FOREWORD

Business Roundtable launched The Springboard Project to address the challenges America’s workforce is facing with intensifying competition in an evolving global marketplace that values talent and innovation.

Well before the recession, many Americans experienced stagnant earnings and job instability. Workers have been losing jobs due to domestic or international competition, new technologies and innovations, and dramatically increasing productivity. The economic downturn has only exacerbated the situation. Even as the recession ends and employment begins to increase, these changes will remain a way of life.

All of us will continually be called upon to adapt to various changes and innovations and to renew or re-skill for the jobs of the future. The pace at which we will need to continually embrace learning will only accelerate. Embracing the philosophy of lifelong learning will be the springboard that enables American workers to remain relevant, get ahead and stay ahead, as labor markets and the economy develop in ways we may not be able to anticipate today. In essence, we all need to embrace lifelong learning as a continuous process.

In 2008, Business Roundtable proposed a concept, “AMERICA 21: A 21st-Century Approach for Workers,” that outlined the features of a new workforce education and training system philosophy. It was apparent to us that the current system simply was not designed for an economy that increasingly values and demands higher levels of education and skills.

My colleagues and I recognize that a societywide commitment to creating accessible, affordable and relevant lifelong education opportunities is required. For that reason, we reached out and created a broader commission comprising some of America’s best doers and thinkers — people with critical experience and knowledge in this area — including entrepreneurs, labor leaders, educators, governors, researchers, social networking experts and foundation leaders. This report represents our combined conclusions and our unanimous recommendations for the urgent task ahead.

Education is our top national priority — and government, business, family and individual priorities need to reflect that. Nothing short of our future and way of life is at stake.

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EXECUTIVE SUMMARY

Business Roundtable created The Springboard Project as an independent commission to explore how Americans can obtain knowledge and skills they need to compete and succeed in the global economy. The commission was charged with focusing on adults, from age 18 to whenever they choose to leave the workforce, and with developing specific recommendations that would:

- Encourage the building of relevant skills for today’s and tomorrow’s markets;
- Institutionalize lifelong learning as an individual and collective imperative; and
- Facilitate workers’ capacity to adapt to dislocation and evolving labor markets.

The American workforce has reached a critical juncture; even when the unemployment rate declines, new jobs will require higher levels of education and skills than many of the jobs of the past. Our workforce increasingly finds itself lacking the skills and education demanded by the growing needs and challenges of today’s global marketplace.

Our vision for a new approach to workforce education and training no longer accepts our nation’s abysmal completion rates of two- and four-year degrees or the inadequate supply of nationally recognized workforce skill certifications and apprenticeships. These credentials matter — for personal earning potential, for companies that put a premium on innovation and talent, and for the overall competitiveness of our economy.

As important as it is to earn degrees or workforce skills certifications, it is not enough. Getting ahead and staying ahead also requires that we all become “learning workers” who continually improve and update existing skills and who are willing to keep learning as new knowledge emerges and new skills are in demand.

Even in the midst of a historically deep recession and soaring unemployment, jobs go unfilled because of a mismatch between the skills and experience of job applicants and those in demand by employers. The Springboard Project American Workforce Survey found that 61 percent of U.S. employers said it was difficult to find qualified workers to fill vacancies at their companies.i

It is workers themselves who suffer the most from this situation. Workers with the least education have been hit hardest by the current recession, as those with less than a high school diploma are three times as likely to be unemployed than those with a bachelor’s degree or more.ii

American workers are highly receptive to the message that lifelong learning is a must in today’s world, with 81 percent of those surveyed saying they are interested in taking training or courses outside the workplace.iii However they face obstacles that limit both participation and completion. Convenience, cost and time are the most problematic; 62 percent would be very likely to pursue training or education if they were offered greater flexibility such as classes offered year-round and at times that accommodate their work schedules.iv The growth of online courses and virtual training is
helping to meet that need.

A significant number, 41 percent of surveyed workers, are reluctant to invest the time because they are unsure about what their jobs will require in the future. They also are concerned whether programs are accredited, how they can find out if the degrees and certificates offered will be valued by employers, and why courses they have already taken often are not accepted by other schools. At the same time, the cost continues to increase faster than the rate of inflation.

For more than 50 years, federal and state policies helped the United States achieve the world’s highest postsecondary education participation rates by increasing access to higher education. It is now clear that enabling access is no longer sufficient; it must be paired with program completion and a credential valued in the marketplace.

In addition to traditional associate and bachelor’s degrees, workforce skill certificates, certifications, and apprenticeships also can signal attainment of in-demand skills to employers and educators. However, unless they are nationally recognized and portable within an industry, students and workers who earn them cannot be assured that they are worth the investment.

Federal and state governments currently collect volumes of data about labor market trends that are useful to economists and researchers. However, these pieces of data frequently are difficult for students, workers and educators to access and use. Currently, students and workers do not know how to find out which education and training programs have the best outcomes for completion and employment. Educators also need better information on industry trends and job outlooks to more effectively match their programs to the needs of their students and the realities of the marketplace.

The Springboard Project recommends six goals to help our workforce succeed in the 21st-century marketplace. The first three goals include near-term recommendations to get better outcomes from the current system; the second three goals require a longer horizon and more fundamental changes.

1. **Create Incentives to Build a Better-Educated and Trained Workforce.**
   Increase postsecondary education and training attainment rates to meet market demand and provide personal opportunity by rewarding institutions and individuals.

2. **Develop Nationally Recognized Workforce Certifications and Credentials.**
   Empower students and workers by creating nationally portable workforce skill credentials that are credible to educators and valued by employers.

3. **Communicate Timely and Consumer-Friendly Information to Workers.**
   Provide valuable labor market and related education information in ways that are easily accessible, understandable and timely.
Reinvent the delivery systems of postsecondary education and training to get better and more cost-effective outcomes for more people.

5. Unlock the Value of Community Colleges and Two-Year Institutions.
Build on the untapped potential of community colleges and two-year institutions to encourage more people to embrace postsecondary education and to revitalize local economies.

6. Foster Lifelong Learning.
Encourage a new mindset that values lifelong learning as an essential priority for personal and national success.

Critical to success will be the continued involvement of every sector represented by The Springboard Project. We owe it to American workers to give them the tools they need to compete; we owe it to America’s future to encourage the creation of the workforce talent that can ensure our nation’s leadership in the global economy.
INTRODUCTION

The Springboard Project’s objective is clear: to maintain America’s leading role in the global economy by creating a best-in-class workforce, empowered by a philosophy of lifelong learning and skills development. Our focus is on students and workers, from age 18, when individuals are no longer required to participate in K–12 education, and continuing as long as they choose to work.

At a time when rapid changes in the global economy mean skills and jobs must continually evolve, workforce education and training cannot be an intervention primarily related to unemployment. The need for a safety net for Americans who lose their jobs is clear. However, workers with dated skills need more — they need a springboard to a better future.

We believe that learning must continue throughout our lives, long after degrees and other credentials have been earned, and that for this learning to be effective, it must be more closely aligned with work and the realities of the marketplace.

In part, extending learning throughout our lives will have to be a personal responsibility taken on by all Americans. It will demand a change in expectations and habits and an increased awareness of how critical continuing knowledge improvement is to everyone’s life today. This is particularly important for independent workers, who must navigate their way through ever-changing market conditions without the support of an employer.

Extending learning throughout our lives also will require profound changes in the way our broad array of postsecondary education institutions are organized and financed, their education is delivered, and their missions are achieved.

Perhaps most important, it will necessitate new approaches by business — working with educators and other partners — to help U.S. workers get the education and training they need to compete and succeed. And with an ever-growing abundance of information available for job seekers, innovative “high-tech” and “high-touch” strategies are needed to enable Americans to take advantage of the available resources.

To better understand what is needed to get these changes underway, we analyzed data and respected studies, consulted with experts, and drew from the diverse experience of the members of The Springboard Project. We also commissioned an opinion research organization to conduct The American Workforce Survey to help inform us about workers’ and employers’ current perceptions.
about education and training. From all sources, it is clear that the need is urgent, the issues are complex, and the list of what should and could be done is long.

**We all, individually and collectively, must make tackling this issue our top national priority.**

**Who Is Today’s “American Worker”?**

As the global economy rapidly transforms, so do the nature of work and our definitions of the “American Worker.” Increasingly, workers can’t be defined by the color of their collars, whether blue, green or white, and the old categories become ever more irrelevant — such as our ever expanding “service sector,” which encompasses everything from a cashier to an accountant.

American workers experience high job turnover compared to other nations, holding down an average of 11 different jobs between the ages of 18 and 42. In those years, they will be employed 77 percent of the time, and it is increasingly likely that they will work for themselves. Some 30 percent of workers today are classified as independently employed.

Today’s workers most likely reside in a city or its environs (79 percent), in a home that they own (72 percent). They make an average of $35,381 a year. Ninety-two percent of those over 25 have a high school diploma or equivalency, and 47 percent of American workers hold an associate degree or higher.
PART I: THE CHALLENGE

This is a challenging time for American workers.

We are not just in the midst of a “great recession;” we also are experiencing a “great reset” into a new global economy that continues to become even more knowledge-based and demands ever-higher levels of skill and education to drive innovation and productivity.

Many people presume that when the economy fully recovers from the recession we will return to “the way we were” — but this is simply not the case. The breadth and level of academic preparation needed to fill jobs is increasing, while the rate of change — as employees move from job to job and even industry to industry — is escalating rapidly. Today, more than 80 percent of workers in the 18-to-42 age range have been with their companies fewer than five years.xii

The changes are not limited to any single “collar” of worker. They are already influencing — and will largely transform — jobs in areas such as construction, truck driving, automotive repair and maintenance, electrical and environmental industries, food, agriculture, nursing, and service jobs of all kinds.

For American workers, there is enormous uncertainty about where the economy is headed, and the anxiety is fueled daily by news about high unemployment and home foreclosure rates, the disappearance of jobs that had been a ticket into the middle class, and the rising cost of college tuition.

One thing is clear: The job prospects of people with less education are much less promising than those with more education.”xiii Societywide, the correlation is direct and inescapable. Moreover, the more education and training a person has, the greater the chance he or she will earn more money.xiv

Workforce education and training can no longer be viewed primarily in response to job loss. If American workers are going to get a fair shot at competing in the global marketplace, the United States needs an updated system of workforce training and education that encourages and rewards those who seek to better their employment opportunities.

In his address to the joint session of Congress in February 2009, President Obama spotlighted this urgent need. “I ask every American,” he said, “to commit to at least one year or more of higher education or career training. This can be community college or a four-year school, vocational training, or an apprenticeship. But whatever the training may be, every American will need to get more than a high school diploma.”xv

According to The Springboard Project American Workforce Survey, workers expressed a strong interest in pursuing additional education and training, but serious obstacles could make it difficult for them to respond to the President’s challenge. And the political, educational, social and cultural
changes needed to overcome these obstacles are daunting. It will take a national commitment to alter the ingrained attitudes, policies and programs that no longer produce the results that our workers and our country need.

Ten Facts and Trends Highlight the Challenge

1. **America’s Worker Advantage.** American workers are the most productive in the world — a key factor in maintaining America’s leadership as the most innovative and productive economy in the world. But we are in danger of losing America’s “worker advantage,” as the people whose labor and talent drives American growth find themselves increasingly unprepared to meet the challenges of a transformed global work environment.

2. **Disparity between Skills and Experience Available and What Employers Need.** Even in the midst of a historically deep recession, soaring unemployment and limited job creation, 61 percent of U.S. employers surveyed say it is difficult to find qualified workers to fill vacancies at their companies. Major structural shifts in the economy are creating a widening disparity between the skills and experience that workers have and those increasingly demanded by the workplace. Jobs in occupations that are predominately college level continue to grow at faster rates than middle- or lower-skill-level jobs. Forecasts of education demand through 2018 estimate that 63 percent of new and replacement jobs in the future will require some college or better, while 72 percent of this subset will require a bachelor’s degree or better.

3. **Widening Unemployment Gap.** In November 2009, the unemployment rate for those with less than a high school diploma was three times higher than the rate for those with a bachelor’s degree or above — 15.0 percent compared to 4.9 percent. The gap in unemployment due to education has averaged 6.1 percent since 1992, though it has been exacerbated by the current recession, pushing it to 10.0 percent in November 2009. As the global economy recovers and returns to long-term sustained growth, education will remain a key determinant of labor market success.
4. *Losing Ground in World Competition.* The United States is the only OECD country with a younger generation that has a lower level of high school or equivalent achievement than the older generation, and we rank second to last — behind every OECD nation but Italy — in completion rates of four-year college equivalent education. When two-year programs are considered, the United States still ranks in only 16th place. The percentage of U.S. graduates remains frustratingly stagnant even while competitor nations boost their numbers in response to the changing demands of the new economy.

5. *Innovation is Global.* Innovation is taking place in ever more regions of the globe as their investments in education are beginning to mature. According to a recent Goldman Sachs study, the global middle class will expand by 1 billion people by 2020 and 2 billion people by 2030. That global middle class will have the resources to leverage education and training to increasingly compete with American workers for the kinds of good-paying jobs we have long taken for granted in this country — but no longer can.

6. *Business Values Talent.* Businesses overwhelmingly identify the ability to attract and retain skilled staff as one of the key factors driving high performance. According to the World Economic Forum’s Global Competitiveness Report, however, an inadequately educated workforce is one of the top ten obstacles to doing business in the United States today.

7. *Job Obsolescence.* By 2016, many of today’s low-skilled jobs will simply disappear, with whole categories suffering major declines in both absolute numbers and percentages. Compared to 2006, there will be need for 131,000 fewer stock clerks, 118,000 fewer cashiers, and 114,000 fewer hand packers. In other cases, the job titles have remained the same, but the skill sets needed to work in those jobs have changed. Auto repair jobs are a case in point. Many jobs lost in the manufacturing sector are either not coming back or are transforming into high-skill jobs demanding an increased knowledge and skill base.

8. *Inadequate Completion Rates.* The U.S. economy and employment opportunities for our students and workers are hampered by inadequate transition and completion rates at the secondary and postsecondary levels. Less than 20 percent of U.S. ninth graders graduate from high school and then enter and graduate from college within typical timeframes.
9. Demand for Postsecondary Credentials. According to forecasts by the Bureau of Labor Statistics (BLS), 71 percent of the jobs expected to show growth to 2016 will require postsecondary credentials. After the recession, experts anticipate shortages of the high-skilled and educated employees that will be needed to fill huge projected increases in occupations such as registered nurses, teachers, computer software engineers, accountants and auditors, and business operations specialists. The Georgetown University Center on Education and Workforce also forecasts significant increases in demand for postsecondary credentials. To meet the demand, the United States will need 3 million more associate degrees or higher than current trends in graduation rates forecast—a 10.6-percent increase in the number of students graduating each year through 2018.

10. Education Pays. The payoff in personal earnings is clear. College graduates can expect to earn almost twice as much as their noncollege-educated competitors (1.9 times as much in 2008). The payoff for the United States on the whole also is substantial. It is estimated that the fiscal return to every dollar that the federal government spends on higher education is $7.46. It also is estimated that a 1 percent improvement in college graduation rates for associate and bachelor’s degrees would produce a cumulative increase in national income of $291 billion by 2030.
In sum, the consequences of inaction are serious. If America’s education and training deficit is not reversed, we are likely to see:

- Rising numbers of chronically unemployed and underemployed Americans;
- Real wages not just stagnating but shriveling in the withering heat of world competition;
- America’s businesses, starved for educated and trained workers, becoming uncompetitive, forced to look abroad or even move abroad for qualified employees;
- The United States losing its place as the economic leader of the world.

American Workers’ Attitudes about Education and Training

There is a widespread perception among American workers that the United States is suffering an “equal opportunity recession” that is just as threatening to the job prospects of the highly educated as those with less education.

No doubt, press accounts of layoffs of highly paid workers with college degrees and MBAs may have created a fundamental misunderstanding of the critical role education plays in job security. Clearly, one of the primary roles for business, government, unions — indeed all sectors of society — must be to correct this fundamental misperception and to get the message out through all available means that lifelong education is critical not just to our nation’s future, but to the future of every individual in today’s demanding and evolving marketplace.

That said, people are enormously receptive to the message when they hear it. According to The Springboard Project American Workforce Survey:

- Eighty-one percent of workers are interested in education or training outside the workplace,
and 62 percent are interested in participating in or taking courses to gain a higher degree or credential in the next two years.

- A large majority found the statement, “70 percent of new jobs that pay a family-supporting wage require education beyond high school” to be a “very convincing” reason to pursue education or training.

- Substantial majorities agreed with the statements, “The future economy will be more demanding; if I don’t keep skills up to date, someone will pass me by,” and “My salary won’t grow if I don’t make an effort to learn new skills or a better way of doing my job.”

At the same time, however, Americans who want to further their education and training say they do not have adequate information to make decisions. They also face barriers that discourage and limit participation, according to The Springboard Project American Workforce Survey:

- Forty-one percent of workers surveyed are unsure of what skills will be required in the future and if training will pay off.

- Workers who seek continued education face a multitude of obstacles and barriers — including convenience, cost and customization — at each stage along their path.

(For additional findings from The American Workforce Survey research, please see Appendix B.)

Framing Our Recommendations

We are not the first commission to call attention to the problem and potential solutions. In fact, one of the members of The Springboard Project chaired a 1997 commission on lifelong learning; its recommendations remain relevant but unmet today. We explored why there has not been more progress and what we could do to compel more action.

Our vision for a new approach to workforce education and training no longer accepts our nation’s abysmal completion rates of two- and four-year degrees or the inadequate supply of nationally recognized workforce skill certifications and apprenticeships. These credentials matter — for personal earning potential, for companies that put a premium on innovation and talent, and for the overall competitiveness of our economy.

The need for better results has never been greater. Workers who lack credentials or evidence of the skills, knowledge and experience valued by employers will continue to have difficulty finding employment. And all workers will need to keep their skills up to date throughout their working lives.

Our report focuses on incenting and enabling customer-focused, market-driven approaches that produce positive outcomes for American workers. To have the greatest short- and long-term impact, we propose six goals. The first three goals include near-term recommendations to get better outcomes from the current system; the second three goals require a longer horizon and more fundamental changes.
PART II: GOALS AND RECOMMENDATIONS

**Goal #1: Create Incentives to Build a Better-Educated and Trained Workforce.**
Increase postsecondary education and training attainment rates to meet market demand and provide personal opportunity by rewarding institutions and individuals.

**Incentives for Institutions**

For more than 50 years, federal and state policies helped the United States achieve the world’s highest postsecondary education participation rates by increasing access to higher education. It is now clear that enabling access is no longer sufficient; it must be paired with program completion and a credential valued in the marketplace.

Current funding policies reward colleges based on the number of students enrolled. But what really matters is how many students actually complete their programs and how prepared they are to meet the demands of the marketplace.

Institutions have few reasons to significantly change their current practice or to address the obstacles of participation and completion that workers face. Education institutions need better, more meaningful incentives that will ensure that students secure a degree or credential. (Please see page 19 for promising strategies to improve completion rates).

Similarly, community and technical colleges and job training programs that receive federal workforce training funds are accountable mostly for job placement. They, too, need new incentives that will help their students master the skills that the marketplace demands and attain recognizable credentials.

**Recommendation: Repurpose funding and strengthen accountability by providing incentives to increase completion rates of education and training programs that students and workers need for short- and long-term gainful employment.**

Federal and state policymakers should:

- Reward outcomes, such as what students actually learn, timely graduation and success in finding a job that provides a family-supporting wage.
- Incent job training programs to help workers earn recognized certifications for in-demand skills in growing industries.
- Stagger performance-based funding payments across the fiscal year.
- Apply incentives and market outcome monitoring to federal education and training funding focused on helping people enter the workforce, such as the Workforce Investment Act (WIA), Unemployment Assistance, Trade Readjustment Allowances/Trade Adjustment Assistance (TRA/TAA), and future reauthorization of higher education legislation.
Financial incentives can be an effective motivator. We are urging federal and state policymakers to redesign accountability systems and repurpose a small but significant portion of present funding to reward education institutions based on outcomes, including earnings and employment. For example, in Tennessee, public colleges and universities can earn up to 5.45 percent of their operating budgets based on performance measures that include retention, completion, and student and employer satisfaction.

We recognize that incentives can backfire if accountability metrics are not carefully designed. They must ensure that incentives for completion are not reached by lowering standards for earning the credential or by limiting access and admitting only those students most likely to graduate. The program milestones that performance-based incentives and accountability systems recognize can vary, from interim credentials or one-year certificates, to the pursuit of additional training or education.

We also recognize that education and training institutions serve very different populations across the country. While standards for completion of credentials should be the same for all students, interim benchmarks can be tailored to account for local, regional and demographic disparities, as well as the historical performance of institutions. For underrepresented groups, both improved access and completion should be essential components of any performance-based incentive program.

**Washington State: New Performance Funding System**

The State of Washington recently launched a new performance funding system for community and technical colleges called the Student Achievement Initiative. Its goal is to “raise the knowledge and skills of the state’s residents” by increasing education attainment across the state. Its four primary metrics that determine financial rewards for institutions are:

- Building toward college-level skills (basic skills gains, passing precollege writing or math)
- First-year retention (earning 15 then 30 college level credits)
- Completing college-level math (passing math courses required for either technical or academic associate degrees)
- Completions (degrees, certificates, apprenticeship training)

Washington’s program is too new to have evaluation results; it should be studied going forward as institutions begin to shift gears to earn performance funding.

Providing incentive funding that is based on employment, earnings and wages outcomes for students depends on the availability of accurate information that links education and workforce data. The American Recovery and Reinvestment Act requires states that accept state stabilization funds to connect these data systems. To date, some 23 states have already taken this step, and Florida’s data system (see box) can serve as a model.
The Florida Model: Linking Funding to Market Outcomes

As a leading example of an emerging trend, Florida has developed a simplified system that allows for the measurement of market outcomes. Through the use of a common numbering system among classes at all two- and four-year institutions and the creation of a data warehouse, Florida has a robust capability in place that ties education data to employment data.

They do this by requiring all institutions receiving student financial aid under Title IV of the federal Higher Education Act to send their transcript information to a central location, where it is linked and compared to data collected by the unemployment insurance office. The process, drawing on a centralized K–20 education data warehouse and employment data back to 1995, enables analysts to put together a complete and detailed picture of the return on the state’s education dollars.

Security is key and complex. The educational progress and employment of each K–20 student is tracked by a unique, encrypted identifier. Meanwhile, unemployment information is protected by its own set of confidentiality standards and can be accessed by only a few programmers with special authority that are allowed to access it, and only on a need to know basis.

Publicizing aggregate outcome information — with privacy protections in place — will enable policymakers and the public to hold institutions accountable. It also will provide institutions with the data they need to improve their programs and to identify successful innovative strategies used by other institutions.

If information is publicly available in user-friendly formats, current and potential students also can use the data to help decide which institutions best meet their needs and which have the best completion rates and labor market outcomes. For instance, returning veterans using the new GI Bill could use information tailored to their specific needs to help them choose and complete a program of study.

Increasing the percentage of Americans with postsecondary degrees or credentials — while also increasing access for traditional college-aged students, working adults and displaced workers — will require active engagement from all accredited members of the education community. The increasingly diverse education community includes public, private, and for-profit two- and four-year colleges; online providers; technical schools; union education and training programs; and apprenticeships.

The system that we are proposing will attract individuals to the programs with the best long-term labor market outcomes and will therefore optimally allocate funds to those programs.
OVERCOMING OBSTACLES

The Springboard Project American Workforce Survey found that the greatest barriers to participating in education and training were convenience, cost, customization and accreditation. Incentive funding and new accountability systems are intended to encourage institutions to create innovative programs that overcome barriers and lead to higher completion rates and better labor market outcomes.

Time and Scheduling
Sixty-two percent of workers said they would be “very likely” to pursue training if it offered flexible classroom hours or enrollment periods throughout the year and could attend around their schedules. To improve participation and completion rates, institutions are beginning to experiment with 24/7 scheduling of courses; options to earn course credits and degrees over shorter, more concentrated periods of time; weekly rather than semester-based enrollment; and other ways to meet the needs of students and workers.

Transparency about Transfer of Credits
Course credits earned at one institution may not be accepted by the next, but frequently students have no idea that their course credits will not transfer. Policy solutions vary across states and institutions; some will accept credits from any accredited provider, others have statewide articulation agreements, and yet others have agreements with specific schools or a process to review the course syllabus to ensure that it is comparable. What is critical is that the customer knows before taking the course whether the credits are transferable and under what conditions. Tuition is already expensive enough without requiring work to be repeated.

Individual Incentives
Rewarding institutions for helping students, workers and our nation improve their international competitiveness is only part of the solution. Motivating individuals is also essential. Although the federal government contributes 10 percent to the average student’s college tuition (with $500 billion currently in outstanding student loan debt), this funding is tied to student outcomes only in a very limited number of cases.

We believe that increasing access through needs-based funding remains critical; however, it is essential to move beyond just increasing access. Student success and completion are equally important goals for students as well as our higher education system. Incentives can be used to reward students who complete their studies for bachelor’s or associate degrees, certificates, apprenticeships, and other programs that are valued in the marketplace.
Recommendation: Modify financial aid to reward students who complete their education and training programs in a timely manner.

Federal and state policymakers should:
- Reward students who complete postsecondary education and training programs in a timely way with a loan principle reduction, interest rate reduction, tax credit or cash payout.
- Federal and state policymakers should potentially provide a second tier financial reward for positive market outcomes, such as employment in a related field, a fellowship or matriculation in a higher level of postsecondary education within a reasonable time frame.

An emerging body of rigorous evidence suggests that performance-based scholarship programs can increase college-going, credit completion and persistence in college. Two recent studies (one in Canada and one in the state of Louisiana) found positive effects on credits earned and persistence from one semester to the next. The Canadian program, the Student Achievement and Retention Project (STAR), offered students a financial incentive that lasted two semesters\(^{xlvii}\). In Louisiana, MRDC, a nonprofit education and social policy research organization, evaluated an innovative performance-based scholarship program that also found increases in credits earned, courses completed and re-enrollment (see box).\(^{xlviii}\)

“Opening Doors” in Louisiana\(^ {slx} \)
In 2004 and 2005, the nonprofit education research organization MDRC tested the effects of incentives — in the form of supplemental financial aid — on academic persistence and success among low-income students in Louisiana. Called “Opening Doors,” the program awarded students $2,000 over two semesters on the condition they were enrolled at least halftime and maintained better than a C average. Students received $250 when they enrolled, $250 if they were in good standing at midterm and $500 if they successfully passed their classes at the completion of the semester.

Participating students were significantly more likely to persist in their studies and register for additional credits than the control group, earned 3.5 more credits overall, and were 11 percent more likely to earn a 2.0 GPA or higher. Even as Hurricane Katrina hit and campuses closed down, the students pursued classes online or at other campuses that opened the following spring. Variations of this model are now being tried at colleges in four states, with more than 4,500 students participating.

Meanwhile, other private sector institutions are independently advancing this concept and developing models to motivate students to graduate on time. For example, Discover Bank, Wells Fargo and SunTrust all provide substantial loan relief for college completion, either in the form of reduced interest rates, reduction in principal or even a direct deposit to the loan holder’s bank account.\(^ l \)
Education institutions, nonprofit organizations, businesses and other scholarship-granting institutions that provide support to workers who do not qualify for federal funding can all also play a role in helping increase completion rates by following suit.

We are not proposing additional government outlays at a time of rising deficits. Rather, these financial incentives for students should be cost-neutral. Standard student loan rates would take into account the effect of incentives on student performance and ability to pay back loans.
INCENTIVES FOR EMPLOYEES TO EARN ADDITIONAL CREDENTIALS
Convergys — Bringing Jobs and Education to Employees

Convergys created a model that brings both jobs and education to entry-level workers. By combining its home agent program, in which customer service representatives work from home, with its new online accredited college degree program, employees can work and complete a college education in a virtual environment.

Qualified applicants who previously were ineligible for on-site jobs as a result of geographic, scheduling or transportation constraints now meet hiring criteria. And, once hired, employees can advance their education through the online degree and certificate program developed in close partnership with Bellevue University. The Bellevue program is targeted to full-time and part-time employees with a high school education or equivalency. Convergys provides tuition reimbursement and works with Bellevue to identify additional financial assistance to minimize out-of-pocket expenses for employees.

Providing its workforce with access to quality education not only helps Convergys as its internal talent continues to be a differentiator, but it also provides its employees with transferrable skills in an increasingly competitive global marketplace.

United Technologies Corporation (UTC) Employee Scholar Program

To improve the talent of its workforce, UTC created a program that provides open and free access to education for all its employees. Last year, 15,197 UTC employees in 54 countries took advantage of the Employee Scholar Program (ESP), which covers the costs of accredited degree programs and provides paid time off for study. It also offers a program for laid-off employees providing from one to four years of coverage following separation from the company. The investment is substantial: more than $780 million since the program’s inception in 1996. UTC believes the investment in worker education is a net plus to its bottom line.

The Alliance for Employee Growth and Development, Inc.

The Alliance is a primary education resource for union represented employees at AT&T, Alcatel-Lucent, Avaya, OFS and the IBEW. Since its inception in 1986, it has provided services to more than 173,000 individuals through over 14.5 million training hours. In the most recent fiscal year, 50 percent of the eligible individuals participated in more than 348,000 hours of Alliance training.

The Alliance operates at the national, regional and local level to develop, deliver and evaluate its training programs. Training ranges from basic language and math skills training to high-level technical certifications and degree programs through an array of training delivery options including on-site classrooms, virtual classrooms, hands-on technical training and online self-paced courses.
Goal #2: Develop Nationally Recognized Workforce Certifications and Credentials.
Empower students and workers by creating nationally portable workforce skill credentials that are credible to educators and valued by employers.

 Millions of Americans pursue certifications, apprenticeships and other postsecondary training credentials in addition to, or as an alternative to, a traditional college degree.

Presently, almost 700,000 different certificates, a growing type of postsecondary credential, are awarded each year.14 There are benefits to earning these credentials: Workers who complete certification programs earn on average $26,328 per year compared to an average of $15,154 for those who only complete high school.15

However, certificates and other credentials often have little or no value because they are not held to nationally or internationally accepted standards and are consequently not recognized by employers or education institutions. In addition, some credentials have diminished value because they are not portable or provide limited opportunities for career growth.16 As a result, workers are often unsure about the value of a credential and are therefore not willing to invest the time, money or effort.

Apprenticeships also offer a powerful path to market-relevant skills training, but they too suffer from a lack of uniformity and clarity. Today, 250,000 employers and almost 450,000 apprentices benefit from more than 29,000 apprenticeship programs, mostly in high-growth industries that face critical shortages of skilled workers.17 Apprenticeships cover 1,000 occupations including pipefitters, electricians, child care development specialists and law-enforcement agents. But while U.S. apprenticeships may use established curricula in their industry, they are not bound, as they are in many countries, by external industry standards, leaving potential employers uncertain as to their exact value.

Recommendation: Create national standards for portable, “stackable” credentials for certificates, apprenticeships and pathways for earning credit at two- and four-year programs.

∞ Businesses must take the lead in working with industry associations, unions, educators, nonprofit organizations and the U.S. Department of Labor to develop, regularly review and update national standards for credentialing programs.
∞ Educators need to provide academic credit for completing approved career and technical coursework, helping students to build career pathways.
∞ Employers should include credential requirements in all job descriptions and should recognize and reward employees who complete programs and achieve additional credentials.
∞ The Department of Labor should collect and publish the standards in a user-friendly format online so that individuals can understand the demands of various occupations and industries.
Unions and industry associations, including the National Association of Manufacturers (NAM), are responding to the need for nationally recognized credentials. They have created criteria that provide standardized, portable credentials that attest to an individual’s attainment of critical competencies required by the industry. The NAM-Endorsed Skills Certification System provides a useful model on which national certification standards could be developed.

The Computer Technology Industry Association (CompTIA) exams provide another example of a standardized credential. These exams are offered for over a dozen vendor-neutral IT certifications in the United States and other countries. Because the credentials are held to recognized standards, employers recognize their value, and over 1 million people have earned CompTIA certifications since their inception in 1993.

Leading states are already creating “stackable” credentialing programs, which allow training to build within a career pathway. Ohio is developing a system of stackable certificates that provides a clear and accessible path for people who want to advance their education and prepare themselves for satisfying and productive careers. Individuals can earn a certificate and then receive college credit for that certificate, helping them complete a college degree. Stackable certificates certify that a worker has attained specific skills needed for the workplace and for postsecondary education. A system of stackable certificates can connect pre-college academic work to credit-bearing career and technical coursework that ultimately leads to a college degree.

What about standards for noncredit learning at community colleges?

With a grant from The Bill and Melinda Gates Foundation, the American Association of Community Colleges is beginning the development of outcomes-based accountability metrics for community colleges. States also are designing new performance-based metrics (see box on Washington State on page 17).

Currently, 1,152 two-year public colleges in the United States serve more than 11 million students — 6,596,356 in for-credit programs plus an estimated 5,000,000 in noncredit continuing education. These students are enrolled in programs with different purposes: strengthening basic academic skills such as reading and math, earning an associate degree, gaining certification in an industry or discipline, or meeting the specific training needs of a partnering company.

However, for students enrolled in noncredit courses, there is no standardized measurement of the direct educational and economic benefits of these courses. Data are not collected about the effectiveness of noncredit activities in training and workforce development or getting adults into courses where they can earn credits toward degrees or other valued credentials. Systematically evaluating the value of community colleges’ noncredit courses in workforce training will require, as a first step, developing national standards for noncredit activity that use universal classifications to count, assess and compare the outcomes.
Federal and state governments currently collect volumes of data about labor market trends that are useful to economists and researchers. However, these pieces of data frequently are difficult for students, workers and educators to access and use.

Currently, students and workers do not know how to find out which education and training programs have the best outcomes for completion and employment. The Springboard Project American Workforce Survey found that 41 percent of workers are unsure of what skills will be required in the future and if training will pay off.

Educators also need better information on industry trends and job outlooks to more effectively match their programs to the needs of their students and the realities of the marketplace. Educators report that the lack of complete information on workforce demand is one of their greatest stumbling blocks in developing relevant curricula.
The Online Maze

To get an appreciation for how difficult it is for workers to find timely and valuable information, we asked a team of young, highly adept computer and Web-savvy professionals to conduct a simulated search for employment that included further education and training — using primarily government-funded Web sites. These are people with college educations and advanced degrees who know how to parse a government database and synthesize libraries of disparate information. The report back from their mock job hunt was one of frustration and admiration for job seekers who persist through the misdirection, dead ends and out-of-date data.

Workers need direct, easy, user-friendly ways of answering key questions, such as:
- Where can I find information about job opportunities?
- Will I need to move to find a good job?
- Which jobs have a future?
- What do they pay? Are there benefits?
- What skills and education are required? Where can I get the training and education?
- Can I meet the requirements online?
- Will employers value a credential from that institution?
- Can I transfer credits earned to another institution?
- How do I pay for it?
- What other services are available to help me with job placement?

Recommendation: Create a consumer-based information system that provides and communicates timely local, regional, and national industry and occupation trends.
- The U.S. Department of Labor should use state-of-the-art communications to improve the accessibility and clarity of the information it collects and communicates, including national, regional, state, and local industry and occupation trends.
- Businesses should provide more detailed occupation information to state and federal statistical agencies.
- Federal policymakers should “connect the dots” by linking and streamlining information and programs across the Departments of Education, Labor and Commerce.

Based on the mismatch in perceptions found through The Springboard Project American Workforce Survey, students, workers, and educators need better information about the skills, knowledge, or education and training requirements they need.

The U.S. Department of Labor’s Bureau of Labor Statistics (BLS) needs to improve the quality and accessibility of the information it provides from existing data sources. For instance, the most comprehensive program run by the BLS, the Quarterly Census of Employment and Wages (QCEW), does not contain occupation level data and is not fully available online.\textsuperscript{lxiv}

An easy way to make the QCEW more useful for individuals and educators includes businesses providing more detailed occupation information on each of their employees to state labor market...
information agencies as part of their quarterly unemployment insurance reporting. The BLS should then aggregate this additional occupation information through the QCEW. Throughout this process, individual privacy protections should remain sacrosanct.

For the supplemental occupation information to be most useful and relevant, rapidly evolving occupation definitions called SOC codes need to be updated more frequently. Collecting this additional information, in turn, reduces the need for funding other programs within BLS, such as Occupational Employment Statistics.

Additionally, this information should be organized and communicated online in a useful and timely manner so that people who are not economists or researchers can easily comprehend the data. Done well, the online information will facilitate a transformation of Workforce Investment Boards and will provide students, workers, community colleges, and other education and training providers with the information they need about labor market and related education trends that are now beyond their reach.

**Recommendation: Provide information about job openings through improved state job-matching Web sites.**

- State labor agencies should remove cross-state silos, network with private sector sites, and put a human face on the process by adding job counseling and other services.

Broad industry or occupation trends are not enough to help individuals find their first or next job. The American workforce experiences a high degree of job turnover. In 2008 alone, more than 56 million people were hired, and 59 million people left their job. In addition, most workers are not nationally mobile, and the housing crisis has made them even less able to move in response to employment opportunities. Information on local job openings is crucial.

However, given the availability of free, privately run job listing Web sites, we are not convinced that the 50 state-sponsored job exchange Web sites are necessary. If states continue to provide these sites, they need to better integrate with neighboring states’ sites, and they need to remove the hassle of sending users to external Web sites to apply for a job. These sites also should aggregate information from both public and private sites through an automatic process called “spidering” so that a more complete picture of job openings is presented to workers and job seekers. Résumé review services, job counseling and personalized advice would moreover improve the effectiveness of state job-matching engines.
Goal #4: Bring 21st-Century Innovation to Education and Training.

Reinvent the delivery systems of postsecondary education and training to get better and more cost-effective outcomes for more people.

The current business model for financing public postsecondary education and workforce training is not sustainable. The cost simply is too high, and the outcomes are too low.

The Springboard Project American Workforce Survey found that 37 percent of Americans cite cost as a significant obstacle to pursuing education and training. In the past 30 years, all types of postsecondary institutions have seen rapid cost increases: Two-year public college costs more than quadrupled, and four-year private college costs increased almost eight-fold.\textsuperscript{lxvi} Yet the number of associate degrees conferred only increased by 70 percent and bachelor’s degrees by 68 percent.\textsuperscript{lxvi}

Twenty-five colleges now cost more than the U.S. median household income of $50,303 per year.\textsuperscript{lxviii} Compounding the problem, the current system of student financial aid was designed for “traditional” college-age students — not working students with families. We must address ballooning costs if we hope to regain our international lead in postsecondary education and training.

With entitlements eating up ever-growing portions of federal and state budgets, we need new designs and delivery systems that realize administrative cost efficiency and make better use of existing capital assets and technology. Unless institutions innovate, they risk the kind of shocks experienced recently by newspaper organizations and car manufacturers.

With growing numbers of American workers needing higher education and workforce training, all postsecondary institutions will need to increase capacity and quality in creative ways. Online learning has the potential to radically increase the number of Americans with postsecondary degrees and credentials as well as reduce costs. The 9.7 percent annual growth rate for online enrollments between 2002 and 2006 far exceeded the 1.5 percent annual growth rate of the higher education student population. Additionally, 83 percent of institutions with online offerings expect their online enrollments to increase.\textsuperscript{lxix} Studies show that students who take all or part of their classes online perform better, on average, than those who take a traditional, face-to-face course.\textsuperscript{lxx}

National transferability of online classes and increased credibility of those classes have the potential to change the game and accelerate completion of certificates and degrees for millions of Americans. We anticipate that virtually all institutions will offer online options, giving people access to courses taught by the top professors in the world. However, online learning may not work for all students, and educators must seek other creative ways to meet the needs of students who may need specialized curricula and instruction.

Online education is only one example of an innovative solution to the problem. In addition, the current models for paying faculty, providing course credit, utilizing capital assets and infrastructure, and charging tuition need to be reinvented.
Goal #5: Unlock the Power of Community Colleges and Two-Year Institutions.

Build on the untapped potential of community colleges and two-year institutions to encourage more people to embrace postsecondary education and to revitalize local economies.

Community colleges are an underappreciated component of America’s higher education and training system. Adequately funded and recognized, and held accountable with incentives and performance standards, they have the potential to become central hubs for lifelong learning, as well as engines of local economic growth.

Currently serving more than 11 million students each year, community colleges have the scale to bridge the divide between the current supply of skilled workers and the future demand in a cost-effective way.108 The average total cost to attend a two-year public college was just $6,810 as of 2007.109 The low costs have contributed to growth in enrollment during the recession that has overwhelmed some institutions. The community college network now serves half of the current undergraduates in the United States, often as a starting point for students pursuing their bachelor’s degree.110

Businesses already recognize the importance of community colleges and two-year institutions to their talent pipeline — they pay a 49 percent premium for associate degree holders.111 Less well understood is the role that these institutions play in local workforce training for companies. This highly valued training is most commonly provided as a noncredit activity by community colleges and two-year institutions. It will be critical to develop ways to enhance the value of this training to American workers as well as employers.

With their distinct ability to respond quickly and nimbly to market needs, community colleges and two-year institutions should be an integral part of cities’ and states’ economic development strategies. These institutions, working with government and business, can help build a stronger workforce to attract diverse companies, develop the talent to support emerging small businesses, and re-tool workers whose jobs are obsolete and want to enter fast-growing companies.

Goal #6: Foster Lifelong Learning.

Encourage a new mindset that values lifelong learning as an essential priority for personal and national success.

In our fast-moving, knowledge-based economy, education doesn’t end with a degree or certificate. As workforce dynamics continue to shift, the responsibility for learning and keeping up rests with the individual, not the employer. Workers can expect to hold an average of 11 different jobs between the ages of 18 and 42.112 Just as businesses must innovate to stay competitive in the global economy, workers must continue to learn and grow professionally to make sure they get ahead and stay ahead.
Every segment of our society has a role to play to make a culture of lifelong learning a reality — parents, teachers, employers, the media and role models from the President to stars in popular culture who shape attitudes.

Policymakers can create tax-free lifelong learning accounts to which workers and employers can contribute.

Businesses can provide tuition reimbursement or contribute to lifelong learning accounts, which have shown promise in motivating employees to pursue training and education. In fact, businesses that offer training are twice as likely to be growing as those that do not, based on The Springboard Project American Workforce Survey.

Communities need to continuously find and close gaps in the local talent pool and seek to prepare their citizens for the next growing industry.

Workers must make a personal commitment to lifelong learning and skills development.

**Using Popular Culture and New Technologies To Communicate**

Viacom is partnering with the Bill & Melinda Gates Foundation to sponsor “Get Schooled,” an initiative that will use public service announcements; marketing campaigns; and innovative film, television and mobile content to raise national and community awareness about why success in our 21st-century economy requires young people to graduate from high school and pursue a postsecondary degree.

We need to help Americans better understand what it will take to succeed in tomorrow’s economy. If we don’t, we run the risk that other countries will pass us by. Our nation needs learning workers, not just students and workers.
PART III: ACTION AGENDA

We call on every American and each segment of society to play a significant role in helping the U.S. workforce prosper in the global economy. Specifically:

President:
- Work with Congress to pass legislation that incents completion.
- Continue to get out the message about the importance of education.

Congress:
- Reauthorize the 1998 Workforce Investment Act to address the education and training needs of today’s and tomorrow’s workforce.
- Reshape U.S. postsecondary education and training funding/accountability to focus on outcome-based performance.
- Build incentives into federal student aid to motivate graduation (e.g., cash payouts, interest rate reductions, principal reductions, etc.) for those who complete their credential programs. Make this program cost neutral.
- Charge the Bureau of Labor Statistics (BLS) to create a useful consumer-based system to communicate labor market trends.

U.S. Department of Labor:
- Collaborate with states to refine accountability measures for One-Stop Career Centers.
- Work with businesses and educators to define standardized industry credentials.
- Expand the Quarterly Census on Employment and Wages to include occupation information.
- Update Standard Occupation Code (SOC) definitions more rapidly.
- Make online media like CareerOneStop.org usable.

U.S. Department of Education:
- Stagger higher education funding across a year, based on performance outcomes.
- Encourage institutions to forge credit articulation agreements and communicate those agreements clearly to students.
- Identify and reward innovations and proven programs.

State Policymakers:
- Use incentive funding for education institutions to motivate innovation and outcomes.
- Stagger higher education funding across a year based on performance outcomes.

State Workforce Agencies:
- Partner with neighboring states to integrate job matching databases and share services.
- Bring businesses and educators together to improve both education and training completion and workforce outcomes, including employment and earnings.
Labor Unions:
- Work with stakeholders to encourage programs with improved skill portability, such as apprenticeship programs and certifications.
- Promote continuous development of market-relevant skills with American workers.

Individuals:
- Actively pursue education and training credentials.
- Seek and use newly available information to make the best education and training decisions.
- Make a personal commitment to lifelong learning.

Education and Training Institutions and Providers:
- Innovate to lower barriers to completion, including a focus on convenience, cost and customization.
- Offer flexible course options (weekend, nights, online) to allow the participation of workers currently employed.
- Increase online course availability and pool resources across education institutions to offer classes to a broader group of workers.
- Develop articulation agreements with other universities and clearly communicate expectations with students up front.
- Work with businesses to establish the credibility of specific education programs by seeking input in curriculum development, including for nationally recognized certifications.

Business (see specific commitments from Business Roundtable in Appendix A):
- Communicate current and future skill needs to talent suppliers.
- Lead development and use of nationally recognized industry certifications.
- Forge partnerships to better connect the world of education with the world of work.
- Provide training to help workers succeed on the job and opportunities to earn additional education and skills credentials.
CONCLUSION

The recommendations outlined in this report are designed to spur change toward a new culture of lifelong learning in the United States and provide a foundation for American workers to gain the education and skills they need to get ahead and stay ahead. We believe the continued cooperation of every sector represented by The Springboard Project, and all Americans, will be critical to achieving our six goals. We owe it to American workers to give them the opportunities they need to compete; we owe it to America’s future to encourage the ongoing development of the workforce talent that can ensure our nation’s leadership in the global marketplace.
Appendix A

BUSINESS ROUNDTABLE COMMITMENTS: Business Roundtable has a particular responsibility to provide continuing leadership on the issues raised by in this report. The launch of The Springboard Project was a follow-up action recommended in a 2008 Business Roundtable policy paper, *Prospering Together: America’s Citizens, Communities and Companies*, that called for a commission to design a 21st-century approach to workforce training and education.

Business Roundtable is committed to the following actions:

- **Advocate Action by Congress and the Administration on The Springboard Project’s Recommendations.** We will build support for and act on workforce education and training policy changes recommended in this report. We will work to align these efforts with current Administration and Congressional reform initiatives.

- **Partner to Produce Results.** We will ask our member companies to partner with at least one state; community college; or other two- or four-year college, school district, or nonprofit organization to make a measurable impact on one or more of the following objectives and report on the results:
  - Increase the postsecondary credential completion rate (bachelor’s degree, associate degree, apprenticeships, industry-recognized certifications)
  - Increase the use of industry-recognized certifications
  - Increase the high school graduation rate
  - Increase the number of U.S. graduates with STEM degrees

- **Communicate Workplace Expectations.** We will develop Workforce 101, a Web-based, free interactive course for high school and college students (also appropriate for any new entrant to the workforce) on workplace needs and expectations for today and the future.

- **Engage the Broader Business Community.** We will reach out to other business organizations and companies to get strong business support for The Springboard Project’s recommendations and encourage all businesses to make improving the U.S. education system a key part of their corporate citizenship agendas.
Appendix B

The following are key findings from The Springboard Project American Workforce Survey, which probed the attitudes and perceptions of workers and employers about training and education.

Profile of Today’s Workers

- **Strong appetite for training and education**: More than 80 percent are willing to participate in training/education outside the workplace — regardless of income or education level.
- **Highly motivated by potential to earn more and stay marketable in future economy**: 71 percent find it very convincing that new jobs with family-supporting wages require post-high school education; 62 percent find it very convincing that future jobs will be more demanding and that training is critical to remain competitive.
- **Held back by practical obstacles to training and education**: 43 percent cite inconvenience; 37 percent cite cost, including half of respondents earning less than $50,000 a year; 25 percent point to lack of customization, lack of accreditation and general time constraints.
- **Very willing to pursue training/education if programs were more convenient and offered greater flexibility**: 62 percent would be “very likely” to pursue education if classes were offered year-round and at times that accommodate their work schedules.
- **Want reassurance that investing in training and education will pay off**: 41 percent see risks to pursuing skills training now because they are unsure about what their job will require in the future.
- **Confident if they have pursued training**: Nearly three-quarters of those who previously participated in training feel “somewhat” or “very” confident they could secure work if they lost their job.
- **Self-motivated to strengthen their skills**: Nearly 50 percent have spent 4+ hours outside of work gaining information or skills to improve their work.
- **Are under the wrong impression that we are in an “equal opportunity recession”**: 70 percent think the recession is costing people jobs regardless of education or skill level, when in fact the downturn is falling hardest on low-wage workers who have less education and lower skill levels.

Profile of Today’s Employers

- **Demanding better-educated workers**: 65 percent anticipate hiring “all,” “most” or “some” workers with associate’s degrees or higher.
- **Wrestling with undertrained workforce**: Half see a sizeable gap between their needs and employees’ skills.
- **More likely to be growing if training their workforce**: Employers offering training are nearly twice as likely to increase their workforce.
- **View business as well as colleges/universities — not government — as responsible for educating and training the workforce**: 84 percent of employers feel that businesses and...
educational institutions should play a primary role in creating education and job training programs. Relatively few (only 14 percent) look to government to play this role

- See themselves (91 percent) and individuals (87 percent) as responsible for funding training and education: Nearly half of employers (45 percent) believe government should have no role in funding these programs
- See a considerable deficit of “soft skills” among workers: Employers see shortage of fundamental workplace skills such as personal accountability, self motivation, strong work ethic, punctuality, time management, professionalism and adaptability among current workforce
Endnotes


iv Ibid.

v Ibid.


vii National Longitudinal Study 1979, Table 3. Percent of weeks individuals were employed, unemployed, or not in the labor force from age 18 to age 42 in 1978–2006 by educational attainment, sex, race, and Hispanic or Latino ethnicity.


xii National Longitudinal Study 1979, Table 2. Duration of employment relationships with a single employer for all jobs started from age 18 to age 42 in 1978–2006 by age at start of job, sex, race, and
Hispanic or Latino ethnicity.


Note: In 2007, the United States spent $368 billion on R&D, which amounted to 2.6 percent of gross domestic product (GDP). This is higher than that of any other nation and $100 billion higher than the combined R&D spending of the 27 nations in the European Union.


Note: The United States in 2006 was awarded the most significant patents (triadic patent families) with 15,942, or 30.7 percent of the world’s total. Japan had the second most with 14,187. The EU27 in total had only 14,795.


Note: In 2008, the United States remains the most entrepreneurial nation in the world.


xviii Georgetown University Center on Education and the Workforce, “Jobs and Education Requirements” <http://cew.georgetown.edu/research/jobs/79012.html>.


Note: Several studies have been performed on the impact of higher education on national economic growth. A study of 11 OECD countries between 1960 and 1980 found that the contribution of higher education and R&D investment to total factor productivity was approximately 13 percent of the 19 percent total productivity growth. A more recent study of 16 OECD countries between 1980 and 1998 found that an increase in public R&D investments of 1 percent would result in a 0.17 percent increase in productivity growth.


xxx Ibid.

xxx Georgettown University Center on Education and the Workforce, "Jobs and Education Requirements" <http://cew.georgetown.edu/research/jobs/79012.html>.

xxxii Georgettown University Center on Education and the Workforce, “Estimates of Education Demand to 2018” <http://cew.georgetown.edu/>.


Trina Condo, Director of Florida Education and Training Placement Information Program, Personal Interview, 31 August 2009.


Note: Title IV of the Higher Education Act of 1965 covers the administration of the United States federal student financial aid programs. American colleges and universities are generally classified with regard to their inclusion under Title IV, such as under the U.S. Department of Education statistics.

Note: Refers to education from kindergarten through all of graduate school.


Note: There are many requirements to receive a Pell Grant, one of which is that a student must make satisfactory academic progress (generally defined as maintaining a C average). <http://ifap.ed.gov/sfahandbooks/attachments/0304Vol3Ch1.pdf>.


Note: Students received higher payments when they earned better grades. Students received a $1,000 payment if they earned grades between a C+ and a B and up to $5,000 if they earned grades of A- or better. The Project STAR researchers randomly assigned students to three groups: one that received only the scholarship, one that received only enhanced counseling, and one that received the scholarship and the enhanced counseling combined. The combination of scholarships and
counseling yielded the best results, including significant effects on grades and persistence. The scholarship alone also produced positive effects, but not as large, and the counseling alone produced no effects.


xix Ibid.

1 Discover Bank, Student Loan Graduation Reward Programs <www.discoverstudentloans.com/graduation-reward.aspx>.

Ibid.

1 Convergys, Jobs and Education Initiative, Interview with Convergys President and CEO Dave Dougherty.


liv Georgetown Center for Education and the Workforce, Income Statistics, Mean Nominal 2004 USD Data.


American Association of Community Colleges.


