

Educating Tomorrow's Workforce: The Impact of Demographics on Training and Education

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The workplace of today and tomorrow presents the challenges of demand, diversity and delivery. The increasing demands for worker training, the diversity in the workplace, and the delivery methods of educational and training programs will help to implement successful workforce development policies.

Charles Dickens put it best when he said that "it was the best of times, and it was the worst of times." The past few years have been tumultuous ones for the American workforce. The silent crisis of the American workforce is finally gaining the national attention it deserves as the public comes to realize that we are in the throes of a Jobs Revolution. While this may seem like a unique phenomenon, it is actually the fifth great economic revolution to hit our labor market. What makes this one different from the previous four (the American, Agricultural, Industrial and Information Revolutions) is the speed and intensity with which it has come barreling forth. The size, depth and power of the changes rippling through our communities are unprecedented in our generation. Not since the Industrial Revolution has the American workforce undergone such drastic transformations.

For many, the growing pains of surviving this metamorphosis have been extreme. Unemployment hovers at around 6%, the highest in nine years. While there are indications of some jobs recovery (non-farm payroll rose 57,000 in November 2003 and manufacturing unemployment decreased by 31,000, compared to the year's earlier pace of 54,000/month), the overall

nonagricultural job base in this country is shrinking. While our economy is recovering, and the gross domestic product (GDP) increased 3.1% in 2003, our labor force is not returning to the status quo. The reality is that we live in a global economy and that the global market is redefining how and where Americans work today.

It is important to realize that we are in the process of great change in America's workplace. This is not the first time in our history it has happened; market demands and technological improvements often cause a decline or slump in workforce gains. Eventually, market responsiveness will generate more jobs and more revenues. When electricity was first invented, the candle-making industry was drastically affected. However, eventually jobs in the electrical industry vastly outnumbered the number of unemployed candle makers. For the workforce as a whole, change usually results in growth.

Just as electricity reduced the role of the candle makers and automobiles reduced the role of the carriage makers, today's economy is reducing the role of outmoded occupations and uncompetitive jobs in America. At the same time, new jobs are being created in response to the new economy. Just as before, these jobs

require a higher level of education and training than jobs in the past. As workforce development specialists, *it is our responsibility* to see to it that access to those jobs is available through education and training.

In fact, before 2010, we will be in danger of facing a labor shortage crisis in this country. Job creation will start to outpace labor availability unless we act now to create a workforce that is adequately educated and trained to meet tomorrow's needs.

Those engaged in understanding, educating and training our emerging workforce are about to become the most important people in America. They have the expertise and knowledge needed to create workforce investment strategies that will allow America to maintain its place at the forefront of the global economy. However, in doing so, they will face many challenges. The workforce of tomorrow will be more diverse than ever before. Immigration and foreign labor are going to have a huge effect on the education levels of the average American worker. In determining how we can tailor workforce investment policies and training programs to fit this new economy, we need to examine the interaction between our workforce demographics and future jobs projections.

Workforce Diversity

America, unlike any other nation in the world, is truly reflective of the world's diverse populations. This diversity is emerging in the American workforce. Before 1998, the labor force was 40% white male and 25% minority, while today's is much more ethnically diverse and female. The inflow and expansion of different ethnicities within our population presents a large challenge to our educators and workforce specialists.

The table shows the changing workforce projections through 2050.

In many ways, the changing face of America's workforce is both good and bad. Never before have our nation's minorities been so well positioned to benefit from growing career opportunities and earnings potential. The bad news is that they will be entering the market at a time when such growth is almost totally dependent upon education and training.

The ethnic shift in our workforce has profound implications for the future of workforce development. Policy makers and educators everywhere need to realize the possible crisis that could result if proper measures are not taken. If the future jobs in America require a higher level of education than today's jobs, and the workforce is becoming more ethnically diverse, then we need to give serious attention to the discrepancy in education levels between the white majority and the ethnic minorities.

As of 2000, 38% of Hispanics and 11% of blacks did not graduate from high school, compared to only 7% of whites. 97% of Hispanics and 91% of blacks entered the workforce without a college degree, compared to 84% of whites. The figures show that educational levels among ethnic groups differ drastically and that the fastest growing segments are also the least educated.

As minorities become a dominant part of the American workforce, our failures within minority education will carry over spectacularly to the workplace. Those who do not complete high school will be left behind. When we combine the data on ethnicity and education, it is clear that America's present workforce is severely lacking in equal opportunity. Unless we make improvements quickly, America's future workforce will lack the fundamental knowledge and skills essential for economic success in a global economy.

The Future Labor Force: Shortages and Education Levels

With the growing impact of world trade and globalization, Americans are fed daily stories chronicling the traumatic economic events impacting the lives of individuals, as well as ominous predications of the demise of our economy. Headlines shouting "Unemployment on the Rise" and "Manufacturing Jobs Going Overseas" give the impression that our jobs market is rapidly shrinking. While these news reports reflect data at a particular moment in time, they fail to place them in the larger context. Through each of our great economic revolutions, we have experienced the trauma of change as demand for work shifted from the farm to the factory to the Internet. Throughout these shifts, we have continuously shed outdated jobs and skill sets in favor of new expectations.

The Jobs Revolution is unique in this country only in the intensity and rapidity with which it is occurring. We need to act accordingly in preparing our workforce for the future. First, we must remain committed, open and flexible to growth-oriented economic policies and avoid the protective overregulation that has constrained growth in Europe and other parts of the world. The global market is a great judge of quality and efficiency. Bad economic

policies and inefficient companies are not often tolerated within its system. It is important to realize that there are no long-term protectionist strategies governments can employ to effectively shield themselves from the global market. For example, the growth in job competition from India and China is not related to any U.S. trade agreements.

Secondly, we must realize that there are deep structural impacts within our own workplaces and workforce. We must commit to policies that ensure every American access and skills to succeed in the escalating growth in high-skilled jobs. Slow population and workforce growth juxtaposed with continued growth in high-skilled jobs translate into the absolute assurance that there will soon be high-paying, quality jobs available for every worker in America . . . *provided they have the proper training and education levels for them.* The marketplace of the fifth revolution will exclude those without the required education training and skills. Therefore, it is no longer good enough to simply provide the opportunities for education and training. The key challenge is to make cultural and political commitments to providing education and training, not merely as an opportunity but also as a basic right.

The answer to our problems does not lie in restricting other forms of labor supply or closing our own borders. Instead, it lies in investing in our workforce and in the preparation of every available American.

Despite current economic conditions, job growth will continue to outpace the growth in our workforce. The workforce grows at less than 1% a year, while employment expands at a rate of 1.5% a year. At this rate, the Bureau of Labor Statistics projects that we will experience labor shortages of 6.5 million workers by 2010. By 2030, this shortage will rise to over 35 million.

Changing Workforce Projections

Group	Today	2010	2050
White (non-Hispanic)	73%	65.0%	53%
Hispanic	11%	16.0%	24%
Black	12%	13.0%	14%
Asian	5%	7.3%	11%

Table

Most public policies and many of our job-training programs have been created during this country's long history of having far more people than jobs. Now, we must realize that this reality is about to be turned on its head. America is about to experience a surge in demand for high-skilled workers that is much greater than our available skilled workforce. This combination of tight labor markets and growth in the high-skilled job sector will drive changes in every area of education and workforce policy in our country.

By 2010, over 75% of the new jobs created will require at least some postsecondary education. This means that not only will every worker need a high school diploma, but he or she must also be prepared and capable of attending postsecondary education throughout his or her lifetime. The constant growth in productivity and technology suggests that the new jobs will be increasingly multiskilled, require higher basic education and be subject to continuous change. In sharp contrast, within the next five years, the number of unskilled jobs in our workplaces will drop 12.7%. In fact, the net number of new jobs for those with a high school diploma or less is virtually zero.

This reality presents a grave challenge for educators and workforce specialists in this country, mainly because, when we contrast future jobs projections with future workforce projections, we see unskilled jobs remaining stagnant and school dropout rates impacting the fastest growing sectors of our population the most. This means that we urgently need to develop training and educational programs that focus on raising the educational levels of these population segments.

Workforce Training for Tomorrow

Job training programs face two key challenges: the constantly changing skill set required by the market and the need to bring students and workers up to speed in a very short time period. As we tailor our workforce policies to fit the new economy, there are three key points to keep in mind: demand, diversity and delivery. The increasing demand for worker training, the diversity within the workforce and the delivery methods of educational and training programs are key to implementing successful workforce development policies.

The demand for worker training is in-

creasingly found in the workplace, as much as it is found in the educational system. Business investment in workforce training, which fell 18% between 1988 and 1997, needs to increase. Currently, 53% of workers are employed by small businesses with few training opportunities. Tomorrow's jobs will require a diverse skill set with a knowledge base that keeps pace with technological improvements. It is vital that employers recognize the need to invest in their workers; training and continuing education must become as commonplace in the workplace as sensitivity seminars and motivational retreats. The infusion of private funding into workplace investment will greatly increase our abilities to meet the rising labor needs of the future.

We are already able to see the seeds of a new relationship developing between educators and employers. Employer-recognized certification and growing partnerships between local industries and academic institutions are already on the rise. Increasingly, postsecondary programs are becoming more dependent upon employer recognition, as well as on their graduates possessing either a high school diploma or a GED. Programs that cannot meet the expectations of local industries are being phased out.

These types of postsecondary certification increased 156% from 1990 to 1998 and are continuing to rise. According to the National Skills Standards Board, there are about 4,000 nationally recognized certificates currently in existence. Over 1,600 industry, trade and professional associations offer certification and the number continues to rise.

These certificate programs are specifically designed to address the diversity within the workforce. They are tailored to not only serve those currently in the workforce who are looking to increase their skill sets, but also address the needs of disadvantaged students with severe education shortfalls. Often these programs are tied to GED or high school programs, allowing for disadvantaged youth to transition more easily into a postsecondary program.

The delivery methods of educational and training programs are changing as well. Online educational programs are increasing the scope and reach of programs all over the country. Online high schools, GED programs and workplace programs are now commonplace. These programs specifically target lower or single-skilled

workers and offer significant educational gains in a short period of time.

Community and technical colleges are playing a significant role in training our workforce for the new economy. As workers have needed both professional and continued academic education after high school, a delivery system outside of four-year schools became essential. Since the Workforce Investment Act no longer allows the Workforce Investment Board to engage in direct delivery of services, the community and technical colleges moved in to fill that role. Finally, as economic development becomes more and more tied to workforce development, these institutions have become a key method of establishing economic development programs for their citizens.

Today, almost 1,200 public, private and tribal institutions seek to provide community college and technical training on over 1,600 campuses serving over 10 million students annually. This is over 44% of all students enrolled in postsecondary education. About half of these programs focus on academic credit and awarding two-year degrees; the other half focus on professional enhancement for those already in the workforce. Further, they lead the nation in serving our growing minority population. About 46% of black, 55% of Hispanic, 46% of Asian and 55% of Native American undergraduate students are enrolled in community colleges. They are perfectly positioned to serve as our primary method of educating and preparing our workforce for the demands of the future.

Over the course of its history, America has endured recessions, global competition, increased international trade and, of course, many revolutions. What has kept us on top has been our open, flexible economic policies that have, over time, resulted in increased productivity, jobs creation and a continuously rising standard of living. The fifth revolution will be no different. For the first time in our history, we are in the position to be able to offer *all* Americans quality jobs and wage increases. With proper policy implementation and planning, we can meet the challenges of the Jobs Revolution head on. With a more diverse workforce and a creative workforce investment policy designed to maximize its potential, we can continue to perch on top of the global market.

In summary, America's changing workforce and workplace is a challenge as great

as any we've faced as a nation. Its change is sudden, dramatic and, for those who lose their jobs without new skills, very disturbing. How we as a nation respond will determine our quality of life, our ability to compete and the very economic, political and social security of our nation.

We are in the midst of the most dramatic transfer of jobs from one generation to the next that has ever occurred anywhere at any time. In addition, we are doing so while the nation's workplace is becoming a global workplace. While our workforce is becoming more diverse, our jobs are requiring more skills. The need for education and training is significant. We can't stop the changing global economy, but we can invest in the transitions and challenges it presents to our nation's work-

force. That is the challenge. The question is whether we are up to the task.

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