Education, Jobs and the American Dream: How We Got Here

By: Gregory W. Cappelli
Chief Executive Officer of Apollo Group and Chairman of Apollo Global
The challenge students have is when they first encounter abstract math—once you get past arithmetic, into geometry and algebra—is that they get turned off because they don’t see the point. Why am I learning this? Students need to have a tangible example of what kind of job you can actually get if you excel in math and science, because the abstractness of that pitch to most students is completely lost.

– Jim Davidson, Co-Founder, Managing Director and Managing Partner, Silver Lake

Cognitively, the only thing that matters anymore in business, in my opinion, is math.

– George Zimmer, Men’s Wearhouse

“HOUSEHOLD SPENDING ON SUPPLEMENTAL EDUCATION”

| U.S. | 2% |
| ASIA | 15% |

There are tons of examples of what other countries are doing right. But some of those examples are right at the core of what we don’t believe in as Americans. I look at education as an ecosystem within a country. If you just pick up one thing and transplant it, you can solve one problem but create new ones.

– Jeff Joerres, Chairman of the Board, President and CEO, ManpowerGroup

1970s | 2000s
---|---
1 in 3 | 1 in 3
AUTO MECHANICS | AUTO MECHANICS
EARN HIGH SCHOOL DIPLOMA | HAVE GONE TO COLLEGE

The 15 year-olds ranked 17th in science and 25th in math in the world.
A market will heal itself over 10 years but leave behind 10 million people in the process. If we had started broad-based, re-skilling initiatives two years ago, we would be seeing an impact from them today. But if we don’t start today, two years is always two years away.

– Matt Ferguson, CEO, CareerBuilder

52% of American companies have difficulty filling “mission critical” positions.

63% of 25-34 year olds in Korea have a higher education compared to only 41% in the United States.

30 million new jobs created by 2018 will require workers with at least some college education.

Workforce development begins in school. Businesses should participate in higher education. Be part of it. Be engaged in curriculum design. Be engaged in creating dual or iterative school-work learning systems.

– Jeff Joerres, Chairman of the Board, President and CEO, ManpowerGroup
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INTRODUCTION*

When President Franklin D. Roosevelt signed the G.I. Bill in 1944, it was a pointed moment for our country. We emerged in those years as a global leader in wage parity, productivity and technological innovation: our economy grew, and we prospered. There was a steady increase in educational levels of about a year per decade for Americans born from 1876 to 1951. During the period we looked at, from 1940 to 1980, our population and workforce gained, on average, about a year’s worth of education per decade. It was a time when, as a nation, we were out-educating the world.

But something happened. Between 1980 and 2010, our educational growth stalled to about half a year per decade. We began falling behind. Since then, our economic performance slowed to just above average and many disparities have increased in the U.S.

The American workforce is missing the education needed to compete in a global economy. We are, by our calculation, short more than 100 million years of education as a society. Each missing year is represented by a decision not to finish high school, not to enter college, not to stay in college—or a decision not to return.

How did we get here? We have dropped from a position of leadership to, now, 16th globally; our 15-year-olds rank 25th in math, and our elementary school enrollment is 79th internationally. As we face the retirement of the Baby Boom generation, we’re already seeing widespread skills shortages, and by 2018 we will need 22 million new workers with college degrees.

Our nation’s “missing years” of education have cost U.S. GDP as much as $2.3 trillion, by one estimate, and threaten to harm America’s ability to compete in the global economy. If we were able to close the educational achievement gap for students from the poorest families, we would add $400 billion to $670 billion annually to U.S. GDP.

The old model of educating only 10 to 20 percent of our nation at the college level—and then relying on that small group to build all our companies and create all our jobs—is history. In today’s global economy, there is little room to be a follower, and knowledge is the power that enables leadership. As a result, maintaining our global leadership means regaining our leadership in education.

For leaders in business, these missing years of education mean global competitors may be able to deliver more appealing products and services. An educated workforce is essential to preserving market share and reaching business goals.

For leaders in government and the non-profit community, these missing years of education mean scaling back and spending more resources caring for those on the wrong side of the educational divide and collecting fewer revenues from an educated population. Our deficit will impact our ability to meet other national challenges in health care, defense, infrastructure, civil and human rights, research and development, environmental protection and retirement security.

For leaders in the labor community, these missing years mean less opportunity and more insecurity for their members. More construction workers will be idled as fewer hospitals add wings, fewer developers build malls, and fewer cities construct new schools. More teachers, police officers and firefighters will face layoffs, furloughs and pension and health care cuts.

“It is so much easier for us to envision the return we’ll see for an investment in infrastructure. But an educated workforce is absolutely what will make us competitive. Failing to see that is the greatest threat to our economic growth that we face.”

– Marcia Silverman, former CEO, Ogilvy

*All sources referenced in the introduction are from subsequent sections of the paper, with full citations collected in the endnotes.
Making up those missing educational years sounds like a feat beyond America’s reach. But to put the challenge in perspective, it amounts to just one single year of additional education for each of us. Education, jobs and the American Dream are inextricably tied together. Ultimately, as a country, we have an interest in finding actionable answers to these questions: How can we close the skills gap? How can we develop a national strategy for investing in human capital? How can we hold onto our talent, including nontraditional students and adult learners?

Our goal over the next 12 months is to explore these questions and related policy, technology, education and business factors—in partnership with leaders in each of these fields. To start that conversation, we asked a number of leaders in technology, media and manufacturing for their perspective.

We spoke with Jim Davidson, Managing Partner and Managing Director of the global private investment firm Silver Lake, who has watched firsthand how U.S. companies are partnering with educational institutions to better train their workers; Matt Ferguson, CEO of CareerBuilder, whose grandfather was the President of the American University in Cairo; Lisa Gersh, President and Chief Operating Officer of Martha Stewart Living Omnimedia, who, along with her brother, was the first in her family to go to college; Jeff Joerres, Chairman of the Board and President and CEO of ManpowerGroup, who was the first in his family to go to college; Alfred Liggins, CEO of RadioOne, who went to night school and then earned an MBA at Wharton School, University of Pennsylvania while running a publicly-traded company; Marcia Silverman, former CEO of Ogilvy, who earned a scholarship and left her rural Kentucky home to complete bachelor’s and master’s degrees at University of Pennsylvania; and George Zimmer, co-founder and CEO of The Men’s Wearhouse, whose father went to Columbia University on the G.I. Bill.

They generously offered their perspectives, and their accounts are included in this paper. Our interviews with them are included in the Appendix. We are grateful for the time they devoted to this conversation. They helped us narrow our focus to the question of how we can reclaim those missing years of education for our population and our workforce.

Certainly our nation prospers when more people are able to set and reach ambitious goals for their own educations. Although we bring our own set of competencies and ideas to the conversation, our goal is to spark a conversation involving diverse interests.

A new commitment to higher education

When President Franklin D. Roosevelt in 1944 signed what later became known as “The G.I. Bill,” he felt the law did not go far enough. In fact, he had laid out a more ambitious vision for American workers earlier that year in his State of the Union address. “All our allies want freedom to develop their lands and resources, to build up industry, to increase education, individual opportunity and to raise standards of living,” Roosevelt said. It was a pointed moment for the country. There was a growing realization—acutely recognized by Roosevelt—that our nation’s economic strength and power of industry were directly aligned with increased access to education.

Roosevelt and leaders in Congress felt we could do more to promote access to higher education. Perhaps most importantly, they sensed the economic maturity of the country demanded a different approach to higher education. They arrived at a whole new way to provide educational choices that would ultimately strengthen our economy.

The Servicemen’s Readjustment Act of 1944 (as The G.I. Bill was called) became famous for throwing open the doors of postsecondary education institutions and programs. Returning veterans were encouraged—even expected—to begin academic training as a way to reconnect with their families and businesses. The country’s political leadership had progressed from the aristocratic view of higher education held by some of our founding fathers—Alexander Hamilton chief among them—who believed such training should be reserved only for the wealthy and elite.

AMERICANS BORN
1876 to 1951
INCREASED SCHOOLING
BY ABOUT
1 Year per Decade

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The G.I. Bill was one of the first national challenges to the idea that postsecondary education was designed to serve only a privileged few.

**The modern view of higher education**

Understandably, economists have focused on our country’s evolution from an agrarian economy to an industrial one and, then again, to an information-based economy today. What is sometimes overlooked in that economic transformation is the pivotal role of higher education.

The G.I. Bill demonstrated the readiness of the U.S. workforce to embrace higher education. By 1956, nearly 7.8 million American veterans had completed higher education degree programs or acquired other forms of postsecondary education, including vocational and skills training. It was in those pivotal early years of the G.I. Bill that our country inspired and invested in the promise of higher education.

The G.I. Bill ushered in a tidal wave of higher education attainment for two generations of Americans, and has laid the ideological expectation for what we want for our people. It supported the idea that hard-working citizens could use education to better provide for their families, realize a new American Dream and reshape the nation’s post-war economy.

Leaders in government and business today are facing difficult questions about how best to bring the same societal commitment—so clear in the 1940s—back to education. As we continue to look for the solutions that will better “embed higher education within the broader economy” and deliver more educational choices to more people, we wanted to look back to those years.

**A new question about education in America**

Even before World War II, Americans had begun changing the way we viewed higher education and its impact on the nation’s economy. Until 1940, the U.S. Census asked citizens only one question related to education: “Can you read and write?”

In 1940, the census creators started asking Americans about the highest level of schooling they’d attained.

The typical American of 1900 had just seven years of education. By 1940, he or she was a high school graduate. As a nation, we were ready for college, looking ahead to the future and setting our sights higher than literacy or high school graduation.

It was in the 1940s that Americans seemed to have installed a metaphorical ladder on the side of the Ivory Tower. The higher education system in the U.S. was, rung-by-rung, remade into one for all citizens. The various forms of postsecondary education were no longer intended for the privileged few or beyond the reach of the poor. The country was ready to build more institutions of learning and needed people to take advantage of them. A commitment to providing more access to education had been developed.

**This is really a fundamental question for our society. Do we want to be the land of opportunity? If we are not providing an educational opportunity for everyone in our society, that’s a real problem. It’s just not who we are as a nation.**

– Matt Ferguson, CEO, CareerBuilder

During the 20th century, with an increasingly educated workforce, the U.S. emerged as a global leader in wage parity, productivity and technological innovation. As industrialization began giving way to information services, American success in this skills-based world was supported by a workforce that was becoming more educated with each successive generation.

Between 1940 and 1980, as we became an “education powerhouse,” the average educational attainment of the workforce grew by about one year per decade. During this time we were winning, what Nobel Laureate Jan Tinbergen described as “the race between education and technology,” providing a growing workforce of educated Americans who were well-positioned to invent, create and compete. Our future was bright because our people were among the most educated in the world.
Our education advantage barely lasted 40 years

But something changed. Beginning in the 1980s, our educational growth stalled. Between 1980 and 2010 the average educational level of the population and the workforce grew by about half a year per decade—half the rate of growth we had charted for ourselves in previous decades.9

If you look at other economically successful countries, you often do see them look at education as a national resource. Today our higher education system fails to help people develop skills. I think it is astounding how little investment we make in different skills. – Marcia Silverman, former CEO, Ogilvy

In just the past decade, South Korea, Norway, New Zealand, United Kingdom, Australia and France have overtaken us, and the U.S. has dropped to 16th globally in college graduation rates.10 Our missed opportunity becomes clear when you look across generations. About 41 percent of Americans born between 1945 and 1954 have a college degree. Fast-forward three decades: about 41 percent of Americans born between 1975 and 1984 have a college degree—no progress. Thirteen percent of South Koreans born in the 1940s and 1950s have a college degree. Fast-forward three decades: 63 percent of young adults in South Korea are college-educated.11 South Korea has its own geopolitical and socioeconomic motivations for growing an educated population, but the difference is striking.

The cost of slowed educational attainment

As our educational performance began to unwind starting in the 1980s, so too did our economic performance. During the last two decades, our GDP growth slowed to just above the OECD average, well behind China, India, Indonesia and Brazil.12 Particularly in the last 10 years, the United

fig.1: Between 1940 and 1980, educational attainment in the United States rose about 1 year per decade. After that educational attainment growth dropped off.
States has lagged behind the rest of the world in annual growth of GDP per capita, GDP per hour worked and labor utilization. From the mid-1990s to the 2000s, poverty persisted in America and even grew slightly. We now have one of the highest poverty rates among OECD countries.

**Looking ahead to our future workforce**

The further we look into our future, the more challenging it looks. Our 15-year-olds rank 17th in the world in science and 25th in math. Our elementary school enrollment overall is 79th internationally. This is our future workforce and the cornerstone of our future economy.

Today, the diminished educational level of our workforce is contributing to acute skills shortages across the country; half of U.S. employers are struggling to fill critical positions, including those in skilled trades and engineering. Compounding this problem, one of the most educated segments of our workforce—the Baby Boom generation—is reaching retirement age. By 2018, 63 percent of the workforce will need at least some college, and the current postsecondary system will fall short of meeting that demand. Already, there are 3.5 million job openings not being filled by U.S. companies today.

In 1940, census takers began asking a new question about education and now, 70 years later, it seems clear: we are not getting the answer we want. The question moving forward is how do we make up for those lost years?

**100 MILLION MISSING YEARS OF EDUCATION**

Between 1940 and 1980, the average level of schooling for the typical American increased by just under a year per decade. Americans were staying in school a year longer with each passing decade, adding years to the average level of educational attainment for both the workforce and the population. It was a trend that was paying off for the nation. Then, between 1980 and 2010, that growth trend slowed considerably: to about half a year per decade. That is a 50 percent decline in our educational growth rate.

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**fig.2: Generational Progress in Higher Education over 30 Years**

Percentage of population that has attained tertiary education, by age group.

Source: Education-at-a-Glance, OECD Indicators 2011
Where would we be if our educational growth rate hadn’t slowed?

The U.S. population (age 25 and older) has a collective 2.7 billion years of education accumulated over generations, which is an important national asset. As our educational growth rate slowed in the 1980s, our population and workforce began to accumulate “missing” years of education. The gap that has been created is significant. Today, after three decades of slower growth in educational attainment, our population has about 200 million fewer years of education collectively. Our workforce, a subset of the population, has more than 100 million fewer years of education collectively.

**The cost of falling behind in educational attainment**

Missing years of education come at a significant cost to society. Each year of education is an opportunity for learning new skills, gaining exposure to new attitudes or beliefs and acquiring new knowledge. For many people, missing even one critical year of education can be life-changing. The human cost is, in many ways, immeasurable.

The real cost may also be immeasurable because education is, fundamentally, a platform for innovation. What we can’t know is: what wasn’t invented, what wasn’t created and which great American company wasn’t started as a result of these missing years.

What caused our slowing educational growth? Was the U.S. higher education system the limiting factor? Did social and cultural expectations shift? Or did something else change?

**HOW DID WE GET HERE?**

**Educational attainment as a lens for viewing differences**

In 1963, President John F. Kennedy noted that the country had, for almost 20 years, experienced a “gradual rising tide of prosperity”—the result of far-sighted, multi-generational investments that had benefited the entire nation. “A rising tide lifts all boats,” he said.

The rise of information technology, electronics, engineering, management and business services favors workers with more education. Members of educated households are better equipped to handle the complex tasks inherent in new sectors of an information-based economy.

Education is critical to accessing the emerging fields in which there is significant job growth—but for which we’re not producing enough workers trained with the right knowledge and skills. The U.S. workforce is increasingly polarized into high-skilled and low-skilled occupations. Employment and earnings are increasing in high-skilled professional, technical and managerial jobs and lower-skilled food service, personal care and protective service occupations. But they’re declining for middle-skilled administrative, sales and blue-collar production jobs.

Since the 1980s, there has been a growing wage gap between college-educated workers and those with only a high school degree. Wage polarization between these groups has occurred alongside a sharp decline in the supply of skilled workers driven by our slowing increases in educational attainment.

In past decades, a high school diploma could be a pathway into the middle class. In 1973, about 70 percent of jobs—including those in manufacturing, sales and administration—required only a high school diploma or
I look at someone like myself: I was an awful math student; I wasn’t even on email 10 years ago. Now I am playing catch-up in understanding technology because I was in the radio business that evolved into the media business that evolved into the digital media business. We must be willing to learn through these transitions.

-Alfred Liggins, RadioOne

less. But in recent years, economic growth has benefited an increasingly select group of skilled labor. By 2008, only 40 percent of jobs were accessible to people who hadn’t gone on to higher education.

For example, the jobs remaining on the factory floor increasingly require computer literacy, math, advanced reading and advanced reasoning skills. In 1983, only 13 percent of workers in manufacturing had an associate’s degree; however, by 2018, the percentage of manufacturing workers with associate’s degrees will have doubled, as part of the nearly one million unfilled manufacturing jobs requiring at least some college.22

Workers who once were engaged in semi-skilled physical labor are facing an entirely different level of complexity. For example, service technicians for companies like Verizon were once primarily engaged in servicing phone lines, climbing poles, fixing and deploying copper wire. Today’s service technicians need deep problem-solving and interpersonal skills to address multiple technical considerations to deliver broadband to each site on their daily schedule. These workers not only run cable, they set up multimedia home platforms and interact with consumers as the frontline of customer service. It’s a transition occurring across the workforce.

According to a report by McKinsey & Company in 2009, “unless the mass of America’s human capital can be developed fast, the nation risks another period in which growth resumes but income dispersion persists, with Americans in the bottom and middle-earning income clusters never really benefiting from the recovery.”23

The leveling off of growth in America’s average level of education is setting the stage for a vicious cycle as educational disparity in one generation exacerbates

fig. 4: Lifetime Earnings By Education and Occupation Level

Source: Georgetown Center on Education and the Workforce, “The College Payoff” (2011)
income disparities and polarization—which creates further educational disparity in the next generation.

**Wealth gap, education gap**

Between 1978 and 2008, the gap between the math scores of children from high- and low-income families widened by a third. During the same time period, we’ve seen a growing disparity between incomes of the richest and the poorest segments of the population—a decrease in the earnings of American workers lacking college credentials and an increase in the earnings of college graduates. If we were able to close the educational achievement gap for students from the poorest families, we would add $400 to $670 billion annually to the U.S. GDP.

Greater socioeconomic differences have sowed the seeds of greater educational dispersion. Increasingly, the quality of primary schools and teachers has come to correspond with the economic status of the neighborhoods they serve; wealthier communities have produced better educated children, while poorer communities have produced lower achieving students who need more support from educational institutions.

**The economy has evolved so that getting a good quality high school education isn’t enough to enter society and be a productive member.**

– Jim Davidson, Silverlake

The connection between income disparity and disparity in education is also informed by factors outside of school. Recent research has found that time and stress play a role in determining the academic performance of children at all educational levels, as do the decisions that families make about how to spend their free time and money—decisions which vary by income.

Higher-income parents can afford to spend more time with their children on literacy-based activities compared with their lower-income counterparts. By the time they are six years old, the children of wealthy parents will have spent 1,300 more hours on “enriching activities” like music lessons, travel and summer camp.

Economically disadvantaged parents may be dealing with the challenges of being a single parent, nonstandard work hours, inflexible schedules and overall less time to invest in their children.

**fig. 5: Spending Priorities**

<table>
<thead>
<tr>
<th>United States</th>
<th>Asia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing</td>
<td>33%</td>
</tr>
<tr>
<td>Transportation</td>
<td>18%</td>
</tr>
<tr>
<td>Food</td>
<td>13%</td>
</tr>
<tr>
<td>Insurance/pensions</td>
<td>11%</td>
</tr>
<tr>
<td>Health care</td>
<td>6%</td>
</tr>
<tr>
<td>Entertainment</td>
<td>5%</td>
</tr>
<tr>
<td>Apparel and services</td>
<td>4%</td>
</tr>
<tr>
<td>Supplemental education</td>
<td>2%</td>
</tr>
</tbody>
</table>
| Source: U.S. Bureau of Labor Statistics, CLSA Asia-Pacific Markets, Mr. & Mrs. Asia American families at all income levels allocate an incredibly high percentage of their household spending to housing (33 percent) and transportation (18 percent), while spending less on supplemental education (2 percent) than entertainment (5 percent). Compare this with families in Asia, which allocate upwards of 15 percent of their household budgets to supplemental education. The extent to which American families prioritize higher education is a factor worth considering.

**The required investment in higher education**

The last chapter in California’s landmark Master Plan for Higher Education is entitled “Will California Pay the Bill?” In 1960, confident of the answer, California was responding to the growing demand for education by planning 22 new community colleges, two new state colleges and resolving to move forward on building the two additional universities that had already been approved. Governor Edmund G. “Pat” Brown, Sr., said in his 1959 inaugural address, “I am persuaded, as I am confident you are, that whatever we invest in free public education is returned, manyfold, to our economy and to the strength of our democratic government.”
Fifty years later, the California State University system announced plans to close spring enrollment on most of its campuses, effectively turning away 16,000 students. The situation in California is increasingly representative of public postsecondary education. In many cases, states redistributed federal revenues intended for education, leading to increasingly decentralized and constrained spending. Forty-one states cut their higher education spending in 2011-2012, including New Hampshire (41 percent), Arizona (25 percent) and Wisconsin (20 percent).

Real public funding per student reached its highest level in 1977. Since 1980, public investment in higher education has been unstable. During that time, state support of public higher education has often fluctuated with the economy.

During economic downturns, appropriations to higher education are often the “balance wheel in state finance,” absorbing disproportionately larger cuts than other state-funded services. In government, budget is priority and priority is budget. Education was becoming less and less of a priority.

Appropriations per full-time student just reached a 25-year low in 2011, below 1980 spending levels. Studying the fiscal years between 1999 and 2009, the U.S. Government Accountability Office found state and local funding had dropped as much as 65 percent in places and that public and private non-profit schools were increasingly relying on student tuition.

As public spending on higher education declines, the share of total revenue for general operating expenses for higher education originating from net tuition revenue continues to climb, increasing from 32.2 percent in 2008 to 39 percent in 2011. Last year, seven California State University campuses received more revenue from tuition and fees than in state appropriations.

fig. 6: In 2011, 42 States Decreased Spending in Higher Education
As public funding has been cut and tuition costs increase, traditional financial aid sources face cutbacks that will place college out of reach for deserving students and families, and cause others to resort to private loans. The recent changes to eligibility requirements for the Cal Grant will eliminate or reduce awards to 14,500 students.39

These cuts have a significant impact on some middle-class families who, when financial aid is factored in, end up spending a greater percentage of their family income than either the highest- or lowest-income families, according to one estimate.40

At the same time our families and our institutions were making education less of a priority, other nations were using it as a tool to transform their societies.

**Global prioritization of education**

The South Korean version of truancy officers are government officials charged with finding kids studying late at night in private, after-school study halls and sending them home.41

South Korean families seem to have willed their way to the top of education rankings. Growth in after-hours studying has progressed to the point that officials are worried about parents spending too much money on private instruction (currently two percent of GDP). The intense focus on education in South Korea has been described as an “educational arms race” that leaves little time for childhood.42 However, South Koreans’ prioritization of education as a core value has led to impressive gains in education.

South Korea has become the world leader in young adults completing college (having overtaken the U.S. about a decade ago). Brutal competition, an ever-increasing imperative to be well-educated and a sense of national mission seem to be the South Korean recipe for rapidly growing levels of educational attainment. Canada, another leader in education, sets ambitious student standards, doesn’t tolerate failure and puts the best teachers into the most challenging classrooms.43

In other words, there is no one approach to educational success among high-achieving nations. Some countries use firm college entry guidance, while others simply will not allow students to graduate from high school until they are ready.

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**fig.7: OECD “Horatio Alger” Index**

Disadvantaged students who succeed in school despite their socioeconomic status

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Source: Education-at-a-Glance, OECD Indicators 2011
Still other countries encourage student maturity either by requiring military service or a break between high school and college. Spending levels vary widely from country to country. Yet, every high-achieving country seems to have a strong national commitment to educating its youth—all the way through college. It is the commitment to education and figuring out what works for their people that enabled these countries to overtake the U.S. It’s not realistic to think that we can replicate exactly what other countries are doing. But what can we learn and apply in America in ways that make sense for us?

Although countries like South Korea, Japan, Finland and China have divergent approaches to education, according to OECD, they have something important in common. These societies produce more resilient students: those who come from the bottom quarter of the PISA index of economic, social and cultural status, but test in the top quarter in reading performance.

Should creating these “Horatio Algers” of education be our goal? Currently we’re just below average in producing them. In South Korea and Shanghai, China, 56 percent and 76 percent of low-status students are considered resilient, and in Finland and Japan student resiliency is between 10 and 15 percent higher than the OECD average. China brought 400,000,000 people—more than the population of the U.S.—out of poverty this generation. Change on this scale is possible.

How can our society build a more resilient student? Some believe that these other countries and cultures have done a better job of long-term planning for their citizens. Long-term planning is an area for us to explore, to apply learnings from other countries to our own. The willingness and ability to take a longer view of investments, especially in human capital, is nearly always an advantage.

When we look at the success of a country like South Korea, it is easy to dismiss it as the product of historically low rates of attainment or the product of cultural differences. But equality of opportunity is at the core of our value system as Americans, and it’s a value we should protect vigorously and not cede to any nation.

WHERE DO WE GO FROM HERE?

Making up a 100 million year deficit in workforce education or 200 million year deficit in the population’s education sounds like a feat beyond reach. However, to put the challenge in perspective, it amounts to a single year of additional education attainment for each member of the current American population ages 25 years and older. If each American found the time for one additional year of postsecondary education, the U.S. could—at least in terms of attainment—largely offset four previous decades of slowing growth.

President Obama established an initiative that sets the goal of 60 percent degree completion for 25 to 34 year olds and challenges every American to commit to at least one year of higher education or career training. The focus has been primarily on the degree completion goal for young adults. However, the challenge that every American gain an additional year of education is fundamental to reclaiming our missing years of education. If every American age 34 to 65 had an additional year of higher education or career training that would generate—or reclaim—three times more years of education than if we had a 63 percent college degree attainment rate among 25 to 34-year-olds.

There is likely little disagreement that if we were able to reclaim those missing years it would benefit the economy. How we reclaim those missing years will shape both the positive economic impact and the extent to which America regains its competitive advantage in a global economy.

In the United States, where our school year still follows a centuries-old agricultural calendar, change in our system of higher education often comes more slowly than the demand for change. Given this, there is little doubt that meeting the President’s goal of obtaining the highest college graduation rate in the world by 2020 is ambitious and will require significant innovation and change within our higher education system.

We estimate that the cost of meeting President Obama’s education goals, relying solely on the traditional model
of higher education, will cost more than $800 billion in public investment, a significant amount made all the more significant by the trend of declining investment from the public sector. Innovation, rapid growth and greater collaboration between public and private institutions are essential to meeting our goals.

Closing the skills gap

In 1965, Route 128 in Massachusetts was, arguably, the world’s leading technological hub. It had three times more technology employment than Silicon Valley. Ten years later, Silicon Valley had more technology employees. Between 1975 and 1990, Silicon Valley grew three times faster. Massachusetts had missed a wave.

Closing the skills gap isn’t just about linking education, technology, jobs and people. It is about global competition. We have a vested national interest in making sure we catch the “next” wave, like the Silicon Valley wave that started in 1975. There are some troubling signs that we may be in the process of missing it. Employers are having difficulty finding qualified people in engineering, science and skilled trades. More than half of U.S. employers report difficulty in finding talent; the percentage of bachelor’s degrees awarded in science and engineering dropped over the last decade; and 30 percent of U.S. middle school students can’t name a career that requires math skills. To remain globally competitive, technology leaders like Microsoft are hiring more talent from outside the U.S.

Silicon Valley was built by sophisticated networks of entrepreneurs, public sector investment, and educational research and training institutions collaborating and creating value in ways other regions in the U.S. couldn’t replicate. How can we look at the success of Silicon Valley and apply those learnings to create a roadmap for our future successes?

Technology has overtaken education in the U.S. during the last three decades, and it can help us catch up. Innovation and technology that enable mobile learning, adaptive learning and social-interactive learning are exciting and powerful tools. As we dive deeper into this piece of the conversation over the next year, we’ll seek answers to the following questions: How can technology help us catch up? Which skills are the most essential, in which regions and for which jobs? Who in the workforce can most easily develop these skills? What are the most effective technology-education-business partnerships operating today and can they scale? What does an educational system that advances as fast as technology look like? And how will we pay for and educate a great number of our citizens in the U.S.?

Investing in our country’s human capital

The G.I. Bill was enacted in response to a clear and immediate challenge. Millions of veterans were returning from war; they needed stability in their communities. More importantly, they needed jobs. The social and economic crisis that would have resulted had government failed to act is nearly unimaginable.

We face a similar challenge in America today, although in meeting the challenge of educating our entire population we seem to lack the will and sense of urgency that was created by in the 1940s by an influx of millions of returning, unemployed servicemen. Perhaps the sense of immediacy does exist—along with the political will—even if it is not as obvious as it was in the 1940s.

Is there a deadline for making the investments that are needed to respond to increased disparity and our growing skills shortages? Is there a specific date when our global competitiveness and long-term economic growth become irreversibly compromised? We know, eventually, that this will be the consequence of an undereducated nation. But whether that happens in 20, 30 or 50 years is hard to say. We already know the cost to our economy of delaying educational attainment is in the trillions of dollars.
Is enlightened self-interest another way to motivate action? The annual return on investment for a bachelor’s degree is well known: about 12 percent for traditional students and nearly twice that for “nontraditional” students who, among other characteristics, are the ones who go to school while working or raising children. A bachelor’s degree typically leads to 84 percent greater earnings over a lifetime compared to a high school diploma—nearly $1 million in additional lifetime earnings. Overall, $772 billion is spent annually on postsecondary education, with colleges and universities accounting for 35 percent of the postsecondary learning system and employer-provided training accounting for the other 65 percent. Contrast this with the $1.3 trillion to $2.3 trillion we would have added to our GDP by closing the achievement gap.

If we are going to be successful, we must look at how we can creatively invest in our human capital given the fiscal challenges our country, which currently faces a national debt level breaching $15 trillion recently. We must be able to accomplish our goals at a cost the nation can afford. Some of the questions we’ll explore over the next year include: How can we make the case for the human capital investments to individuals, regions and industries? What is the economic cost to the nation of delaying investments? How can public-private investments be pooled? Can strategic investments yield a greater return for specific regional clusters or skills gaps in specific industries?

**Holding onto our talent**

Whether it’s a high school student thinking about taking the GED or a single mother weighing the practical value of returning to college, every day—and at every stage of life—Americans are making decisions about how to continue their education.

It is easy to make the assumption that it’s “college kids” who will be the primary group to help us make up the years of education we need. The idea, though, that college students are “kids” is something that is no longer really true—18 to 22-year-olds represent about 30 percent of enrolled college students. While the federal government refers to adult college students older than 25 as “nontraditional,” this group today represents about 70 percent of enrolled students in the higher education system. They embody unique characteristics, as well: they are more financially independent compared to younger students at public and private non-profit schools, and they are more likely to be women and minorities. Attracting and keeping students from all age levels and all socioeconomic backgrounds in school is essential if we are going to reclaim our global educational leadership.

That will mean focusing our time, resources and attention on the students who need it the most. The percentage of U.S. young adults from the upper half of the income distribution with a bachelor’s degree is the highest in the world. This population—the one that the American educational system was designed to serve—is already ahead of South Korea, Canada and Finland. Those who fall in the lower half of income distribution in this country—if they were represented proportionally as a separate nation—would be at the bottom of the OECD rankings, ahead of only Brazil. That is a whole other America.

Since the recession hit in 2008, many of these adults have lost their primary employment. They stopped completing coursework at U.S. postsecondary institutions or have delayed higher education goals indefinitely. Roughly 50 percent of these Americans attend college part-time, about 40 percent work full-time and nearly 30 percent have a dependent living in their household. Most schools, colleges, universities and other education institutions have a hard time grasping what these students need. These students do not talk about their decision to postpone their higher education goals and are far less likely to meet with guidance counselors to discuss options. As a result, they are left behind.

The questions we plan to explore over the course of the next year include: What investments and resources will support these students? What will convince them of the value of staying in school? What is causing them to drop out of school? How can they be persuaded to re-enter school? What are the best education-business-technology partnerships focused on keeping high school and college students in school? Can they scale?

If we want to truly reverse the declines in educational achievement over the last three decades, we will have to make a commitment to deeply understanding these students and to developing strategies that persuade them to enter, continue with and re-enter higher education. As Americans, we must agree that we cannot afford to let any of our talent go to waste.
REQUEST FOR PARTICIPATION

Our primary objective in writing this series of papers over the next year is to spark conversations with diverse interests about solutions. One of our goals is to make a positive contribution to addressing many of the challenges we’ve discussed by engaging in these conversations over the course of the year. The Apollo Group (owner and operator of University of Phoenix) has developed some core competencies and insights, including using technology and innovation in education, scaling teaching, building education-business partnerships and understanding non-traditional students, which we’d like to offer to the broader discussion.

Over the course of the year we will convene a series of collaborative discussions among academics, government, business and labor. We will begin by talking with stakeholders in each sector to seek advice on the research questions, critical policy issues and business-education-technology pilot projects we should consider exploring and will report on the results of those discussions with an action plan for the next year. Our goal is that joint fact-finding will lead to actions and jointly implemented solutions that can help make a difference.

We are inviting participation and welcome your input and recommendations. If you would like to provide input or learn more about our plans for the year, please email us at apolloworkforceinitiative@apollogrp.edu.

APPENDIX*
Lisa Gersh, President and COO Martha Stewart Living Omnimedia

One of the first questions we were hoping to ask is with regard to your experiences in college. Did you have a favorite class or favorite instructor, either at SUNY or at Rutgers? Additionally, was there ever a time when you thought about quitting as opposed to continuing on to law school or on to another path?

I think my favorite class was probably Urban Economics, which might be the only class in which I did not get an A in while I was in college. It was such a fascinating subject, and it really opened my mind to thinking about the development of cities in a different way. This course really challenged me to delve deeply into how a city comes into being.

I found the undergraduate world at Binghamton to be remarkably eye-opening. My high school experience was probably different than most of the students at Binghamton; only a third of my high school class went to college. And you should also know that neither of my parents went to college. So my brother and I were the first in the family to go to college, and I was in awe of the experience of being in a college environment and the amount of learning that was made possible. But probably my first two years of college were devoted to learning how to learn. I hadn’t really done that in high school. We didn’t go to that kind of high school. I really loved my undergraduate experience.

Graduate school was a different story. I think after the first year of law school you’re kind of just hoping to get out and finish, because I think you get most of what you need in year one. You learn how to think like a lawyer in year one, and then you learn about the substance of law in year two, and then you’re kind of wondering what you’re doing there in year three. So mostly what I did in year three was have a full-time job, and I continue to have the nightmare about not going to class and finding out that you had a test, because I basically didn’t go to class my third year.

So someone who was in your shoes or who’s working, going to class, what advice would you have for them as they face challenges?

I actually think it was a really good experience to work while you’re in school. I worked my third and fourth year for professors on research, so I think the experience of having some other outlet when you’re in college is really important and very helpful to the enhancement of your educational experience. It was for me. I also think it’s an important discipline at the end of the day, because college without a job is a pretty cushy life.

I know a lot of students in college today who are nervous about getting out and having to go to work, because it’s going to be a lot different and much more difficult. For me, getting out was great because at that point all I had to focus on was work. I think that trying to have some sort of financial obligation when you’re in college is important, and I know a lot of people do, and I think that’s very beneficial in the end.

Can you speak to your experiences regarding higher education as a child of parents who had taken a different route?

My parents went through a very difficult time financially during the period of time when my brother was a junior in high school and I was a freshman. There was some real question about whether he or I would be able to go to college. At that point I educated myself about what was available in the world of financial aid for my brother, because my brother was sort of throwing up his hands and saying I’m not going to be able to do this. Through my research I was able to figure out how to get both student loans and financial aid for him.

From the point of view of my parents, they had just accepted the fact that maybe college wasn’t an option and they pushed their viewpoints on to us to some extent. For them, it just wasn’t something they saw as a requirement. For my brother and me it was, and we did.

It seems as though you were the one that really spearheaded the college path for both you and your brother.

I took care of filling out the forms. I really knew that both my brother and myself really always wanted to be lawyers. We both ended up as lawyers. In our minds we just didn’t have another path to take. And I really didn’t want to get stuck in New Jersey, working in the jobs that I was working in when I was in high school.

How did you talk to your kids about college?

My kids were fortunate enough to go to very elite private schools where the conversation about whether or not you go to college just doesn’t exist. And now more and more kids think about things called gap years, as if the first year of
college is actually the next year. So it’s never really been an option for my kids that they weren’t going to go, and they never thought about bypassing the experience.

It was more of a logistical conversation.

Yes, how, where, what part of the country, big, little, city, country, that kind of thing.

Around the time the ’80s hit, other countries started overtaking us in terms of the rate at which they were able to educate their young people. So I wanted to ask, does this resonate with your experience? Are you seeing this?

In my experience, even in these rarified worlds where the parents have gone to college, the kids have gone to elite schools and excellent programs where they are clearly college-ready when they graduate, the idea that maybe they won’t go for the very first time is part of the conversation. That wasn’t part of the conversation 10 years ago, but now I notice more and more this type of thinking that questions whether or not college is really something that I need. Kids today ponder whether it’s something that’s going to help them, what a four-year degree is going to do for them, and whether or not there are other experiences that they could get that might be better.

So what are some of the options that people are thinking of or talking about, as opposed to the traditional college route?

I see people taking off and going to travel, going to other countries, and then coming back. I think this decision to travel is driven largely by a desire to try to make a difference in the world. I also see a trend of young people following the lead of Mark Zuckerberg: dropping out of Harvard and thinking that maybe they don’t need a college degree either. These people have a non-traditional idea they want to pursue that doesn’t necessarily require a four-year degree, which I think is a pretty elite trend, but nevertheless one I do see emerging.

In your business, are you seeing that trend as people come into your company?

We do require a college degree for most positions, but there are some positions where we’re more interested in someone’s skillset. For example, if someone’s really interested in the food area of our business, we might be more interested in their work in a kitchen than we would be with their educational background. But that type of applicant won’t go on to become a food editor without a college education.

In terms of this idea that people are now questioning whether or not they go to college or it’s less an assumed path, any thoughts on why that happened? One of the questions we’re asking is how did we get here, and if that’s where we are, how did that happen.

First of all, I think the price of college is daunting for so many people today. It’s just exorbitant, so you have to be thinking if I invest both my time and my money when I get out of this, there’s going to be something for me. And for many people, they may not see a positive result stemming from the investment of time and money.

Do you think there is anything in families or in the private sector that was happening to contribute to this mindset?

I think that in the private sector there’s still a desire to have college-educated employees. I think in most families today there’s still a sense that going to college is something to aspire to and something that people would and should want to do. So it’s unclear to me why we’re seeing the trend other than economics and financial obstacles.

Some of this change seems to stem from more pressure on families generally.

Right. When I went to college, you could get a student loan from the government at a 1 percent interest rate, which did not start accruing interest until a number of years you were out of college. That was my student loan. You can’t do that anymore. And there was an availability of funding in the late ’70s, early ’80s, that is very different from today. I got something called a basic educational opportunity grant, which was money I applied for because I had no money, and the government wrote checks for both my brother and me.

So you’re saying that you see those types of opportunities much less frequently—that there’s not as much government funding.

I don’t believe so.

What about in businesses? You mentioned that people are deciding whether or not a degree meets their needs. Are there ways in which the educational system isn’t meeting the needs of businesses or that the workforce and students aren’t connecting with those?
Well, I don’t think we’re seeing—I think it’s hard—I think colleges are not necessarily preparing their students for the workplace environment. For instance, we often see college graduates who come out of college and are unable to write persuasively. They might be able to write a creative story, but other than in magazines we don’t need that. I need someone who can write me a memo that persuades me of their point of view of why I should or shouldn’t do something.

So I think just from a basic writing fundamentals standpoint, I don’t think there’s enough focus on persuasive writing in college and linear thinking. People need to be able to do that in a job situation, and we don’t often get that. That’s something we have to teach people when they get here.

Now that we’re here, how do we solve that problem? How do we actually make things better—and, starting with your company, are there any challenges in finding the right employees or finding people with the right educational background? Is that difficult? Is that challenging?

Yes, I think it is. Look, right now I think there are fewer entry-level jobs than there are people looking for entry-level jobs, so that we’re seeing a lot of candidates for entry-level jobs, meaning entry-level with a college degree. But it almost seems like we should try to match businesses with universities or community colleges and create a program that trains people from the start in specific skills which would then lead to jobs at companies that sponsor the students.

It’s almost like, in New York, the “pencil program.” It’s like matching businesses to schools in some ways; if we could train them for what we need them to do when they get out, it would be so much better than trying to train them when they’re out.

Have you seen this done well? Are there places where this is happening?

There is a program that Bloomberg launched two years ago with a high school in New York City, I believe. It was a program that partnered with IBM. It’s a six-year degree rather than a four-year high school degree. Once you graduate, you have a job at IBM. It’s a partnership to educate students to be able to do something when they get out of high school.

If you were speaking to all the colleges and universities in America and all the high schools, what would you tell them? If you could give them two or three pieces of advice what would that advice be?

I think the main thing is to be able to write and speak persuasively, and I think those are two skill sets that really do need to be taught. They must learn to speak publicly. They must be able to write persuasively. Those are the two most fundamental things you could do for people when they’re in school. And if they have those skills, they translate to almost anything.

If you could talk to the government and say this is the number one thing or few things that you should be doing to increase educational opportunity or solve some of these problems with connecting people with jobs as they go into and through school, what advice would you have?

I think it’s lack of funding to a degree, and while I understand you may want to put more strings to that funding and maybe do more testing, and maybe make it available for other types of schooling—not everybody needs a four-year degree. We need to train people to do things, and we should be focused on training people to do things, and we should fund that program. And I think a big part of the problem, and probably the trend you’re seeing across America, is related to the fact that there’s not enough funding for middle-class Americans to go to school.

Then how about families? If you had any advice to parents who were worrying about whether or not their kids were going to college, for whatever reason, what advice would you give to them?

I think from a parental point of view, I think parents need to step back and look at their kids and assess and help an 18-year old make a decision. Does college make sense for me? Does a different kind of program make sense for me? Start to really get them to think about what they want to do with their life, and part of that isn’t waiting until they’re 18.

Part of that is saying when they’re 15 and 16, go off and get a job in an ice cream shop or a job in a factory or a job as a waitress or whatever it is, some job which is going to give them some experience in a working environment to know what they want to do with their lives. It’s very helpful, even, if it has nothing to do with what you’re ultimately going
to be. Starting that process at 15 or 16 will better prepare students to determine the right path for themselves when they turn 18 and need to make a decision.

**In terms of other countries, any examples you’ve seen about what they’re doing well? Many of them are overtaking us.**

If you look at the K–12 arena, they’re clearly killing us. All the evidence of how Norway is doing and Singapore, I think, are important lessons to look at in the K–12 arena. I still think we’re more dominant in the university arena, and we’re getting students from other countries coming to our universities. And then, of course, we don’t let them work here.

**Then one final question which could lead to others, on this subject, how we got here, are there any questions that we didn’t ask you that we should have?**

I guess with regard to how we got here—I know the White House always cites the statistic that 70 percent of all jobs in this country require a college education; only 40 percent of Americans have a college education, so you have an education gap. But I think we also have a skills gap, and to me the question is how do we get to this place where we aren’t focused on the marketplace and what we need. It’s almost like we’re fighting the last war. We’re sending all our kids to get a four-year degree, when really what they need is something else.

So how do we get someone to really focus on what it is we need. To me, one of the issues is that we have such a decentralized approach to education. Education is fundamentally such a local issue, and the attempt at creating some uniformity among states and cities and towns has been successful in small part, but not nearly enough.

I think one of the ways we’ve gotten there is we’ve lost a little bit of that uniformity that you need in order to create a great education system, and there’s just a lack of sharing of best practices and an inherent conflict with the unions on tenure and other policies that get in the way of creating a spectacular K–12 education system. We certainly spend enough money, and as a result, without a spectacular K–12 education system, we are not graduating enough students, and we’re not college-ready when we graduate, for the most part.

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**Jim Davidson, Co-Founder, Managing Director and Managing Partner, Silver Lake**

**Tell us about your experience with higher education.**

Sure. I’m the son of immigrants. My father was a Ph.D. in botany and a professor at the University of Nebraska, and my mother was one of the earliest women to earn an MBA at the University of California, Berkeley. So I’m from a family where academics are part of our culture.

So not only did I expect to go to college, but I always expected to go to graduate school in some capacity. Law school was kind of an accident. It’s not that I didn’t want to be a lawyer, but my degrees were in political science and mathematics, and specifically abstract algebra, which, as far as I can tell, had no practical application until the world of computers emerged. I had a minor in computer science.

Computer science was hard at the time because the professors didn’t know that much about what they were teaching. They knew about the big mainframes, but, of course, by the late ’70s and early ’80s, the world of computers was evolving every day.

After graduating from Nebraska and before starting law school, I took a summer job programming for the government. I wrote a program on ARPANET for the SBA in ’81, and had I figured out I could have actually gotten a job in technology, I probably wouldn’t have gone to law school. But I wasn’t exposed to a lot of opportunities, and I ended up going to law school, in large part because I was a pretty good student, and it was the next school to go to. So I got out of primary school, went to middle school, got out of middle school, went to high school, got out of high school, went to college, and then might as well just go to law school.

But, obviously, going to law school prepares you to be a young lawyer, but it doesn’t prepare you to practice law. It teaches you critical thinking skills, which I think went well with my math and computer science background.

**Did you think a background in math would be important?**

No. I’m an accidental math major. I was pretty good at math my whole life, and so I just kept taking math courses because I thought they were fun, and they were easy.
I was supposed to emphasize in logic instead of algebra, but in the summer between my junior and senior years the professor who taught the advanced logic courses died in a moped accident so I didn’t have a professor to take my senior curriculum for logic. The department chair was an algebraist, and he told me algebra was awesome and I should take algebra. So I did.

Is higher education delivering what we need it to in the U.S.?

There used to be a social compact, and maybe this is why you’re asking this question. The social compact in the United States used to be: go to school—go to a public school—we’ll educate you, and if you do what you’re supposed to do, you’ll be trained to be a productive member of society, and you will earn a decent wage to make a living.

You can go work on the farm, you can go join the military, you can go work in an assembly line, or you can go to college and become an accountant or become a teacher or become whatever. And if you do what you’re supposed to do, you’ll be able to find your true love, have a family, buy a house, raise your kids, and they can repeat that process.

At some point the economy changed or the educational system failed to deliver a finished product that would contribute to the changing economy. Now we’ve reached that point of disconnect. Because if you go to a public school in certain parts of the country, you may get a good enough education, but you are probably going to struggle to make enough money to buy a house, support your spouse and raise a family.

So the question to ask is: how do you fix that? You can see how 100 years ago, when the economy was mostly agricultural, with a large number of blue-collar manufacturing jobs, that system kind of worked. The yield of raw talent to finished product was high enough, and it fit with the economic demands of society.

Today, you can ask yourself the question: does the system, if used as directed, teach students what they need to know to be productive and valued in today’s economy?

So is it technology that is causing this disconnect?

The challenge goes back to the question of what is it that differentiates winners and losers in today’s economy? I would argue that if the leadership of a company, or even the key decision-makers up and down the company, don’t have a fundamental understanding of what technology is able to do or can’t implement technology at a strategic level and a tactical level, you will underperform, because the competition is more global.

The brokerage business: you can have a smart trader who went to high school in Brooklyn. And you give him $100 million on a trading desk. He’s competing with two statisticians from MIT who will create algorithms because every human behavior has a pattern. We try to be random, but humans are incapable of randomness. It may take a year to find the pattern, but humans are incapable of randomness. So, to the extent there’s a pattern, you can create an algorithm, and that algorithm will be better, faster, and cheaper than that kid from Brooklyn. And so today, what’s happening to the trading floors of Wall Street? The physical guys are getting eaten alive by the computers. One great programmer can wipe out a hundred jobs.

But if you have somebody with experience about how the trading operation works, and you add capabilities to that knowledge and those instincts, then they’ll be a hundred times better than the quant from MIT who’s just writing algorithms with raw data.

Understanding behavior and the technology is a hundred times better than just the technology.

What do you think needs to be changed in the higher education system? What about in the Valley?

So the first question I can answer quickly, I think, which is: what does the higher education system need to do to be better aligned with the requirements of the economy?

The challenge students have when they first encounter abstract math—once you get past arithmetic, into geometry and algebra—is that they get turned off because they don’t see the point. Why am I learning this? Students need to have a tangible example of what’s in it for them. What kind of job can I get if I excel in math and science? The abstractness of our current “sales pitch” to most students is completely lost.

We need to make continuing education part of the culture of Silicon Valley for anyone who wants to lead. It’s appealing for employees: companies are making investments in their development. It’s appealing to companies: employees are making investments in improving their productivity and the business.
Smart companies are nominating dozens of their employees to be part of these programs. Smart employees know that this is the new leadership track.

**So with all the technology we’ve got at our disposal, why aren’t we more intelligent?**

I think the highly educated, highly intelligent person has a tendency to over-complicate things. I would go back and ask: who’s the greatest innovator, entrepreneur of our lifetime? And many people would say Steve Jobs.

What did he do? Start with the iPod. What is the iPod? It changed the world. But what is it? The iPod is an MP3 player. So technically all he did was deliver a digital Walkman with a disc drive instead of a tape. So you had permanent memory sitting in a portable device to play music. You’ve got a simple way to listen to music. And you’ve got a simple way, with iTunes, to buy music. He didn’t complicate your life. He actually just made your life simpler and better. Technology, if it solves problems, simplifies your life. It doesn’t complicate your life.

This is so badly needed in education. In order to make something that’s complicated simple, you have to understand the complexity, and you have to be able to harness the complexity to deliver a simple solution. How can we apply technology in education in a way that makes our lives simpler? How can you have a meaningful educational experience online? It’s such a simple thing, and yet the technology to deliver it is complex, but that’s how you make the world better.

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**Jeff Joerres, Chairman, CEO and President, ManpowerGroup**

Describe some of your personal experiences in education.

I was the first in my family and extended family to go to college. So I did it all on my own. Paid for it, filled out the application and I had no idea what I was doing; I muddled my way through, ended up at the wrong place and then decided to change schools after my sophomore year. I guess in some ways figuring it out yourself and paying for college yourself gives you a sense of reality and prepares you for what will come next in your career.

**Was there a time when you thought you might not continue on with higher education?**

No, I don’t think there was a point where I ever thought I wouldn’t continue, although my path of studies may have diverged a bit.

**In your educational experience, what was most helpful in preparing you for the workforce?**

I think learning to deal with what the education system offers in addition to education: a little bit of fighting for yourself, having difficult professors and having great professors who teach you a lot and help you grow. That’s similar to the business world with managers. So I think the entire experience allows you to grow as long as you are really paying attention to what’s beyond just the courses and materials.

**Did you notice a leveling off of educational attainment after the ‘80’s?**

Well, clearly we have more dropouts. We need a societal mindset shift that brings honor back to coming through technical schools and into skilled trades work. Government, businesses, educators and trade group leaders must impress upon students and parents that there are potentially lucrative alternatives to traditional university degrees. Are we really saying that it’s somehow better to graduate with a history degree and wait tables than it is to graduate as a welder and make $50,000 a year?

**Do you have thoughts on what was happening in the homes or in families?**

The family structure makes a big difference. I think there’s a whole new complexity associated with getting schooling when you have single-parent families. The education system is still widely accessible but has clearly has gone up in cost disproportionately compared to other things.

We also have a lack of curriculum coordination – even within state institutions – so transferring, if you’ve been interrupted in your pursuit of a post-secondary degree, costs a lot more money and it provides another obstacle to get back to finishing your advanced degree.

**Any thoughts on what was happening in government or the private sector?**

The government itself, in many areas, ran out of money and so support for educational institutions was being challenged and declining. And in the private sector things got tight as well. Margins decreased and as a result the link between technical schools and universities and businesses
diminished and, perhaps, companies were less likely to pay for training programs.

Business moves faster by definition because forces are coming at you a lot more quickly from different directions and global competition doesn’t take the summer off. Colleges and universities were struggling to keep up with a lifecycle of change that was ‘X’ and now it’s ‘X’ minus something.

Are you seeing examples of how really good companies are dealing with this challenge?

Companies are realizing how damaging the skills mismatch can be to the health of their business and they know they need to control their destiny and reach into colleges and universities; however, it is hard to do that productively. Businesses are moving fast and they have limited resources. But there is more creative work that could be done to cooperatively build curricula and implement dual learning systems or iterative learning systems that enable students to learn in the workplace and in school in ways that reinforce each other.

Now can companies actually organize themselves that way? Can the postsecondary education system do that? These are the questions.

Are there things that other countries are doing in terms of educating their workforce that we should be emulating?

There are numerous examples of what other countries are doing right. But some of those examples are at the core of what we don’t believe in as Americans. I look at education as an ecosystem within a country. If you just pick up one thing and transplant it you can solve one problem but create new ones.

There are great examples of school-work partnerships throughout the world. The question is: how do we bring these to scale in order to deal with our skill shortages?

What advice would you give to the president of a college or a university?

Have a strategic planning session now on how your college or university needs to change and adapt over the next few years. Don’t plan on incremental change. Our higher education system is slowly breaking. If it snapped hard, we’d be able to recognize it and fix it. But because it’s just a slow break, some people actually feel like we can continue what we’re doing but just do it a little bit better. I don’t think that’s going to be good enough. Spend your time thinking about how to make deep changes.

What advice would you give to CEOs on how to deal with the skill shortage?

Workforce development begins in school. Businesses should participate in higher education. Be part of it. Be engaged in curriculum design. Be engaged in creating dual or iterative school-work learning systems. Increase your dialogue with schools and universities. Go to the state level and be obstinate about the accountability you want and the incentives that will allow educational institutions to perform better.

What advice would you give to a student considering dropping out of school?

Life is pretty difficult. If you’re going to drop out make sure that you are doing it as a result of something you just can’t overcome. Because the reality is that you are short-changing your future for many, many years ahead. I wouldn’t say you shouldn’t because people have some pretty tough life situations, but the fact is, it better be really hard. If you give up on it, the odds of coming back and getting your degree are not very high. We all need to work to improve those odds, this starts with people staying in school and all of us working to help them stay in school.

Matt Ferguson, CEO, CareerBuilder

Can you share a little about your experience with higher education?

I have this philosophy that education is an absolute good. You don’t have to have proof of the matter. A lot of what you are going to be arguing in this paper series is that there’s a data-driven reason why we should educate people differently at all levels of society. But I would argue that if you had the philosophy that education itself is an absolute good we wouldn’t have so many of the problems we have. We shouldn’t have to continually prove its value vis-à-vis so many other things in society. Education loses out since the proof comes many years later.

I think you have to start with the importance and primacy of education driving all other elements of society. I think we have to change the way we look at education and be willing to invest in it. We have to acknowledge that the numbers will take some time to prove, but we know they
will prove true because in every society, if you educate your population, good things happen.

**Was there an experience you had that led you to this philosophy?**

I grew up in a family that believed in education but no more than others. My mom reads, on average, a book per day. And it’s not that she set that up as a goal. It’s just what she does. And so I’ve always been a big reader. My grandfather was a professor. He was an administrator and ended up being the president of American University in Cairo.

I learned from my mother that the more you read, the more you learn. That said, the more you learn, the more you understand the primacy of education in giving people equal opportunity. We’re a nation of equal opportunity. There’s nothing that speaks to the American dream more than providing everybody in this society the chance to be successful. We can do that through education.

**How do we make more people successful?**

A market will heal itself over ten years, but leave behind ten million people in the process. If we had started broad-based, re-skilling initiatives two years ago, we would be seeing an impact from them today. But if we don’t start today, two years is always two years away.

So short-term, medium-term and long-term: how do you get people back to work? If you want results in six-months or less than a year, you have to connect the people with knowledge and skills with the people who have the ambition but not the skills. Short-term, government and business have to work together more effectively to help the most ambitious people who are willing change their skill set with the direction of a business in a short period of time. And it can be done, but not for everybody. I think there are at least a million people who we could help with these short-term solutions. The short-term is all about incentives. You cannot get an educational institution or a government in between because it’s not going to really help them.

When I say I think we can help a million people in the short-term, these aren’t people with behavioral problems - they have family to support, they’re extremely ambitious, they’ll work hard, they already have the critical thinking skills and the mental capability to absorb skills quickly. We’re doing this at CareerBuilder and it can absolutely be done. You guys might not want to hear this, but don’t send them back to school. If you put two thousand business leaders in a room and appealed to their national interest, asked them to help their country and these million people, and you gave them a marginal economic incentive to take a risk on this group for six to 12 months, I think you’d get a tremendous response.

Now, there’s a whole bunch of people that will need medium-term solutions. There you have University of Phoenix, online universities, community colleges - those institutions that can engage people later in life and give them the skills and training that they can use to get back to a career within two years.

And then the long-term solution is more fundamentally about a societal investment and commitment to education starting at the elementary school level. That requires investment with a fundamental belief that education is an absolute good and that you’re not going to necessarily see the results within three to five years. You’re investing in people.

**You mentioned short-term and medium-term solutions?**

Medium-term, you have a lot of academic institutions that need to get better. We need to figure out ways we can contain cost but be harder on the expected outcomes for all institutions.

There will be some that will ride above it, like the University of Chicago and Harvard of the world. But for most educational institutions implementing strict cost controls and being focused like a laser on outcomes is how we’ll get to solutions. You also have to leverage the community colleges and the online universities. We can’t get there without them. Some people say, “Online universities aren’t part of the solution because of historical practices,” or “we’re not going to work with them,” but we’re not going to solve these problems unless we engage the entire universe of educational institutions. Indiana University, Northwestern, Arizona State University; they’re not set up to create the medium-term solutions. You can’t change them quickly enough to help in the two-year timeframe. But if near-term solutions could help a million people find jobs in the short-term, the medium-term solutions could help, say, five to ten million? So let’s engage that entire spectrum of educational institutions to get it done. I think that’s an exciting opportunity.
Workforce centers are where a lot of this activity occurs and they use hardly any technology today. They don’t have any understanding of who’s coming in and out of their office, what they need to do, or where they can direct them, so the people and the information are disconnected. What we should all be doing is helping close that gap by finding ways to get people into the programs that are going to help them be successful and providing the capital and wherewithal for them to go through with it.

It’s very hard, but you’re going to have to have some cooperation between the government, community colleges, online universities and businesses to really frame what these medium-term solutions need to look like.

**How should we address the skills gap in this country?**

It’s a remarkable thing, but many people we work with don’t understand the skills they have. They’ve never really sat down and identified them. They don’t know how to articulate them and they don’t know how to find a company that might be looking for their skills.

It’s not immediately clear that if you can operate construction machinery, you can also work in IT. But you absolutely can. That’s the moment where education, economic recovery and equality of opportunity come together. We need to invest in that moment, plan for that moment and believe it’s possible. Government can help provide the incentives. If government could construct an incentive that would lower the marginal cost of hiring and re-skilling a subset of the unemployed, it would be easy for companies’ larger philanthropic spirit to close the remaining gap and take chances on some of these folks. If businesses were given a methodology for evaluating, hiring and training people, and government provided the incentive, organized the conversation, and then stepped out of the way, you could make a lot of progress quickly.

So I don’t lose a lot of sleep thinking, “Oh my God, we’re never going to get there.” We’re going to get there; we could just get there faster and government could provide the right incentives.

**Are there lessons we should be learning from other countries and other nations?**

Some of it is just parental focus, which is a harder issue. Classroom focus and time in the classroom is a huge piece of it. Some of the really successful nations spend a lot more time in the classroom than we do. We can learn from some of the nations that are progressing quickly. What you’ll see is a better collaboration between government and businesses. The German story is very, very fascinating. They’ve made a lot of changes quietly. They focused on high-end, mid-size manufacturing - that middle tier of manufacturing companies - and they’ve created a whole host of jobs.

**Are there any questions we should have asked you but didn’t?**

I think you guys are asking the right questions. This is the land of opportunity and we’re not providing every child the opportunity to get a quality education. That to me is where resources should go almost before anything else. I don’t think we’re doing that today. This is really a fundamental question for our society. Do we want to be the land of opportunity? If we are not providing an educational opportunity for everyone in our society, that’s a real problem. It’s just not who we are as a nation. Everybody is going to have to change if we want America to be the land of opportunity. I went through public schools up until the time I entered the doors at Northwestern. We lose something in society when people feel they can’t send their children to public schools. To me, that is the fundamental question we need to be asking.

**Marcia Silverman, Former CEO, Ogilvy Public Relations Worldwide**

**Was going to college a priority in your family growing up?**

I grew up in rural Kentucky. My parents, aunts, and uncles made going to college a priority, yes. I was expected to go to college—not with the purpose of a career, though. My brother was expected to become a doctor, and, sure enough, he is a doctor now. But I was expected to go, yes. My parents would have helped me figure out how to pay for it, but there was this weird scholarship at the University of Pennsylvania. Penn was offering a scholarship for a high school graduate from Kentucky, and I got it, luckily. I joke now that the scholarship came from the heavens. I still don’t know how I got it, but I was grateful for it obviously.

**Did you go to college with an expectation of a specific job in mind?**

No, there was never that expectation. I developed that myself. The exposure to different people and ideas—that
all came from Penn, and it connected me to this idea that there is more going on in the world. It was the ’60s. There were so many interesting things going on in this world, and I learned about them at Penn. I had a political science professor who had been run out of the government by the Congressman Joe McCarthy. He had been the chief counsel in Shanghai during the war when it fell to the Communists. I had never experienced any of these types of people, and to hear of their lives was just fascinating to me. While I was at Penn, though—no, there was no expectation of my going to Washington and becoming a CEO. I didn’t expect it of myself either, to be honest.

**But there was little discussion about how to pay for college when you were growing up?**

The conversation in my family was never around whether I would go to college. The questions were: where was I going to school, and how were we going to pay for it as a family. But, again, there was never any question about whether I would go. Had I not received this lucrative and unusual scholarship, my family would have paid for it somehow. We would have figured it out. My parents especially, they would have found a way because there were costs to having two of us (me and my brother) in higher education at the same time, scholarship or no scholarship. Travel and clothing and books and this and everyday living expenses. They were doing every single thing they could. So my parents were unusual in that respect. They were planning to pay for us to be in college no matter what. They acted like they would figure it out on the fly.

**So this was the ’60s, and you were a woman attending an Ivy League school. Was that unusual? Were your high school classmates all talking about going to college, too?**

It was a conservative time, and I look back and am really impressed by all the interesting, bright people in central Kentucky. I went to a small high school where there were about 15 people who knew they were going to college. Many more ended up going to college, but there were about 15 of us who were really competent and smart and committed to going. I assume it’s still the same in Kentucky, but I don’t know because I really haven’t had much contact since my parents passed away. I had a friend who I grew up with who was incredibly smart, and she did go to the University of Kentucky, and she was an incredibly intelligent, supportive, inviting person. I was Jewish, in a small Southern Baptist town, and she was wonderful to me, as was her family. They were wonderful people. She was always planning to go to college. We discussed it together—but it was just as expected of her as it was for me. But we were probably in the minority in that community—not only because we were women, but because of our families and their expectations of us.

**When do you think society caught up to your families? That expectation of children finishing high school and going to college?**

I never thought that my experience was unusual. I always assumed the rest of the country was sending their daughters to college, as well. It’s funny, now that I think about it. There is an MSNBC commercial or public service announcement—I’m not sure. But it’s Lawrence O’Donnell on camera, and he says that when his father returned from the war, the G.I. Bill sent him to college. I think he says that at that point in the country, only 10 percent of the country had college degrees. That’s really shocking to me now—that only 10 percent were going to college. Obviously, that changed.

**You finished at Penn and then chose to have a family with your husband, right? Were you also working while raising your children?**

Well, after my son was born, we were in New York: my husband had an assignment there. I tried to get a job running the district office of a very liberal congressman there, and I was hired by someone on his staff. The congressman had never seen me, didn’t interview me. I’m not sure when he learned I was on his staff. But he called me at home one night and said, “I’ll be in New York this weekend. I’d like to meet with you.” I assumed by calling me that he was acknowledging I worked for him; that I had received his imprimatur. So I met him somewhere and there were four other people in the car with him. I got in the car, and he asked me where I lived, then drove me home. Just drove me home and he said, “I’m sorry, but I have to tell you I’m not hiring a woman who has a brand new baby.” Period. This is a very liberal guy who had, you know, a liberal reputation. And that’s what he said. By then, I had a successful entry-level job. I was starting my career. I had good references. And he did that to me.

**Later, when you were named CEO of Ogilvy Public Relations, did you think of that story?**

All the time. And because I was living in Washington, anytime I heard that congressman’s name, I would tell
people that story. But, yes, I took charge of the Washington office in 1990. I had no idea they were going to give me the office. A lot of people fought it, I learned later. But make no mistake. I was given that job because of Martin Sorrell. Whatever one thinks of Sir Martin Sorrell, they have to know that he has always been extremely supportive of women in the workplace. There were some people thinking that I’d be the interim head of the Washington office until they could find a famous Washingtonian. But they couldn’t find one, and that was when Martin found out what they were doing. It was Martin who said, “What are you looking for? This woman is running this office successfully. Give her the office!” And they did finally, permanently.

Were these experiences of yours—working in Washington and taking an interest in politics—were those all byproducts of your attending college? Or was it more your drive and hustle—your character? Some would say “grit.” How much of it was because you went to college?

I think it’s probably my personality, and how I was raised. You have no idea how different it used to be. You just have no idea. I mean, for women it was really different. I can’t think of a single woman who has been successful—that is my age—who wouldn’t look at you and say, “You know, I did this. They weren’t ready for me but I did it.” And there are lots of women my age who did well. Maybe it was luck, or being at the right time at the right place. But hustle has a lot to do with it, yes.

At Ogilvy, you were obviously responsible for hiring people, looking for talent. But when did you first start hiring people? Was it at Ogilvy?

When I was at Ogilvy, I worked for a man named Michael Dowling. He started the Ogilvy office in Washington, and he would give the people who worked for him a lot of responsibility and ownership. He always did the final hiring, but he would have me meet with candidates. Michael would hire people who did not have a college degree, but for me, I always made sure they finished college—and I’m not sure of the exact number, but we have had a disproportionate number of Penn grads. I’m not proud of it, but I definitely only looked for college graduates. In retrospect, I should have looked at their past experience; I should have looked at them as people; but before they got to me, I looked at their resume. Some of Ogilvy’s best people came from Penn, by the way.

Did you see in the ’70s and ’80s, and particularly in the ’90s, when you really took over a major office, a connection between what the higher education system in this country was teaching people and the skills required to do the job well?

Well, higher education—and I laugh about Penn—but someone who went to Harvard really had no more skills than someone who went to University of West Virginia. At Ogilvy, we knew all about that difference. One of our most skilled leaders today—who I hired—is Michael Law. He graduated from University of West Virginia, and he is one of the world’s most skillful people. But that discrimination against some schools is still out there. My husband, who is an eminently talented and qualified person, went to a school I had never heard of, Albright College. He did a lot for me to not define people by the school they attended. But I think the judgment is still there, and even though I certainly backed off of that from the point of view of hiring and judging people, I will tell you nothing made either my husband or I happier than seeing our son graduate from Harvard Law School. But you know, it is time that people put that aside.

So what are those skills that you were looking for in job candidates at Ogilvy—aside from the fact that they went to Penn?

(Laughing)

You know, what you look for in a communications role may be a little different now than it was then. Now you certainly do need a familiarity and a comfort with social networking, social platforms, that media. But when I was hiring, it was a bit different. We always gave a writing test because that’s one of the major ways to find talent and skill. You have to know how to write. And you have to know how to deal one-on-one with people. I used to say something really stupid when I was hiring people, but I lived by it, and is still, even now, hard to describe. I looked for “dancing eyes.” I looked for people who were awake and alert and knew things. People who had that hustle, that grit. So an interview was very important to me, and those with good interview skills always did better with me. Now when I went further up the ladder, and hired managers, I had to look for signs of leadership and an ability to manage. That’s not easy to find. It’s a lot easier to find a bright, well-informed good writer than it is someone who can inspire people and manage them and organize and lead. I think leadership is perhaps
one of the most difficult skills to come by. It’s certainly one of the hardest to learn in education. And it’s hard to hire for, as well. There are entire programs in leadership and I’m really surprised they don’t produce more leaders. It’s difficult to teach. I tried my hand at teaching recently—at Georgetown—and I did not care for it as much as I had hoped to.

Why?

Because, well, there were some very good people in the course, but, by and large, they were just ambitious and wanted this on their resume—this program at Georgetown. They did not seem terribly interested in learning. I didn’t see that they were focused on team building either.

That’s important to our country’s future, I think. If you look at other economically successful countries, one of the things they do in education—perhaps better than we do as Americans—is concentrate on team building. Our higher education system is failing to help people develop team-building and leadership skills, and we have to fix that.

What role does government have in making sure our higher education system is accessible and works well for companies looking to hire?

Well, first off, I hope the government never loses sight of financial aid programs of all sorts—how important they are. I think the government can also promote more programs to develop IT skills, so the technology jobs in this country are filled by Americans—is concentrate on team building. Our higher education system is failing to help people develop team-building and leadership skills, and we have to fix that.

Selfishly, we see University of Phoenix providing some of those programs.

You’re right. And obviously you try to highlight your students in your commercials. I think they speak right to the point where you show people who have succeeded and how they got their educations. That conversation is important.

Wait, so you see a little “dancing eyes” in our Phoenix students and graduates?

(Laughing).

Yes, I do. But more importantly, what you see are people who want to change careers and who want to succeed later in life. They are enthusiastic, and they’re really smart and want to do more.

George Zimmer, Co-Founder and CEO, Men’s Wearhouse

Tell us about your childhood and your education.

Now, going back to my own parents, I was very lucky. Not only did I have a mother and a father, but I had four grandparents who were alive until I was in high school and beyond. So I had six adult role models as I was growing up.

My father went to Columbia on the G.I. Bill. I went to Scarsdale High School in Scarsdale, New York. At Scarsdale it’s assumed that everybody graduates from high school and goes on to a four-year college. That’s actually not quite true, but out of 400 kids, there may be a dozen that don’t go to a four-year college.

So I had a lot of advantages, and when I look at the last 40 years, really, that’s what I see causing the problems now: not everybody’s getting a functioning childhood that paves their way to higher education.

Have expectations by employers and businesses changed?

I think it’s safe to say that when I began in business, people had an expectation that if somebody had a college degree they really had certain skills that made them elite within the workforce. I don’t think that’s true today.

If you’re a graduate of a four-year university, you probably are statistically a better employee than somebody who has not graduated, but it’s not as powerful. I would say if you’ve been 20 years in the military and now are looking for a job, that training is as valuable as a college education.

Have you noticed a trend of less educational attainment?

Here’s the way I would describe it: I really think that it’s a values shift. The further you get from the Depression,
the less appreciative our society is going to be and the less we understand the importance of education. The idea of savings, as an example, versus spending, has totally shifted over this era. The idea of education seems to be shifting as well.

**What advice would you give businesses and the government to improve education?**

Well, I would start with this advice: we’re using the basic educational system that we’ve been using for a hundred or a hundred and fifty years. And in business what I know is that if you try to tweak things that are not working instead of just starting over, it usually is a lot more complex, and you’re not as likely to be successful.

But having said that, assuming that we just aren’t realistically able to make a fundamental shift in the curriculum, I do think that what we need—and I have no idea how to get it done, really—is to try and bring into our school system programs that help boys and girls, in middle school, develop life skills that will help them navigate the challenges of adulthood and the changing responsibilities.

I think we should come up with programs that can be taught in middle school to reduce the number of kids that make poor decisions in high school.

**What are the non-cognitive and cognitive skills that your most successful employees have?**

Cognitively, the only thing that matters anymore in business, in my opinion, is math. And I really mean arithmetic. I have a 10- and a 12-year-old, and so I’m doing a lot of arithmetic now. And I think that we have not, in California at least, taught math correctly.

But the key skills, which are things I don’t know to teach, are the non-cognitive skills, the people skills. It’s about being likeable as opposed to unlikeable, it’s about being respected versus disrespected, and it’s about understanding other people on a scale, right? So those are people skills that ultimately are what I think make or break people, not their cognitive skills.

**What about teaching science and math?**

I think science is such an important part of our kids’ education, but we start at the wrong end of science. We should start with the most interesting aspects of science in each category—biology, chemistry, physics—take the most interesting insights that can get kids interested, and then go back and teach them the basics.

Usually, nobody starts out interested in science, including me when I was a kid, because we start with the most mundane topics. It’s the “dues paying” part that comes first, and you have to grind through so much before you get to the deeper more interesting perspectives. We lose people.

**As you look at higher education, what makes you feel optimistic?**

Well, I think the Internet makes me feel extremely optimistic. It’s amazing the level of connectivity in the world; students are able to use even their mobile phones to do their work. I think that’s actually amazing. You know the old saying, what’s good for General Motors is good for America? Well, what’s good for Apple is good for everybody else.

What’s good for Apple is good for America, because it’s about providing this connectivity and interconnectivity that’s just never been there before. But I think that is something to be optimistic about.

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**Alfred Liggins, Director, President, and CEO, Radio One**

Tell us about yourself and you and your family’s educational background.

My mother doesn’t have a college degree. She attended college but didn’t finish. I also do not have a college degree. I have an MBA from Wharton, but I never went to college. I went to night school for a year and dropped out to sell radio at our family’s radio station, and then I built the company up and went back and got an MBA because I found out you don’t actually have to have a college degree to get into Harvard or Wharton.

But my path and my opportunity, just because it didn’t travel through education, doesn’t mean that others don’t travel through education.

So I’m probably not the right spokesperson for the traditional higher education route. I do, however, think higher education is very important. But there’s a gap between this academia, a theoretical kind of education that you can get at most colleges, and what’s actually
taught that’s practical that can be put to work in the near term and somebody could come out and get a job. Just because people say that our kids are under-educated from a technology standpoint and they can’t compete, doesn’t mean we’re going to be able to raise a whole new crop of computer scientists overnight.

Why do you think we went from being a standard of educational excellence to a nation lagging behind? During the ’70s and ’80s, did you observe any of this decline?

Back then this economy, this country’s base was manufacturing. We made stuff, and Detroit and televisions and things of that nature. It was also a time built on the theory that the middle class should continue to prosper and also be protected, via unions and things of that nature. And it worked very, very well.

Technology continued to shift at that time as well. Back then, the best path to take was to become a doctor or a lawyer. There was never any sort of alertment or educational indication that math and science paved the way to riches. Technology founders in Silicon Valley like Steve Jobs and Bill Gates saw the shift, but the rest of America didn’t.

I look at someone like myself: I was an awful math student; I wasn’t even on email 10 years ago. Now I am playing catch-up in understanding technology because I was in the radio business that evolved into the media business that evolved into the digital media business. We must be willing to learn through these transitions. And so I’m at 47 having to try to make that turn, and I’m forced to, and there’s something big in it for me if I do — survival, and if I’m successful at it, more economic opportunity. But the average person is never forced to make that turn. So, unfortunately, it really doesn’t hit them in the face until they end up unemployed and can’t find a job for their skill set.

Tell me more about your initial education and work experiences.

Look, here’s the deal: I was a C student. I was never highly motivated to be a great student. I was always smart enough. Look, here’s the deal: I was a C student. I was never highly motivated to be a great student. I was always smart enough. And I had a gift of gab, and the record industry was exciting to me, because I saw it as sexy; I saw it as exciting. The black people that I saw growing up who had money were all entertainers or basketball players—same as now—and they gave me something to strive for.

I wanted to be in that business, and I went out there, and I needed a job, but my first job was in advertising. I also worked with a gospel record label that I didn’t enjoy working for. And so I came back home to our 1,000-watt AM radio, and I started selling advertising again but in the radio business, and I started to make a lot of money selling it. What got me addicted—what got me out of wanting to be in the record business—was that I had found something that I could do that I was good at that I could make real money at. I was 21 years old, my very first year back, I made $36,000. The second year I made $60,000 selling advertising. That was an awful lot of money in 1985 for me.

What about pursuing an education?

My mother wanted me to go to school. I was going to night school at the University of District of Columbia—a very similar setup to what many of your students may have. They’re working; they’re going to school—but at the end of the day my success selling advertising took over as a primary importance to school, and I just jettisoned school. I acknowledged the fact that my mom wanted me to get an education, but I felt like I was making a lot of money and doing well, and the thought of school just seemed unnecessary. School’s a pain in the ass, and the game plan is to grow the radio business. So what am I going to need a college degree for?

Despite my financial success, as long as I didn’t have a degree, in my mother’s eyes I was something less of what I could ultimately be.

I wasn’t concerned about school, but I eventually went to business school because I thought that with an Ivy League degree, that was something I could use as leverage when
interacting with investment bankers that I’m talking to on Wall Street. That’s something that’s impressive. So to me it was a badge of honor, a vanity thing to have a frickin’ Ivy League degree. I’m sitting here looking at it on my wall now.

It says—even though I went to the executive MBA program—it says the Wharton School Master of Business Administration. It doesn’t say I went for two years on the weekends, and you know what, it did work well like that. First thing people did when they were reading our prospectus: I hear you went to Wharton. Oh, I went to Wharton, too. It’s a conversation piece, you know?

So that’s why I did it, right. But my path is different.

**Can you discuss your employees at Radio One and what type of paths they’ve taken to succeed?**

Most of our jobs don’t require an MBA. They require an actual skill, right? Be a great business manager, understand the industry, and then one day you maybe get kicked up higher in corporate. I’ve actually got a regional VP right now. He’s very good. He started out as a control worker, but he learned the radio business, and he can do everything now. It was skill that brought him up the ranks. Not education.

So education—post-graduate education—doesn’t come into play in my industry all that much. And I got to tell you, I don’t think it comes into play in the entertainment industry all that much. Like if you’re working for NBC or you’re working inside CBA, Michael Eisner and David Geffen and all these guys started in the mailroom at William Morris. They start out as indie. They got in the door, and they were smart, and then they figured it out from there. So my industry is different.

Imagine a college that produced somebody that you didn’t have to train as a salesperson. Because I spend a bunch of money trying to train people, and I spend a bunch of money trying to recruit people that have already been trained or who have had jobs. That, I think, would be a significant resource.

**So what would you say is the government’s role in closing the skills gap?**

I think the government needs to be focused on the same practical path that I just articulated. I think whatever incentives and levers that they’re using, they need to make sure that those incentives are used to create the kind of behavior that I just outlined. The government needs to overhaul the structure essentially.

**Do you think that we as a government and a body of people can ever get this right?**

Sure you can, but it’s always going to be a secondary concern. If somebody was appointed responsible for look, I’m going to create stimulus money, and I need to show a tangible result that’s going to actually create a job—if that was somebody’s only job and you drilled down to it, then you could actually make that happen. But that’s not usually a politician or a CEO. Because the politician is usually worried about maintaining, being elected, maintaining that job, and the CEO is worried about growing their profits. Who’s responsible for actually making sure that that person at the bottom gets the job at the bridge? So it’s possible, but it just never gets done because it’s always a secondary or a tertiary priority.
NOTE ON EDUCATIONAL ATTAINMENT CALCULATIONS
This paper includes an approximate estimate of average educational attainment of the population and the workforce between 1940 and 2010. These calculations are intended to illustrate trends in recent decades. Resources we used for developing these calculations include U.S. Census data, relevant articles and publications and an independent review by an educational economist. To convert educational attainment to education years, we established parameters for number of years of education for each level of attainment. For example, we assumed 12 years of education for those with four years of high school. We calculated education years at different levels of attainment for each decade, and then used those numbers to calculate weighted averages for educational attainment. We calculated growth in average educational attainment, finding strong growth from 1940 to 1980 and declining growth in the decades after 1980. We used the differences in the pre-1980 and post-1980 growth rates to develop estimates for missing education years (both in the population and the workforce).

25. Ibid., 5.
27. Duncan and Murnane, 34-35.
28. Ibid., 188.
Education, Jobs and the American Dream: How We Got Here

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