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Committee On The Budget
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Hearing On
The Impact of Federal Investment on People, Communites
and
Long Term Economic Growth

Testimony
By
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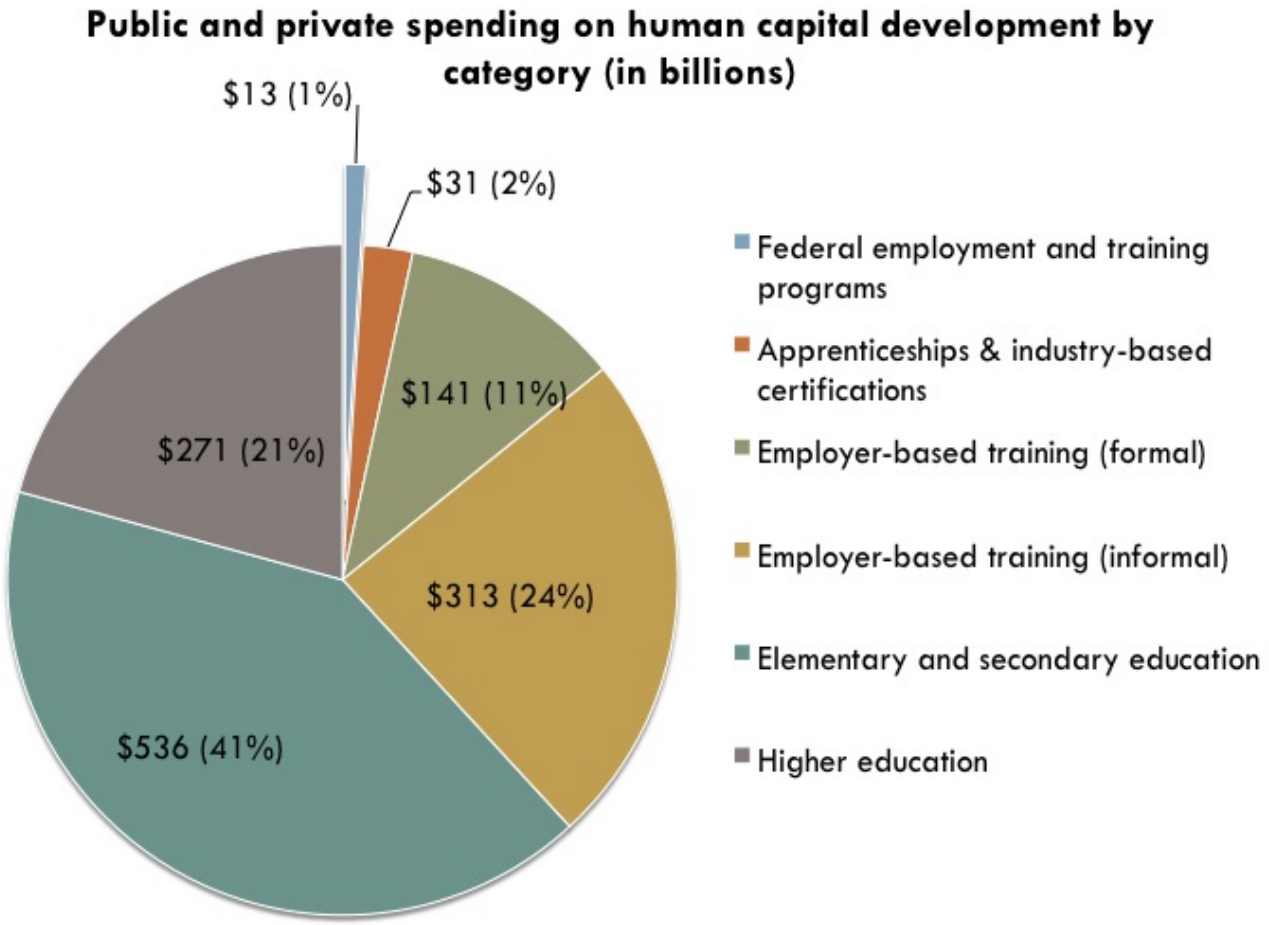
Good morning, Madam Chairman and esteemed Members of the Budget Committee. Thank you for the opportunity to speak with you today about the effects of investing in education and job training for individual opportunity and our long-term economic growth.

I am the Director of the Georgetown University Center on Education and the Workforce, a nonpartisan, research center at Georgetown University that focuses on higher education policy from a workforce and global competitiveness perspective.

The U.S. spends $1.4 trillion on human capital development annually in the private and public sectors, an amount that is roughly 10 percent of GDP. K-12 and postsecondary programs make up 41 percent of that spending and formal and informal employer-based training account for most of the other 59 percent. In addition to its spending on K-12 and postsecondary education and training, the federal government spends $13 billion annually on 47 employment and training programs, which represents

one percent of the national investment in human capital.[1] By comparison, the private sector spends approximately $110 billion each year on staffing and recruitment services alone, six-times what the federal government spends on employment and training programs.[2]

The U.S. invests roughly $1.4 trillion in human capital development each year.



SOURCE: CEW analysis using data from the U.S. Department of Education's Integrated Postsecondary Education Data System (IPEDS), the U.S. Department of Labor's Employment and Training Administration (DOLETA), the American Association of Community Colleges (AACC), the U.S. Education Department's Office of Vocational and Adult Education (OVAE), Survey of Employer Provided Training (DOL), and Bureau of Labor Statistics (BLS).

Educational attainment beyond high school has become an increasingly significant driver of long-run economic growth and productivity.

Education promotes economic growth by making workers more productive. For example, education contributed one-third of the productivity gains between 1950 and 2000. Between the 1950s and 1980s

[1] GAO. *Multiple Employment and Training Programs: Providing Information on Collocating Services and Consolidating Administrative Structures Could Promote Efficiencies*, GAO-11-92, January 2011.
[2] American Staffing Association (ASA), Structural Shift?: Annual Economic Analysis Explores Data and Trends in Flexible Workforce Management, *Staffing Success*, 2012.

increasing high school attainment was the principle source of education's contribution to economic growth and productivity improvements. But as improvement in high school graduation rates plateaued in the early eighties, the marginal contributions of education to growth shifted toward increasing postsecondary attainment.

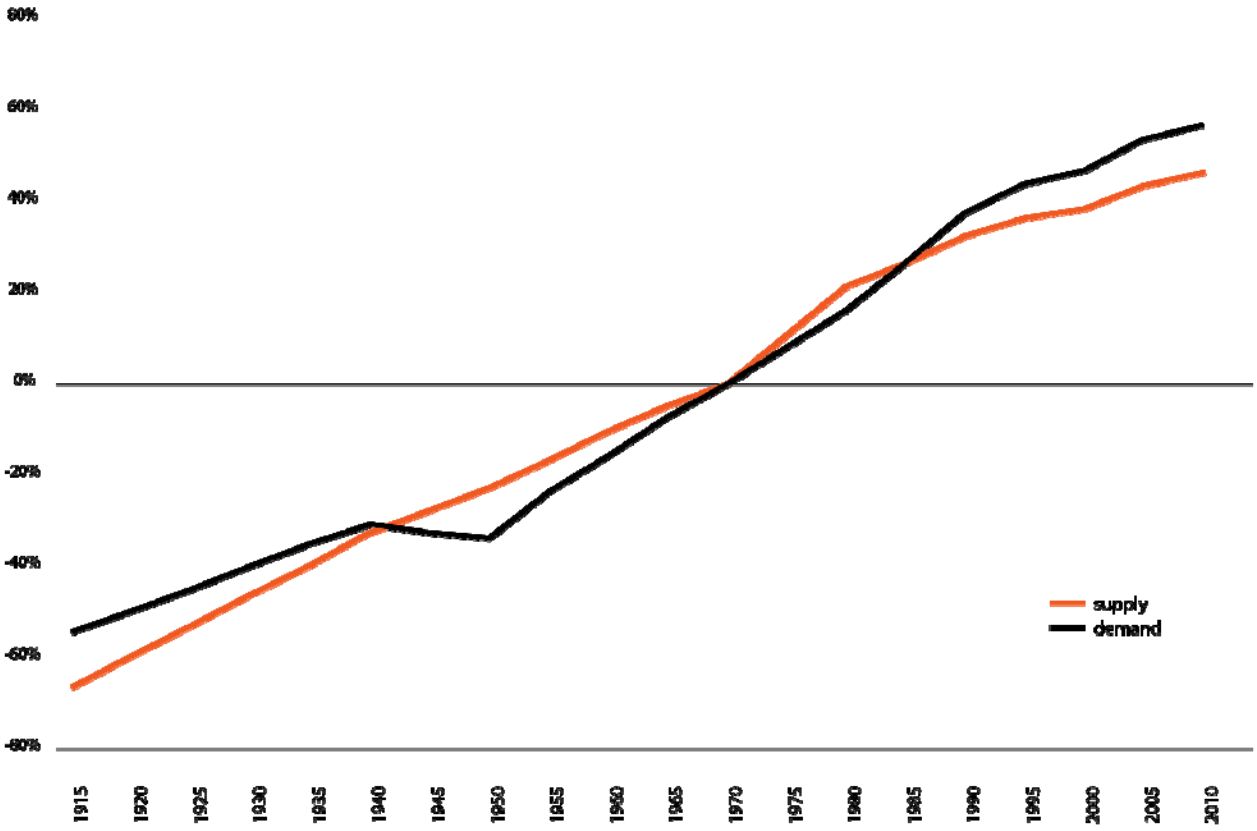
The payoff of investments in education in terms of economic growth and tax revenue is substantial. We estimate that an extra year of schooling beyond high school for all Americans by 2025 would increase GDP growth by between $500 billion and $1 trillion, providing an additional $150 billion in state, local, and federal taxes.

The supply of educated workers has not kept up with economic demand since the eighties.

Since the end of the 1980 -81 recession the U.S. economy has been undergoing rapid structural change. This evolution has been driven by what economists call skill-biased technological change. Since the early eighties, technology, led by computing technology, has been automating repetitive tasks and activities in jobs. As a result, more and more jobs, tasks, and activities left to people at work are non-repetitive and require skills beyond high school. The resultant increasing entry level skill requirements for work have made postsecondary education and training the gatekeeper for access to training on the job and state of the art technology. The synergy between postsecondary preparation and formal and informal learning on the job account for a growing major share of the ingredients in the recipe for U.S. economic growth. Consequently, postsecondary education and training has become more important than ever in today's economy.

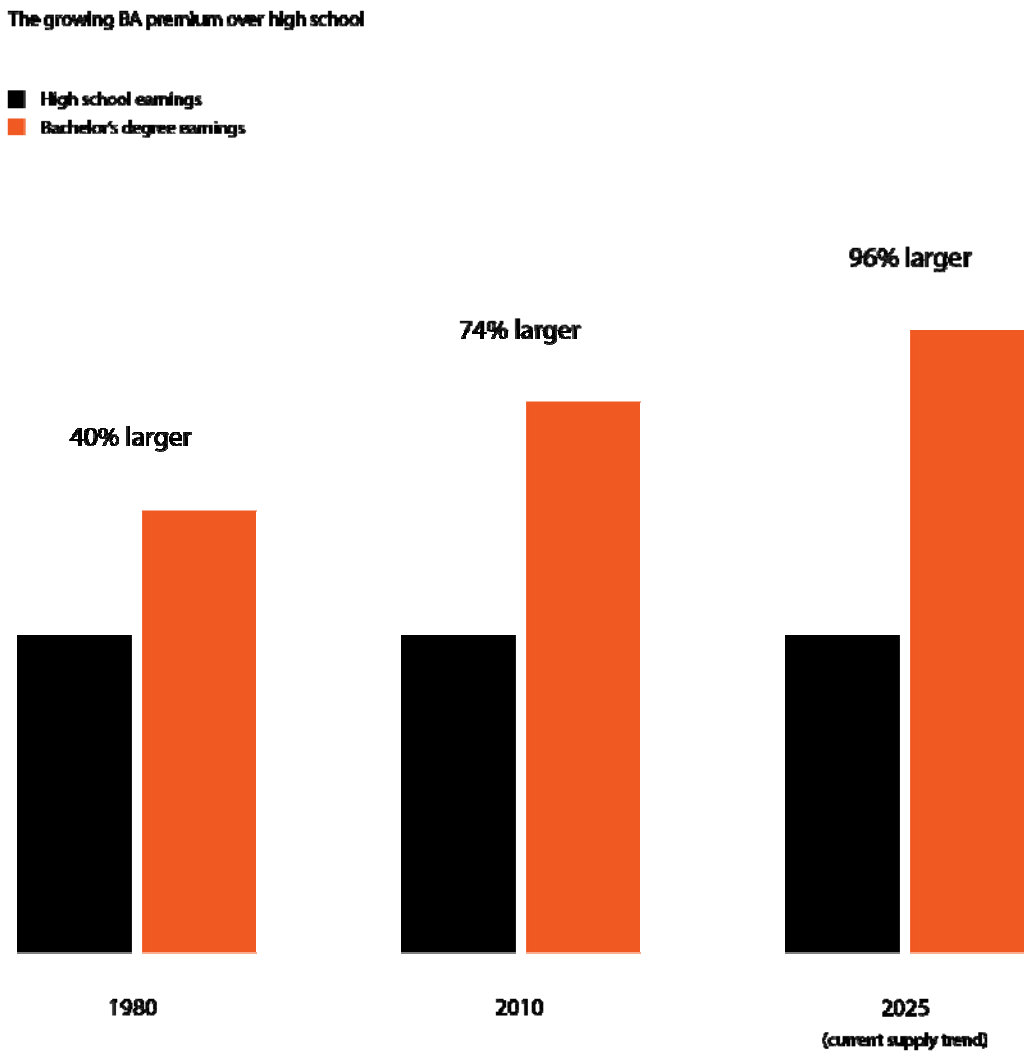
Since 1983, the supply of college-educated workers hasn't kept up with demand. Demand has grown at an average annual rate of 3 percent, while supply has grown by 1 percent annually. As a consequence, the college wage premium over high school increased from 40 percent to 74 percent over this time period.

Since 1983, the supply of college-educated workers has grown by 1% annually, while demand has grown by 3%.



Source: Goldin and Katz (2008)

The college wage premium over high school grew from 40 percent in 1980 to 74 percent in 2010, and will grow to 96 percent in 2025.



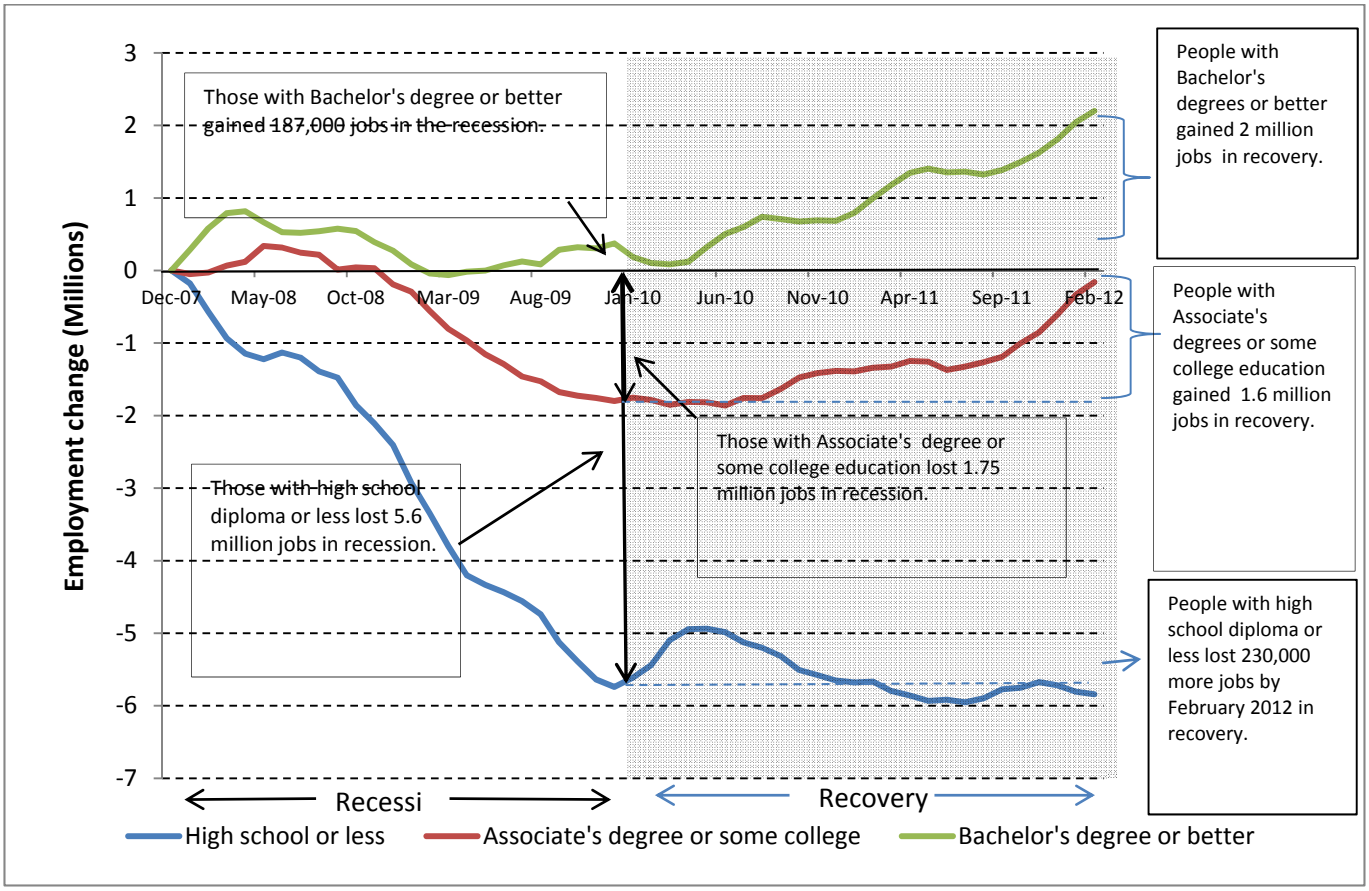
SOURCE: Georgetown University Center on Education and the Workforce

The failure to provide the U.S. workforce with enough postsecondary education and training to keep up with the demands of the information economy is one of the principal causes of the growth in wage inequality since the early 1980s. In 1970, workers with a high school education or less captured 63 percent of national wages. In 2007, they captured only 27 percent.

Since the beginning of the 2007-09 recession, historically high unemployment among recent college graduates has hidden the continued structural shift from an economy that provided good jobs for high school-educated workers to an economy in which the vast majority of good jobs require at least some postsecondary education.

What is clear in this recession, as in the last several recessions, is that most of the jobs lost that required high school or less are gone are not coming back, while jobs that require at least some college will recover and grow as a share of all jobs.

Almost half of the jobs lost in the recession have been recovered and virtually all of those jobs recovered required some form of postsecondary education.



SOURCE: Georgetown University Center on Education and the Workforce, *The College Advantage*, 2012

Wages declined for all workers since the beginning of the recession, but college-educated workers' wage advantage over high school-educated workers has remained high and has held mostly stable since the recession began.

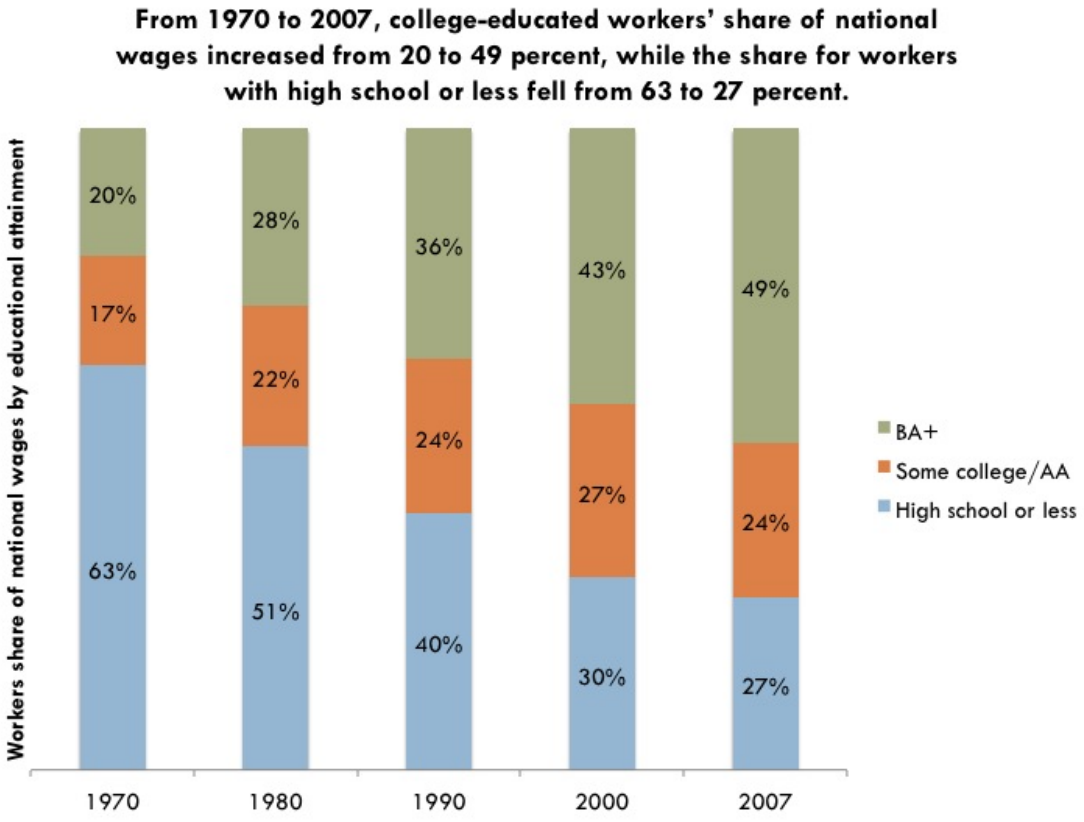
The peak unemployment rate for college-educated workers in the Great Recession was 5.1 percent compared to 15.7 percent for high school dropouts. The current unemployment rate for college-educated workers is 3.7 percent, compared to 12 percent for high school dropouts.

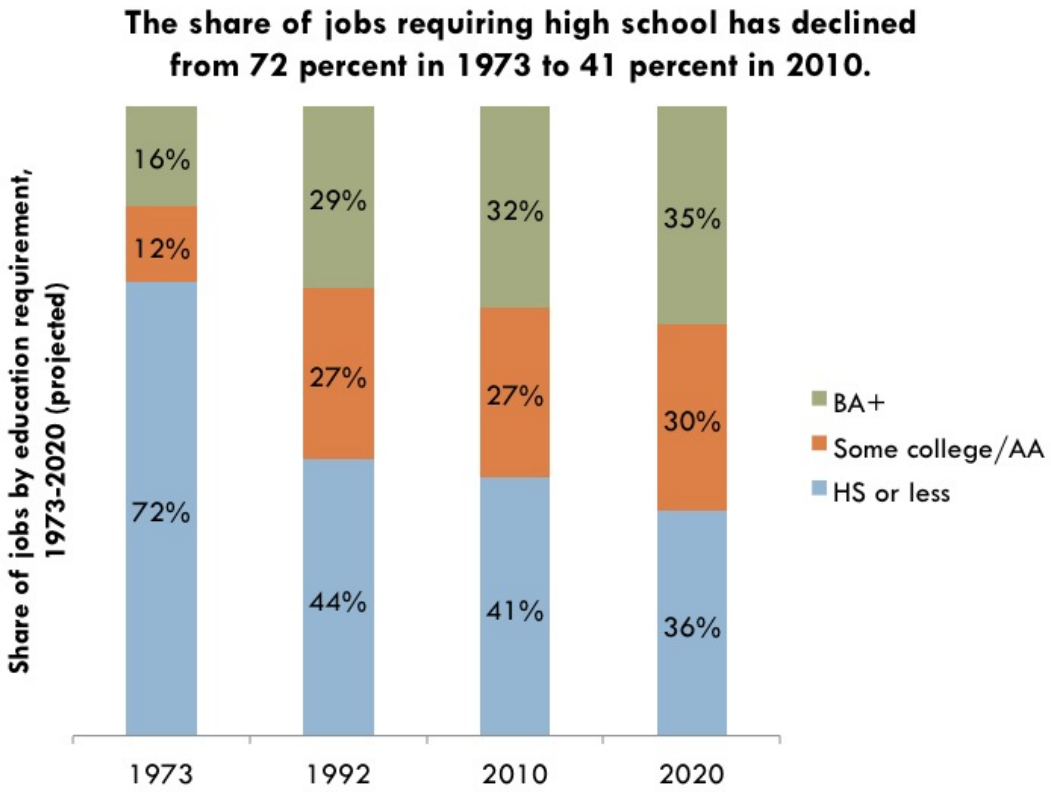
Although the unemployment rate for all college-educated workers has been low, it has been a tough job market for new college graduates but far worse for those without a college education. In 2012, 7 percent of new college graduates are still unemployed and another 14 percent are underemployed in

jobs beneath their skill levels. By comparison, the unemployment rate for new high school graduates is 24 percent and 42 percent for those underemployed.

Jobs that require BAs have been the big winner, increasing by 2.2 million jobs since the recession began. Those jobs that required some college or an AA declined by 1.8 million in the recession but have regained 1.6 million of those job losses since the recovery began in 2010. At the same time 5.8 million jobs for those with high school or less have been lost since the recession began.

Education and training beyond high school, once the preferred pathway to middle-class earnings, has become the most well traveled pathway to the middle class. Whereas in 1973, more than half of workers with high school or less were in the middle class, only two in five were in the middle class in 2007.





SOURCE: Current Population Survey

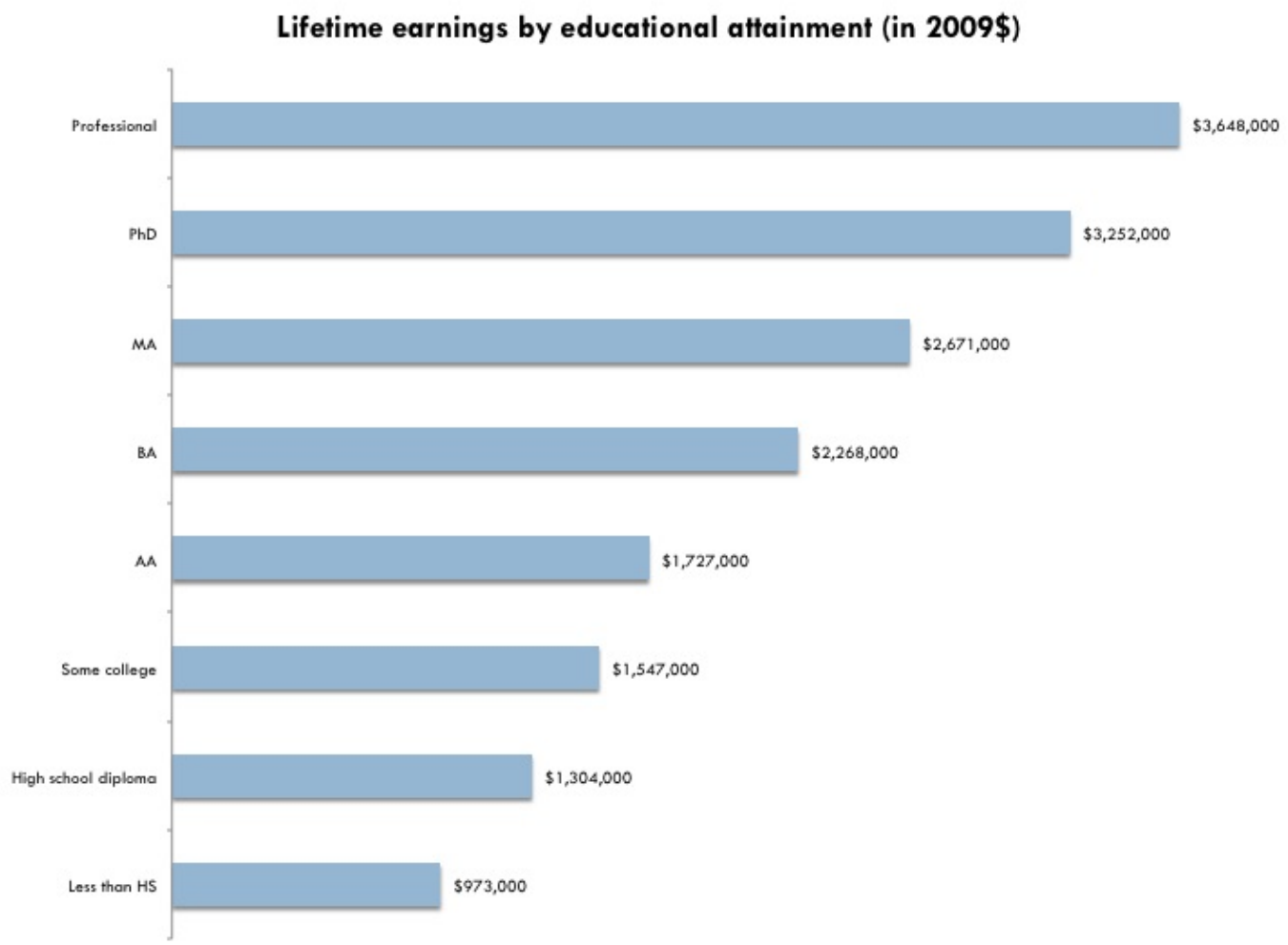
Since the 1980s, college-educated workers' earnings have grown relative to those with no college credentials, especially those with graduate or professional degrees. Obtaining a postsecondary credential is almost always worth it, as evidenced by higher earnings over a lifetime: the higher the level of educational attainment, the greater the payoff. What's more, the gap is widening. In 2002, a BA-holder could expect to earn 75 percent more over a lifetime than someone with only a high school diploma. Today, that premium is 84 percent.

On average:

- High school dropouts earn $973,000 over a lifetime.
- High school-educated workers earn $1.3 million over a lifetime.
- Workers with some college credit earn $1.5 million over a lifetime.
- AA-holders earn $1.7 million over a lifetime.
- BA-holders earns $2.3 million over a lifetime.

Graduate degrees confer even higher earnings:

- MA-holders earn $2.7 million over a lifetime.
- PhD-holders earn $3.3 million over a lifetime.
- Professional degree-holders earn $3.6 million over a lifetime.



Higher level degrees are worth more than lower level degrees on average. But averages are deceiving. The other major trend since the 1980s is that employability and earnings increasingly depend on individuals' field of study in postsecondary programs.

What you make depends more and more on what you take. Oftentimes, lower-level programs can outperform higher-level programs. For example, some workers with one-year certificates in fields like information technology, electronics, and drafting earn more than a substantial share of people with AAs and BAs.

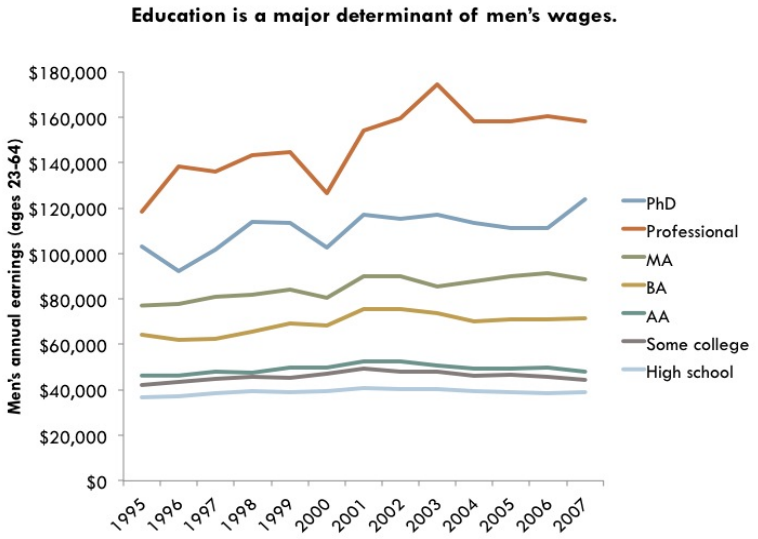
There are significant earnings variations between different levels of educational attainment depending on postsecondary fields of study.

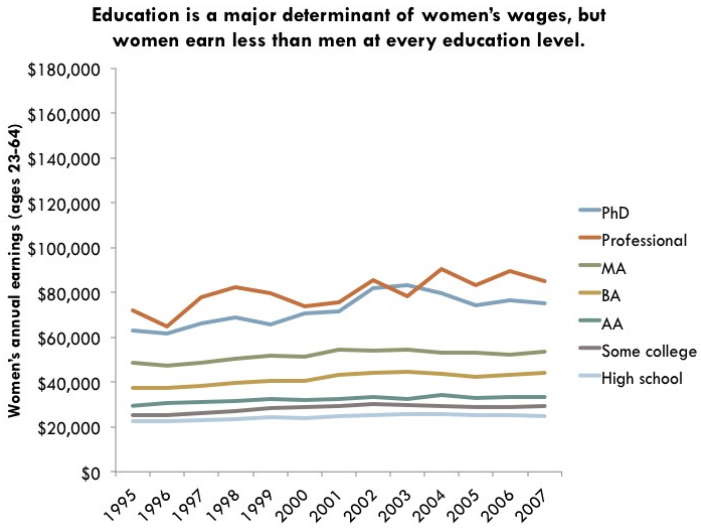
- 31 percent of high school dropouts earn more than the median earnings of workers with high school diplomas;

- 37 percent of high school-educated workers earn more than the median worker with some college credit, but no degree;
- 42 percent of people with some college credit, but no degree earn more than the median AA-holder;
- 28 percent of AA-holders earn more than the median BA-holder;
- 40 percent of BA-holders earn more than the median MA-holder;
- 36 percent of MA-holders earn more than the median PhD-holder;
- 37 percent of PhD-holders earn more than the median professional degree-holder.

While education has become the arbiter of opportunity, access to opportunity has been unequal between men and women. Education confers a large wage premium for both men and women, but men earn more than women at every education level, in large part due to differences in fields of study and college majors.

Education brings an enormous benefit to both men and women, but men still earn more than women at every level of education.

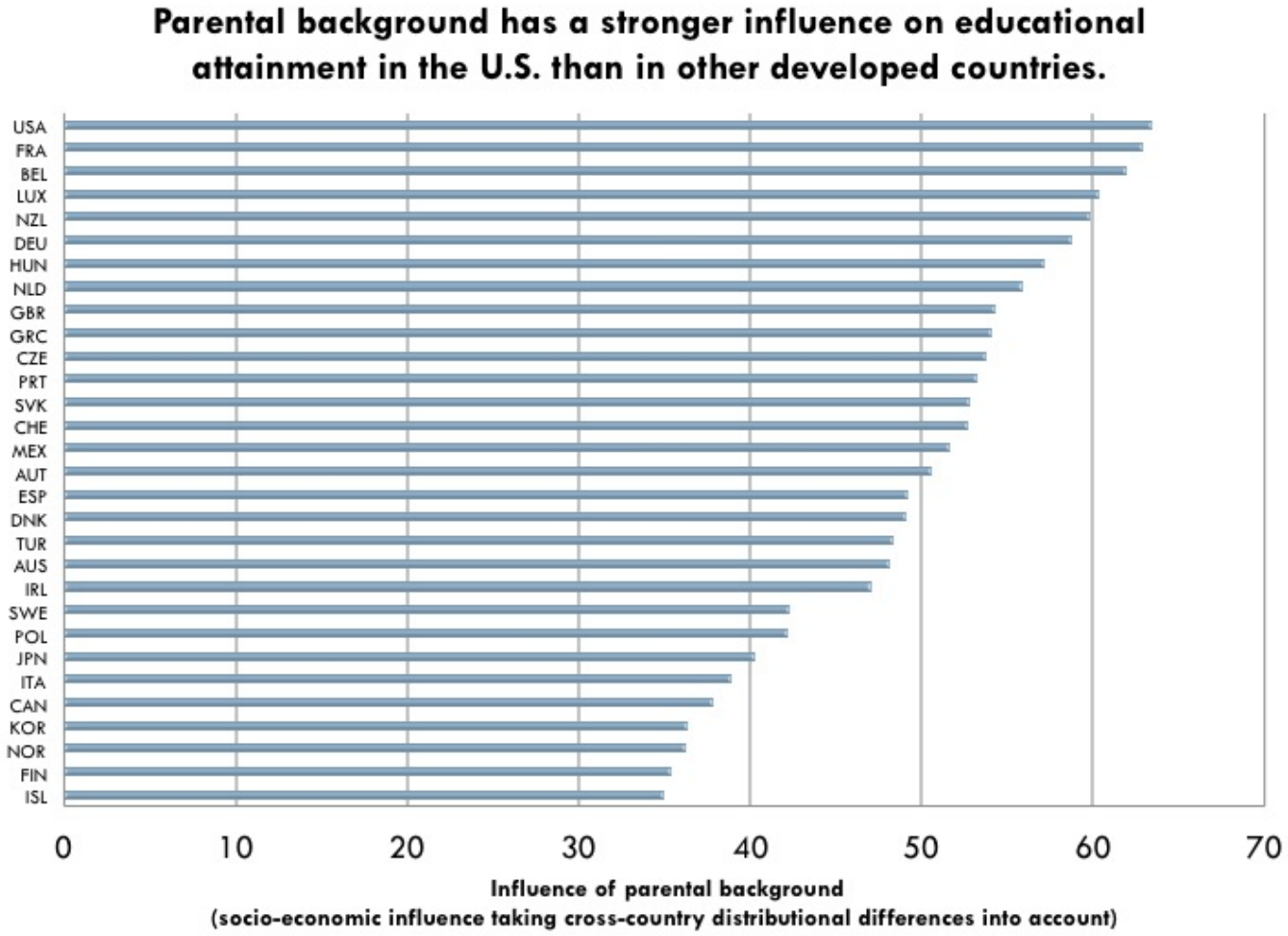




SOURCE: Current Population Survey

In the U.S., compared to other countries, the circumstances you are born into play a greater role in where you end up as an adult. The U.S. ranks first in the extent to which parental education determines individual's future educational attainment.

As access to postsecondary education determines earnings, college completion is a major source of the intergenerational transfer of privilege.



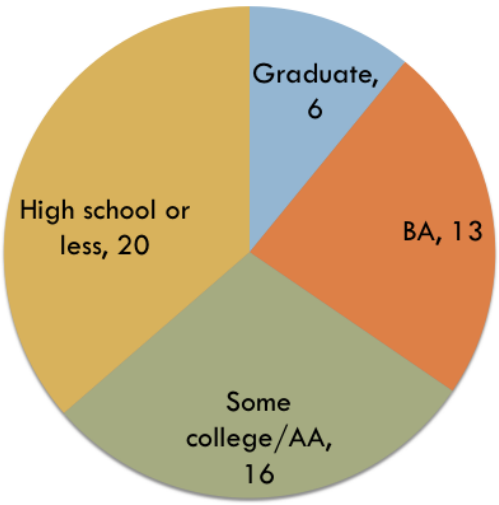
SOURCE: Calculations based on the 2006 OECD PISA database

The future promises continued growth in the demand for postsecondary education and training.

Our projections over the next ten years show, if the recovery continues, that there will be 55 million job openings — 24 million new jobs and 31 million openings from Baby Boomer retirements. Two-thirds of these openings, or 36 million, will require some education beyond high school, but we will not have enough workers to fill those jobs — we will fall short by 5 million.

Two-thirds of the job openings between 2010 and 2020 will require some postsecondary education.

Job openings by education requirement (in millions), 2010-2020

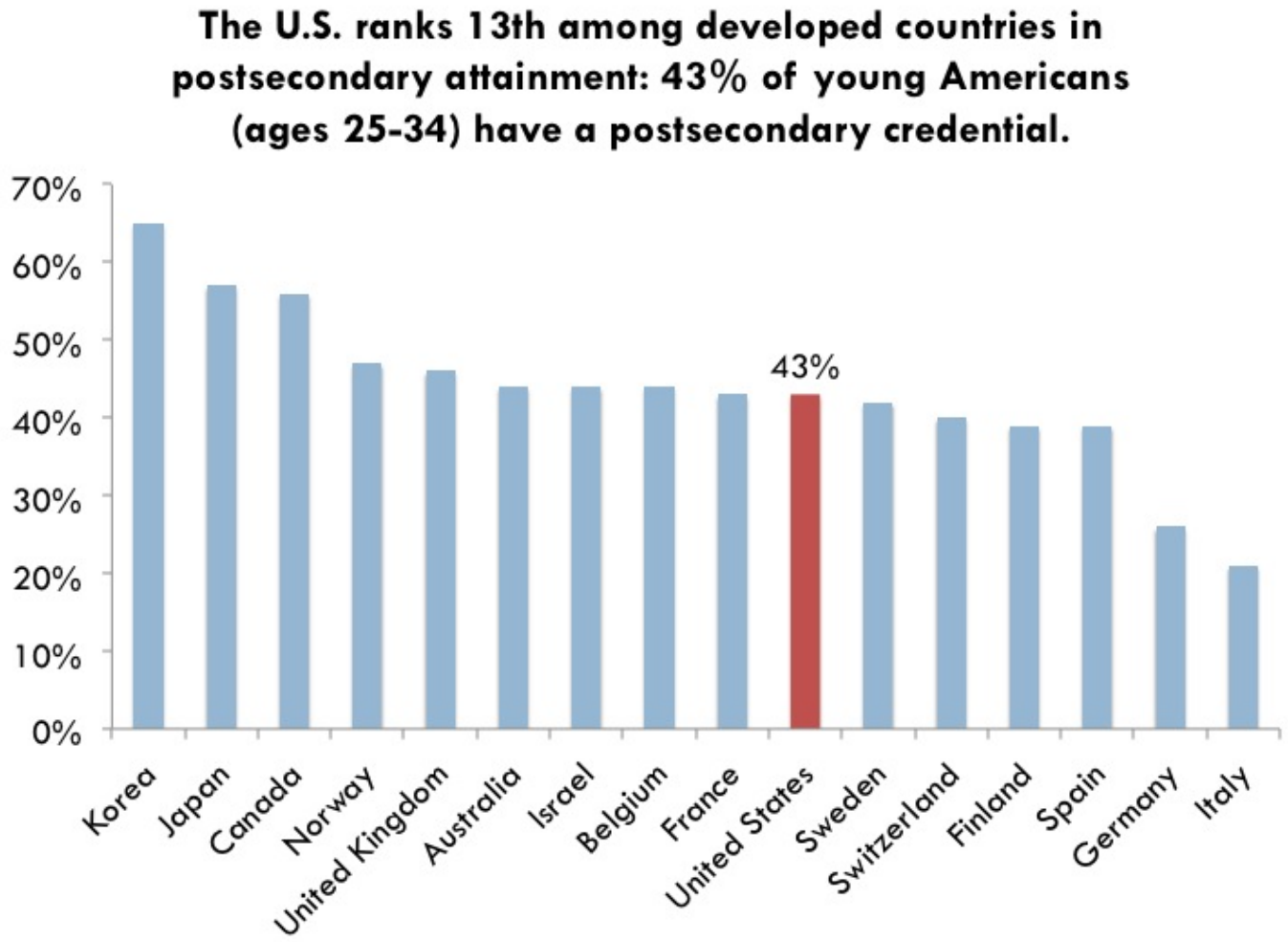


SOURCE: Georgetown University Center on Education and the Workforce Projections

Our workforce is struggling to compete internationally in postsecondary completion.

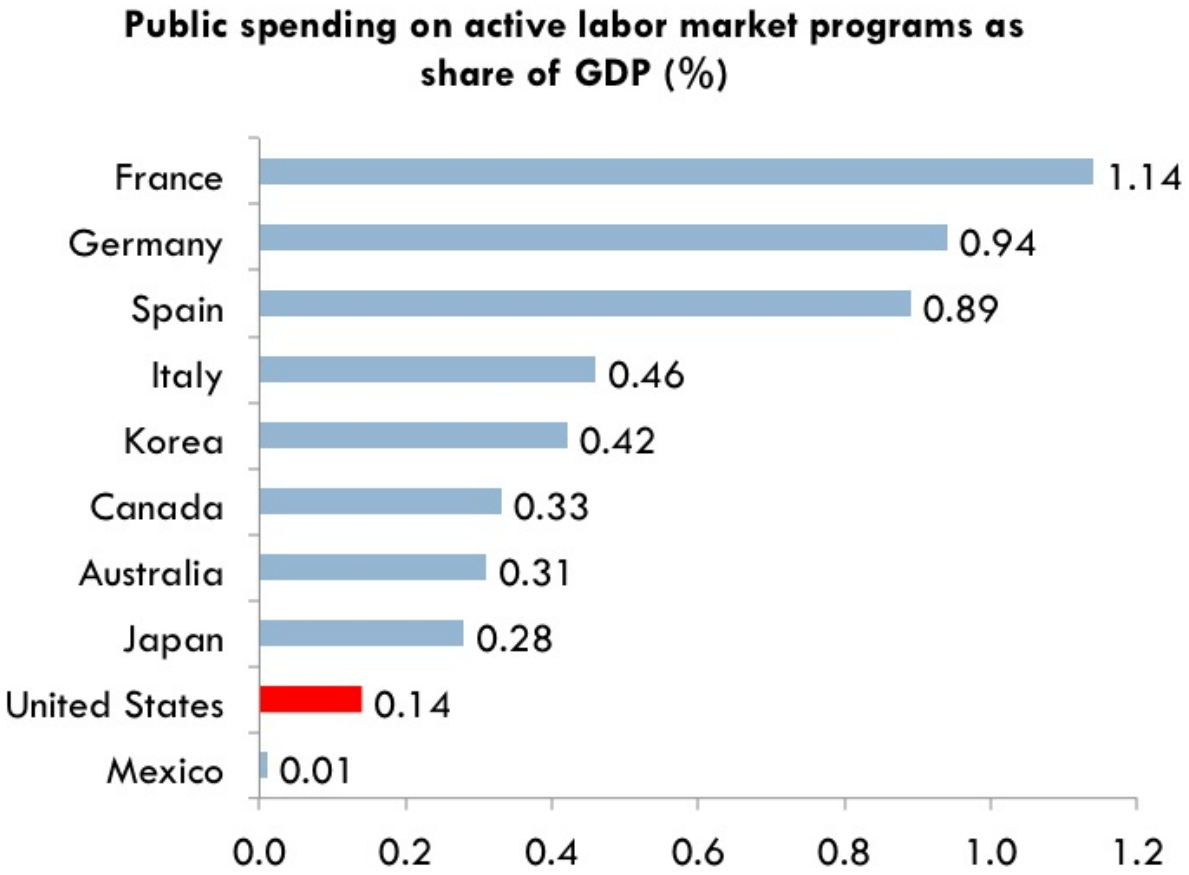
After leading the way in college attainment through the early-1990's, United States now ranks 13th in young workers with a postsecondary credential. Since 1997, postsecondary attainment has been growing by 1 percent each year, compared to 4 percent in other industrialized countries.

South Korea, Japan, Canada, Norway, Britain, Australia, and France are outperforming us at preparing young people for the 21st century economy.



We have the second lowest public spending on active labor market programs, with only Mexico devoting a lower share of its GDP to these programs. Major European countries, for example, spend seven to eight times more on employment and training programs than we do.

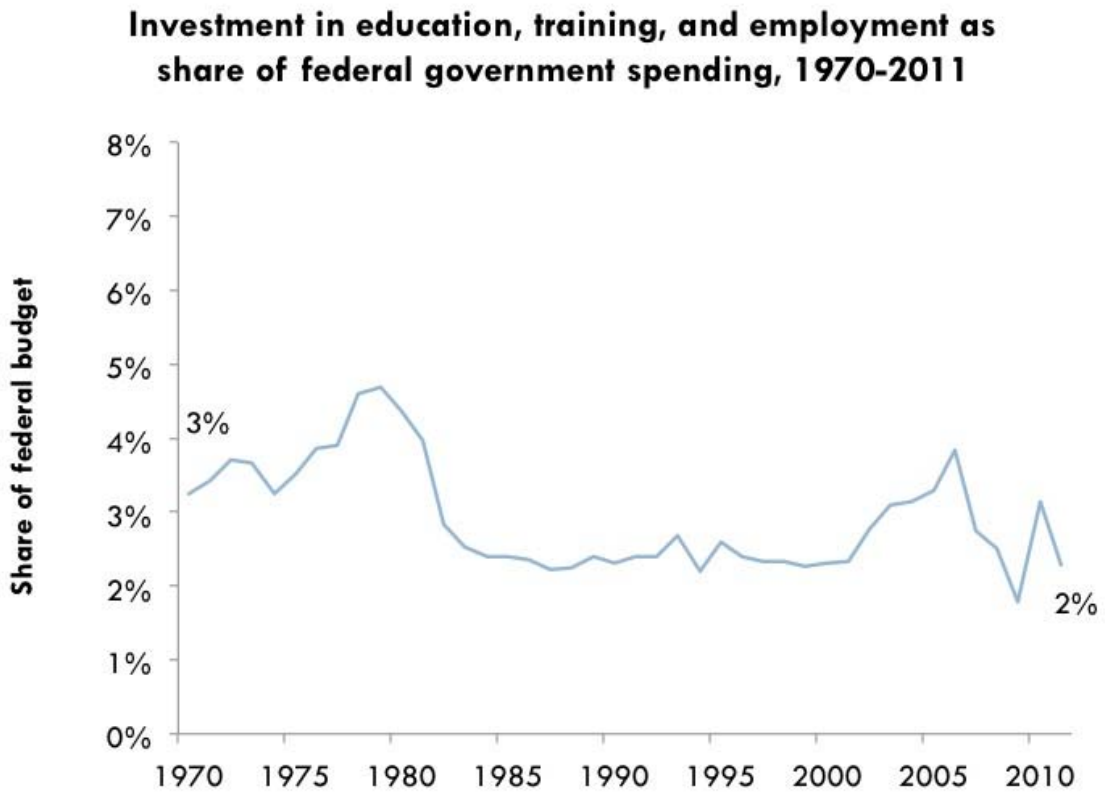
Public spending on employment and training programs is far below other countries.



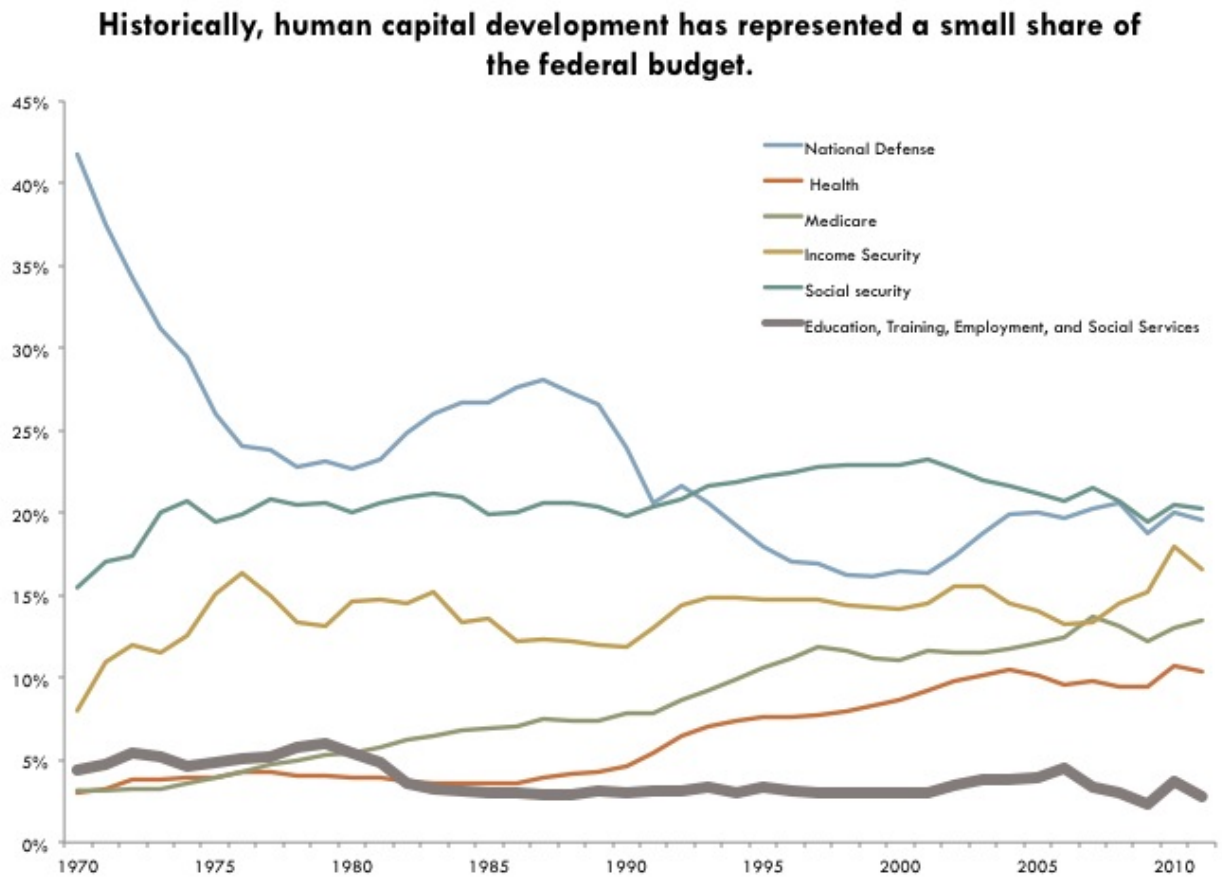
SOURCE: OECD, Public expenditure of LMP by main categories, *Employment Outlook, 2012*.

While the value of education and training has increased significantly in the modern economy, as evidenced by the growing college wage premium, the increasing demand from employers, and the rising share of high-skill occupations, the share of government spending invested in these human capital development functions has remained roughly flat over the past 40 years, and is currently at a historically low level.

Federal investment in human capital development declined from 3 percent of the budget in 1970 to 2 percent in 2011.

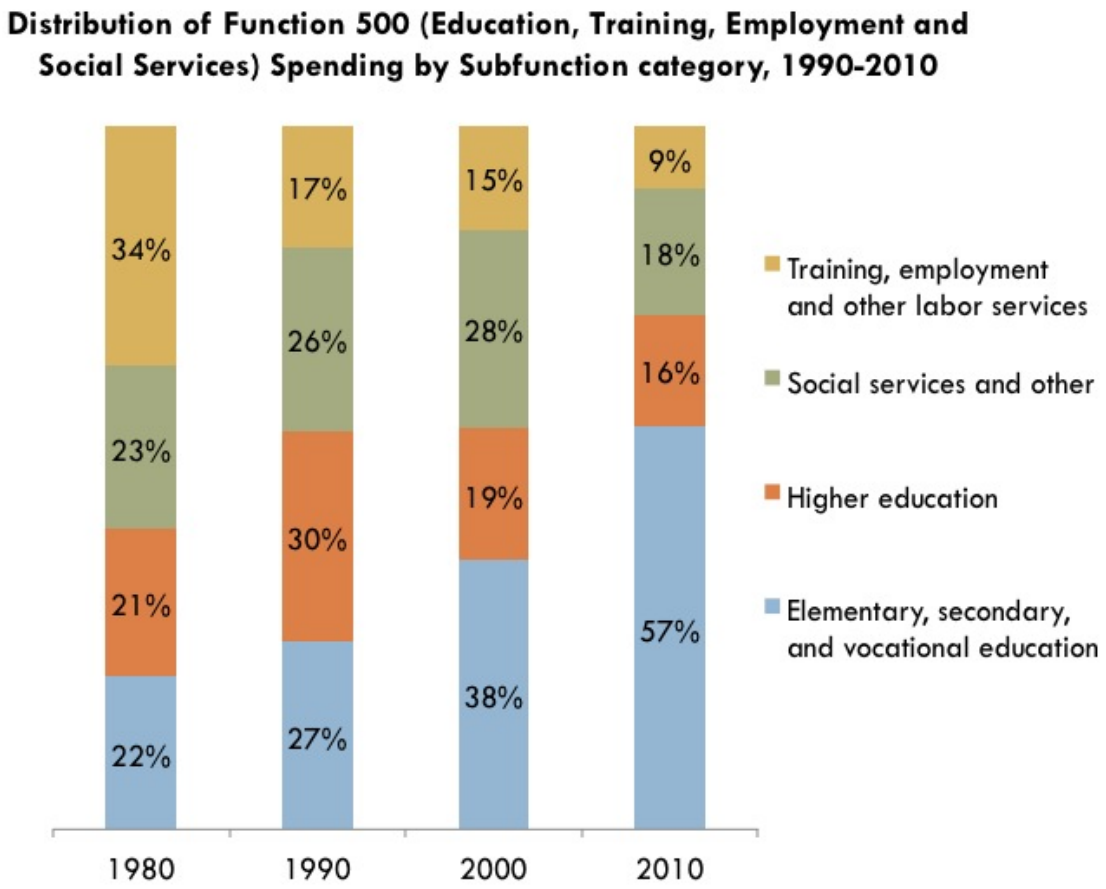


SOURCE: Office of Management and Budget (OMB), Outlays by Function and Subfunction: 1962-2017, Historical Tables (Table 3.2).



SOURCE: Office of Management and Budget (OMB), Outlays by Function and Subfunction: 1962-2017, Historical Tables (Table 3.2).

Employment and training programs, such as WIA, have declined as a share of federal spending on human capital development. WIA and Employment Services (ES) provide irreplaceable training, support, and labor market services that connect education and training to real jobs. Yet these services continue to be devalued by the federal government. In 1980, 34 percent of human capital investments by the federal government were spent on job training and employment services; by 2010, that share had decreased to 9 percent. This is a substantial loss in employment and training services programs.



SOURCE: Office of Management and Budget (OMB), Outlays by Function and Subfunction: 1962-2017, Historical Tables (Table 3.2).

Reforming education and training programs

As this committee is painfully aware we have entered an age of austerity in the use of public resources. At current productivity rates in many of our public institutions we cannot afford all the public services we need to support a thriving republic and a thriving opportunity-based economy. This is particularly true in education and healthcare, the only two American industries with negative productivity rates.

The bottom line seems to be that we need more efficiency in our public programs, including our education, employment, and training programs. We are, by our back of the envelope calculations at the Georgetown University Center on Education and the Workforce, at least $150 billion short of the revenues necessary to meet the President's educational goal of making us number one in global postsecondary completions. And we are able to provide employment training services to only a small portion of the tens of millions of Americans who apply for unemployment insurance every year.

The surest way to efficiency and maximum choice without interference in complex institutional and consumer-driven decisions is transparency in measured outcomes. This is the essential lesson of the private sector productivity and quality improvements since the eighties. The top-down hierarchies of Big Business in manufacturing, for example, have been displaced by complex global networks that allow us

to assemble and sell cars by coordinating the work of thousands of parts' suppliers and sellers. There are more independent institutions in these complex manufacturing networks, not fewer, and they all work to measured standards of cost, quality, customization, timeliness and customer service.

These fundamental changes in outcomes-driven networks have moved well beyond manufacturing into many private sector services and growing array of governmental services. Education and healthcare have become the last frontiers in the spread of this fundamental shift from top down hierarchies to complex networks driven by common outcomes standards.

The fledgling movement toward higher education reform reflects these trends. Affordability, debt and default issues have fostered a growing interest in measured outcomes that gauge costs and completion rates at education and training institutions. In my view, cost and completion are good outcome metrics, but they beg the question of economic value. Cost only makes sense in the context of economic benefit as measured by employability and earnings. And completion metrics need to be disciplined by employment and earnings standards. Consider, for example, that one quarter of men who complete one- or two-year postsecondary certificates earn more than the average worker who completes a four-year BA.

We also need to be concerned about equity. If postsecondary institutions focus exclusively on cost and completion, they will do so by catering to the most advantaged students who typically attend full-time and pay full cost. Moreover, in the current system, higher education institutions are already separate and unequal. White students from advantaged background are concentrated in four-year colleges and universities, especially those with selective admissions, while minorities and students from low-income families are concentrated in open-admission community colleges. Race- and class-based stratification in higher education is especially troubling when you consider that four-year colleges spend twice as much per student annually as community colleges and have significantly higher graduation rates, even among equally qualified students.

While costs and completion outcomes can be usefully, if not fully, measured at the institutional level, economic outcomes need to be measured at the program level. The institutional cost and completion metrics are useful because cost and completion are largely institutional variables. However, as you can see in the data above, employment and earnings outcomes are less about institutions and more about fields of study and majors: Both whether you get a job and what you make depends on what you take. This is the essential wisdom of the "gainful employment metrics." Employment and earnings effects of postsecondary education and training operate at the program level. Teachers are similarly employed and compensated, regardless of whether they attended Harvard or an open-admissions college.

Recently, there have been efforts to consolidate the 47 employment and training programs. It's hard to argue with consolidation efforts. Surely eliminating duplication can encourage efficiency. But too much standardization can reduce quality from the program participant point of view. Many of these programs are tailored toward targeted populations. While efforts to consolidate programs may result in some administrative savings, the government would not achieve real efficiency gains or contain costs simply by shifting around the program boxes, and could potentially undermine program efficacy that arises from the specialized knowledge and familiarity targeted programs have developed with the populations they serve.

Program consolidation can bring efficiencies but can also interfere with customization for the particular needs of distinctive populations and policy purposes. In addition to the rationalization of administrative structures, I would recommend that you consider integrating diverse programs by using common outcomes standards that apply to one degree or another in all publically funded education and training programs. Common metrics that cut across all programs can be very effective in promoting accountability and informed student choices. Information can help education and training markets work better. By adding information into the transactions between students and providers we can increase returns to our public education investments.

Using outcome metrics can accomplish much of what programs consolidation sets out to do, with much less political and administrative fuss. It can also increase the efficacy of program consolidation. And I would argue that the most common metrics — which apply to virtually all federal postsecondary education and training programs — are measures of common labor market outcomes, such as earnings, employment, and working in field.[3]

At current productivity rates in education and training, we cannot afford all the postsecondary education and training we need. The first step toward higher productivity in the postsecondary system is greater transparency in the alignment between postsecondary programs and labor market outcomes. Greater transparency in the relationship between postsecondary education and training curricula and careers is a relatively cost-free, self-regulating way to get more bang for our educational buck.

Choosing a postsecondary program is the first big investment decision made by young people, especially the majority of students who will finance their postsecondary programs with loans. They need to understand the risks and rewards associated with their choice of colleges and fields of study. As the cost of particular certificates and degrees grows and the labor market returns shift, prospective students need more information to guide their choices and to ensure high-returns on their investments.

Aligning education more closely with careers is also the best way to encourage student success. People with some sense of where they are gong are more likely to get there. A student's choice of career is the primary motivation for going to college. Helping students connect their college studies with their future careers captures this motivation and increases graduation rates.

The basic elements of a college and career information system already exist (including the Department of Education's College Navigator system); we just need to connect the dots. All the necessary data exists we just need to move it from the nation's statistical warehouses to the kitchen tables where college and career choices are made. Ultimately, we need to make the connection between postsecondary costs, completion and gainful employment at the institutional and program levels. Cost and completion data are more and more available in states and at the national level. The most important missing piece of the puzzle to current information systems is publicly available data on employment and earnings attached to particular postsecondary programs. Most states have made the effort to connect programs with labor markets in their internal data systems but have not developed usable formats for students, policy makers, or postsecondary administrators. Senators Ron Wyden (D-Ore.) and Marco Rubio (R-Fla.) have

[3] I.e., working in the same occupational field the individual received education and training in.

introduced the *Student Right to Know Before You Go Act,* which would take the next step in developing these state systems in useable formats. Similar bipartisan legislation, H.R. 4282, has been introduced in the House.

As an advocate of better data on the relationships between postsecondary programs and careers, we want to be careful not to slight the non-economic purposes of postsecondary education and training programs. Employment and career building is not the only purpose of federal education and training programs. In a republic such as ours the general purpose of education, especially college education is to allow individual to live fully in their time. But in a work-based society such as ours, it is very difficult to live fully as a private individual or a citizen without a job. Ultimately the economic role of postsecondary education, especially its role in preparing American youth for work and helping adults stay abreast of economic change, is central. The inescapable reality is that ours is a society based on work. Those who are not equipped with the knowledge and skills necessary to get, and keep, good jobs are denied full social inclusion and tend to drop out of the mainstream culture, polity, and economy. In the worst cases, they are drawn into alternative cultures, political movements, and economic activities that are a threat to mainstream American life.

Hence, if secondary and postsecondary educators and trainers cannot fulfill their economic mission to help grow the economy and help youths and adults become successful workers, they also will fail in their cultural and political missions to create good neighbors and good citizens. And increasing the economic relevance of education should, if done properly, extend the educator's ability to empower Americans to do work on the world, rather than retreat from it.

As we strive to deal with the budgetary challenges, we must not lose sight of our most important investments, those that promote competitiveness, ingenuity, and resourcefulness of American people.