Building Bridges to the Future for Latino Students
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Latino Students Are Not Prepared for College and Career

Population shifts are significant determinants for the size and composition of the labor force. Projected to increase by 8.2%, reaching 166.9 million by 2018, the United States’ workforce is facing profound changes. Also, the workforce is becoming increasingly diverse. Hispanics are projected to increase from 14.3% to 17.6%, reflecting 33.1% growth. The share of the youth labor force, aged 16 to 24, is expected to decrease from 14.3% in 2008 to 12.7% by 2018. The primary working-age group, those between 25 and 54 years old, is projected to decline from 67.7% of the labor force in 2008 to 63.5% by 2018. The lowest in 57 years, teen employment rates are particularly dismal for low-income African American and Hispanic high school graduates. Low-income minority youth actually remain the least likely to be employed while still in high school, creating additional school-to-work transition barriers. Available jobs are in lower-level service industries, often lacking benefits, training, and opportunities for advancement (Conference Board, 2006). By contrast, as some baby-boomers choose to remain employed longer, workers aged 55 years and older will climb from 18.1% to 23.9% of the labor force during the same period (Bureau of Labor Statistics, 2010). Comprising about one-third of the country’s workforce, 76 million baby boomers, born between 1946 and 1964, will retire. As insufficient numbers of younger workers are available to replace retiring baby-boomers, the country’s workforce will suffer from a shrinking pool of knowledgeable and skilled workers, causing labor shortages in key industries (Conference Board, 2006). When 150 senior executives from the 1,000 largest U.S. companies were surveyed, 47% asserted that baby-boomer retirements would have the single most significant impact on the workforce in the next decade (Industry Week, 2008).

The projected 15.3 million additional jobs will not be evenly distributed across occupation categories. Changes in consumer demand, improvements in technology, expansion of the knowledge economy, and many other factors have transformed U.S. employment structures, entire industries, and workforce skill requirements. The shift away from a goods-producing economy toward a service-providing economy is expected to continue (Bureau of Labor Statistics,
In 1955, 60% of the American nonprofessional labor force was unskilled and 20% skilled. In 2008, the breakdown of non-professional labor shifted to 68% skilled and 12% unskilled. A cluster of fast-growing service occupations such as information, financial, business, education, government, and healthcare services are dominated by 75% to 90% skilled workers. In 2007, people with a high school education or less occupied only 41% of the 154 million available jobs. In the past thirty years, the total number of jobs in America increased by 63 million while the number of people employed with no postsecondary education decreased by 2 million. Essentially, all net job growth was generated by positions requiring specific 21st Century skills beyond the traditional high school diploma (Harvard, 2011, Carnevale, Smith, Strohl, 2010). However, schools struggle to supply sufficient skilled workers for emerging or existing jobs (ACT, 2011).

Service-providing industries are anticipated to generate approximately 14.5 million new wage and salary jobs. Advanced manufacturing, energy, information technology, healthcare, and other high-tech industries are the current engines of economic development. Employment in science, technology, engineering, and mathematics (STEM) areas will grow 70% faster than the overall growth for all other occupations (Bureau of Labor, 2005). In a 2010 report, the Bureau of Labor projected that key occupations will grow exponentially between 2008 and 2018. Computer and mathematical science occupations are projected to add almost 785,700 new jobs, growing more than twice as fast as the average for all occupations in the economy. Demand for workers in computer and mathematical occupations will be driven by the continuing need for businesses, government agencies, and other organizations to adopt and utilize the latest technologies. As the demand for healthcare increases, the number of elderly grows, and new medical discoveries occur, employment among healthcare practitioners and technical occupations is expected to increase by 21%, resulting in a projected 1.6 million new jobs. Demand for adult education and training occupations are anticipated to add more than 1.3 million jobs, representing a growth rate of more than 14%. Employment in community and social services occupations is projected to increase by 16% or 448,400 jobs. Employment in arts, design, entertainment, sports, and media occupations is expected to grow by 12%, resulting in almost 332,600 new jobs. As firms place a greater emphasis on managing their public image, public relations specialists will add a substantial number of jobs. Demand for designers will increase as more graphical Internet advertising is conducted and as consumers increasingly obtain professional interior design services. Led by strong growth in the market, employment in life, physical, and social science occupations is projected to increase by nearly 277,200 jobs, denoting a growth rate of 19%, almost twice the average for all occupations across the economy. Employment in life science occupations will increase rapidly as biotechnology research developments continue. As greater emphasis is placed on improving the nation's infrastructure, architecture and engineering occupations are projected to add roughly 270,600 jobs, representing a growth rate of 10%. Much
of this growth will occur among engineering occupations, especially civil engineers. Increasingly, the U.S. labor market is demanding a more educated workforce. Of the 48 million jobs projected for the next eight years, 63% will require a high school diploma and some postsecondary education (Bureau of Labor Statistics, 2010). Business leaders predict shortages of qualified workers in areas ranging from advanced manufacturing, energy, information technology, healthcare, and other high-tech industries and the STEM fields (Harvard, 2011). As we move further away from agriculture and manufacturing toward industries that require highly-skilled workers trained in science and technology, the United States must promote critical 21st Century skills, foundational knowledge, career planning, and postsecondary preparation (ACT, 2011).

The dropout rate in the United States is staggering with at least one in five students dropping out of school. Each year 1.3 million students drop out of high school, more than 7,200 students per day. Among 18- to 24-year-olds, an estimated 4.9 million lack a high school diploma (Hurst, Kelly, and Princiotta, 2004; Laird et al, 2008, EdWeek, 2010). Through an international lens, the U.S. ranked 20 out of 28 on high school graduation rates among industrialized democracies, according to the Organization for Economic Co-Operation and Development (OECD). Startling statistics show that 75% of youth ages 17 to 24 are currently unable to enlist in the United States military. The most common barriers for recruits are failure to graduate high school, a criminal record, and physical fitness issues, including obesity (Mission: Readiness, 2009).

Table 1 – High School Graduation Rates by Race (Class of 2007)

<table>
<thead>
<tr>
<th>Race</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Students</td>
<td>69%</td>
</tr>
<tr>
<td>White</td>
<td>77%</td>
</tr>
<tr>
<td>Black</td>
<td>54%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>56%</td>
</tr>
<tr>
<td>Asian</td>
<td>81%</td>
</tr>
<tr>
<td>American Indian</td>
<td>51%</td>
</tr>
</tbody>
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An economic drain, a high-school dropout is less likely to be employed; therefore more likely to receive public assistance, much more likely to be incarcerated, and will cost the public sector $209,100 over a lifetime. Often dropouts turn to the public sector for services such as unemployment insurance, welfare assistance, and health care. In fact, 70% of state prison inmates are high school dropouts (Princiotta, & Reyna 2009). A 10% decrease in dropout rates
nationally would reduce murder and assault rates by approximately 20% (Princiotta, & Reyna 2009). Each individual who does not complete high school costs the public sector:

- $139,000 in reduced tax payments;
- $40,500 in increased public health costs;
- $26,600 from increases in crime; and
- $3,000 in increased welfare costs, on average, over a lifetime (Levine, et al 2007).

In aggregate, dropouts cost the United States more than $300 billion per year (Alliance for Excellent Education, 2010). By reducing the number of dropouts by half, U.S. taxpayers could save $45 billion annually. Decreasing the number of male dropouts by 5% would realize annual crime-related savings ranging from $1.6 million in South Dakota to $752 million in California (Levine, et al 2007).

**Gap Between High School Diploma and Readiness for Career, College and Military**

Even high-school graduates are ill-prepared for the demands of college and career, lacking the requisite abilities, skills, and knowledge (Conference Board, 2006). A disconnect persists between the skills and abilities required to ascertain a high school diploma and those required to succeed in a college or a career (Princiotta & Reyna, 2009). High school graduates lack the critical thinking and creativity skills crucial to competing in the global marketplace (The Conference Board: The Ill Prepared U.S. Workforce, 2009). Students’ high school experiences fail to prepare them for postsecondary education or the rigors of work. High school graduates report a lack of preparation in academic skills like writing, research, math, and science required in their current jobs. Reports indicate gaps between the education students received in high school and the overall skills, abilities, and work habits expected in college and the workforce. A majority of high school graduates without a college degree say that they have gaps in preparation in at least one crucial subject or skill required for a career. Per a recent poll, most students believe high schools:

- Failed to prepare them for work or college,
- Did not sufficiently challenge them,
- Did not provide work that was relevant to potential future careers, and
- Offered too few significant career-building opportunities such as internships (Associated Press-Viacom, 2011).
Employers expressed similar dissatisfaction in high school preparation. Surveys consistently show that many high school graduates do not meet employers’ standards in a variety of academic areas, as well as in employability skills (Bangser, 2008). Increasingly, employers complain that today’s youth do not possess the skills required to succeed in the workforce (Harvard, 2011). A recent poll of National Association of Manufacturers reports that 84% of its members believe that K–12 schools are not adequately preparing students for the workplace and nearly half reported that their current employees lacked basic employability skills such as attendance, timeliness, and work ethic (Conference Board, 2006; Achieve, 2005). Critical of obsolete and outmoded approaches to education, 40% of employers noted that the high-school graduates lack sufficient 21st Century skills such as critical thinking, problem solving, creativity, teamwork, decision-making, and communication required for even entry-level jobs (Conference Board, 2006; Partnership for the 21st Century). Several hundred employers asserted, “Far too many young people are inadequately prepared to be successful” and are “deficient” in oral and written communication, critical thinking and professionalism. All 10 skills rated by employers as “very important” on the Workforce Readiness Report Card were listed on the Deficiency List for high school graduates. Companies are reluctant to hire high-school graduates because they are deficient in:

- Basic knowledge and skills of Writing in English, Mathematics, and Reading Comprehension,

- Written Communications and Critical Thinking/Problem Solving, Professionalism/Work Ethic (Conference Board, 2006).

In this rapidly changing economy, employers are demanding a more highly skilled workforce to keep pace. Innovative practices are needed to support students striving toward more rigorous academic standards in high school, engaging in postsecondary education or training, and finding gainful employment (RCERP, 2011). There remains a profound gap between the knowledge and skills student learned in high school and knowledge and skills they need in 21st Century communities and workplaces (Partnership for the 21st Century, 2003). High personal expectations, self-management, critical thinking, and academic achievement are competencies required for college readiness as well as workplace readiness and healthy youth development. While considered vital in the workplace, previous work experience, decision-making, listening skills, integrity, and creativity are negligible in most college readiness programs.

A holistic approach to education addressing a broader range of skills is required for students to succeed in the 21st Century (Child Trends, 2008). Educators must reject the dismal status quo but must marshal resources, leverage technology, and rethink how we prepare students for career and college (Harvard, 2011). Schools should emphasize critical 21st Century skills, enabling
students to acquire and apply new knowledge and skills, connect new information, and collaborate with others to use information (Partnership for the 21st Century, 2003, 2008). As students move from middle level to high school, transition points are crucial for college and career planning. Academic achievement, career interest, and certainty of occupational choice influence a student’s motivation to persist in school and career positively. For students entering the workforce, career and college planning can monitor progress toward reaching college and career goals (ACT, 2009).

Dismally low standardized test scores and low high-school graduation rates foreshadow an American workforce unable to compete in a global economy (America’s Promise Alliance, 2006). Only 56% of Hispanic students will graduate on-time with a regular diploma, compared to 81% of Asian students and 77% of Caucasian students (Alliance for Excellent Education, 2010). The Hispanic-Caucasian educational achievement gap has remained wide over the past two decades. While math and reading scores for Hispanic students have increased since the 1990s, the Hispanic-Caucasian achievement gap on the National Assessment of Educational Progress (NAEP) has persisted. As a standard measure of international competitiveness in 2009, the Programme for International Student Assessment (PISA) was administered to 15-year-olds in 65 countries and educational entities, including the United States, to measure reading, mathematics, and science skills, as well as general competencies (e.g. problem solving and functional skills). The U.S. performance was average in reading and science and below the average in mathematics (OECD, 2011). Students performing at the lowest level on the PISA were not a random group. Results show that 17% of the variation in student performance in the United States is explained by students’ socioeconomic background. Socioeconomic disadvantage translates more directly into poor educational performance in the United States than is the case in many other countries (OECD, 2011).

Since the military prefer high school graduates, Hispanics’ lower high school graduation rates explain the underrepresentation of Hispanics among all armed services. Though important, education is not the only major disqualifying characteristic of Hispanic youth. Hispanics who are high school graduates often fail to meet other enlistment standards. The trend toward increased obesity has important implications for military recruitment since fewer youth are likely to meet the services’ weight standard. When compared with other groups, Hispanics’ weight is another disqualifying characteristic. Seventy-nine to 91% of White males meet the service weight standards as compared with only 71 - 88% of Hispanic males. Only 36% of Hispanic high school graduates scored high enough for service, compared with 68% of White high school graduates. A key implication of this result is that increasing the high school graduation rate among Hispanic youth may not lead to comparable increases in enlistment eligibility, career success, or college attainment.
The Barriers to Postsecondary Success are High, but Attainable for Latinos

Globally, the best performing education systems take an individualized approach to learning, embracing students’ diversity in capacities, interests, and social background (OECD, 2010). Education systems in many globally competitive countries emphasize career counseling. Most secondary schools throughout Europe, Japan, and the United Kingdom schedule career guidance into the school day, establish detailed career plans, foster company internships, promote workplace learning, and grant a diploma or certificate, signaling to the labor market the acquisition of strong workplace skills (Harvard, 2011).

Three major barriers prevent our students from planning for career and college: (1) lack of guidance, (2) lack of relevancy of high-school courses to career or college, and (3) lack of challenging coursework (Roderick, Nagoaka, Coca, 2009, Harvard, 2011). Without guidance, students make impulsive or uninformed career decisions. Many students are unaware of the necessary steps to prepare for and enter college (Ikenberry & Hartle, 1998; U.S. General Accounting Office, 1990). Consequently, too often students do not take rigorous and relevant courses aligned to the knowledge and skills demanded by colleges and employers (Roderick, Nagoaka, Coca, 2009). Without direction, students enroll in a variety of basic courses lacking rigor and lacking alignment to career or college requirements. Although many students aspire to postsecondary education, fewer than 50% of students take appropriate preparatory courses (Westover & Hatton, 2011). Research indicates that students with a C average or lower are unlikely to earn any degrees or certificates within six years of entering. However, students are understandably surprised to learn that “high school competency” does not equate to “college readiness” (Rosenbaum, 2010). To be college- and career-ready, high school students must take challenging courses (Roderick, Nagoaka, Coca, 2009). While most states define their own high school graduation requirements, students should access course content that reflects the knowledge and skills demanded by colleges and employers, such as Algebra 1, Geometry, and Algebra 2. Whether due to a lack of readiness or a perception that the courses are too difficult, students are guided away from these core courses to less rigorous content. Although many students aspire to postsecondary education, fewer than 50% of students take appropriate preparatory courses in mathematics and science (InnovateEd, 2011). Studies indicate that the more rigorous the courses taken by high school students, the greater the chances of earning a college degree (Roksa, Jenkins, Jaggers, Zeidenberg, Cho, 2009).

Although planning is an essential component of any effective career and college planning, the current U.S. system provides students little or no useful guidance. Counselors, with an average caseload of 500 students, are expected to address students’ personal, psychological, academic,
social problems and administrative tasks, as well as career and college guidance (Association for Career and Technical Education, 2008). Florida high-school counselors (30%) reported that “actual career counseling” occupied very little of their time (Osborn & Baggerly, 2004). As a result, high school students are often presented with an oversimplified image of the college admissions process with insufficient information to make sound decisions. High school students are not provided accurate information about college requirements, their progress toward preparation, and steps to prepare them. This is especially true for low-income families where few adults have completed college and the public schools are under-resourced. Latino students rely almost exclusively on family and friends for information about college requirements. Once in college, Latino students report having less information about college requirements than other students (Person & Rosenbaum, 2001; Rosenbaum et al, 2010). Whether Latino students succeed in college involves having correct information, interacting and mentoring with supportive adults, learning 21st Century skills, and completing a rigorous academic program (Harro, 2004). In order to maintain global competitiveness, the U.S. must support, beginning in middle school, the creation of individualized career and college planning (Harvard, 2006). When students develop a career plan and receive career counseling in high school, they are more successful in academic courses, less likely to drop out, and are more successful post-high school (ACT, 2009).

**Planning for the Future**

In March 2009, President Barack Obama gave expression to this national drive:

> “In just a single generation, America has fallen from second place to eleventh place in the portion of students completing college. … That is why, in my address to the nation the other week, I called on Americans to commit to at least one year or more of higher education or career training, with the goal of having the highest proportion of college graduates in the world by the year 2020.”

High school students cannot prepare for career or college if they don’t have a plan or a goal. Essential for successful education and career transitions, structured career guidance activities promote students’ consideration of their own interests and abilities as well as the requirements and potential of a specific career choice (Association for Career and Technical Education, 2008). Career planning fosters a progression of college and career preparation experiences that engage students throughout middle level and high school. Students should begin to understand careers by exploring their career opportunities and focus on specific career goals by taking targeted courses. In order to recognize the course-taking patterns and other experiences for a particular field, the requirements for major occupations should be delineated from the beginning of high school (Harvard, 2006).
An emerging practice, high schools across the country are supporting the development of students' college and career readiness skills through student learning plans (SLPs). Student-driven learning plans are tools that provide opportunities to identify postsecondary goals, explore college and career options and develop the skills necessary to be autonomous, self-regulated learners. Educators must promote Latino students’ success through planning, defining aspirations, clarifying interests, exploring career requirements, and connecting high school to a future of college and careers (Rosenbaum, 2001). Learning plans have been linked to a variety of developmental outcomes, including improved academic motivation, engagement, decision-making and personal accountability, essential for success in postsecondary education and work.

Research indicates the SLPs improve:

- Students' long-term planning and awareness of career options
- Parental involvement in academic and career decisions
- Student motivation, engagement, and goal setting
- Students' understanding of postsecondary options and long-term planning
- School-family communication and foster family involvement in academic and career planning
- Students’ awareness of their individual strengths and weaknesses
- Students’ selection of courses relevant to their career goals
- Students’ persistence in school (RCERP, 2011; ACT, 2009)

This trend in SLP implementation is gaining more support. Twenty-three states plus the District of Columbia require that students develop learning plans. Sixteen states and the District of Columbia require SLPs during grades 7 and 8. Five require that students develop learning plans during their high school years.

Figure 1: States Requiring Student Learning Plan by Grade Level
Many of these states include some career exploration activities during the middle school years to prepare students to develop a learning plan (RCERP, 2011).

The path to success is apparent; educators, counselors, and parents must communicate and emphasize academics and career planning by following a few guidelines:

- Encourage students to think about and highlight the connections between skills developed in English, mathematics, reading, and science and the skills used in occupations.
- Help students connect their own academic studies to the world of work and their interests in an effort to motivate students to see the relevance of their academic efforts.
- Talk to high school students about the characteristics of successful college students, including their levels of academic preparation and the influence of their career goals.
- Expose students to a wide range of career alternatives in an effort to promote interest development.
- Provide students with opportunities to have career-related success experiences that can serve to further reinforce students' interests in, and pursuit of, various occupations.
- Provide students with adult mentors who can help students establish realistic career and educational plans.

To ensure strong academic achievement, postsecondary success, as well as job attainment and satisfaction in a career of choice, all high school graduates must be prepared for college and career (ACT, 2009.)

**Regional Best Practices**

A Philadelphia school district partnered with McGraw-Hill Education to pilot the College & Career Readiness (CCR) program. Designed to support successful college and career readiness, the CCR program was customized for the PhillySuccess! pilot. The goals of the PhillySuccess! CCR were three-fold:

- **RELEVANCY:** To enforce the connection in students' minds between their current schoolwork and their future opportunities in postsecondary education or in the world of work
- **BRIDGING THE GAP:** To get students to examine their postsecondary plans and options early enough to have a lasting impact
- **MOTIVATION:** To provide students with engaging digital lessons revolving around essential life skills
Low-income, minority students in three high schools participated in the PhillySuccess! College & Career Readiness mini-lessons in three distinct subject areas: (1) Student Learning Styles, (2) Math Relevancy, and, (3) English and Communication Relevancy. Each of the three subject areas had 4-5 distinct mini-lessons, including:

- Information-rich animations
- Online assessment quizzes
- Interactive life lessons with Toolbox Skills
- Virtual mentor videos
- A group project for students’ online portfolios
- Audio support for struggling readers

The program also included:

- Career Matchmaker Assessment
- Online Journal Access
- Career Cruising Job and College Search Options

Students are college- or career-ready when they have the level of preparation required to academically, socially, and cognitively complete a postsecondary course of study without remediation, or enter the workforce at a level at which they are in line for promotion and career enhancement. Growing research shows that students who connect relevant school coursework with their lives outside of school are more likely to

- Stay in school,
- Work harder, and
- Be successful in following a career path.

To evaluate the effect of the PhillySuccess! program, participating teachers/facilitators and students were asked to take pre- and post-online surveys. The completion of the surveys was crucial to measuring the effectiveness of the program with regard to change in perceptions, motivation, and attitudes. Preliminary data serve to provide initial insights. Based on the survey results, student had significant improvement in their attitudes and perceptions regarding:

- Decision-making
- Making a good first impression
- Creativity
- Use of social networking

The program was very successful in helping all students identify the ideal major and college that would best serve their needs. Also, students were able to understand how mathematics and other subjects are relevant to their future career.

William McCormack, Program Manager, Philadelphia School District
- Relationship-building
- Organization
- Job seeking
- Negotiation skills
- Belief in personal success

These results indicate students’ beliefs about their ability to succeed, their ability to navigate the job-seeking process, and their self-regulatory perceptions were all raised significantly after use of the PhillySuccess! program.

**Conclusion**

Only 56% of Hispanic students will graduate high school on-time with a regular diploma, compared to 81% of Asian students and 77% of Caucasian students (Alliance for Excellent Education, 2010). The impact on the national economy is staggering. If every student who dropped out of the U.S. high school class of 2007 had graduated, the nation’s economy would have benefited from an additional $329 billion in income over their lifetime (Alliance for Excellent Education, 2007). Unless our educators can convince students that a good education has real value and prepare them to be college and career-ready in greater numbers, more than 12 million students will drop out during the course of the next decade. The result will be a loss to the nation of $3 trillion (Rouse, 2005).

Sadly, even the students graduating from high school are ill-prepared for the demands of college and career. Employers struggle to compensate for an ill-prepared workforce by providing readiness or remedial training programs. A disconnect persists between the skills and abilities required to ascertain a high school diploma and those required to succeed in a college or a career (Harvard, 2011). High school graduates lack the critical thinking and creativity skills crucial to competing in the global marketplace (The Conference Board: The Ill Prepared U.S. Workforce, 2009). Educators must promote Latino students’ success through planning, defining aspirations, clarifying interests, exploring career requirements, and connecting high school to a future of college and careers. Uniquely qualified to lead the development of solutions to these issues, McGraw-Hill offers the Applied, College & Career Readiness Center (ACCR) with the focus of preparing students for the workplace and College & Career Readiness (CCR) bridging the gap between a high school diploma and success in postsecondary life.
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