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Preparing Latinos/as for a Flat World: The Community College Role

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Foreward

The title of Thomas Friedman's 2006 book, *The World is Flat: a Brief History of the Twenty-first Century*, belies the recognition of a technologically advanced new economy the book contains. With the combination of reduced global trade and political barriers, particularly in China, Russia and India, and the trajectory of technical advances in the digital revolution, business is no longer transacted on a world stage only by complex industrial giants, but by billions of connected individuals, instantaneously. Friedman asserts that if you can't keep up, you will be trampled.

This world view is not without controversy, but the debate can only focus additional attention on the issues of education in the 21st Century. Gonzalez Sullivan deftly extrapolates Friedman's ideas to the education of Latinas/os in higher education, and more specifically to the role of community colleges in that education.

Community colleges are historically more adept at responding to current workforce needs and changes than larger four-year universities. Their mission also offers the access and flexibility required by many Latinas/os. But do they channel Latino students into advanced degree fields with greater earnings potential or to more vocational fields that don't require degrees? Are Latino students receiving the full support to reach their potential or do they meet too many barriers to continue past a few semesters of college work?

While each institution of education, K-16, must provide for Latina/o student success, policy makers at the national and state levels must also take responsibility to provide the financial aid and programmatic support these students need to participate on the global economic stage.

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Abstract

Thomas Friedman's 2006 book *The World is Flat: a Brief History of the Twenty-first Century* has caused both dialogue and controversy. This paper explores implications of Friedman's ideas for the education of Latinos/as in American community colleges. A review of current literature addresses Hispanic demographics, workforce projections, the role of community colleges in workforce education, access and success issues, and strategies for serving Latinos/as effectively. Federal, state and institutional policy changes are proposed.

Keywords

Hispanics, Latinos, educational equity, community colleges, workforce participation

Once in a while a book captures the attention of a wide audience—laypeople and experts—and causes both dialogue and controversy. Thomas Friedman’s *The World is Flat: a Brief History of the Twenty-first Century* (2006) is such a book. In this updated and expanded edition, Friedman describes the technological forces that are transforming the global economy, allowing greater creativity, productivity and collaboration by individuals and companies around the world. He cites ten flatteners, including the rise of the personal computer and the birth of the Internet, and three factors that are converging to create a new world. This triple convergence involves: 1) a global, web-enabled platform for multiple forms of collaboration; 2) new patterns of horizontal rather than vertical networking; and, 3) three billion new players in the global economy as China, India and the former Soviet Union become connected.

Although Friedman’s theories have been criticized as simplistic, culturally misinformed and biased toward a capitalistic way of life (Adams, 2005; Gonzalez, 2005), his book has helped the general public understand how the current convergence of technologies affects individuals, corporations and countries. It has also raised educators’ awareness as they cope with the meaning of globalization for their institutions and students. He notes:

Even as the world gets flat, America as a whole will benefit more by sticking to the general principles of free trade, as it always has, than by trying to erect walls, which will only provoke others to do the same and impoverish us all. But... a policy of free trade, while necessary, is not enough by itself. It must be accompanied by a focused domestic strategy aimed at upgrading the education of every American, so that he or she will be able to compete for the new jobs in a flat world. (Friedman, 2006, p. 263).

Without going into the pros and cons of *The World is Flat*, this paper explores the applications of Friedman’s ideas to the education of Latinos* in American community colleges. We will look first at Hispanic demographics, workforce projections, and the role of community colleges in workforce education. Next, factors that affect educational equity and strategies the colleges can adopt to serve Latino students effectively will be examined. Finally, relevant policy issues will be addressed.

Latinos, the Workforce and Community Colleges

Growing Latino Presence in the United States

In May 2006 the U. S. Census Bureau issued a mid-decade update on census numbers, reporting that minorities now comprise 33 percent of the nation’s 296.4 billion people. Hispanics are the largest subgroup at 42.7 million (14.1 percent). Further, Hispanics accounted for almost half of the national population growth from 2004 to 2005, adding 1.3 million people to the total U. S. numbers. This group is also the youngest, with a median age of 27.2 years versus 36.2 years for the general population, and nearly one third are under the age of 18 versus one fourth for the general population (U. S.

* For purposes of this article, the terms “Hispanic” and “Latino” will be used interchangeably and it is understood that “Latino” refers to both males and females. Further, the term Whites refers to non-Hispanic Caucasians.

Census Bureau, May 10, 2006). These figures support earlier projections by the Census Bureau, which expects the Hispanic population to grow to some 102.6 million by 2050 (U. S. Census Bureau, March 18, 2004).

Hispanics are now the largest minority group in 26 of the 50 states, according to a report from the Tomás Rivera Policy Institute at the University of Southern California. Rather than locating in states that have traditionally had a large Latino presence, this population group has shown the most dramatic growth in southern states (North and South Carolina, Georgia, Kentucky, Tennessee, Arkansas, Alabama and Mississippi), the upper Midwest (Minnesota, Iowa and Nebraska) and the Western states of Oregon and Nevada (TRPI, July 12, 2006). TRPI researchers attribute this dispersion to employment opportunities, reasonable housing costs and the existence of social and family networks in the various states.

A cover story in *Business Week* (Grow, Grover, Weintraub, Palmieri, & Der Hovanesian, 2004) called the influx of Latinos “no less than a shift in the nation’s center of gravity” (p. 59) that is influencing American society economically, politically and culturally. Among other effects, Hispanics are expected to have more than \$860 billion in buying power in 2007, more than any other minority group, and it is estimated this figure will grow to \$1.2 trillion by 2012 (Selig Center, 2006). In response, American companies have mounted a massive marketing campaign, much of it in Spanish, appealing to Hispanics here in the United States and also in the Latin American countries from which these consumers came. As Grow et al. (2004) note, with such buying power Latinos are a major factor in the nation’s economic growth, supplementing an aging White population of consumers who may spend less in retirement.

Not everyone is happy with these demographic changes, however, and in some parts of the country a backlash has occurred:

The Hispanicizing of America raises a number of political flash points. Over the years periodic backlashes have erupted in areas with fast-growing Latino populations, notably former California Governor Pete Wilson’s 1994 effort, known as Proposition 187, to ban social services to undocumented immigrants. English-only laws, which limit or prohibit schools and government agencies from using Spanish, have passed in some 18 states. Most of these efforts have been ineffective, but they’re likely to continue as the Latino presence increases (Grow et al., 2004, p. 70).

The New Face of the American Workforce: More Diverse, Better Educated

In a report describing changes in the American workforce between 1950 and 2050, Toossi (2002) predicts that Hispanics will comprise 24 percent of workers in 2050, up from 11 percent in 2000. During that same period, White worker participation will decline from 73 to 53 percent. Blacks and Asians together will account for the other 25 percent of the workforce in 2050. The rapid growth in numbers of Latino workers is attributed to a higher birth rate and more immigration.

Not only is the face of the workforce changing, but the types of jobs available are evolving as well due to outsourcing, offshoring and technological developments (Friedman, 2006). To remain competitive in this century’s global market, Americans will have to develop higher-level skills and continually adapt so they can occupy the new jobs that are created primarily in knowledge and idea generation areas. Friedman states:

“individuals have to think globally to thrive, or at least survive. This requires not only a higher level of technical skills but also a certain mental flexibility, self-motivation, and psychological mobility” (p. 276).

Higher education will be the key to successful participation in the new workforce. A report from the Center for Community College Policy at the Education Commission of the States (Ruppert, 2003) concurs with Friedman:

How the United States stacks up against other industrial nations matters because in today’s highly competitive global marketplace, human capital is the coin of the realm. Educational attainment, measured in terms of *the highest degree or level of schooling attained by the adult population*, is the international currency used to assess the strength of a country’s economy and its standard of living (p. 1).

The need for higher educational levels is evident in Bureau of Labor Statistics projections. The Bureau’s top fifty hot careers (2006b) include only eight for which a high school education or less is acceptable, while the other 42 careers require some college studies and 33 of these give preference to a baccalaureate degree. Employment projections for 2004-2014 (BLS, 2005) list the ten fastest growing occupations, seven of which are in allied health fields and three in information technologies. Two of the ten occupations require at least an associate’s degree and four others require a bachelor’s degree, while the remaining four may be performed with on-the-job training alone.

Higher education also means higher pay and lower unemployment (NCPPE, 2005; Pew Hispanic Center, 2002). According to the Bureau of Labor Statistics (2006a), in 2005 people with an associate’s degree averaged \$699 in weekly earnings, while those with bachelor’s degrees averaged \$937 and those with master’s degrees, \$1,129. Further, the higher the degree held, the lower the unemployment rate. This generally holds true for Hispanic men and women workers as well, although their weekly earnings are lower than Whites or Asians even when they do have appropriate educational levels. Kim (2002) attributes at least 40 percent of this earnings gap to workplace discrimination rather than any lack of education or skills.

Latinos and Education

Unfortunately, Hispanics are not well positioned to participate in the new, flat world of work or the American middle class (De los Santos & De los Santos, 2005; Fry, 2002; Kelly, 2005; NCPPE, 2005). Not only are they concentrated in the lowest paying jobs, but as a group they have the lowest levels of education, and the gap between their educational attainment and that of other minorities and Whites is actually widening. Although greater numbers of young Hispanics are entering the K-12 system, fewer of them graduate from high school compared to other populations groups (NCES, 2003; NCPPE, 2005). Latinas in particular tend to lag behind all other groups in terms of educational attainment (Kelly, 2005). Solórzano, Villalpando and Oseguera (2005) notes that only 52 percent of Latinos complete high school, as compared with 72 percent of Blacks and 84 percent of Whites. And, when the Hispanic numbers are broken out by country of origin, Chicanos/as and Salvadorians show lower high school graduation rates than Puerto Ricans, Cubans and Dominicans.

Analyzing data from the National Assessment of Educational Progress (NAEP), the Education Trust (2003, 2005) found that even those Latino youth who stayed in school

and earned their high school diploma were at a disadvantage because their reading and math skills at graduation were comparable to those of White middle-school children. Further, Latinos tended to take less rigorous curriculums than their White classmates, as Gándara (2006) points out. Hispanics and other minority and low-income populations start their schooling at a disadvantage, attend disadvantaged schools and fall continually farther behind. In particular, these students are less likely to take advanced mathematics and science classes which lay a foundation for successful participation in college and in Friedman's flatter world.

A National Center for Public Policy and Higher Education report (2005) notes that only 27 percent of Latinos go on to college immediately after completing high school as compared with 49 percent of Whites. Fry (2002) reports less optimistically that, of Hispanics who do complete high school, only about 10 percent continue on to college within a year or two of graduation, and these youth are more likely to enroll in community colleges and to attend part-time. Among youth aged 18 to 24 years, the traditional college-going period, Fry notes that only 35 percent of Latino high school graduates were enrolled in college between 1997–2000, versus 46 percent of Whites. Fry does see one hopeful sign in the statistics: native-born children of immigrants—particularly second generation youth—are enrolling in college at continually higher rates and are rapidly overtaking the 46 percent participation rate for Whites.

Further, enrollment in college does not necessarily lead to degree completion and it does not mean that Hispanics are enrolling in the high-demand and lucrative career fields that will make them competitive in Friedman's flat world. Neither does it ensure that colleges and universities will heed the calls to provide stronger support programs that will help the influx of Latino students succeed (Bagnato, 2005; Gándara, 2006; Schmidt, 2003). Finally, initial enrollment in a community college does not ensure transfer to baccalaureate programs, progression to graduate school or lifelong learning activities, all of which take on added importance in the flattened work world.

The educational levels of Hispanic adults are a concern as well. Schmidt (2003) reports that, of Hispanics age 25 or older, only 11 percent have bachelor's degrees and two-fifths never graduated from high school, while an additional one-fourth have less than a ninth grade education. These figures compare unfavorably with those for all other minority groups and for Whites. The situation is further complicated by the large numbers of immigrants, both legal and undocumented, who arrive in the United States with little formal education in their native country and poor English language skills.

Many reasons have been advanced for the lower college participation and achievement rates of Hispanics. Among these are: poor academic preparation; attendance at underfunded urban schools; low income; lack of financial aid grants rather than loans; lack of social capital on the part of parents and students; delayed college entry; family and job responsibilities; single parent status; unwillingness or inability to travel to distant colleges; and, part-time attendance. When students have more than one of these factors, they are considered high risk and less likely to succeed in college (Bagnato, 2005; CCSSE, 2005; Fry, 2002, 2004; Gándara, 2006; Pew Hispanic Center, 2004; Schmidt, 2003). A number of the factors will be addressed in a later section of this paper.

These educational patterns have clear economic implications. If current trends continue, there will be more American workers with less than a college education, placing the entire nation at a distinct competitive disadvantage in a global market where knowledge skills are highly valued. In consequence, personal income per capita and

overall buying power could decline (NCPPE, 2005), to the further disadvantage of this country. A Pew Hispanic Center fact sheet (2002) summarizes the outlook for Hispanics:

[I]f education and skills are the basic ingredients for success, the past decade has also demonstrated that Latinos benefit markedly from a robust economy and good job prospects. While neither education nor strong economic growth can be advanced easily, together these two elements are vital to future Hispanic prosperity (p. 2).

Along the same lines, Kim (2002, 2003) studied the wage gap between Latinos and White workers with reference to their educational levels. He acknowledged the existence of a “college premium”—the higher earnings of college graduates versus those of high school graduates (Acemoglu, 2002, as cited in Kim, 2003, p. 276) and found that the earnings gap was greater for Hispanics than for White workers, but the returns for a college education were greater for Hispanics. He also concluded that the effects of discrimination and immigration were minimal compared to differences in educational attainment.

Community Colleges—Gateway to the Workforce and Prosperity

Since the community college made its debut in the American educational array more than one hundred years ago, its focus has been access, educational opportunity and workforce preparation (Cohen and Brawer, 2003). While these institutions have also been charged with preparing students for transfer to baccalaureate programs and they do offer developmental/remedial education and community enrichment programs, the reality is that states and the nation expect these colleges to be the primary providers of workforce preparation at the post-secondary level. Although they have not always received the respect they deserve, community colleges are recognized for their ability to respond to local economic needs rapidly and flexibly and to deliver high quality training in critical career fields. Their low tuition, convenient locations, wide selection of vocational programs and strong support services make them an attractive option for a diverse population that might otherwise not be able to attend college (Phillippe & Sullivan, 2005).

Contemporary community colleges are well positioned to deliver career programs that meet the needs of the American workforce, and they monitor the job market continually. The American Association of Community Colleges (AACC) conducts periodic surveys of its member colleges to identify ‘Hot Programs,’ curriculums where graduates are in high demand. The latest survey (McPhee, 2004) indicates that 46.6% of these popular programs are in allied health fields, including registered nurse, licensed practical nurse, radiology, nursing assistant, dental hygiene, health information technology and medical assistant. Other ‘hot’ careers include computer technologies, law enforcement and homeland security. The colleges have also formed partnerships with universities and state agencies to address the nationwide teacher shortage.

In addition to these ‘hot’ career fields, community colleges play an important role in preparing Americans for careers in science and engineering, according to the National Science Foundation’s 2001 National Survey of Recent College Graduates (Tsapogas, 2004). The survey found that almost half of the science and engineering (S & E) majors who received baccalaureate degrees in 1999-2000 had attended a community college, although less than 30 percent actually earned associate’s degrees. Further, Hispanic S & E

students were more likely than any other racial or ethnic group to start their studies at community colleges. Older students, females and those with children also attended these colleges in greater numbers for at least part of their academic work. Tsapogas concluded that community colleges are an important resource for S & E students due to their low cost, open admissions and proximity to family and work.

Citing Shirley Ann Jackson, president of Rensselaer Polytechnic Institute, Friedman (2006) reinforces the importance of preparing Americans for careers in science, mathematics and engineering:

The truth is, we are in a crisis now... This quiet crisis involves a steady erosion of American's scientific and engineering base, which has always been the source of American innovation and our rising standard of living... [Jackson said] "For the first time in more than a century, the United States could well find itself falling behind other countries in the capacity for scientific discovery, innovation and economic development" (pp. 326, 328).

For Latinos, community colleges can provide entrée into science, math and engineering fields of critical importance to the American economy.

Over the past century, then, community colleges have repeatedly reinvented themselves in response to the economic circumstances of the moment, as Dellow and Romano (2006) note, but the accelerating pace of globalization and offshoring presents unique challenges. Agreeing with Friedman's predictions, these educators worry that the loss of low-skill jobs may force older workers and those with little education out of the labor market. They assert that community colleges must place greater emphasis on higher-level math and science skills and more general competencies such as problem-solving, teamwork, languages, cross-cultural understanding and communication. At the same time, the colleges must continue to address the need for remedial/developmental skills among entering students. Finally, as the primary portal to the job market for the growing proportion of workers who are Hispanics or other minorities, community colleges must ensure that all of their students can contribute to America's competitiveness in the global economy.

Educational Equity for Latinos

Success Factors for Latino Community College Students

Since World War II and the passage of the GI Bill (Servicemen's Readjustment Act) in 1944, American public policy has supported access to higher education for all who can benefit, primarily by providing financial aid grants and loans for needy students. Latinos have certainly taken advantage of this opportunity. In fall 2004, nearly two million Hispanics were enrolled in degree-granting programs in American colleges and universities (12.5 percent of all students). Community colleges enrolled over 972,400 of these students, who comprised the largest minority group (15 percent of all enrollments) in those institutions (NCES, 2006). An information brief produced by *Excelencia in Education* (2005) reported that in 2003-2004 nearly 80 percent of Latino undergraduates applied for financial aid and 63 percent received some form of aid. However, in that year Latinos also received the lowest average award of any racial/ethnic group, (\$6,250 vs. \$7,620 average for all awards). The apparent inequity may be attributed in part to the

greater likelihood of Hispanics attending community colleges and less selective universities where the costs are lower, but this does not address their comparative level of need or the gradual shift from need-based to merit-based aid that may have disparate impact on these students.

Even though Latinos have access to higher education, Bailey and Smith-Morest (2006) observe that equal educational opportunity is not just a matter of access. Rather, educational equity has three essential components: college preparation, access, and successful goal achievement. In this section, we will examine the three components of equity as they affect Latino students in community colleges, identifying barriers in each area and describing strategies that could contribute to their academic success.

College Preparation. Preparation for post-secondary education begins early in the U. S. and generally involves academic readiness, informed college choice (which may involve choice of a major as well) and financial planning. All of these can become barriers for college-bound Hispanic students.

As noted in an earlier section, only about 27 percent of Latinos choose to continue on to college shortly after graduating from high school (NCPPE, 2005), and many of these youth arrive at college doors academically under-prepared. They often graduate with low reading and mathematics skills and may not have enrolled in the advanced science classes that provide entrée into science, mathematics and technology degrees (Bagnato, 2005; Education Trust, 2003, 2005; Gándara, 2006; Pulley, 2006a; Schmidt, 2003). Bailey and Smith-Morest (2006) point to a misalignment between high school curriculums and the expectations of post-secondary institutions that may contribute to the lack of academic readiness, noting “This alignment problem is much more concentrated in high schools attended by lower-income students” (pp. 5-6). Adults who decide to go to college may also be under-prepared, with weak foundational skills or poor English skills. Thus, both younger Latino students and returning adults often find themselves diverted to developmental/remedial classes based on placement test scores, and they may be counseled into less rigorous occupational programs that do not provide a pathway to baccalaureate studies. Further, the lack of a strong mathematical and science background may exclude them from science and technology programs that lead to success in the global knowledge-based economy that Friedman describes.

A related aspect of college preparation is the choice of institution to attend. Research in this area has shown that Hispanics are much more likely to attend less selective institutions, particularly community colleges, regardless of their socioeconomic background or prior academic preparation and achievement (Fry, 2004). In 2003-2004, among college-bound Latinos only 37.7 percent enrolled in baccalaureate programs, while 39.8 percent enrolled in associate degree programs (both transfer and applied), 10.2 percent in certificate programs and 12.3 percent in non-degree programs (Horn, Nevill & Griffith, 2006). Person and Rosenbaum (2006) note that Latino students are likely to select colleges where they know other Latino students, a pattern the researchers called “chain enrollment” (p. 54). This, in turn, could lead to the formation of “college enclaves” (p. 54) which isolate these students from the broader college community and from mainstream information sources.

For many college-bound students, the choice of institution may rest on the major or program they plan to pursue. Among Latinos attending postsecondary institutions at all levels in 2003-2004, 31 percent were enrolled in Humanities and Social Sciences; 20 percent in Business; 17 percent in Sciences, Mathematics, Engineering or Computer

Technologies; 16 percent in Health Sciences, and 16 percent in Vocational/Technical curriculums. In community colleges, they enrolled more frequently in occupational programs or non-degree tracks than in programs leading to transfer (Horn et al., 2006). Bailey, Alfonso, Scott and Leinbach (2004) examined longitudinal data on college students and found that associate degree students, particularly those in occupational programs, had the lowest completion rates. Therefore, while the choice to attend a community college might be positive in providing access at a reasonable cost and an environment where other Latinos are enrolled, there are also drawbacks with regard to less rigorous program choices and likelihood of transfer and degree completion.

Knowing how to navigate the higher education system is another important factor in college preparation and college choice (Schmidt, 2003). A 2002 study by the Tomás Rivera Policy Institute determined that Latino parents, particularly low-income families and recent immigrants, showed a significant lack of what they termed “college knowledge” (Tornatzky, Cutler and Lee, 2002, p. 1). This “bundle of instrumental information” (p. 2) includes understanding the college experience, the prerequisites for enrolling, pathways through the system, and the relative costs of various types of institutions and programs. The parents who were interviewed also did not know how to access information from counselors, college representatives and other sources, and this lack of knowledge prevented them from advising their college-bound children. Finally, any existing language barriers further complicated the situation. The lack of college knowledge was equally problematic if the parent was the one considering enrollment as an adult student.

Ultimately, the ability to finance a college education may be the determining factor in whether a student is prepared for higher education. Stephen Burd (2002) reported on a study by the Advisory Committee on Student Financial Assistance that found nearly 170,000 academically prepared young people from low- and moderate-income families did not expect to attend college in 2002 because they simply could not afford the cost. The Committee determined that the gradual shift in federal financial aid from need-based to merit-based grants and from grants to loans was forcing low-income students and their families to shoulder a larger share of college costs, sometimes the equivalent of one-third of a family’s income. Further, those students who chose to take out loans to finance their education found themselves with a heavy debt burden upon graduation.

Kim (2004) determined that financial aid affected the college choices of racial groups differently. His analysis of national longitudinal data revealed that 66 percent of Whites, 71 percent of African American students and 56 percent of Asian Americans indicated that an offer of financial aid was important to their choice of which college to attend. In contrast, 83 percent of Latino students stated having financial aid was very important to their college choice. Kim further observed: “students (or their parents) may be more interested in the immediate costs related to college (i.e., tuition) without considering the net cost (total cost minus financial aid) or the long-term benefits that may accrue by attending a certain college over another” (p. 63). He concluded that White and Asian students seemed to take better advantage of the benefits financial aid might bring as a result of attending a more prestigious college and that African American and Latino students did not appear to gain these benefits, perhaps because they lacked information on sources of aid and the perceived value of more prestigious institutions. Thus, financial aid might not be providing equal educational opportunity to certain groups of students. When we couple Kim’s findings and conclusions with other studies that indicate Hispanics are

more likely to attend community colleges because of the modest costs, the concern he raises regarding educational equity is a valid one.

In terms of college preparation, then, Latinos may find themselves at a disadvantage for a number of reasons. They may be less academically ready, may lack information and support from parents and others to make the best college choices, and they may have great difficulty putting together the resources to finance their education. For many, community colleges have been the answer, at least as a starting point for their post-secondary studies.

Community colleges, in turn, have employed a variety of strategies to overcome the college preparation barriers that stand in the way of Latino students' entry into higher education. In addition to participating in federally sponsored programs such as TRIO and GEAR UP (Gaining Early Awareness and Readiness for Undergraduate Programs), the Kellogg Foundation-funded ENLACE, and Achieving the Dream (funded by the Lumina Foundation and 14 partners), the colleges offer a wide range of outreach and support programs of their own (Pulley, 2006b). Many of these institutional programs involve partnerships with local school districts, connections with parents and churches, and direct services to Latino youth in middle and high schools through financial aid workshops, tutoring and college information sessions.

Still other programs create a bridge from high school to specific career fields. The engineering bridge program at Cuyahoga Community College (OH) targets women and people of color, and the San Jose/Evergreen Community College District Valdez Math Institute is designed to draw Latinos and others into math and science careers. Across the country, community colleges also help students to get an early start on college while reducing the total cost of their post-secondary studies by offering dual enrollment courses and hosting middle or early colleges on their campuses. The Achieving a College Education (ACE) Program of the Maricopa County Community College District is an example of such outreach, targeting at-risk youth through concurrent high school/college enrollment and scholarships. Likewise, many of the community colleges in North Carolina are establishing Middle Colleges on their campuses.

Access. Because community colleges are committed to the 'open door' as the hallmark of their mission, they have traditionally provided initial entry to post-secondary education for nearly half of all undergraduate degree-seeking students, including the major share of low-income and minority students. For those who arrive at their doors with some of the preparation deficiencies described in the preceding section, community colleges may be the only option.

Entering Hispanic students who lack basic skills needed for college-level studies can take advantage of remedial/developmental programs and English as a second language classes. Some of these programs are delivered in cooperation with local high schools even before college enrollment, and others are offered online or through self-paced computer-assisted instruction. For example, Bellevue Community College (WA) and Northern Virginia Community College offer online ESL classes. At other colleges, ESL is linked with specific job skills; for example, Renton Technical College in Washington State links its Construction Management Program with English language classes for the growing local Latino population.

Community colleges have also developed a wide array of cutting-edge career programs in fields such as biotechnology, cyber-security, environmental and process technologies, and advanced health sciences—all of which could help Latinos engage in the

global economy and flatter world described by Friedman. Many of these programs involve internships with high-tech companies that position students well for later employment opportunities; the InnovaBio program at Salt Lake Community College (UT) is one such program. These institutions have also established pathways from high school Tech Prep curriculums to associate degrees that are then linked with baccalaureate programs. Further, many of the institutions offer career/technical/vocational degrees online to expand the reach of their educational services. A recent survey of over 500 colleges (Johnson, Benson, Davis, Shinkareva, Taylor et al., 2004) determined that 76.3 percent of the 270 responding colleges offered an average of two technical degrees online, as well as a variety of other credit and non-credit courses. With increasing access to the Internet, Hispanic students can benefit from these new instructional approaches.

Community colleges offer three other options of considerable value to Latinos as they seek access to higher education. First, a growing number of these institutions award baccalaureate degrees themselves or have forged partnerships with upper division colleges and universities to bring baccalaureate degree programs onto their campuses so place-bound students can continue their studies locally. Miami Dade College (FL), South Texas Community College (TX) and Vermont Technical College are among those authorized to award bachelor's degrees in certain fields. Lorain County Community College (IL) and Macomb Community College (MI), among many others, have partnerships with a number of universities in their area to provide upper-division courses and degrees. Second, some community colleges have established accelerated degrees for adult students. A notable program of this sort is the Adult Fast Track at the College of Du Page (IL) where students can take a combination of weekend, online and self-paced courses to move rapidly through a degree program. Latinos who need to enter the job market as soon as possible could find accelerated degrees of great interest. Third, it is standard practice in most community colleges to negotiate articulation agreements with other colleges and universities to ease transfer into upper-division studies. One of the most ambitious of these ventures is the National Articulation and Transfer Network at the City College of San Francisco. Since 2001, the NATN has grown to a coalition of over 200 high schools, community colleges and universities, with particular emphasis on minority-serving institutions.

Financing one's education is a primary factor for both college preparation and access. In this regard, the low tuition charged by community colleges is very attractive to Latinos and may make these colleges the only option for many of them. The College Board (Baum and Payea, 2006) reports that in 2006 the average tuition at community colleges was \$2,272, while four-year public institutions charged \$5,836 on average and four-year private institutions, \$22,218. To some extent, federal and state financial aid programs may offset these costs, as well as other expenses associated with going to college such as child care, transportation and books. Most community colleges also offer institutionally-funded scholarships or guide students to sources of such funding. However, as noted in the previous section of this paper, the overall costs of college studies coupled with continual increases in tuition and fees, may make it impossible for Latinos of limited means to attend. Further, worries about finances are not resolved at one time; rather, they continue throughout students' enrollment and may adversely affect persistence and degree completion by forcing students to step out periodically to work or even drop out entirely.

Yet another aspect of access affects Latinos disproportionately. Current federal laws guarantee immigrants, both legal and undocumented, access to a K-12 education but prohibit undocumented persons from enrolling in public colleges and universities at in-

state tuition rates. This has severe consequences for the 65,000 undocumented young Hispanics who graduate from U. S. high schools each year (Biswas, 2005; National Immigration Law Center, 2007). Regardless of their academic achievement or length of residency in a particular state, they are generally excluded from higher education either because they cannot afford to pay out-of-state rates or because they fear that discovery of their undocumented status may bring repercussions on themselves and their families. The Development, Relief and Education for Alien Minors (DREAM) Act has been under consideration in Congress for several years as a way to alleviate the problem, but there is considerable resistance to this legislation. As of March 2007, ten states have passed their own versions of the DREAM Act; however, some of these laws are under attack (Bagnato, 2005; Biswas, 2005, 2007; Keller, 2007). Community colleges have attempted to fill the gap by channeling some undocumented students into non-credit workforce training and some community organizations provide scholarships for deserving students, but the problem needs resolution at the federal policy level if these young people are to have full access to higher education.

Academic success and goal achievement. Bailey and Smith-Morest (2006) are correct when they assert that preparing for college and getting in the door are only part of educational equity. The real challenge is to successfully complete a degree that will allow the student to engage in the new global knowledge-based economy and contribute to civic and social life in this country. This section of the paper looks at factors that affect the academic success of Latinos and the strategies community colleges employ to remove barriers and encourage achievement. Institutional characteristics, support services, academic engagement and goal attainment as measured by transfer and graduation rates will be addressed.

The first set of success factors involve institutional conditions, not all of which can be controlled by the colleges. Bailey, Calcagno, Jenkins, Kienzl and Leinbach (2005) note that only about one-third of all students complete associate degrees or certificates within eight years of initial enrollment, and completion rates for minority and low-income students are even lower. Using a national longitudinal data base, the researchers examined graduation rates in relation to institutional characteristics, including location, size, and proportion of students who are minority, female, part-time, or financial aid recipients. They determined that larger colleges and those in urban areas tend to have lower graduation rates. Colleges that enroll large numbers of students from the demographic groups listed above also have lower graduation rates. On the individual student level, Bailey et al. found that race, ethnicity, delayed enrollment after high school, taking remedial courses, enrollment in an occupational major or no major, and interrupted enrollment all have negative impact on graduation rates. Given that Hispanics often enroll in urban and larger community colleges and that they exhibit many of the individual characteristics described, these findings suggest reasons for their lower academic achievement. And, while community colleges do not necessarily control their size, location or student demographics, understanding the impact of these factors on degree completion may allow them to develop and implement strategies that enhance student success.

One other institutional factor that may affect Hispanic student success bears mentioning: expenditures per full-time equivalent (FTE) student. Bailey et al. (2005) examined this factor as well, concluding that only instructional expenditures were statistically significant, but the effect was minimal. Whether this factor can be controlled

by the colleges is debatable. As public institutions, they are subject to the vagaries of state funding and have seen their allocated funds diminish since the mid-1980s while allocations for health care and public safety increase (Bailey & Smith-Morest, 2006). Certainly, the colleges can and do advocate for a fair share of public dollars based on their mandate to prepare the workforce and contribute to states' economic well-being, but ultimately annual appropriations from the state are out of their control. To increase their capacity to provide needed services for all students, these institutions have had to develop outside sources of funds. This issue will be addressed again in a later section on policy.

Campus climate, another institutional factor, *is* controllable and has been researched extensively. Hurtado and Ponjuan (2005) identified a number of elements that contribute to campus climate: the historical legacy of inclusion or exclusion, the proportional representation of student subgroups, the perceptions and attitudes of campus community members, and inter-group relationships as evidenced by their behaviors. Latino students' adjustment to college life and sense of belonging are strongly affected by their perceptions of the campus environment. An earlier study (Hurtado & Carter, 1997) found that Latinos tended to report a more hostile environment, more discrimination and isolation, and a sense of low social status as a result of their group identity. Students' positive or negative reactions depended on the support system they developed, and those that used academic support services appeared to feel less marginalized.

Jones, Castellanos and Cole (2002) met with minority student focus groups at predominantly White (PWI) institutions and learned that many of these students experienced stress and isolation which they attributed to the social climate and overt discrimination. The students also observed that, when PWI institutions established cross-cultural or group-specific centers, these offices were generally under-funded and marginalized. Further, the students asserted that administrators espoused diversity in their statements but did not follow through with actions. Finally, academic departments expected the cross-cultural offices to assume all responsibility for promoting diversity, and minority students were expected to represent their groups in all aspects of campus life.

Community colleges have long been aware that they must provide a welcoming and supportive environment in order to fulfill their mission of access, equity and educational excellence. Some of the strategies they employ to create a positive learning climate for all students include infusion of diversity themes in the curriculum, courses focused on particular cultures, English as a second language courses, clubs and activities of interest to student subgroups, cultural events such as Black History Month or Latin American celebrations, and insistence on open-minded and civil discourse. Middlesex Community College in Massachusetts chose to use many of these strategies in 1987 when an in-migration of Latinos changed the composition of their student body (Clements, 2000), and other examples of such efforts exist across the country. Whether such strategies are effective has yet to be determined empirically.

Bensimon (2004) suggests the use of a Diversity Scorecard as a means of both causing campus climate change and measuring the effect of such change on educational equity. She notes: "An institution's success (or failure) in reducing educational inequities—conditions that severely restrict opportunity and upward mobility for students of color—is rarely used as an explicit measure of its success" (p. 46). In her view, colleges may have acceptable overall indicators of student success, such as retention or graduation rates, but if these are not disaggregated by student subgroups, inequities will remain hidden. Using "evidence teams" (p. 46) to compile data on access, retention,

institutional receptivity, and academic excellence, a college can compile its Diversity Scorecard and then set improvement targets. In terms of access, the teams may look at Hispanic enrollments in high-paying career curriculums or the proportion of financial aid awards given to this group. The teams could also look at Hispanic retention rates in comparison to other student populations, as well as comparing transfer patterns. Studying institutional receptivity might involve examining the diversity of the faculty and staff and the array of support services for minority students. Finally, the teams might compare academic outcomes such as grade point averages and completion rates for various student subgroups. Several community colleges—including Hispanic-Serving Institutions Los Angeles City College, Riverside Community College and Santa Monica College—participated in the Diversity Scorecard pilot project. Initially, some of the colleges were skeptical of the scorecard process but after participating for over two years, they found it of great value in promoting the academic success of all their students.

The array of student support services offered by a college is another important factor in the success of Latinos and other students of color. Bailey and Smith-Morest (2006) speak to the value of counseling and advisement services that help Latinos collect information, make sound academic choices, identify financing and plan for careers. They recommend that colleges implement coherent programs with a variety of services targeted to specific groups of students, rather than a collection of uncoordinated services. A systematic progression of services is also of value to Hispanics who may not be skilled in navigating the higher education environment. This approach to guidance and counseling is embodied in Valencia Community College's Life Map system, which encourages students to take responsibility for planning an academic trajectory that will realize their goals, and the Student Success Center at the Community College of Baltimore County—Catonsville Campus. Student success courses or freshman seminars can provide similar support and have been shown to increase the persistence and success of minority students. These courses can also build a sense of community and belonging among students (Stovall, 2000).

Mentoring is another strategy employed by colleges to help their students integrate into the campus community and succeed academically. Bordes and Arredondo (2005) note that having a mentor in college can help students with identity formation, coping skills, stress reduction and persistence to graduation. They found that the mere fact of having a mentor helped Latino students, and the mentor did not have to be Hispanic him/herself. Further, students who were more satisfied with their support system, including the mentor relationship, had a more positive outlook regarding the college environment and experience. Stromei (2000) studied work-related mentoring such as internships, cooperative education programs and apprenticeships and concluded that a formal, facilitated mentoring program was of considerable benefit to Latino and African American students. The Puente Project in California, a long-standing support initiative, includes mentoring for Latino community college students and has been replicated in other parts of the country. The LUCERO Program at Lansing Community College (MI) is another model for comprehensive support services and includes academic and career planning, mentoring, as well as involvement of parents and Latino community leaders. Students can also earn laptops to support their studies (Cunningham, Cardenas, Martinez and Mason, 2006).

Probably the best measure of how well these student success strategies are working is the Community College Survey of Student Engagement (CCSSE) hosted by the

University of Texas in Austin. This survey program looks at institutional practices and student behaviors in five benchmark areas: active and collaborative learning, student effort, academic challenge, student-faculty interaction, and support for learners. Since 2001, hundreds of colleges have administered the Community College Student Report instrument to determine how engaged their students are in the learning process and implement strategies to enhance that engagement.

In 2005, CCSSE began to disaggregate data for students with high-risk characteristics, finding that “when there are differences in engagement between low- and high-risk students, the students typically described as high-risk—including academically underprepared students, students of color, first-generation students, and non-traditional students—are more engaged in their college experience than their peers” (CCSSE, 2005, 1). They come to class prepared, interact with faculty more frequently and use support services more often. This is good news for Latino students, who generally fall into the demographic categories described above, and suggests ways that colleges can support student engagement. Further, the 2006 CCSSE report discusses results from a set of special focus questions on academic advising and planning. Students who took the survey that year stated that their best source of advising was faculty (43 percent) or family and friends (26 percent), findings that have important implications for colleges that serve Hispanic students (CCSSE, 2006).

More recently, CCSSE has established a consortium of Hispanic-Serving Institutions that will participate in targeted research using CCSSE data; this initiative should yield even more information for promoting Latino success. Two colleges are models for how CCSSE results can be used. Estrella Mountain Community College in Phoenix implemented a freshman institute anchored in learning communities and placed electronic kiosks around the campus to inform students about workshops and support services. The Community College of Denver offers a First Generation Student Success Program (formerly La Familia Scholars Program) that includes learning communities, peer mentoring, and a bilingual computer technology program.

Another important element of academic success involves the courses Latino students choose to take, since these choices strongly influence students’ eventual enrollment in high-demand career curriculums and their ability to transfer into baccalaureate programs. In every college, there are “gatekeeper classes...college level courses students are required to complete successfully before enrolling in more advanced classes in their major field of study” (Achieving the Dream, 2006). Maxwell et al. (2003) studied the course-taking patterns of first time students of various ethnicities in a California college and found that Hispanic students were clustered in remedial English and mathematics courses that were not transferable, as well as occupational courses in fields such as auto mechanics and child development, choices that might not be the optimal ones for upward academic mobility.

On the other hand, a study of the 2002 Achieving the Dream cohort indicated that 17 percent of Hispanic students successfully completed at least one gatekeeper math course and 32 percent completed a gatekeeper English course by the end of their third academic year. Moreover, Hispanic students were more likely than any other group to complete these classes on the first try (Achieving the Dream, 2006). In both studies, it was evident that having stronger English skills made a real difference in student achievement. Bensimon (2004) notes that performance in such courses should be a key element in the Diversity Scorecard. Thus, colleges that are concerned with the academic

achievement of their Latino students need to gather and disseminate data on gatekeeper courses so that advisors and faculty can work with students to ensure appropriate course choices and persistence in those classes.

Like other students, Latinos have many goals when they enroll in college, ranging from learning English to upgrading job skills to earning a degree or transferring to another institution. Nevertheless, academic success and goal attainment are ultimately measured in terms of transfer and graduation rates, and in this regard community colleges are not yet fulfilling the equity agenda. Bailey and Smith-Morest (2006) report that, of all students who start their college studies at community colleges, 50 percent do not earn a credential or transfer, six percent earn a certificate, 15 percent earn an associate's degree, 11 percent transfer to a four-year college but do not earn a degree, and 18 percent earn a bachelor's degree within eight years of initial enrollment. They note that "low-income and minority students are much less likely than White and middle-income students to earn credentials or transfer to a baccalaureate-granting institution" (p. 3). Even so, in 2003-2004 Latinos earned some 72,000 associate's degrees, 94,500 bachelor's degrees and 35,600 graduate and professional degrees (NCES, 2006).

Earning an associate's degree is certainly a milestone for Latinos who enroll in community colleges, an achievement that can substantially affect their earnings and success in the new global economy as well as their integration into American society. Moving on to a baccalaureate institution may be of even more value, and here the community colleges play a critical role when they prepare Latino students well for transfer. This effort can take many forms, from early college planning with the K-12 system to encouraging students to consider transferring even if this was not an initial goal. It also involves ensuring that students have solid foundational skills and take the appropriate sequence of courses, preferably ones that are formally articulated with upper-division degree programs. Hagedorn, Perrakis and Maxwell (2006) advocate Transfer Centers such as those at the Los Angeles Community College District, which operate in partnership with the University of California and receive funding from the Jack Kent Cooke Foundation. Santos-Laanan (2007) asserts that community colleges need to understand the complexities of transfer and the adjustment period transfer students experience after enrolling in the upper-division program in order to help students make a successful transition.

To summarize, academic success and goal achievement, as evidenced by degree completion, are essential factors in educational equity for Latino students. Earning appropriate post-secondary credentials and being able to continue one's education over a lifetime are the only real way for Latinos to participate in Friedman's flat world. As the primary entry point for higher education, community colleges are responsible for promoting the success of these students by providing a positive climate for learning, clear academic pathways that begin in middle and high school and continue to the baccalaureate and beyond, and support services that ease the academic journey.

Educational Equity for Latinos – A Matter of Policy

Understanding and addressing the factors that influence Latinos along their educational pathways—the basis for their choices, the barriers they face, the strategies and programs that will boost them into the mainstream—is only part of the challenge. For this growing segment of the American population to be fully integrated into the job market and

civic life of this country, it is essential that policy makers at every level provide guidance and incentives. In turn, those who formulate policy must receive information and direction from the broader community, and they must have incentives themselves to create policies that benefit us all. This section gives a brief overview of policy issues that must be resolved at the national, state and institutional levels in order to fulfill the promise of educational equity for Hispanics.

National level. Immigration reform continues to be a major policy issue as the nation grapples with changing demographics and Hispanics emerge as the largest minority population. Both the American economy and that of neighboring countries are supported by the constant flow of legal and illegal workers. However, there is considerable backlash as these immigrants access this country's educational, social services and health care systems, and there is much concern about our permeable borders in the face of global terrorism. The challenges of maintaining secure borders, allowing entry to those with needed skills and coping with the large numbers of undocumented people already in the United States can only be addressed at the national level.

In terms of educational opportunity for Hispanics, one aspect of the immigration debate stands out: how will youth who have entered the country illegally and attended American schools access higher education? The DREAM Act was introduced in Congress in 2001 but has not yet received enough votes to pass into law. The Act would provide a set of steps for young Latinos to follow as they graduate from high school and seek entry to colleges and universities. It would also repeal a section of the Immigration Act of 1996 that prohibits states from providing post-secondary education to those who are in the country illegally, a matter affecting many Hispanic adults. Ten states have passed a version of the DREAM Act but this legislation is under attack in several of them (Biswas, 2005, 2007; Flores, Horn & Crisp, 2006; National Immigration Law Center, 2007). For this reason, we must take a national policy approach to immigration reform, including passage of the DREAM Act, so that Latinos across the country can complete their education and become productive members of American society.

Federal financial aid policies are closely linked to access and equity. In this regard, it is essential that Pell Grants keep pace with the cost of college and that apparent inequities in distribution be studied to ensure that no group of students is disadvantaged because of lack of information or understanding about how to use financial aid resources (*Excelencia in Education*; 2005; Kim, 2004). Further, Latinos and other low-income students will be better served by grants and expanded work-study programs than by loans that leave them with heavy debt loads upon graduation (ERIC, 2001).

Funding for Hispanic-Serving Institutions (HSIs), those where more than 25 percent of full-time equivalent students are Hispanic, is another key federal policy issue. There are 242 HSIs located in 14 states, including 128 community colleges. Further, the number of colleges that qualify as HSIs grows each year as Hispanic enrollments increase. These colleges and universities enroll 54 percent (500,000 annually) of all college-going Latino students and received \$94 million in federal funds under Title V of the Higher Education Act in 2004 (Benítez and DeAro, 2004). However, a study of Texas HSIs (Waller, Glasscock, Glasscock and Fulton-Calkins, 2006) found that tuition rates at these HSIs were "significantly higher than those of African-American and Caucasian-serving institutions in Texas" (p. 472). The researchers noted that Hispanic students often require more extensive and expensive support services such as supplemental instruction, learning communities and information-literacy instruction. They recommended that the state

provide adequate funding to serve this growing student population rather than passing the financial burden to the college districts, particularly since the districts were expected to meet state mandated performance standards. With greater funding available at the federal level, some of the fiscal stresses described in this study could be relieved.

Santiago and Brown (2004) further recommended that federal policies continue to support college readiness programs such as TRIO and GEAR UP, which are instrumental in Latino college entry, as well as initiatives focused on science and math such as the Minority Science and Engineering Improvement Program (MSEIP) and various Science, Technology, Engineering and Mathematics (STEM) programs sponsored by the National Science Foundation. These latter programs are essential for preparing Latinos to thrive in the global knowledge-based economy.

State level. State funding policies determine the true extent of higher education access and opportunity. Since the 1980s, colleges and universities have seen enrollments grow from 7 million students to over 10 million while state funds for higher education have been reduced continually until 2005 appropriations per FTE (including state and local support, adjusted for inflation) reached the lowest point in 25 years at \$6,017 (SHEEO, 2007). To compensate for the reduction in state support, institutions have been forced to raise tuition repeatedly, thus passing on more of the cost of college to students and their families. The federal government, in turn, has increased the amount of aid it provides—over \$90 billion currently—so that Americans can still receive a college education. Ironically, the federal government has now become the primary financial supporter of higher education even though the original intention was for states to assume the major financial role (Alexander, 2006).

Bailey and Smith-Morest (2006) see these fiscal trends as a real threat to the community colleges' mission of educational equity and decry the need to raise tuition, seek new revenues from private sector donors and emphasize transfer curriculums and services to business and industry, programs that do not necessarily serve disadvantaged students. To counteract these state funding policies, Alexander (2006) proposes that the federal government establish programs “that would impose disincentives on states that provide inadequate or declining tax efforts...[and guarantee] that federal funds do not directly or indirectly supplant state appropriations” (p. B16).

State policy makers must also address the continuing gap in educational attainment between Whites and other race/ethnicity populations, a gap which extends through higher education (Kelly, 2005). If the academic achievement of Latinos and other minorities does not reach parity with Whites, states will experience unacceptable socioeconomic consequences that will disadvantage them nationally and globally. To achieve educational parity for Latinos and others, then, states must: encourage K-16 partnerships; expand financial aid resources; support dual enrollment and advanced placement options; establish programs that enroll minorities in science and engineering degrees; insist on effective transfer and articulation agreements among public institutions; and promote research and data collection, among other steps.

Institutional level. Policy-making by community college governing boards is also necessary to ensure Latino educational equity and success. Institutional policies can be either external or internal in relation to the various success factors discussed earlier in this paper. External policies should focus on relations with school districts, community organizations and local leaders in order to provide Latinos with information about the college-going process, assist K-12 students to prepare for college, establish partnerships to

support student learning, and negotiate articulation agreements with upper-division institutions. Internal policies will address the learning process, create support services that foster learning for all student populations, and develop mechanisms for collecting data and measuring student achievement, with special attention to any disparities among subgroups. Leaders at all levels—trustees, presidents, and faculty—must embrace their policy-making responsibilities if Latino students are to successfully navigate the higher education system.

Hope for the Future

Latinos come to the United States in search of the American dream, just as waves of immigrants before them have done. They believe that taking advantage of the educational opportunities available here and working hard will allow them to move into the middle class, a possibility they might never have in their native countries. As Scott and Leonhardt (2005) assert:

Mobility is the promise that lies at the heart of the American dream. It is supposed to take the sting out of the widening gulf between the have-mores and the have-nots. There are poor and rich in the United States, of course, the argument goes; but as long as one can become the other, as long as there is something close to equality of opportunity, the differences between them do not add up to class barriers (no page).

These new entrants into American society bring with them qualities that are of critical importance if we are to compete successfully in the global, knowledge-based and continually changing world that Friedman describes in *The World is Flat* (2006). Latinos are determined, resilient, adaptable, networked and eager to learn. They share the traditional American values of family, education and a strong work ethic. Their ability to communicate in two globally important languages cannot be underestimated. Our imperative as a nation, then, is to integrate them into the mainstream so they can contribute to our economy and civic life. Community colleges, as the entry point for the higher education so necessary in the flat world, are uniquely equipped to lead this task of integration.

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