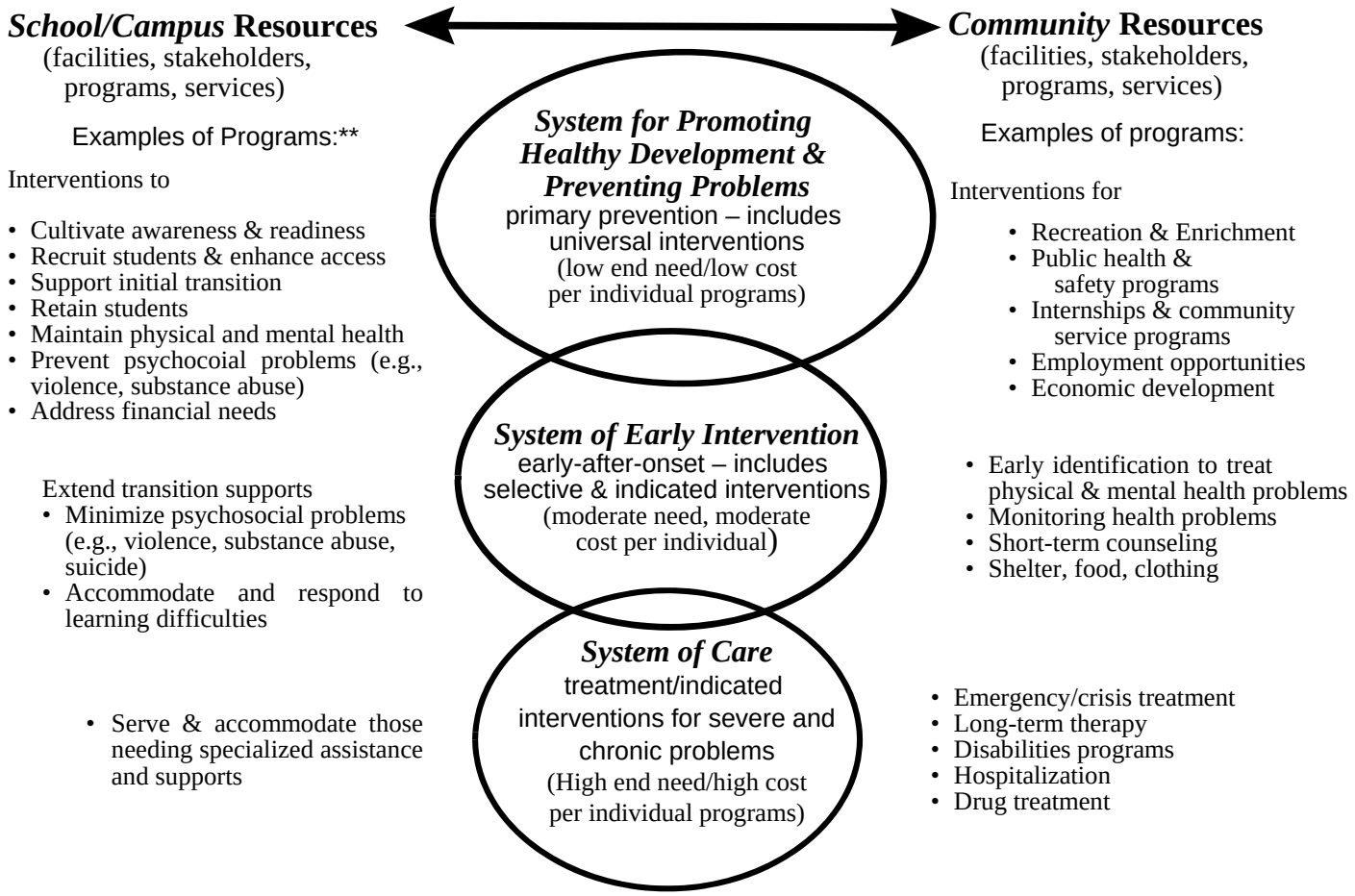
Note that moving away from fragmented approaches requires more than just improving coordination. It involves integrating school and community, including home, efforts at each level of the continuum in ways consistent with various institutional missions and sparse resources. And, system building requires concurrent intra- and inter-program integration over extended periods of time.

A full continuum reduces the number of students who require specialized supports. As graphically illustrated by the tapering of the three levels of intervention in the exhibit, development of fully integrated subsystems o intervention is meant to prevent the majority of problems, deal with another significant segment as soon after problem onset as is feasible, and end up

Exhibit 12

Levels of Intervention:*

Connected Systems for Meeting the Needs of All Students PreK-16



Systemic collaboration is essential to establish interprogram connections on a daily basis and over time to ensure seamless intervention within each system and among *systems for promoting healthy development and preventing problems, systems* of *early intervention*, and *systems of care.*

Such collaboration involves horizontal and vertical restructuring of programs and services
(a) within jurisdictions, school districts, community agencies, postsecondary institutions (e.g., among departments, divisions, units)
(b) between jurisdictions, campus and community agencies, public and private sectors; among community agencies

---

*Various venues, concepts, and initiatives permeate this continuum of intervention *systems.*

**For a more extensive list of intervention examples, see Exhibit 7.

with relatively few students needing specialized assistance and other intensive and costly interventions.

Each Level of the Continuum Has Content

For individual students, this means preventing and minimizing as many problems as feasible and doing so in ways that maximize engagement in productive learning. This includes a commitment to appropriately using the least restrictive and nonintrusive forms of intervention in responding to problems and accommodating diversity. For the school and community as a whole, the intent is to produce a safe, healthy, nurturing environment/culture characterized by respect for differences, trust, caring, support, and expectations for a bright future.

Focusing only on a continuum of intervention is insufficient. For example, "mapping" done with respect to three levels of intervention does not do enough to escape the trend to generate laundry lists of programs and services at each level. By combining the three system levels with a framework for organizing intervention *content*, we generate a matrix that constitutes an intervention prototype for a *comprehensive system of learning supports* (see Exhibit 13).

Continuum + Content = a Unifying Intervention Framework

The matrix can be used to map what is in place and analyze gaps. Overtime, such mapping and analyses are needed at the school level, for a family of schools (e.g., a feeder pattern of schools), at the district level, community-wide, and at regional, state, and national levels.

The framework in Exhibit 13 graphically illustrates the type of intervention component that can unify student and learning supports and guide development of a comprehensive system We call such a component an *enabling* component. By *enabling*, we mean to stress that the intent is to enable *all* students to have an equal opportunity to succeed at school by addressing barriers and re-engaging disconnected students.

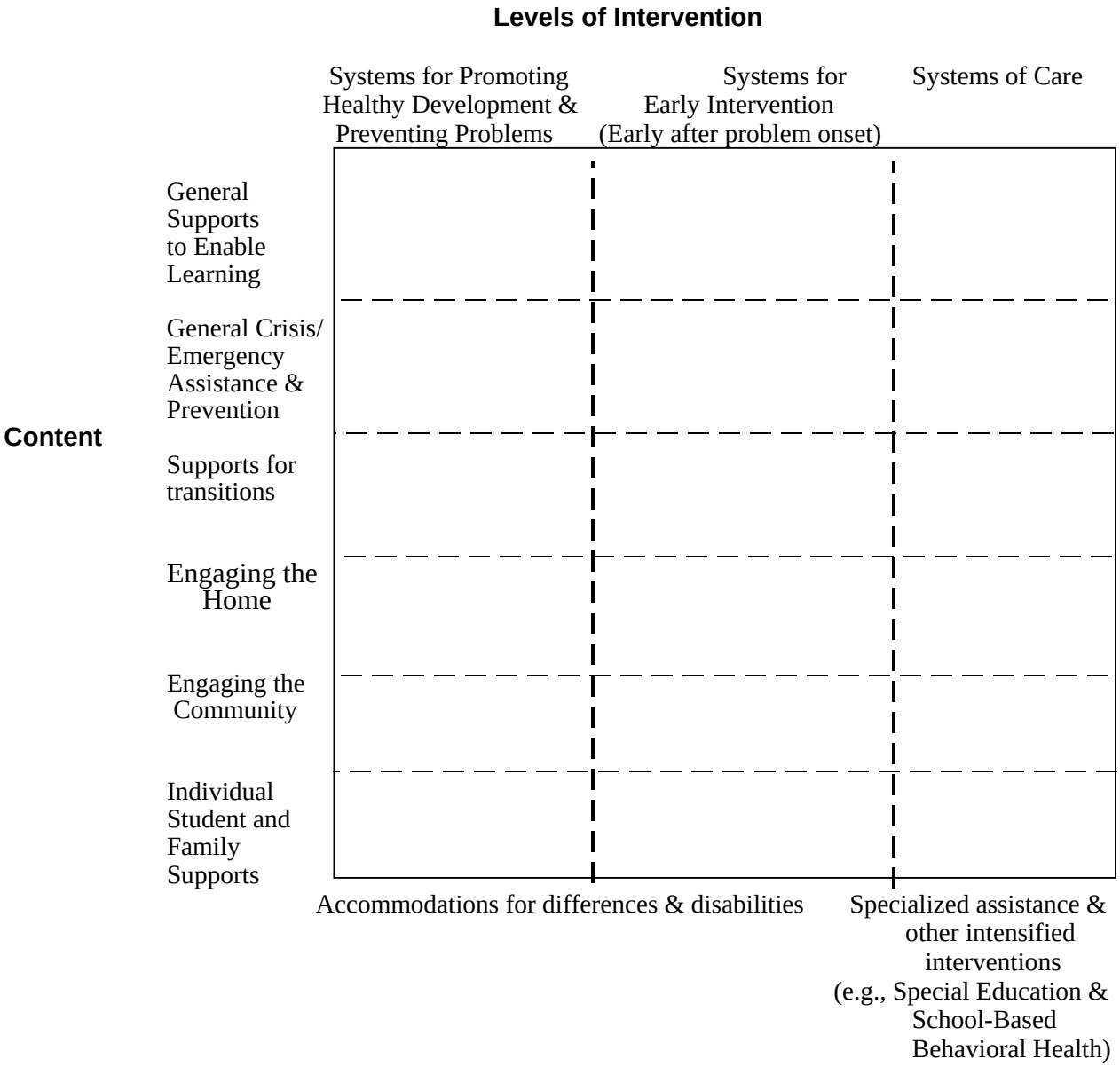
In essence, an enabling component

- addresses barriers through effective accommodation of individual differences and disabilities
- enhances the focus on motivational considerations with a special emphasis on intrinsic motivation as it relates to individual readiness and ongoing involvement and with the intent of fostering intrinsic motivation as a basic outcome
- adds remediation, treatment, and rehabilitation as necessary, but only as necessary.

In sum, our analysis of prevailing policies and practices indicates the need for a unifying concept, expanded policy, and a comprehensive intervention framework to guide creation of a PreK-16 system to effectively enhance engagement and success in postsecondary education. Such a comprehensive and cohesive system is especially important where large numbers of students are experiencing barriers and where inadequate attention is being paid to equity and diversity concerns.

Exhibit 13

A Unifying Umbrella Framework for Student and Learning Supports PreK-16



V. Recommendations

V. Recommendations for a Comprehensive Approach to Enhance Student Engagement and Success in Postsecondary Education

Our analysis stresses the need for a preK-16 system that comprehensively and cohesively addresses barriers to equity of opportunity. Prevailing policies to enhance postsecondary education readiness, recruitment, access, transition, and retention have worked against meeting this need. In revisiting policy and practice, the analysis emphasizes the value of a unifying concept and a comprehensive and systemic intervention framework that addresses barriers to learning and teaching and re-engages disconnected students.

Based on our analysis, we conclude that developing a comprehensive preK-16 system that enhances student engagement and success in postsecondary education requires developing a unified component for enabling success at school by

- reframing current student support programs and services, and integrating, at every stage, the best broad-band, but limited scope direct strategies
- redeploying available resources and aligning them horizontally and vertically
- revamping school-community infrastructures to weave resources together to enhance and evolve the system
- supporting the necessary systemic changes in ways called for by comprehensive innovation, scale-up, and sustainability.

To these ends, we delineate three recommendations.

Recommendation 1:

Move Beyond Broad-Band, But Limited Scope Direct Strategies to Initiate Development of a Comprehensive PreK-16 System

This recommendation extends to postsecondary education our previous proposals for transforming preK-12 (Adelman & Taylor, 2006a; Center for Mental Health in Schools, 2005a, 2005b). Specifically, as illustrated in Exhibits 10 -13, we propose

- moving preK-16 school policy from a two to a three component framework with the third component directly focused on addressing barriers to learning and teaching and re-engage disconnected students; this third component must be treated as equal and primary to the others in policy so that it is not marginalized in practice,

- embedding under the component to address barriers to learning all efforts to address factors interfering with students having an equal opportunity to succeed at school, and

- expanding the school accountability framework to encompass the three component framework.

Recommendation 2.

Revamp and Interconnect Operational Infrastructures

Conceiving a comprehensive system of interventions is one thing; implementing it is quite another. Developing and institutionalizing a component to address barriers to learning and teaching 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 determines cohesiveness, cost-efficiency, and equity.

Along with unifying various programs, services, initiatives, and projects, the need at a school, among a family of schools, and across preK-16 institutions is to rework infrastructure to support efforts to address barriers to learning in a comprehensive and cohesive manner and to integrate the work fully with efforts to facilitate instruction and promote healthy development. In working with communities, the focus is weaving together resources where school and community concerns and agency missions overlap. This calls for administrative leadership and capacity building support that helps maximize development of a comprehensive system of learning supports. And, it is crucial to establish leadership for this work at a high enough level to ensure the administrator is always an active participant at key planning and decision-making tables.

Given our Center's concern for how schools address barriers to learning and teaching, we have offered prototypes to stimulate discussion of changes that are essential to the development of a comprehensive system of learning supports (Center for Mental Health in Schools, 2008). In general, we outline an interconnected set of mechanisms to steer and carry out fundamental functions and processes on a regular basis in keeping with the vision of ensuring that all students have an equal opportunity to succeed in school. Such an infrastructure enables leaders to steer together and to empower and work productively with staff on major tasks related to policy and practice (e.g., designing and directing activity, planning and implementing specific organizational and program objectives, allocating and monitoring resources with a clear content and outcome focus, facilitating coordination and integration to ensure cohesive implementation, managing communication and information, providing support for capacity building and quality improvement, ensuring accountability, and promoting self-renewal).

Recommendation 3:

Support Transformative and Sustainable Systemic Change

Finally, we stress that policy must provide support and guidance for large scale transformative systemic changes (Adelman & Taylor, 1997, 2007; Glennan, Bodilly, Galegher, & Kerr, 2004). This includes not only implementing intervention prototypes, but providing adequately for the processes involved in getting from here to there.

System transformation to enhance equity of opportunity across preK-16 requires establishing new collaborative arrangements and redistributing authority (power). This calls for well-designed, compatible, and interconnected operational mechanisms at many levels and across agencies. Each arena and level of action has a role to play, over time, in horizontally and vertically weaving together existing resources and developing a full continuum of intervention systems. Again, how well the mechanisms are connected determines cohesiveness, cost-efficiency, and equity. Key stakeholders and their leadership must understand and commit to the changes.

Fullan (2005) stresses that effective systemic change requires leadership that "motivates people to take on the complexities and anxieties of difficult change." We would add that such leadership also must develop a sophisticated understanding of how to facilitate systemic change (Adelman & Taylor, 1997b, 2003, 2006 a and b; Taylor, Nelson, & Adelman, 1999).

Elsewhere (e.g., Adelman & Taylor, 1997b), we have highlighted the nature and scope and the four overlapping phases of systemic change. These are: (1) *creating readiness* – increasing a climate/culture for change through enhancing both the motivation and the capability of a critical mass of stakeholders, (2) *initial implementation* – change is phased in using a well-designed infrastructure for providing guidance and support and building capacity, (3) *institutionalization* – accomplished by ensuring there is an infrastructure to maintain and enhance productive changes, and (4) *ongoing evolution and creative renewal* – through use of mechanisms to improve quality and provide continuing support in ways that enable stakeholders to become a community of learners who creatively pursue renewal.

Exhibit 14 highlights the ways in which major elements involved in implementing innovative practices in an institutional setting are logically connected to considerations about systemic change. That is, the same elements can frame key intervention concerns related to implementing the practice and making systemic changes, and each is intimately linked to the other. The elements are conceived as encompassing the

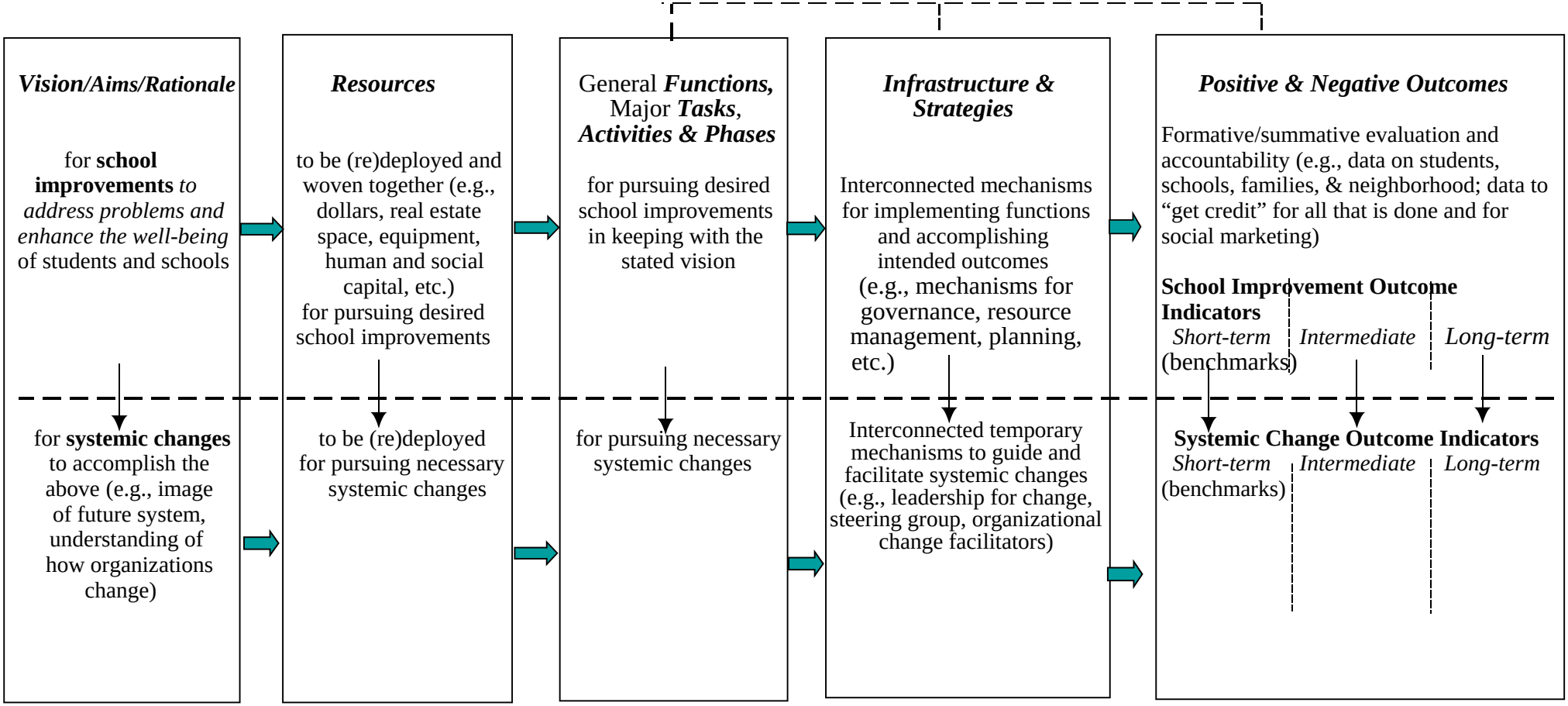
- vision, aims, and underlying rationale for what follows
- resources needed to do the work
- general functions, major tasks, activities, and phases that must be pursued
- infrastructure and strategies needed to carry out the functions, tasks, and activities
- positive and negative results that emerge.

Strategic planning for implementing the specific innovative practices should account for each of these elements. This must be done with respect both to accomplishing essential systemic changes for (1) implementing the prototype in a given setting and (2) facilitating prototype replication and scale-up. Each of the above elements as it relates to systemic change is described in Adelman & Taylor, 2007. We hasten to add that while the logic is linear, systemic change seldom is.

Exhibit 14. **Linking Logic Models for Designing School Improvement and Systemic Change**

Key considerations with respect to both (a) desired school improvements and (b) "getting from here to there" (e.g., systemic changes):

>What is the vision, long-term aims, and underlying rationale?
>What are the existing resources that might be (re)deployed and woven together to make good progress toward the vision?
>What general functions, major tasks, activities, and phases need to be implemented?
>What infrastructure and strategies are needed to carry out the functions, tasks, and activities?
>What short-term indicators will be used as process benchmarks, what intermediate outcomes will indicate progress toward long-range aims, and how will negative outcomes be identified?



Concluding Comments

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, multifaceted, and cohesive system of interventions that address barriers to learning and teaching and re-engage disconnected students at every stage from prekindergarten through postsecondary. Without such a system there is no equity of opportunity.

It is our view that developing and implementing a comprehensive, multifaceted, and cohesive system of student and learning supports is the next evolutionary stage in ensuring all students have an equal opportunity to succeed at school (and beyond).

We conclude with comments made by Venezia, Callan, Finney, Kirst, and Usdan (2005) at the end of the report on their four-state study on improving college readiness and success:

> "Establishing and empowering organizational structures that can transcend the barriers between educational sectors is essential in promoting K-16 reforms. These bodies should be charged with specific responsibilities, provided with the requisite resources, empowered with enough influence and authority to make real change, and held accountable for performance. State agency collaboration-both in terms of the content of work and the organizational structures supporting that work-is essential, and having components of K-16 reform in statute appears to be useful but not sufficient for creating change.
>
> Leadership at the state level is of crucial importance in establishing a vision and sustaining long-term change. These initiatives must be collaborative; it is not possible for a governor, postsecondary education system, or K-12 system to drive these efforts alone. Also, it is important to consider and implement broad-based and deeply embedded incentives to promote collaboration across sectors ... particularly in the areas of finance and accountability....
>
> We caution state education leaders that convening a commission and holding cross-system discussions may be helpful, but are not sufficient for creating meaningful and lasting K-16 reform. At the end of the day, the litmus test will not be the establishment of commissions or panels. To be lasting and effective, the deliberations must be anchored in policy and finance reform, and those policies must drive the type of governance structure that is needed."

We certainly concur.

References

Abery, B. & Stancliffe, R. (1996). The ecology of self-determination. In D. J. Sands & M. L. Wehmeyer (Eds.), *Self-determination across the life span: Independence and choice for people with disabilities* (pp.111-146). Baltimore: Paul H. Brookes.

Adelman, H.S. & Taylor, L. (1997a). Addressing barriers to learning: Beyond school-linked services and full service schools. *American Journal of Orthopsychiatry, 67, 408-421.*

Adelman, H.S. & Taylor, L. (1997b). Toward a scale-up model for replicating new approaches to schooling. *Journal of Educational and Psychological Consultation, 8,* 197-230.

Adelman, H.S., & Taylor, L. (2003). On sustainability of project innovations as systemic change. *Journal of Educational and Psychological Consultation, 14,* 1-26.

Adelman, H. S. & L. Taylor (2006a). *The School Leaders Guide to Student Learning Supports*: *New Directions for Addressing Barriers to Learning*. Thousand Oaks, CA: Corwin Press.

Adelman, H. S. & L. Taylor (2006b).*The Implementation Guide to Student Learning Supports*: *New Directions for Addressing Barriers to Learning*. Thousand Oaks, CA: Corwin Press.

Adelman, H.S., & Taylor, L. (2007). School improvement: A systemic view of what's missing and what to do about it. In B. Despres (Ed.), Systems thinkers in action: A field guide for effective change leadership in education. Rowman & Littlefield Education.

Alliance for Excellent Education (2009). *The economic benefits of reducing the dropout rate.* http://www.all4ed.org/files/NationalMSA.pdf

Astin, A. W., & *Oseguera,* L. (2002). *Degree attainment rates at American. Colleges and Universities*. Los Angeles: Higher Education Research. Institute, UCLA.

Astin, A. W., & *Oseguera,* L. (2005). Precollege and institutional influences on degree attainment. In A. Seidman (ed.) (2005). *College student retention: Formula for student success.* Westport, CT: Praeger Publishers.

Axelroth, R. (2009) *Raising graduation and college going rates: Community high school case studies.* DC: Coaltion for Community Schools, Institute for Educational Leadership.

Berkner, L.K., He, S., & Cataldi, E.F. (2002). *Descriptive summary of 1995-1996 beginning postsecondary students: Six years later.* DC: U.S. Department of Education, National Center for Education Statistics.

Bound, J., Lovenheim, M., & Turner, S. (2009). *Why have college completion rates declined? An analysis of changing student preparation and collegiate resources.* NBER Working Paper No. 15566, JEL No. I2,I23. Cambridge, MA: National Bureau of Economic Research. http://www.nber.org/tmp/82313-w15566.pdf

Braxton, J. M., Brier, E., & Steele, S. (2007-2008). Shaping retention from research to practice. *Journal of College Student Retention: Research, Theory and Practice, 9,* 377-399.

Braxton, J. M., Hirschy, A., & McClendon, S. (2004). *Understanding and reducing college student departure.* San Francisco, CA: Jossey-Bass.

Brand, B. (2009). *High school career academies: A 40-year proven model for improving college and career readiness*. Washington, DC: American Youth Policy Forum. http://www.aypf.org/documents/092409CareerAcademiesPolicyPaper.pdf

Cabrera, A. F., Deil-Amen, R., Prabhu, R., Terenzini, P. T., Lee, C., & Franklin, R. E., Jr.(2006). Increasing the college preparedness of at-risk students. *Journal of Latinos and Education, 5,* 79–97.

Callahan, P., Finney, J., Kirst, M., Usdan, M., & Venizia, A. (2006). Claiming common ground: State policymaking for improving college readiness and success. Washington, DC: The National Center for Public Policy and Higher Education www.highereducation.org/reports/common_ground/index.shtml

Carey, K. (2004). *A matter of degrees: Improving graduation rates in four-year colleges and universities*. DC: Education Trust. http://www2.edtrust.org/NR/rdonlyres/11B4283F-104E-4511-B0CA-1D3023231157/0/highered.pdf

Carpenter, Linda Jean; Acosta, R. Vivian (2005). *Title IX*. Champaign, IL: Human Kinetics

Cataldi, E.F., Laird, J., and KewalRamani, A. (2009). High school dropout and completion rates in the United States: 2007. Washington, DC: National Center for Education Statistics. http://nces.ed.gov/pubs2009/2009064.pdf

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, (2008). Frameworks for systemic transformation of student and learning supports. Los Angeles, CA: Author at UCLA. http://smhp.psych.ucla.edu/pdfdocs/systemic/frameworksforsystemictransformation.pdf

Center for Mental Health in Schools, (2009). *Notes on transition planning for college*. Los Angeles, CA: Author at UCLA. http://smhp.psych.ucla.edu/pdfdocs/practicenotes/transitiontocollege.pdf

Choy, S. (2002). *Access and persistence: Findings from 10 years of longitudinal research on students.* Washington, DC: 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

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

Cunningham, P., Cardenas, J., Martinez, R., & Mason, M. (2006). LUCERO: Shining a light on Latino student retention. *Community College Journal of Research and Practice, 30,* 139-140.

Davies, G.K. (2006). *Setting a public agenda for higher education in the states: Lessons learned from the national collaborative for higher education policy*. Denver: The Education Commission of the States, The National Center for Public Policy and Higher Education, and The National Center for Higher Education Management Systems. http://www.highereducation.org/reports/public_agenda/public_agenda.pdf

Education Trust (1999). Ticket to nowhere: The gap between leaving high school and entering college and high performance jobs. In *Thinking K-16 3:2*. Washington, DC: Author.

Education Trust (2009). *Charting a necessary path: The baseline report of public higher education systems in the access to success initiative.* Washington, DC: Author. http://www.edtrust.org/sites/edtrust.org/files/publications/files/NASH-EdTrust.BaselineReport.pdf

Freudenberg N, Ruglis J. (2007). Reframing school dropout as a public health issue. *Preventing Chronic Disease, 4*. http://www.cdc.gov/pcd/issues/2007/oct/07_0063.htm

Fullan, M. (2005). *Leadership & sustainability: System thinkers in action*. Thousand Oaks, CA: Corwin.

Frum, D. (2000). *How We Got Here: The '70s*. New York: Basic Books.

Gándara, P. (2001). *Paving the way to education: K-12 intervention programs for underrepresented youth.* Washington, DC: U.S. Department of Education, NCES.

Garry, P. (2006) *Cultural Whiplash: Unforeseen Consequences of America's Crusade Against Racial Discrimination.* Cumberland House Publishing.

Gender Equity in Sport (2006). *Landmark Title IX Cases in History.* http://bailiwick.lib.uiowa.edu/ge/historyRE.html

Glennan, T.K., Bodilly, S.J., Galegher, J., & Kerr, K.A. (Eds.) (2004). *Expanding the reach of education reforms: Perspectives from leaders in the scale-up of educational interventions.* Santa Monica, CA: RAND.

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

Heller, D. (1999). The effects of tuition and state financial aid on public college enrollment. *Review of Higher Education, 23,* 65-89.

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. Online at 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, DC: 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,

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.

Johnson, J., Rochkind, J., Ott A., & duPont, S. (2009). *With their Whole lives Ahead of them: Myths and Realities About Why So Many Students Fail to Finish College.* San Francisco: Public Agenda. http://www.publicagenda.org/theirWholelivesAheadofthem

Jones, W.A. & Braxton, J.M. (2009-2010). Cataloguing and comparing institutional efforts to increase student retention rates. *Journal of College Student Retention, 11,* 123-139.

Kemple, J.J. (2008). *Career academies: Long-term impacts on labor market outcomes, educational attainment, and transitions to adulthood.* New York, NY: MDRC.

Kinzie, J., M. Palmer, J. Hayek, D. Hossler, S. Jacob, & H. Cummings. (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.

Kirst, M.W. (2009). Progress and gaps in college preparation policy. *ECS perspective – High school—Transitions to postsecondary.* Denver, CO: Education Commission of the States. http://www.ecs.org/clearinghouse/82/15/8215.pdf

Kuehn, D., Pergamit, M., Macomber, J. & Vericker, T. (2009*). Multiple pathways connecting to school and work.* (ASPE Research Brief). Washington, DC: U.S. Department of Health and Human Services. http://www.urban.org/uploadedpdf/411948_multiple_pathways.pdf

Laden, B., Milem, J., & Crowson, R. (2000). New institutional theory and student departure. In J. M. Braxton (Ed.), *Reworking the student departure puzzle* (pp. 235-256). Nashville, TN: Vanderbilt University Press.

Lippman, L., Atienza, A., Rivers, A., & Keith, J. (2008). *A developmental perspective on college & workplace readiness.* DC: Child Trends.

Lumina Foundation for Education (2009). *A stronger nation through higher education: How and why Americans must meet a "big goal" for college attainment*. Indianapolis: Author. http://www.luminafoundation.org/publications/A_stronger_nation_through_higher_education.pdf

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

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.

McGrath, D. (2008). *Convergence as strategy and as model: Linking p-16 education reform and economic development.* Cincinnati, OH: KnowledgeWorks Foundation. http://www.kwfdn.org/resource_library/resource.aspx?intResourceID=833

Macomber, J., Pergamit, M., Vericker, T., Kuehn, D., McDaniel, M, Zielewski, E., Kent, A.& Johnson, H. (2009). *Vulnerable youth and the transition to adulthood.* http://www.urban.org/url.cfm?ID=411948

Maxwell, N. & Rubin, V. (2000). *High school career academies: A pathway to educational reform in urban school districts?* Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.

Maxwell, N. (2001). Step to college: Moving from the high school career academy through the four-year university. *Evaluation Review 25,* 619-654.

Myers, D., Olsen, R., Seftor, N., Young, J., & Tuttle, C. (2004). *The impacts of regular upward bound: Results from the Third follow-up data collection*. Washington, DC: Mathematica Policy Research, Inc. http://www.ed.gov/rschstat/eval/highered/upward/upward-3rd-report.pdf

National Center for Education Statistics (2007). *The condition of education 2007*. Washington, DC: U.S. Department of Education.

National Center for the Study of Postsecondary Educational Supports (2002, July). Preparation for and support of youth with disabilities in postsecondary education & employment: Implications for policy, priorities and practice. Proceedings and briefing book for the National Summit on Postsecondary Education for People with Disabilities, presented in Washington, DC, July 8, 2002. http://www.ncset.hawaii.edu/summits/july2002/default.htm

National Center for Public Policy and Higher Education, *Measuring up 2008: The national report card on higher education* (San Jose, CA: 2008).

National Council on Disability (2003). *People with disabilities and postsecondary education.* http://www.ncd.gov/newsroom/publications/2003/education.htm

National Governors Association (2007). *Innovation America: A partnership*. Washington, DC: Author. Online at http://www.nga.org/Files/pdf/0702INNOVATIONPARTNERSHIP.PDF

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 Postsecondary Education Cooperative, (2007). *Deciding on postsecondary education: Final report.* (NPEC 2008–850), prepared by Keith MacAllum, Denise M. Glover, Barbara Queen, and Angela Riggs. Washington, DC: Author.

Noel-Levitz Report (2009). *2009 Student Recruitment Practices and Strategies at Four-Year and Two-Year Institutions*. Reported online at https://www.noellevitz.com/NR/rdonlyres/C6B5DC90-92FB-46CF-81D8-8655D1D6E5D7/0/StudentRecruitmentPracticesandStrategies09.pdf

NOW (2007). *Legislative History of Title IX*. National Organization for Women. http://www.now.org/issues/title_ix/history.html

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.

Orfield, G., Losen, D., Wald, J., & Swanson, C. (2004). *Losing our future: How minority youth are being left behind by the graduation rate crisis.* http://www.urban.org/url.cfm?ID=410936

Pathways to College Network (2004). *A shared agenda: A leadership challenge to improve college access and success.* Boston, MA: Author.

Patton, L., Morelon, C., Whitehead, D., & Hossler, D. (2006). Campus-based retention initiatives: Does the emperor have clothes? *New Directions for Institutional Research, 130,* 9-24.

Postsecondary Education Opportunity. (2002). Institutional graduation rates by control, academic selectivity and degree level, 1983-2002. *The Environmental Scanning Research Letter of Opportunity for Postsecondary Education,* 1-16.

Providence Journal (Dec. 3, 2009). *State to help low-income students complete college in 3 years.* Online at http://www.projo.com/news/content/education_bills_signed_12-03-09_HNGL759_v23.36160bb.html

Ruppert, S.S. (2003). *Closing the college participation gap: A national summary.* Denver: Center for Community College Policy, Education Commission of the States.

Ryu, M. (2008). *Minorities in higher education 2008 Twenty-third status report*. Washington, DC: Center for Policy Analysis, American Council for Education.

Saunders, M., & Chrisman, C. A. (2008). *Multiple pathways: 21st century high schools that prepare all students for college, career and civic participation.* Boulder and Tempe: Education and the Public Interest Center & Education Policy Research Unit. Retrieved December, 2009 from http://epicpolicy.org/publication/multiple-pathways

Seidman, A. (ed.) (2005). *College student retention: Formula for student success.* Westport, CT: Praeger Publishers.

Sevier, R.A. (2000). Building an effective recruiting funnel." *Journal of College Admission 169*,10-19.

Shelton, D.E. (2001). Equally Bad is Not Good: Allowing Title IX "Compliance" by the Elimination of Men's Collegiate Sports. *University of Michigan Journal of Law Reform, 34*. http://ssrn.com/abstract=1163230.

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, DC: 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

SREB (2005). *Building transitions from high school to college and careers for North Carolina youth*. http://www.sreb.org/programs/hstw/publications/2006pubs/06V22NorthCarolina.asp

Stodden, R. A., Conway, M. A., & Chang, K. (2003). Professional employment for individuals with disabilities. http://www.ncset.hawaii.edu/institutes/feb2003/papers/txt/PROFESSIONAL%20EMPLOYMENT%20.txt

Studier, C., ed. (2008). *Evidence from California partnership academies: One model of pathway programs.* Berkeley, CA: ConnectEd: The California Center for College and Career.

Swail, W., Redd, K., & Perna, L. (2003). *Retaining minority students in higher education: A framework for success.* San Francisco, CA: Jossey-Bass.

Swail, W. & Roth, D. (2000). *The role of early intervention in education reform. ERIC Review, 8*, 16-17.

Swail, W. & Williams, A. (2004). *School reform and college access success: A review* – A summary of: Martinez, M. & Klopott, S. *How is school reform tied to increasing college access and success for low-income and minority youth?* Washington, DC: Pathways to College Network, Institute for Educational Leadership. http://www.pathwaystocollege.net/pdf/HowisSchoolReform_abridged.pdf

Taylor, L., Nelson, P., & Adelman, H.S. (1999). Scaling-up reforms across a school district. *Reading & Writing Quarterly*, *15*, 303-326.

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, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from http://ies.ed.gov/ncee/wwc/publications/practiceguides/.

Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed.). Chicago: University of Chicago Press.

Tippeconnic Fox, M.J., Lowe, S.C., & McClellan, G.S. (Eds.) (2005). *Serving Native American students*. New Directions for Student Services, no. 109. San Francisco: Jossey-Bass.

U.S. Census Bureau (2003). *Survey of income and program participation, 1996 Panel, Wave 6.* Available from www.census.gov/population/socdemo/well-being/p70-89/98tabD13.pdf

U.S. Department of Education, National Center for Education Statistics. (1996). *National Education Longitudinal Study: 1988-1994: Descriptive Summary Report.* Washington, DC. Online at http://nces.ed.gov/pubs/96175.html

U.S. Department of Education, National Center for Education Statistics. (1996). *Students whose parents did not go to college. 2001.* http://nces.ed.gov/pubs2001/ 2001126.pdf.

U.S. Department of Education (2001). *Digest of Education Statistics: 2000*. Washington, DC: National Center for Education Statistics.

U.S. Department of Education (2003). *National Evaluation of GEAR UP A Summary of the First Two Years.* Washington, DC: Office of the Under Secretary, Policy and Program Studies Service.

U.S. Department of Education (2003). *College transition programs: Promoting success beyond high school.* Washington, DC. Online at http://www.ed.gov/about/offices/list/ovae/pi/hsinit/papers/trans.pdf

U.S. Department of Education, National Center for Education Statistics. (2009). *Changes in Postsecondary Awards Below the Bachelor's Degree: 1997 to 2007*. Washington, DC. Online at http://nces.ed.gov/pubs2010/2010167.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, DC: Author. http://www.gao.gov/new.items/d1033.pdf

Valentin, I. *Title IX: A Brief History*. Women's Equity Resource Center. August 1997. http://www2.edc.org/WomensEquity/pdffiles/t9digest.pdf

Venezia, A., Callan, P.M., Finney, J.E., Kirst, M.W., & Usdan, M.D. (2005). *The governance divide: A report on a four-state study on improving college readiness and success.* Washington, DC: The National Center for Public Policy and Higher Education.