Bio

Dr. Carnevale currently serves as research Professor and Director of the Georgetown University Center on Education and the Workforce, a position he has held since he founded the Center in 2008. Between 1996 and 2006, Dr. Carnevale served as Vice President for Public Leadership at the Educational Testing Service (ETS). While at ETS, Dr. Carnevale was appointed by President George W. Bush to serve on the White House Commission on Technology and Adult Education.

Before joining ETS, Dr. Carnevale was Director of Human Resource and Employment Studies at the Committee for Economic Development (CED), the nation's oldest business-sponsored policy research organization. While at CED, Carnevale was appointed by President Bill Clinton to Chair the National Commission on Employment Policy.

Dr. Carnevale was the founder and President of the Institute for Workplace Learning (IWL) between 1983 and 1993. The IWL worked directly with a variety of private companies to develop high performance work systems and training systems. While at the IWL, Dr. Carnevale was appointed by President Ronald Reagan to the human resources subcommittee on the White House Commission on Productivity between 1982 and 1984. Prior to founding IWL, Dr. Carnevale also served as Director of Political and Government Affairs for the American Federation of State, County and Municipal Employees (AFSCME), the largest union in the AFL-CIO.

He has also served as a senior staff member in both houses of the U.S. Congress. He was appointed Majority Staff Director on the Public Financing Sub-Committee of the House Committee on Government Operations during consideration of the value added tax proposals and revenue sharing.

Dr. Carnevale joined the Senate Budget Committee shortly after it was established by the passage of the Budget Impoundment and Control Act of 1974. He was responsible for budget development and enforcement in Budget Function 500: all accounts in Education, Training, Employment Policy and Social Services.

Subsequently, he also served as senior economist for the Senate Democratic Leadership Council. In 1994, Secretary of Commerce Ronald Brown appointed Dr. Carnevale to the Board of Overseers for the Malcolm Baldrige National Quality Award.

Between 1970 and 1973, Dr. Carnevale provided analysis for a number of state-based school finance reform efforts and co-authored the principal affidavit in Rodriguez v. San Antonio, a U.S. Supreme Court action to remedy unequal tax burdens and education benefits. This landmark case ultimately resulted in significant fiscal reforms in education funding in a variety of states.
Summary

American higher education is risky business for students and taxpayers, and it’s getting riskier. The cost of college has been rising far faster than family incomes for decades. As prices have gone up, we've fallen from first to seventh in postsecondary attainment among OECD nations. Our Canadian neighbors now achieve a 56% college credential attainment rate by spending 2.6% of their GDP on higher education, while America achieves a 46% attainment rate by spending 2.7% of ours. At this productivity rate for American higher education, we would have to spend as much as $200 billion more per year to catch the Canadians—an amount we simply can't afford. Not surprisingly, a Gallup/STRADA poll found that 51% of college graduates would change their degree type, institution, or major if they could do it.

Every year, more than 500,000 of our best students, those in the top half of their high school class, give college a try but never earn a degree or certificate. Even among those who get BAs, more than 20% end up in jobs that don't require college-level skills and pay high school-level wages.

Our non-system of postsecondary education is a $530 billion black box with no operating system. If we are to improve the return on investment to higher education and reduce economic risk to consumers, we need to increase transparency and performance standards at both the institutional and program levels. We are already awash in institutional performance metrics. What we need most is much more program level transparency and accountability. Why?

First, program level data on employment and earnings outcomes is urgently needed because higher education programs have become our biggest and most effective jobs program. Increased economic value is responsible for most of the phenomenal growth in postsecondary enrollment since the 1980s and is the principle reason students attend.

Second, college is becoming a market in programs as much, if not more, than it is a market in institutions. We now live in an economy where there is at least a 5:1 ratio between the highest and lowest paid fields of study at every degree and certificate level. Because of differences in field of study, 40% of BA holders earn more than the average graduate degree holder, 30% percent of AA holders earn more than the average BA holder, and many one-year certificate holders earn more than many AA and BA holders.

Third, the variety of postsecondary programs and credentials has become too vast for consumers to navigate without help. Colleges and other postsecondary providers are responding with a blizzard of degrees, certificates, licenses, certifications, badges, and other micro-credentials delivered through various media. No one really knows what all these programs and awards mean. As a result, the postsecondary education system has become a Tower of Babel resting on unsupported claims.
Fourth, shifting transparency and accountability to the program level will trigger longer term market-based reforms inside the black box of institutional finances in higher education. Program-level information would unbundle institutional spending, tighten the connection between learning and earning, encourage competition among program providers, and foster specialization. These dynamic market forces are moving us away from the current cafeteria system in which every college has to offer every program to be competitive. Accreditation based on economic outcomes can rejuvenate current practices gone stale. Finally, program-level information on employment and earnings, aggregated and made available to the public, would encourage competition among providers to develop counseling tools for institutions and families.
Full Testimony

Good morning, Chairman Alexander, Ranking Member Murray, and distinguished Members of the Committee. Thank you for the opportunity to testify today about the return on investment in college programs.

The old rules of thumb—go to college, graduate, and get a job—are no longer enough to navigate today’s complex world. The relationship between education after high school and jobs has become much trickier to navigate. Learners and workers need a clear guidance system that will help them make good decisions about college and career that lead to fulfilling, purposeful lives while supporting their families.

Today’s economy is far more complex than those of decades past. We have more occupations, programs of study, colleges and universities, and students than ever before. Since 1950:

- the number of occupations in the labor market has grown from 270 to 840
- the number of colleges and universities has grown from 1,800 to 4,700
- the number of students enrolled in colleges and universities has grown from 2 million to 20 million.

Meanwhile, since 1985, the number of postsecondary programs of study has grown from 400 to 2,300.

In recent years, the variety of postsecondary credentials—including degrees, certificates, certifications, licenses, and badges and other micro-credentials—has multiplied rapidly. New providers as well as delivery modes and models, such as online and competency-based education, have added further to the growing complexity and confusion. This has translated into an explosion of choices and decisions that make it hard for people to navigate through college and careers.

Colleges have become very expensive, with tuition and fees at public four-year colleges and universities growing 19 times faster than the median family income since 1980. The trend toward state disinvestment in postsecondary education for the past three decades has shifted the financial burden to students and their families.
As prices have gone up, we’ve fallen from first to seventh in postsecondary attainment among OECD nations. Our Canadian neighbors now achieve a 56% college credential attainment rate by spending 2.6% of their GDP on higher education, while America achieves a 46% attainment rate by spending 2.7% of ours. At this productivity rate, American higher education would have to spend as much as $200 billion more per year to catch the Canadians—an amount we simply can’t afford.

If students are investing more to go to college, they need to have answers to basic questions about the value of postsecondary education. They need better information to make decisions that have lifelong economic consequences, and this information should be delivered in new ways. In addition, the governance, accreditation, and financing of postsecondary education must go beyond student completion as a goal and be connected to measurable post-college outcomes.

While completion is an important metric for improving efficiency, it ignores the relationship between learning and earning in particular fields of study, as well as the social and economic value of general education. If we don’t change the way we think about providing postsecondary education and training, we will continue to have a system with runaway costs driven by institutional prestige rather than learning and earning outcomes.

Today's ecosystem of postsecondary credentials is complex, fragmented, and multilayered. This presents significant challenges to learners, employers, and policymakers. We don't know enough about the learning and competencies required to receive specific credentials. We also don't know how various credentials across diverse fields are valued, or how they interact with one another. Employers traditionally have used specific credentials as signals of workers’ competencies. But today they are unable to assess the value of different credentials and want to know how the competencies that underlie credentials match job requirements. Without clear, comprehensive, and actionable information, mediocrity prevails, and reputation rather than quality (captured by earnings returns) is rewarded.

Measuring learning and earning at the program level is the key to unbundling the value of postsecondary education options. Currently we have ways to measure earning, but we are far away from being able to measure learning. Why is measuring learning important? General education competencies make workers more flexible and more adaptable to changing technology, which is advantageous over the course of a career.

In the long term, we will need to figure out which combination of general and specific competencies prepare workers better for occupations. For now, the new relationship between postsecondary programs and the economy comes with rules that require much more detailed information about the connection between individual postsecondary programs and career pathways:

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9 Ibid.
10 Georgetown University Center on Education and the Workforce analysis based on data from the U.S. Census Bureau, OECD, Federal Reserve Bank of St. Louis, and National Center for Education and Statistics surveys. A range of estimates using different methods suggest a range between $120 billion and $240 billion.
RULE 1. On average, more education yields more pay.
Over a career, an average high school graduate earns $1.4 million; an Associate's degree holder earns $1.8 million; a Bachelor's degree holder earns $2.5 million; a Master's degree holder earns $2.9 million; a PhD holder earns $3.5 million; and a professional degree holder earns $4 million.11

RULE 2. What a person makes depends on what that person takes.
A major in early childhood education pays $3.4 million less over a career than a major in petroleum engineering.12

RULE 3. Sometimes less education is worth more.
Holders of IT certificates who work in field earn $70,000 per year compared with $61,000 per year for the average bachelor's degree holder.13 Thirty percent of associate's degree holders make more than the average bachelor's degree holder.14

RULE 4. What a student studies matters more than where they study it.
Over the past three decades, the college wage premium—how much college graduates earn relative to high school graduates—has doubled,15 but the variation in earnings by college major has grown even more.16

Measuring the Economic Value of Programs vs. Institutions
All of our research and that of our colleagues in the field suggests that programs, not institutions, are the fundamental units that transmit economic value to students. That is because it is a student's major or field of study that has the strongest relationship with the kind of career a student pursues after college. The variation in earnings across college programs is far greater than the variation in earnings across colleges.

In other words: What a student studies is more important than where they study it.

That is why many workers with less education earn more than those with more education. For example:

- Bachelor's degree holders who majored in STEM, business, or health fields earn more than graduate degree-holders who studied education or social work.
- Associate degree holders who studied engineering, IT, or health earn more than bachelor's degree holders who majored in the arts or English.

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13 Carnevale et al., Certificates, 2012. https://cew.georgetown.edu/cew-reports/certificates/  
15 Carnevale et al., The Undereducated American, 2011. https://cew.georgetown.edu/cew-reports/the-undereducated-american/  
In terms of labor market outcomes, institutions matter, but programs matter more.

Take the University of Texas system, for example. Graduates from open-access UT System colleges who complete degrees in high-paying majors can earn more than UT System graduates from selective colleges. Architecture and engineering; computers, statistics, and mathematics; and health majors at both middle-tier and open-access UT System colleges earn more than those who major in physical sciences, or humanities and liberal arts at selective UT System colleges. In fact, graduates of open-access UT System colleges who majored in architecture and engineering have median earnings greater than 61 percent of all graduates from selective UT System colleges.

Why We Need Program-Level Earnings Data

The federal government has a compelling interest in measuring how well the nation's large investment in Title IV student aid pays off to students and taxpayers. This can be done most effectively with program-level data. While it is true that colleges provide immense and often unmeasured social value, the economic value the programs provide can and should be measured: the economic benefit associated with college is the chief reason students pursue a college education and one of the principal reasons taxpayers invest in higher education. Higher education has the power to promote economic mobility and equity but will ultimately fail to do so if higher education programs aren't successfully preparing students for careers.

Currently, the federal governance of higher education is based on a primitive accountability structure, accreditation, that is demonstrably flawed. This system has led to egregious outcomes and a waste of public funds in the case of many for-profit colleges and many programs at nonprofit providers as well. The basic flaw in the model that is used by regional accreditors and other third-party entities is that the system is designed to set standards and provide feedback to colleges, not to measure outcomes and regulate the funding of programs.

Instead, we need to deliver usable consumer information at the program level and to define outcomes-based standards to fund programs based on their employment and earnings outcomes. Doing so would promote efficiency and innovation in higher education by opening up the higher education market to competition among different kinds of postsecondary education and training providers. It would shift federal governance away from awarding funding based on the number of beakers colleges have in a lab to awarding programs that lead to career and life success for their students. And it will do this while maintaining institutional autonomy.

That newly established consumer information should be made available to postsecondary program providers so they can make informed choices about their program offerings and performance.
Gathering good information is not enough, however. We need to get that information into the hands of consumers in a user-friendly format that aids their decisions. To accomplish that, we must (1) build program-level information systems at a level of aggregation that ensures individuals’ privacy and (2) unleash the private sector to transform that aggregated, open-source information into a user-friendly format that aids the education and career decisions of prospective college students and their families.