

Education: The Engine for Jobs

A long term strategy for job creation must include a plan to strengthen K-12 education. Economists have long recognized the positive relationship between an investment in education and a strong economy. An educated citizenry leads to increased productivity, economic growth, and good jobs.

Globalization Strikes Michigan

- **A High Stakes Car Race.** The United Auto Workers' strike focused attention on the decline in sales of American-made automobiles in the United States. Since 1996, both General Motors' (GM) and Ford's market share of U.S. sales have fallen about 10 percent. These decreases have been accompanied by a double in market share by Toyota and Honda (non-American car manufacturers).¹
- **Low Skills.** The Japanese are surpassing Americans in auto sales *and* in education. Toyota has just recently passed GM as the number one car maker in the world,² while Japanese 15-year-olds outperformed their American counterparts in math and science in a 2003 assessment.³
- **Graduation Struggle.** As other industrialized countries increase their numbers of college-educated workers, America is falling behind. As recently as 1998, the U.S. ranked first in percentage of 25-34 year olds with a bachelor's degree, but by 2004 it had dropped to 5th.⁴ According to one analysis, "If recent trends continue, the United States will rank 9th by 2007, 13th by 2009, and 18th by 2019. In another 12 years most of the world's industrialized democracies will have surpassed the United States in bachelor's degree attainment."⁵
- **Changing Economy.** The Bureau of Labor Statistics projects that through 2014 over half of all new jobs will require at least some college. Of the 30 fastest growing jobs through 2014, four out of five will require some postsecondary education or training.⁶ By 2020, the nation may face a shortage of more than 14 million workers with these skills.⁷

Education Pays Huge Economic Dividends

- **Personal Income.** Simply put, the longer you stay in school and the more you learn, the more money you will make as an adult. Individuals with less than a high school diploma earn an average income of \$21,199; whereas individuals with a bachelor's degree earn an average income that is *more than twice as high* (\$49,635).⁸ Higher scores on standardized achievement tests also contribute to higher earnings:
 - Several recent studies suggest that boosting student achievement scores by a standard deviation increases future earnings by 12 percent.⁹
 - One recent study found that students who made substantial test score gains in mathematics during high school had higher earnings than their peers seven years later. "The high correlation between test scores and socioeconomic status

suggests that one way to improve the skills and productivity of those at the bottom of the socioeconomic ladder is to improve their test scores.”¹⁰

- **Greater Output.** If America could raise the skills of its students to the middle of the pack of European nations over the next decade, our Gross Domestic Product (GDP) would grow by an additional five percent over 30 years. That would mean an extra \$1.5 trillion in 2037 alone—more than triple what we currently spend on K-12 public education. Over a 50-year period, this increase in skills would yield incomes that are an additional *64 percent higher*.¹¹
- **Greater Productivity.** Increasing the education level of workers by one year increases national economic growth by five to 15 percent and increases productivity by 8.5 percent in manufacturing and 12.7 percent in non-manufacturing industries.¹²
- **Greater Savings.** If one third of all Americans without a high school education were to get more education, the savings would range from \$3.8 billion to \$6.7 billion in family assistance, \$3.7 billion in Food Stamps, and \$400 million in housing assistance.¹³

Improving Education Leads to Savings for Taxpayers

- **Cost of Drop Outs.** The poverty rate for families headed by dropouts is more than *twice* that of families headed by high school graduates.¹⁴ Each cohort of dropouts costs the U.S. \$192 billion in lost income and taxes.¹⁵ Adding just one additional year of schooling for those students would recoup nearly half those losses.¹⁶
- **Cost of Remediation.** Just at the community college level, families spend \$283 million annually to pay for remedial courses every year, and taxpayers foot an additional \$978 million. Counting lost productivity because students who take remedial courses are much less likely to earn a degree, poor preparation costs \$2.3 billion annually.¹⁷

Greenspan and Bernanke Agree

- In a September 24, 2007 speech to the U.S. Chamber of Commerce, Ben Bernanke, the Chairman of the Federal Reserve spoke about the economic necessity of investing in education:
*“Education fundamentally supports advances in productivity, upon which our ability to generate continuing improvement in our standard of living depends. If we are to successfully navigate such challenges as the retirement of the baby-boom generation, advancing technology, and increasing globalization, we must work diligently to maintain the quality of our educational system where it is strong and strive to improve it where it is not.”*¹⁹
- In his new book, *The Age of Turbulence*, Alan Greenspan writes about the economic consequences of a weak education system:
*“A dysfunctional U.S. elementary and secondary education system has failed to prepare our students sufficiently rapidly to prevent a shortage of skilled workers and a surfeit of lesser-skilled ones, expanding the pay gap between the two groups. Unless America’s education system can raise skill levels as quickly as technology requires, skilled workers will continue to earn greater wage increases, leading to ever more disturbing extremes of income concentration.”*²⁰

-
- ¹ The Wall Street Journal Online. August 30, 2007. "In the Balance: Detroit Labor Talks." Accessed at <http://online.wsj.com/public/resources/documents/info-UAW0708-30.html?printVersion=true>
- ² BBC News. April 24, 2007. "Toyota 'world's largest carmaker'" Accessed at <http://news.bbc.co.uk/2/hi/business/6586679.stm>
- ³ Organization for Economic Cooperation and Development. (2007). *OECD Economic Surveys: United States*. Table 5.1. (ISBN 978-92-64-03271-2). Paris, France: OECD Publications.
- ⁴ Postsecondary Education Opportunity. (2007, April). *Bachelor's Degree Attainment of Young Adults in Industrial Democracies 1996 to 2004*. Oskaloosa, IA: Author.
- ⁵ Ibid.
- ⁶ Heckler, D. (2004). "Occupational Employment Projections to 2014." *Monthly Labor Review*, November 2005. Washington, DC: U.S. Department of Labor, Bureau of Labor Statistics. (p. 76, 80) Accessed at <http://www.bls.gov/opub/mlr/2005/11/art5full.pdf>
- ⁷ Carnevale, A. & Desrochers, D. (2004). *Standards for What? The Economic Roots of K-16 Reform*. Washington, DC: Educational Testing Service. (p.4)
- ⁸ The NCHEMS Information Center. (2005). *2005 ACS PUMS- Median Earnings by State by Education Level*. National Center for Higher Education Management Systems. Accessed at <http://www.higheredinfo.org/analyses/> Based on data from the U.S. Census Bureau, 2005 American Community Survey Public Use Microdata Sample File.
- ⁹ Hanushek, E. A. (2006, August). Alternative school policies and the benefits of general cognitive skills. *Economics of Education Review*, 25(4), 447-462.
- ¹⁰ Rose, H. (2006, August). Do gains in test scores explain labor market outcomes? *Economics of Education Review*, 25(4), 430-446. (p. 445)
- ¹¹ Hanushek, E. (2005, August). Alternative school policies and the benefits of general cognitive skills. *Economics of Education Review*, 25, 447-462.
- ¹² Black, S. & Lynch, L. (1996). "Human Capital Investments and Productivity." AEA Papers and Proceedings 86, No. 2 (May). Topel, R.H. (1998). "Labor Markets and Economic Growth." in Orley Ashenfelter and David Card (Eds.), *Handbook of Labor Economics*. Amsterdam: Elsevier Science B.V. (p.264)
- ¹³ Sum, A., Khatiwada, I., Pond, N., Trub 'skyy, M., Fogg, N., Palma, S. (2002). *Left Behind in the Labor Market: Labor Market Problems of the Nation's Out-of-School, Young Adult Populations*. Prepared for the Alternative Schools Network. Boston: Center for Labor Market Studies, Northeastern University. Accessed at http://www.nupr.neu.edu/2-03/left_behind.PDF.
- ¹⁴ Baum, S. & Payea, K. (2004). *Education Pays 2004: The Benefits of Higher Education for Individuals and Society*. Trends in Higher Education Series. New York City: The College Board. Accessed at http://www.collegeboard.com/prod_downloads/press/cost04/EducationPays2004.pdf.
- ¹⁵ Rouse, C. (2005, September). *The Labor Market Consequences of an Inadequate Education*. Princeton University and NBER. Prepared for the Equity Symposium on "The Social Costs of Inadequate Education" at Teachers College, Columbia. Accessed at <http://www.tc.columbia.edu/centers/EquitySymposium/symposium/resourceDetails.asp?PresId=3>.
- ¹⁶ Ibid.
- ¹⁷ Alliance for Excellent Education. (2006, August). *Paying Double: Inadequate High Schools and Community College Remediation*. Washington, DC: Author.
- ¹⁹ Remarks delivered by U.S. Federal Reserve Bank Chairman Ben S. Bernanke at U.S. Chamber of Commerce Institute for a Competitive Workforce Summit, Washington, DC, September 24, 2007. Available at <http://www.federalreserve.gov/newsevents/speech/bernanke20070924a.htm>.
- ²⁰ Greenspan, A. (2007). *The Age of Turbulence: Adventures in a New World*. New York: Penguin Press. (page 505)