Earning a postsecondary credential remains one of the most reliable ways to access jobs that pay living wages. If students do not graduate from institutions of higher education with the skills and knowledge employers need, however, postsecondary credentials may lose their value. As a grantmaker focused on extending the benefits of postsecondary education to all Texas students, Greater Texas Foundation has an interest in ensuring students, especially those who are traditionally underserved, are completing postsecondary credentials that will allow them to achieve their career goals.

The resources that follow are divided into two sections. The first, *Effective Work-Based Learning*, describes strategies colleges and universities can use to partner with employers to provide meaningful educational experiences that help students identify a career path and navigate professional environments. The second, *The Workforce of the Future*, addresses the dramatic demographic and technological changes that are transforming the labor market, eliminating positions that were once considered indispensable, restructuring others, and even creating new jobs. One major conclusion from the presented literature is that institutions of higher education must focus more resources than ever before on monitoring workforce needs and preparing students to fill those needs.

*Effective Work-Based Learning*


According to a 2013 poll, 96% of chief academic officers believed their college graduates were well-prepared, but only 11% of business leaders agreed. In the ensuing years, colleges worked to breach that disconnect by partnering with employers to provide students with meaningful work-based learning opportunities, including curricula infused with career exploration and professional skill development, on-campus and off-campus internships, and practitioner-led courses.

This report highlights successful work-based learning programs at ten universities and colleges across the US, including The University of Texas at Austin. Each program works differently, but all feature strong relationships with employers of all sizes, as well as clear communication among higher education leaders, members of the business community, and students to ensure each work-based learning experience
results in concrete benefits to both students and employers. Each institution has realized success by focusing on the return on investment of their program, being transparent about goals and responsibilities for each party, intentionally linking competencies to career pathways, and involving small companies.


Community colleges are well-positioned to help fill America’s skills gap by equipping students with the practical skills and credentials needed by local employers. To fulfill this role effectively, however, they must maintain strong connections with those employers—which often is more easily said than done. This guide synthesizes advice from experts in the field to suggest practical steps community colleges can take to build productive partnerships with area businesses to ensure students graduate ready for the workforce.

Colleges can select one or more “navigators” to serve as a liaison for industry partners. These navigators provide partners with a single point of contact for questions and ideas, and they can facilitate discussions of what each business needs and how it can work with the college to meet those needs. Colleges can also proactively reach out to key organizations in the community, such as chambers of commerce and economic development agencies, that can use their connections to bring industry leaders to the table. Once industry leaders have chosen to engage in a higher education partnership, colleges must ensure the relationship remains productive by sustaining regular, respectful, two-way communication. Openness to constructive criticism and willingness to improve are crucial to productive partnerships.


About one in six US adults has low literacy levels, and one in three has low numeracy levels. Without these basic skills, they are unlikely to complete a high school credential and even less likely to pursue higher education, resulting in low employment and earnings potential. In 2011, seven states\(^1\) launched the Accelerating Opportunity (AO) program to assist individuals with low basic skills in improving their educational and economic outlook. With support from funders like the Bill & Melinda Gates Foundation and guided by technical assistance from Jobs for the Future, these states allowed students functioning at 6th- through 12th-grade educational levels to enroll concurrently in career and technical education (CTE) courses and high school equivalency (HSE) completion programs. Participants received high-quality instruction and support to complete industry-recognized credentials, each of which could be completed within 12 hours.

The Urban Institute, the Aspen Institute, and George Washington University evaluated the impact of AO on participants in four states: Illinois, Kansas, Kentucky, and Louisiana. They found a clear positive effect on the number of credentials completed.

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\(^1\) The seven participating states were Arkansas, Georgia, Illinois, Kansas, Kentucky, Louisiana, and Mississippi.
and the efficiency with which students completed them. For example, AO students in Illinois were 35% more likely to complete a credential than peers in a matched comparison group, and AO students in Kentucky completed credentials at a rate 133% greater than that of their peers. In general, AO students completed their credentials using fewer credit hours than their peers.

AO’s impact on employment and earnings was mixed. Certain student groups in Kentucky and Kansas earned substantially more than their peers within 12 quarters of completing the program by a margin of 43% and 33%, respectively. Outcomes for the other student groups and other states, however, were not as strong. These differences may be attributable to the availability of other support programs for students with low basic skills in some areas, local economic trends, and variations in program implementation—particularly regarding the strength and number of partnerships colleges formed with employers. More time is needed to determine the true long-term impacts of AO. The present evaluation does demonstrate, however, that even underprepared learners can be successful in college and sustain a viable career afterward.

**The Workforce of the Future**


The global economy and workforce are expected to change dramatically by 2030. Baby Boomers are growing old and retiring, creating millions of job openings. The increasing cost of higher education and housing, however, are delaying Millennials’ entry into the labor market, creating a shortage of workers. On the other hand, rapid development of automation technologies is reducing employers’ need for human workers and may eliminate up to 25% of current jobs. The long-term net impact of these competing trends will likely be increased income inequality as the highest-skilled, highest-paid workers accumulate more wealth and low- and middle-skilled workers struggle to make a living wage.

It is too soon to know how much hardship these demographic and technological shifts will produce; much will depend on the rate at which businesses adopt automation and on the policies governments use to regulate the economy. Nevertheless, investors would do well to ensure the resiliency of their portfolios in the face of a potentially volatile economy.


Although some observers fear automation will eliminate entire occupations, the reality may not be so extreme. Instead, it is likely that automation will change every job to a degree, freeing up human workers to spend less time on repetitive tasks and more time on tasks that require strategic thinking, emotional intelligence, and creativity.
Still, some jobs are better-suited to automation than others. It is most technically feasible to automate occupations in which workers primarily perform predictable physical work or collect and process data; occupations involving stakeholder interactions and unpredictable physical work are in the middle; and it is least feasible to automate occupations centered on managing others and applying expertise. Feasibility is not the only factor that determines whether a company will choose to introduce automation into a given position, however. Employers consider the relative costs and benefits of automation, as well as regulatory and social feasibility. (People typically are more comfortable with an algorithm that detects insurance fraud, for example, than with a robot checking their vitals at a hospital.)

As technology continues to advance, even the most complex of jobs may include an artificial intelligence component. To prepare for this eventuality, leaders must familiarize themselves with the potential costs and benefits of automation, and educators must equip students with competencies that cannot be replicated by a computer.

[To see a heat map of major occupations and the tasks most likely to be automated, click the link in the citation above and view the full article.]


Every few decades, new technological advances allow machines to perform tasks previously done by humans. Each wave of automated labor tends to displace one group of workers more than other groups, depending on the incentives at play for employers and on cultural assumptions about what types of jobs can appropriately be automated. Currently, the majority of Americans favor automating jobs that are dangerous and unhealthy. Because Latinos—particularly Latino men—are overrepresented in these types of jobs, they are most at risk of being displaced in the workforce of the future. Almost all of the 20 most popular occupations among Latinos in the U.S. require difficult, dangerous work. Consequently, nearly 60% of Latinos are considered at risk of losing their job due to automation, compared to 50% of black workers, 40% of Asian workers, and 25% of white workers. This trend underscores the importance of providing Latinos of all ages with access to high-quality education, the key to jobs that are unlikely to be wiped out by this new wave of automation.


Drawing on nearly thirty years of prior analyses of growth, aging, and diversity in Texas populations and households, the authors of *Changing Texas: Implications of Addressing or Ignoring the Texas Challenge* examine key issues related to future Texas population change and its socioeconomic implications. Current interpretation of data indicates that, in the absence of any change in the socioeconomic conditions associated with the demographic characteristics of the fastest growing populations,
Texas will become poorer and less competitive in the future. However, the authors delineate how such a future can be altered so that the “Texas Challenge” becomes a Texas advantage, leading to a more prosperous future for all Texans.

Presenting extensive data and projections for the period through 2050, Changing Texas permits an educated preview of Texas at the middle of the twenty-first century. Discussing in detail the implications of population-related change and examining how the state could alter those outcomes through public policy, Changing Texas offers important insights for the implications of Texas’ changing demographics for educational infrastructure, income and poverty, unemployment, healthcare needs, business activity, public funding, and many other topics important to the state, its leaders, and its people. Perhaps most importantly, Changing Texas shows how objective information, appropriately analyzed, can inform governmental and private-sector policies that will have important implications for the future of Texas.