Education and the Economy:
Boosting State and Local Economies by Improving High School Graduation Rates

The nation's recent economic downturn has been extremely far reaching and hard hitting. It has forced individuals and governments alike to look differently at the status quo, especially spending priorities and short- and long-term budget plans. As state and local governments struggle to maintain financial solvency, they are increasingly looking for creative economic improvement strategies and deficit-cutting tools.

> "Education is a jobs issue, and the parents, teachers, school board members and state leaders who shape our schools should treat them with the same urgency."
>
> —House Education and the Workforce Committee Chairman John Kline (MN), September 28, 2010, op-ed in *The Hill*

Addressing the high school dropout crisis is a key strategy for economic growth. Years of research repeatedly highlights the link between education and the economy. Not only does improving education improve the economic outcomes of individuals who earn degrees—the individual gains also compound to benefit the economy at the local, state, and national levels. Improving high school graduation rates can result in a wave of economic benefits, including increases in individual earnings; home and auto sales; job and economic growth; spending and investment; and state tax revenues. Investing in education has positive outcomes for *all* residents, including bankers, car dealers, real estate agents, and store owners, not simply students or parents with children in school.

Nationally, more than 7,000 students become dropouts every school day, adding up to over 1 million students annually who will not graduate from high school with their peers as scheduled.[1] Graduating just half of the dropouts from the Class of 2010 alone would have resulted in significant economic benefits to the nation, including more than $7.6 billion in increased annual earnings and the creation of 54,000 new jobs. In addition to the moral imperative to provide every student with an equal opportunity to pursue the American dream, there is now an economic necessity for helping more students graduate from high school. In the knowledge-based economy of the twenty-first century, education is the main currency.

The National Dropout Crisis

For years, researchers have called attention to the national dropout crisis in an effort to create federal, state, and local policy that addresses the issue. Despite years of research and a growing consensus that something must be done to confront the crisis, the nation's graduation rate has largely remained flat. According to one recent independent estimate, only 69 percent of high school students across the country graduate from high school on time with a regular diploma, with a high of 83 percent in New

Jersey and a low of 42 percent in Nevada.[2] All told, an estimated 1.3 million students from the nation's Class of 2010 failed to graduate with their peers.[3]

These numbers no longer represent anonymous students or high schools; compared to a decade ago, much more is now known about both. A growing body of research demonstrates that it is possible to track individual students and predict who is likely to drop out of high school.[4] Researchers have also identified individual high schools that produce the bulk of the nation's dropouts.[5] This research allows for targeted interventions to improve schools and bring students who are at risk of dropping out back on track to graduation. At the same time, the tool kit of effective interventions for addressing the dropout crisis at the student and school levels is growing.[6]

In the wake of the recession and in the face of severe budget concerns, however, many local, state, and federal policymakers are considering stepping back from efforts to address low-performing high schools and students at risk of dropping out. Unfortunately, policymakers should be moving in the opposite direction. Supporting *effective* approaches to improve educational outcomes is essential for long-term economic health; as a result, education funding must be seen as an investment rather than just an expenditure.

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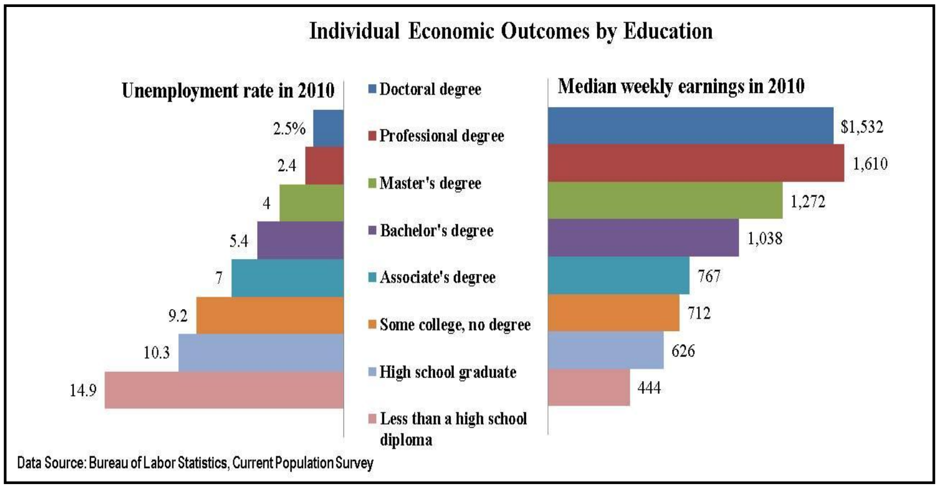
Education and the Economy

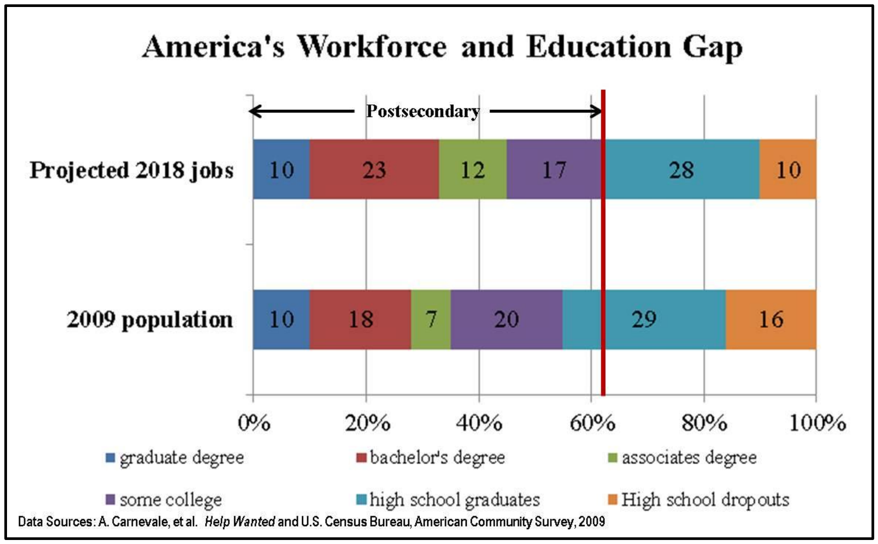
Growing research supports the notion that better educational outcomes lead to greater economic returns. Recent studies examine four major connections between education and the economy, including

1) the economic benefit to individuals by improving their own educational attainment;
2) the economic costs of low education attainment rates, primarily through increased public expenditures such as Medicaid or welfare for those with lower education levels;
3) the role of education in ensuring the nation can fulfill future workforce demands and remain globally competitive; and
4) the positive link between improved education and the nation's economic growth.



At the most basic level, the economic returns a student would likely see by earning a high school diploma as well as a postsecondary degree are well documented. The U.S. Bureau of Labor Statistics reports that individuals without a high school diploma are considerably more likely to be unemployed or earn significantly less income than those with a high school diploma or a postsecondary degree.[7] The figure on page 2 demonstrates the dramatic relationship between education levels and individual economic outcomes.

Other studies also point to the significant savings in public expenditures that can result from improving outcomes for students. For example, the Alliance for Excellent Education (the Alliance) and others have explored the increase in public costs associated with individuals who drop out of high school.[8] Government spending on those without a high school diploma is typically greater than it is on those with higher levels of education, because those without a diploma are more likely to be incarcerated and/or receive welfare or public health care. This government spending, when paired with the likelihood that dropouts will pay less on taxes due to lower income, means that high school dropouts tend to be tax-dollar recipients rather than taxpayers. In a 2007 report, Dr. Henry Levin of Columbia University and his colleagues estimate that moving just one student from dropout status to graduate status would yield more than $200,000 in higher tax revenues and lower government expenditures.[9]



In addition, recent research stresses that increasing national educational attainment rates is a critical prerequisite to ensuring global competitiveness and fulfilling workforce demands. In *Help Wanted: Projections of Jobs and Education Requirements Through 2018*, Dr. Anthony Carnevale and his colleagues at the Georgetown University Center on Education and the Workforce estimate that the share of American jobs requiring some postsecondary education will increase to 63 percent over the next decade, as shown in the chart above.

According to the report, the nation needs 22 million students to earn a college degree in order to staff these positions, but America is expected to fall short of this goal by at least 3 million.[10] The authors stress that meeting this demand by improving the education achievement and attainment of the nation's students is critical to a healthy economic future. This study echoes past work by Dr. Thomas Bailey, professor of economics and education at Columbia University and director of the National Center for Postsecondary Research, who sounded a similar warning to improve education attainment rates, particularly among students of color, in order to be prepared for the workforce demands of the future.[11]

> "There are enormous economic gains to be had by OECD countries that can improve the cognitive skills of their populations … Countries must make substantial changes now to reap the future benefits. On the other hand, simply saying that change is 'too difficult' implies foregoing enormous gains to OECD nations."
>
> —Organisation for Economic Co-operation and Development, *The High Cost of Low Educational Performance*

Finally, and perhaps most critically, research suggests that improving education could have the power to *grow* the economy by boosting the gross domestic product (GDP) and creating jobs. In 2009, McKinsey & Company released an often-cited report that likened low levels of academic achievement and attainment to a "permanent national recession." In the report, the authors assert that if the United States had improved its educational achievement levels to those of the world's leaders in education—Finland and South Korea—the nation's GDP could have grown by as much as $2.3 trillion, or 16 percent.[12] In addition, a 2002 review of economic literature conducted by Yolanda K. Kodrzycki of the Federal Reserve Bank of Boston concludes that "increases in labor quality via educational attainment have had a measurable effect on economic growth in recent decades."[13] Similarly, in the Organisation for Economic Co-operation and Development's 2010 report *The High Cost of Low Educational Performance: The Long-Run Economic Impact of Improving PISA Outcomes*, the authors conclude that any improved knowledge and skills of a nation's workforce are "an important force in economic development."[14] Thus, an investment in improving education, the primary vehicle for building the knowledge and skills of a workforce, is important for a nation's economic development.

The Value of Improved Education

With this research as a foundation and with a goal of helping individuals and policymakers better understand the connection between improved educational outcomes and economic gains in their communities, the Alliance, through the generous support of State Farm®, sought to go one step further by developing projections of the economic benefits that could likely result from improving educational attainment nationally, in each state, and in more than 200 metropolitan statistical areas (MSAs). These projections illustrate the link between education and the economy in terms that are meaningful to *all* members of communities, including the two-thirds of the adult population who have no direct connection with the public school system[15] and therefore may not realize the impact these improved educational outcomes may have on them personally.

Nationwide, the economic benefits that would likely result from cutting the number of dropouts from just *one single high school class* are staggering. If 650,000 of the 1.3 million students who dropped out of the Class of 2010 had graduated, together those "new graduates" would likely have earned up to $7.6 billion more each year than what they will likely earn without a high school diploma. These increased earnings would have rippled throughout the economy and created additional economic benefits, including the following:[a]

The Economic Benefits of Improving High School Graduation Rates

With generous support from State Farm®, the Alliance for Excellent Education published a series of fact sheets demonstrating to communities the estimated local economic benefits that would likely result from improving high school graduation rates.

In 2010, the Alliance initially released projections of the economic benefits to metropolitan statistical areas (MSAs) that would likely have resulted if more students had graduated from high school in 2008. These benefits were first published for the forty-five MSAs that encompass the fifty most populous cities in the country. Later, the Alliance included projections for an additional forty-three MSAs. Expanding the study further, the Alliance released findings on the economic benefits of improving the high school graduation rates among *students of color* and *Native students* in the original forty-five MSAs.

In spring 2011, the Alliance continued to build on this initial work by adding a state-level analysis of the economic benefits of improving high school graduation rates for all students, students of color, and Native students. In addition, the Alliance updated the results for the initial eighty-eight MSAs and released projections for nearly 135 additional areas.

In fall 2011, the Alliance will add to this work by releasing projections of the economic benefits that states and MSAs would likely see if more of these dropouts-turned-graduates were to earn a postsecondary credential.

[a] The data sources and methodology used in calculating economic benefit projections are available at http://www.all4ed.org/files/EconTechNotes_leb_seb.pdf.

- **Increased spending and investment.** New graduates' increased earnings, combined, would likely have allowed them to spend up to an additional **$5.6 billion** and invest an additional **$2 billion** during an average year.

- **Increased home and vehicle sales.** By the midpoint of their careers, these new graduates, combined, would likely have spent as much as **$19 billion** more on home purchases than they will likely spend without a diploma. In addition, they would likely have spent up to an additional **$741 million** on vehicle purchases during an average year.

- **Job and economic growth.** The additional spending and investments by these new graduates, combined, would likely have been enough to support as many as **54,000** new jobs and increase the GDP by as much as **$9.6 billion** by the time they reached their career midpoints.

- **Increased tax revenue.** As a result of these new graduates' increased wages and higher levels of spending, state tax revenues would likely have grown by as much as **$713 million** during an average year.

- **Increased human capital.** Forty-three percent of these new graduates would likely have enrolled in a postsecondary program after earning a high school diploma. However, only **170,000** of them, or 27 percent of all new graduates, would be expected to complete a postsecondary credential, including a vocational certificate, a two- or four-year degree, or a higher achievement, which signals a gaping hole in the secondary-to-postsecondary pipeline.

Projections are available for each state and more than 200 MSAs on the Alliance's website, http://www.all4ed.org/publication_material/Econ.

Using Economic Information to Address the Dropout Crisis

Addressing the dropout crisis requires the attention of and investment from all levels—local, state, and federal. Information illustrating the economic benefits of improving the educational outcomes of the nation's high school students, such as the figures discussed earlier, can be used to encourage policymakers and community members to invest time, energy, and financial resources into an effort to improve high school graduation rates.

Some of the most successful local initiatives that address a community's dropout rate have benefited from the participation of a broad range of community members, including parents, teachers, schools, community organizations, policymakers, and business leaders. For many, the moral imperative that all students receive an excellent education is compelling enough to motivate engagement in education reform. For others, the economic message is especially powerful, particularly in the current economic climate. However, the direct impact that effective high schools could have on the success of businesses is often unclear to business leaders. Specific information on increased economic activity that would likely result from improved educational outcomes—including increased spending levels—can help business leaders see the link between education and the economy. Information highlighting this link has been used in many communities to coalesce stakeholders around the need to address the dropout crisis and to create broad coalitions for high school reform that include a significant presence from the business community. (Read about one such effort in the box on page 6.)

55,000 Degrees in Louisville:
A Community Focused on Economic Growth Through Improved Education

The link between education and the economy is the mantra for a cross-sector coalition in Louisville seeking to improve educational outcomes in an effort to increase the region's economic competitiveness.

Louisville, Kentucky, was at a crossroads in 2003; its city and county governments had merged and local leaders took the opportunity to assess ways to build on merged government for future competitiveness and overall success. Education emerged as a primary "deep driver" of progress. Civic, education, business, higher education, and community leaders came together and were led by the mayor to identify goals and objectives that could guide the region toward improving educational outcomes and thereby strengthening its economy.

Through this work, 55,000 Degrees was formed in 2010. A public-private partnership, 55,000 Degrees is working to "launch Louisville into the top tier of competitor cities with the bold goal of adding 40,000 bachelor's degrees and 15,000 associate's degrees by 2020." In order to meet this goal, the organization realizes the importance of improving secondary schools and increasing high school graduation rates.

The Louisville business community is a critical partner in this work and has long been focused on improving educational outcomes "as the surest path to economic prosperity." Greater Louisville Inc., the region's chamber of commerce, formed the Business Leaders for Education, through which it leads the business community's efforts to support the 55,000 goal by helping employees finish their college education and by collaborating with the K–12 and postsecondary education systems.

Community-level efforts to address the dropout crisis are crucial, but they must be paired with strong state-level policy. Unfortunately, in order to deal with significant budget shortfalls in the current economic climate, state-level policymakers are forced to make difficult policy decisions. Education is too often a target for state spending cuts, and because of this, many states will consider walking away from recent efforts to improve educational outcomes. Unfortunately, this is a short-term approach with serious and negative long-term consequences—stepping back from commitments to improve high school graduation rates would cause states to miss out on the economic benefits that would come from better educational outcomes for students. Providing state-specific information on the economic benefits that would likely result from increased high school graduation rates would show state policymakers that supporting effective education reform efforts is not simply an expenditure of funds, it is an investment in the state's future economic health.

Research on the link between education and the economy also clearly demonstrates the national economic imperative of improving educational outcomes for all students. As a result, projections of the economic benefits of increasing the nation's high school graduation rate can be a significant motivating factor for federal policymakers. The Elementary and Secondary Education Act (ESEA), the main federal K–12 education law, has been up for reauthorization since 2007, but Congress has yet to act.

While ESEA brings many positive changes to federal education policy, it does little to address secondary schools and the national dropout crisis. Thus, every year that ESEA is not reauthorized is another year that Congress misses an opportunity to change the law to better support local- and state-level efforts to improve high school graduation rates, thereby missing an opportunity to garner significant national economic benefits. There is no time to waste: federal policymakers must be made aware that improving graduation rates improves the future health of the nation's economy and ensures the nation's continued competitiveness in the global economy.

Conclusion

Every student deserves an education that prepares them for success beyond high school. This moral imperative to ensure strong educational outcomes for all students has been the clarion call of education reformers for decades. But in a time of fiscal uncertainty and shrinking budgets, the economic necessity to improve graduation rates is emerging as an additional key motivator. Years of research underscore the many links between education and the economy:

- Individually, high school graduates have stronger economic outcomes than dropouts.
- When education levels increase, public expenditures decrease and tax revenues increase.
- Increasing educational attainment rates is essential to ensuring that the nation can fulfill future workforce demands.
- Improved educational outcomes can drive a nation's economic growth.

The Alliance builds upon this research to project specific economic benefits that the nation, states, and local areas could see as a result of increasing graduation rates. These figures can be used as concrete examples for policymakers and stakeholders at all levels to underscore the economic imperative of addressing the dropout crisis.

This brief was written by Tara N. Tucci, a research and policy associate at the Alliance for Excellent Education.

Endnotes

[1] Editorial Projects in Education, "Diplomas Count 2010: Graduation by the Numbers: Putting Data to Work for Student Success," special issue, *Education Week* 29, no. 34 (2010).

[2] Ibid.

[3] Ibid.

[4] The Consortium on Chicago School Research and the Center for the Social Organization of Schools at Johns Hopkins University identified early-warning indicators, or nondemographic student characteristics, such as attendance or credit accumulation rates that are strong predictors of whether a student will eventually drop out. This allows schools and districts to intervene early to address students' unique needs in order to prevent them from dropping out.

[5] Dr. Robert Balfanz and his colleagues at the Everyone Graduates Center at Johns Hopkins University developed the "promoting power" ratio, a proxy for a school's graduation rate. Using the promoting power ratio, Balfanz identified the nearly 2,000 high schools, or 12 percent of all high schools, that account for almost half of the nation's dropouts.

[6] Most recently, evaluations from Communities in Schools and the Institute for Student Achievement, among others, demonstrate a decrease in dropout rates and an increase in graduation rates.

[7] U.S. Bureau of Labor Statistics, "Employment Projections: Education Pays," http://www.bls.gov/emp/ep_chart_001.htm (accessed May 27, 2011).

[8] See J. Amos, *Dropouts, Diplomas, and Dollars*: *U.S. High Schools and the Nation's Economy* (Washington, DC: Alliance for Excellent Education, 2008); H. Levin et al., "The Costs and Benefits of an Excellent Education for All of America's Children" (New York, NY: Center for Benefit-Cost Studies of Education at Teachers College, Columbia University, 2007); and C. L. Belfield and H. M. Levin, eds., *The Price We Pay: Economic and Social Consequences of Inadequate Education* (Washington, DC: Brookings Institution, 2007).

[9] Levin et al., "The Costs and Benefits of an Excellent Education."

[10] A. Carnevale, N. Smith, and J. Strohl, *Help Wanted: Projections of Jobs and Education Requirements Through 2018* (Washington, DC: Georgetown University Center on Education and the Workforce, 2010).

[11] T. Bailey, "Implications of Educational Inequality in a Global Economy," in *The Price We Pay: Economic and Social Consequences of Inadequate Education*, ed. C. R. Belfield and H. M. Levin, 74–95 (Washington, DC: Brookings Institution, 2007).

[12] McKinsey & Company, Social Sector Office, "The Economic Impact of the Achievement Gap in America's Schools," http://www.mckinsey.com/App_Media/Images/Page_Images/Offices/SocialSector/PDF/achievement_gap_report.pdf (accessed November 16, 2010).

[13] Y. Kodrzycki, "Educational Attainment as a Constraint on Economic Growth and Social Progress," in *Education in the Twenty-first Century: Meeting the Challenges of a Changing World*, conference proceedings of the Federal Reserve Bank of Boston's 47th Economic Conference, June 2002.

[14] Organisation for Economic Co-operation and Development, *The High Cost of Low Educational Performance: The Long-Run Economic Impact of Improving PISA Outcomes* (Paris, France: Author, 2010), p. 20.

[15] W. J. Bushaw and S. J. Lopez, "A Time for Change: The 42nd Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes Toward the Public Schools," *Kappan Magazine* 92, no. 1 (2010).