

**THE RETURN ON INVESTMENT (ROI)
FROM ADULT EDUCATION AND TRAINING**

**Measuring the Economic Impact of
A Better Educated and Trained U.S. Workforce**

By

Dr. Lennox McLendon, Executive Director,
National Council of State Directors of Adult Education
National Adult Education Professional Development Consortium

and

Debra Jones
California Director of Adult Education
Chair, NAEPDC Research Workgroup

and

Mitch Rosin, MA, MS, MS, Editorial Director,
McGraw-Hill School Education Group

Executive Summary

The current sharp focus on deficit reduction in Washington, DC, and in state capitals around the country obscures the very real economic benefits U.S. society derives from its public investment in adult education and workforce development programs.

It is important to keep in mind – especially during tough economic times – that a preemptive focus on adult education actually saves governments money by reducing societal healthcare, public assistance, and incarceration costs. Adult education also improves and expands the nation’s available pool of human capital by helping motivated but under educated people achieve gainful employment in today’s increasingly high-tech and global job market, and at a far lower cost per learner when compared to either K-12 or higher education.

As a result, adult education and career training is potentially one of the most cost-effective tools the nation has to recover its economic health in the aftermath of the “Great Recession.”

The Alliance for Excellent Education (AEE) and other groups have been taking advantage of sophisticated economic impact modeling tools to quantify just how much society gains from its investment in adult education at the national, state, and local levels, not only in terms of direct economic benefits (higher salaries, leading to more consumer spending and increased tax revenues), but also in terms of lower social costs (reduced public assistance, reduced prison costs due to lower rates of recidivism) and improved quality of life for both individuals and society.

In 2010, for example, AEE released a report that analyzed the effect of educational achievement on the local economies of the 45 largest metropolitan areas in the U.S. (comprising the nation’s 50 largest cities).

Employing a forecasting model developed by Economic Modeling Systems, Inc., AEE was able to calculate how each of these local metropolitan economies would benefit in the future in areas such as: individual earnings; home and auto sales; jobs and economic growth; spending and investment; and tax revenues.

They found that if only half of the dropouts from the Class of 2008 from these 45 metropolitan areas had managed to graduate, they would have contributed the following additional combined economic benefit to their communities during an average year:

- **\$4.1 billion** in additional earnings, compared to their likely earnings without a diploma;

- An additional **\$2.8 billion** in spending and **\$1.1 billion** in investments;
- They would have purchased homes worth **\$10.5 billion** more mid-career than they would have been able to buy as dropouts, and spent an additional **\$340 million** on vehicle purchases each year;
- Their additional spending and investments would have likely generated **30,000 new jobs**, increasing the gross regional products of their areas by **\$5.3 billion** at around the time they reached the midpoint of their careers; and
- State and local tax revenues in each of the areas would have increased as a result of this increased economic activity – an additional **\$536 million** in an average year.

Adult education is an investment that can help recapture some, if not all, of these potential losses.

In addition, several states have made concerted efforts to demonstrate the economic value received from the public's investment in workforce and adult education programs in their states. Included in this report are some of the highlights from various studies and reports concerning the cost/benefit ratios of adult education in Arizona, Arkansas, Georgia, Nevada, Minnesota, Michigan, New Mexico, Rhode Island, Tennessee, and Texas.

Adult education is also an investment in the future of our nation, as research shows that better educated parents raise better-educated, more successful children, who are less likely to end up in poverty or prison.

A recent infusion of additional public funding from the American Recovery and Reinvestment Act of 2009 (ARRA) has demonstrated what can be accomplished in a short amount of time when adult education programs are: well funded and aligned with employment-oriented services that focus on the customer (the learner), attuned to occupational needs at the local level; and committed to monitoring performance for continuous improvement.

As the authors of a 2008 report prepared by the National Commission on Adult Literacy wrote:

“[A] decade into the 21st century, America faces a choice. We can invest in the basic education and skills of our workforce and remain competitive in today's global economy, or we can continue to overlook the glaring evidence of a national crisis and move further down the path to decline.”

Introduction

The “Great Recession” began in December of 2007 and lasted a little more than a year and a half; it ended officially nearly two years ago, in June of 2009.ⁱ But the after effects continue to have a severe and debilitating impact on our nation. U.S. unemployment, for example, still hovers at just over nine percent as we write this,ⁱⁱ not far below its 27-year high.

In most cases, high unemployment would be a solid argument in favor of shifting more federal dollars into adult career training and education programs. In fact, at the height of the Great Recession, an additional \$5 billion was provided to federal workforce programs as part of the American Recovery and Reinvestment Act of 2009 (ARRA).

In the current fiscal climate, however, fierce budget battles are taking place in Washington, DC, and state capitals across the country as legislators grapple with rising deficits and struggle to make painful decisions about which government-funded programs are essential and which can be reduced or eliminated altogether.

The share of state budgets devoted to higher education has dropped by 13 percent since 1990ⁱⁱⁱ while the share going to Medicaid has increased by two-thirds and the share used to fund prisons by one-third.

Health care for the elderly, the indigent, and corrections populations are all essential services, but it is important to keep in mind that a preemptive focus on education actually reduces societal healthcare and incarceration costs. Nevertheless, the Center on Budget and Policy Priorities notes that falling revenues have forced more than 30 states to cut education spending since the most recent recession began.^{iv}

According to internationally recognized authority on education Anthony P. Carnevale and co-authors Jeff Strohl and Nicole Smith, “The 2008 recession has triggered a new downward spiral in public funding at the state level. The federal higher education budget is undergoing a similar squeeze as tax cuts combine with a shift in resources toward health care, social security, and national defense.”^v

Fortunately, even during times of tight budgets, most people understand that education is key to the nation’s economic health and worthy of support. Education has always been seen as vital to the nation’s well-being even during its Colonial, pre-independent nation days: The Massachusetts Bay Colony’s first schooling legislation was enacted in 1647.^{vi}

The view that education is key to individual economic security is supported by the recent unemployment numbers. While the average unemployment rate in April of 2010 was 9.9 percent, the unemployment rate was 4.9 percent for individuals with a bachelor’s degree or higher, 8.3 percent for individuals with some college or an associate degree, 10.6

percent for high school graduates with no college, and 14.7 percent for those with less than a high school diploma.^{vii}

In addition to the enhanced job security and other benefits enjoyed by the better educated, it is also understood that the less well-educated suffer economically and transfer some of the burden of their low-income status to society. According to Stephen Reder, Chair of the Department of Applied Linguistics at Portland State University:

- In 2006-2008, high school dropouts were more than twice as likely to be living in poverty as high school graduates; (U.S. Census Bureau, 2009).
- Seventy-four percent of dropouts spend one or more years in poverty between the ages of 25 and 75, based on analyses of data from the Panel Study of Income Dynamics between 1968 and 1992; (Rank and Hirschl, 2001).
- Two in five youths between the ages of 16 and 24 who drop out of school receive public assistance; (Bridgeland, DiIulio & Morison, 2006).
- On average, each high school dropout costs the U.S. economy about \$260,000 in lost earnings, taxes, and productivity over his or her working lifetime, compared with a high school graduate; (Amos, 2008).^{viii}

There are also indirect benefits to education that go beyond the individual and accrue to society as a whole. Educated workers have more disposable income to spend on consumer goods. Businesses that employ higher skilled workers produce more and better goods, which in turn stimulate business spending. The effect of these two spending items (consumer spending and business spending) is to increase overall income in the economy, which leads to still more spending and more income creation, and so on.

There is general consensus, therefore, that the government should support programs that make educational opportunities available to every child in the K-12 system, as well as support for Pell Grants and guaranteed student loans for those young people who have demonstrated an intellectual readiness for college.

But federal funding for adult education – a broad sector of the education universe that includes basic education and adult literacy as well as Career and Technical Education (CTE) – remains the poor step-child of the education system.

Adult education and training programs traditionally receive less than ten percent of the amount of federal, state, and local funding that goes to K-12, and less than five percent of what is spent to support higher education. To take just one example of the level of discrepancy involved: public funding quite rightly provides a free education for all young people from kindergarten through high school; combined federal, state, and local funding

for adult literacy, on the other hand, serves only three million of the more than 90 million U.S. adults who need such training to be competitive in the job market.

This is unfortunate and short-sighted, as the need for adult education has never been stronger than it is right now, and a greater sustained effort to support adult education would be one of the most cost-effective investments the U.S. could make toward speeding full recovery from the Great Recession. It would put more people back to work at higher paying jobs while helping to make U.S. workers more competitive globally – all for an investment that would still be much lower per learner than the U.S. and the states currently spend on K-12 and higher education.

That the U.S. should step up its investment in adult education isn't just a good idea – it is quickly becoming critical to our future economic prosperity. Consider the following:

- The Brookings Institute estimates that for the U.S. to return to pre-recession employment levels, the U.S. economy would have to create jobs at the rate of 208,000 a month for more than 11 years – the highest level of job creation seen during the last decade; it would take 321,000 jobs a month to do the same in under five years.^{ix}
- Recent data from the Bureau of Labor Statistics suggests that 33 percent of all job openings and nearly 50 percent of all new jobs created between 2008 and 2018 will require a postsecondary degree or credential.^x
- Factory, farm, and other low-skilled jobs are shrinking in the U.S., both in real numbers and as a proportion of all jobs – since 1960, the factory share of jobs has fallen by nearly 50 percent, from 32 to 17 percent while real manufacturing output in the U.S. has increased by three percent.^{xi}
- Output has increased as the number of workers has decreased due to advances in manufacturing technology, requiring factory workers to possess the higher level of knowledge and training necessary to operate sophisticated technology – the number of factory workers with at least some college education has tripled from 12 percent in 1973 to 36 percent today.
- As the need for better-educated, skilled workers continues to rise, the available pool of such workers is decreasing in the U.S. – nearly half the U.S. workforce today, approximately 52 million adults, has only a high school education or less, while 25 million workers aged 18 to 64 lack even a high school diploma or GED.^{xii}
- The Georgetown University Center on Education and the Workforce predicts the U.S. will need three million more associate degrees or higher than current trends

in graduation rates predict – a 10.6 percent increase in the number of students graduating each year through 2018 – just to meet the projected demand for educated workers.^{xiii}

In addition, approximately 65 percent of our 2020 workforce is already beyond the reach of our elementary and secondary schools.^{xiv}

The current workforce comprises approximately 150 million workers. The public schools in the country graduate three million students annually. Thus, only two percent of the annual workforce can be supplied by public schools. By projecting that statistic out for ten years, only 20 percent of the workforce in 2020 can come from public schools. Eighty percent of the 2020 workforce will consist of either adults currently in the workforce or those trying to enter the workforce today. Providing a competent workforce means attending to the adult population today.

It is difficult to see how the U.S. is going to have the kind of educated, skilled workforce necessary to meet this level of job creation when the U.S. Department of Labor is predicting a shortage of “more than 35 million skilled and educated workers over the next 30 years.”^{xv}

These projected shortfalls are based on a number of distressing demographic factors and trends:

- Approximately one million high school students a year currently drop out of school before obtaining a high school diploma – 1.3 million in 2010, according to the Alliance for Excellent Education;^{xvi}
- Eighty-eight million U.S. adults have at least one major educational barrier to employment (lack a high school diploma, no college study, and/or do not speak English well),^{xvii} and 93 million score at lower levels of national assessments of functional literacy skills;^{xviii}
- Roughly half of the adult immigrants living currently in the U.S. report that they speak English “less than very well,” and an increasingly large proportion of the U.S. workforce in the near future will be made up of recent immigrants, with one in every four Americans of Asian or Hispanic origin by 2030; and
- The U.S. will not be able to replace current workers from the pool of young people now entering or in school – a 2005 Southern Region Education Board report notes that as the population gets older and more baby boomers retire, the percentage of working-age adults with a high school education will actually decline by four percentage points by 2020.^{xix}

We have no choice but to educate the adult workers we have now, many of whom are under educated and under employed but remain motivated and desirous of improving their station in life. These are people who could be educated, trained, and developed into career-ready workers with a modest investment in funding. Recent experience shows that a comprehensive, sustained, and results-oriented focus on adult education and contextualized learning for the workforce can yield real results.

In 2010, the National Council of State Directors of Adult Education conducted the Adult Student Waiting List Survey, which included responses from 50 states and 1 territory. Seventy-two percent of programs confirmed waiting lists across 50 states, equating to 160,000 potential learners who could not receive access to educational services. This represents twice the number reported on waiting lists in 2008. Many of these adults who went to public schools that prepared them for 20th century jobs find themselves ill equipped to compete in the 21st century job market.^{xx}

The Many Benefits of Increasing Education Levels

As dire as the future looks if the U.S. continues on the same downward path, with global competition for jobs becoming both more high-tech and intense while education levels in the U.S. continue to fall, the potential future for the nation – if we do manage to educate a significant proportion of our adult workforce – could be extremely positive.

A better-educated population benefits a nation and society in myriad ways. According to a report prepared for the Tennessee Department of Labor and Workforce Development by Sparks Bureau of Business and Economic Research and the University of Memphis,^{xxi} the public economic benefits of adult education include:

- Increased Tax Revenues;
- Greater Business Productivity;
- Increased Consumption;
- Increased Workforce Flexibility; and
- Decreased Reliance on Government Financial Support.

The economic benefits that accrue to individuals include:

- Higher Salaries and Benefits;
- Enhanced Employment Opportunities and Stability;
- Higher Savings Levels;
- Improved Working Conditions; and
- Personal/Professional Mobility.

Social benefits enjoyed by the public are:

- Reduced Crime Rates;
- Increased Charitable Giving and Community Service;
- Increased Quality of Civic Life;
- Social Cohesion/Appreciation of Diversity; and
- Improved Ability to Adapt to and Use Technology.

Individuals gain important private social benefits, including:

- Improved Health and Life Expectancy;
- An Improved Quality of Life for Children and Dependents;
- Better and More Informed Consumer Decision Making;
- Higher Personal Status; and
- More Time for Hobbies and Leisure Activities

Recent Trends and Events Show the Value of Adult Education and Career Training

Although all of these benefits are real and have been supported over the years in studies and reports, nothing convinces like hard numbers that demonstrate real economic impact. Two events in the past couple of years reveal forcefully the public economic benefits of directing higher levels of government funding towards adult education.

1. The Workforce Investment Act (WIA) programs that provide federal funding for adult education and training received a sudden and large (if temporary) infusion of new money as part of the economic stimulus in 2009-2011, nearly doubling funding for adult, dislocated, and youth programs. According to the U.S. Department of Labor:
 - The number of WIA adult participants in training across the nation jumped by 56 percent during the four quarters ending on March 31, 2010 – a period that roughly coincides with the initial period of ARRA implementation;^{xxii}
 - Early evidence, also from the U.S. Department of Labor data, suggests that more than two-thirds (69.6 percent) of adults and three-quarters (75.6 percent) of dislocated workers who received WIA training successfully landed jobs in 2008-2009, despite an extremely difficult job market;^{xxiii} and
2. Some groups and organizations that advocate for a greater emphasis on adult education and training have taken the initiative to quantify the actual ROI of adult education and training – to use sophisticated and generally accepted economic modeling techniques to put a viable number on the return on investment society

receives from the money it invests in raising the education skill levels of its working citizens.

The results have been consistent and impressive.

The ROI of Adult Education – The Numbers

1. The Alliance for Excellent Education Study

“Businesses do this all the time,” said James R. Stone, Executive Director of the National Research Center for Career and Technical Education (NRCCTE) discussing recent efforts to calculate the return on investment (ROI) of education.^{xxiv}

Stone was referring specifically to the efforts of the Alliance for Excellent Education (AEE), which had been attempting to quantify the economic benefit of lowering the U.S. high school drop out rate for the past few years.

In 2007, AEE issued a report titled “The High Cost of High School: What the Nation Pays for Inadequate High Schools.” Citing the work of researchers such as Cecilia Rouse of Princeton University and others, AEE established that each high school dropout costs the U.S. approximately \$260,000 over his or her lifetime, and projected that if all of the high school dropouts in the U.S. from the Class of 2006 had graduated with their fellow students, the total additional income for this one high school class would be in excess of \$300 billion over their collective lifetimes.

In 2009, AEE went further and deeper, analyzing the effect of educational achievement on the local economies of the 45 largest metropolitan areas in the U.S. (comprising the nation’s 50 largest cities).

Employing a sophisticated model developed by Economic Modeling Systems, Inc. – a firm that specializes in socioeconomic impact tools – AEE was able to calculate how each of these local metropolitan economies would benefit in the future in areas such as: individual earnings, home and auto sales, jobs and economic growth, spending and investment, and tax revenues based on the following two projected scenarios:

1. What would the local economic benefit be to each metropolitan area of cutting in half (from 600,000 to 300,000) the total number of students from the Class of 2008 who dropped out of high school before graduating?; and
2. What would be economic benefit of reducing by just one thousand the number of local students from the Class of 2008 who failed to graduate with their class in each area?

AEE released the results in January, 2010, projecting that if only half of the dropouts from the Class of 2008 from these 45 metropolitan areas had managed to graduate, they would have contributed the following additional combined economic benefit to their communities during an average year:

- **\$4.1 billion** in additional earnings, compared to their likely earnings without a diploma;
- An additional **\$2.8 billion** in spending and **\$1.1 billion** in investments;
- During the middle years of their working lives, if they had stayed in school and graduated, these dropouts would have purchased homes worth **\$10.5 billion** more than they would have been able to buy as dropouts, and spent an additional **\$340 million** on vehicle purchases each year than they would have otherwise;
- Their additional spending and investments would have likely generated **30,000 new jobs**, increasing the gross regional products of their areas by **\$5.3 billion** at around the time they reached the midpoint of their careers; and
- State and local tax revenues in each of the areas would have increased as a result of this increased economic activity – an additional **\$536 million** in an average year.

If just 1,000 local dropouts had instead graduated in each of these 45 metro areas, the combined 45,000 additional high school graduates would have likely:

- Earned an additional **\$584 million** each year;
- Spent **\$50 million** more each year on vehicles, and at the midpoint of their careers would have likely been capable of purchasing homes worth **\$1.5 billion** more than they otherwise would have without a diploma;
- Supported an additional **4,000 new jobs** and increased the gross regional products of their areas by a combined **\$740 million**; and
- Provided an additional **\$74 million** in state and local tax revenues through increased spending and investment.

Likewise, if adult education can help recapture those dropouts, much of that potential can be realized. An investment in adult education not only returns money to society, it enables individual dropouts to become productive citizens, supportive parents, and contributing community members. Adult education is a worthy investment.

2. Individual State Efforts to Quantify the ROI of Adult Education

Several states have also made a concerted effort over the past few decades to demonstrate the economic value received from the public's investment in workforce and adult education programs in their states.

Following are some of the highlights from various studies and reports concerning the cost/benefit ratios of adult education in Arizona, Arkansas, Georgia, Nevada, Minnesota, Michigan, New Mexico, Rhode Island, Tennessee, and Texas.

Arizona

A 2009 report by the Arizona Department of Education, Adult Education Services division titled *The Fiscal Consequences: Arizona Adults and Education Attainment*, found that Arizona citizens who took and passed the GED Test contributed \$559 more every year to Arizona's income, property, and sales tax base than those who had not earned a high school or GED diploma.

In contrast, the report found that the average high school dropout in Arizona 18 to 64 years of age, received \$352 more in the form of government transfer benefits and costs than they paid each year, whereas high school graduates and GED credential holders each contributed \$5,173 more to the Arizona state and local governments.

Earning a high school diploma or GED credential also increased the amount of Arizona state income taxes paid:

- Adult dropouts averaged \$249 in annual state income taxes paid; while
- High school diploma and GED recipients paid more than twice as much annually.

At the same time, the number of incarcerated Arizona citizens was reduced by nearly half for adults who hold a high school/GED diploma over adult dropouts.

- The rate was 3.3 percent for adults aged 18 to 60 without a diploma and only 1.8 percent for high school/GED diploma holders in the same age range.
- For younger adults aged 18 to 34, the incarceration rate was 4 percent for those without a diploma versus only 2.1 percent for high school/GED diploma holders.

Other economic facts separating those with high school or GED diplomas from their fellow Arizona citizens who had dropped out of school:

- Nearly 20 percent of household heads in Arizona without a high school/GED diploma were reliant on food stamps, compared with only nine percent of high school graduates;
- The gap between the net fiscal contributions of a high school or GED diploma holder and a dropout in Arizona would be equal to \$265,700 over a working lifetime (ages 18 to 64);
- High school and GED diploma holders earned \$25,200, which was \$9,000 or 23 percent higher than adults without a diploma; and
- For adults without a high school or GED diploma, the number of years projected of living in poverty was nearly twice that of high school and GED diploma holders.

Arkansas

Patricia Bates, Chair of the Arkansas Association of Continuing and Adult Education (AACAE) Legislative Committee put together a strong case for adult education funding in her state based on the number of Arkansas former dropouts who earned their GED credentials during 2008 and 2009.

Bates notes that studies show high school graduates and GED diploma holders earn an average of \$8,860 more per year than non-HS graduates.

The state of Arkansas invested a little over \$18 million in adult education during the '08-'09 budget cycle, much of it spent in helping 7,443 GED test takers pass their GEDs and earn their high school equivalency diplomas (Arkansas has a GED pass rate of 85 percent, compared with 73 percent for the U.S.).

Using the 2008-2009 state investment of \$18 million as the cost basis and applying these study results to the 7,443 new GED diploma holders means:

- Projected additional state income tax of \$1,978,349 ($\$8,860 \times 7,443 \text{ GEDs} \times 0.03$ income tax rate)
- Projected additional state sales tax revenue per year of \$3,165,359 ($\$8,860 \times 0.80 \times 7,443 \times 0.06$ sales tax rate)
- Projected total annual state tax benefit from additional earnings of \$5,143,708

Of the \$18,025,693 expended for adult education, \$14,400,000 (80 percent) goes to salaries for adult education employees on which the state gets back \$1,123,200 in income and sales taxes each year.

- During the 2007-2008 cycle, 2,386 students from adult education entered post-secondary education. Based on the 2000 U.S. Census estimate that individuals with some college earn an average of \$4,290 per year more than high school graduates, these students are projected to generate \$10,235,940 in taxable revenue, resulting in \$921,234 annually in additional state taxes.
- Arkansas prisoners who earn GEDs have a recidivism rate that is lower by 6.1 percent, according to the state. Eight hundred and fifty GEDs were earned in Arkansas prisons in 2005, leading to these annual benefits:
 - The lower recidivism rate means that approximately 52 of these former convicts do not return to prison, leading to an annual savings to the state of \$1,138,800; and
 - Recent legislation allowing 90 days meritorious good time in exchange for earning the GED produces further savings by reducing the State's prison housing costs of \$4,400,000 a year due to early release of this graduating class of 850.
- Using these annual benefits and assuming a conservative 10-year working career for the GED recipient, the net present value of state adult education funding, after return of the \$18,025,693 state funding, for the 2008-2009 GED class is an additional \$26,642,618, generating a rate of return on investment of 43 percent.
- There are public health benefits, too, as lifetime total health savings for the high school graduate compared to a non-graduate is estimated to be \$40,500. In 2007-2008, 5,216 students aged 16-24 earned their GED in Arkansas. The total projected savings in public health care over their lifetimes is \$211,248,000.
- The lifetime total welfare cost-savings for a high school graduate is estimated to be \$3,000. Using the 5,216 students aged 16-24 who earned their GED in Arkansas in 2007-2008, this would produce a total state welfare cost-savings over their lifetimes of \$15,648,000.

Georgia

According to the Technical College System of Georgia, 18 percent of Georgia's population over the age of 18 has less than a high school education. This translates to 1.24 million people who lack a high school diploma or GED credential. Of these, 95,085 were enrolled in courses during the 2009 school year, with an additional 26,702 enrolled in Adult ESL courses.

Georgia offers a variety of programs for adult learners, which resulted in an economic impact of \$1.035 billion, almost triple the \$373 million invested. The economic impact of Georgia's adult education efforts break down as follows:

- Technical college graduates increased earnings by \$149,078,044;
- Jobs created and saved by the state's Quick Start workforce training program contributed \$493,532,040;
- Adult education increased earnings with GED by \$143,962,742; and
- Federal and other funds generated equaled \$249,189,336,^{xxv}

Michigan

A policy paper written for the National Commission on Adult Literacy by the Center for Labor Market Studies at Northeastern University found that in Michigan:

- “[T]he average Michigan adult with no high school diploma paid \$3,488 less in taxes than he or she received in benefits in 2004-2005” (these adults only paid \$0.64 in taxes for every \$1.00 in benefits they received);
- In contrast, the average high school graduate paid \$4,122 more in taxes than he or she received in cash and in-kind transfers from the government during the same period, with each graduate contributing \$1.89 in taxes for every \$1.00 he or she received in government benefits;
- Individuals with some college education, including an associate's degree, paid \$8,917 more than they received (a ratio of \$3.74 to every \$1.00); and
- If all of the adults (18–64) in Michigan without a high school diploma had earned a diploma or GED credential, their annual net fiscal contribution would increase by \$5.3 billion. If they went on to college, their annual net fiscal contribution would jump another \$3.3 billion.^{xxvi}

One in five Michigan residents do not have a high school diploma and the state ranks 39th among the 50 states in the percentage of adults with a college degree.

Particularly humbling for former car-capital Michigan: In 2005, Toyota announced plans to build a new automotive plant in Cambridge, Ontario in Canada, not far from Detroit, the vibrant car manufacturing capital of the country in better days. Toyota executives

cited specifically the low literacy skills of the available labor force as the reason it declined millions of dollars of incentives to build the new plant in the U.S.^{xxvii}

Minnesota

Minnesota's Adult Basic Education provided information on Fiscal Year (FY) 2004 operations and results. In that year the state served nearly 81,500 adult learners, 38,663 of whom (47 percent) were "English as a Second Language" (ESL) learners.

Nearly 25,000 students (30 percent) were in the program seeking Basic Skills Enhancement and 16,000 (20 percent) were there to earn a GED high school equivalency diploma.

The state spent approximately \$504 per learner – a little more than \$41 million total in 2004.

Compared to other levels of education, Minnesota ABE is extremely cost-efficient and cost-effective, returning three to five times the expenditure back to the state in cash and in savings – some specific examples of return on investment are provided below:

- U.S. Census 2000 reports that the average high school graduate or equivalent earns \$7,000 more per year than a high school dropout. For the two years prior (2002-2003), the increased income for GED and adult diploma graduates was \$120 million. This extra income generated approximately \$9.6 million in 1903-1904 tax revenue for the State of Minnesota.
- In FY 2004, 1,877 ABE learners gained (or bettered) their employment. Using minimum wage statistics for those gaining employment, and a 5 percent gain in wages for bettering employment, \$12 million in additional personal income was generated and resulted in \$1 million in new tax revenue for 2004.
- In FY 2004, at least 176 ABE learners left public assistance (the number is self-reported and could be much higher). At an average welfare cost of \$12,600 per family, this conservative estimate represents an annual savings to the state of at least \$2,218,000.
- Research shows that for prison inmates the link between high school equivalency and recidivism is strong. If only 20 percent of the FY 2004 incarcerated ABE learners did not return to prison as a result of ABE, this would save the state of Minnesota approximately \$44 million per year in incarceration costs.

- The average annual per pupil cost for ABE is approximately \$500 per learner. If Minnesota high schools had no dropouts, the state K-12 budget would require \$50M more per year (10,000 dropouts x \$5,000/yr).

Nevada

Nevada reports that 62 percent of qualifying students advanced two or more grade-level equivalents through participation in Adult Education classes. Of those, 29 percent of those wishing to enter postsecondary education did so within one year. Additionally, 70 percent of those who took the GED Tests successfully passed the examination. Sixty-eight percent of those seeking employment found it, while 77 percent of those wanting to retain or improve their employment did so. In FY 2009, Nevada adult high school programs' average cost per student was \$531.90, compared to approximately \$8,000 per student in K-12.^{xxviii}

New Mexico

The State of New Mexico spends a very modest \$6.5 million a year serving nearly 23,000 students in its Adult Basic Education program. But the state gets a great deal for its investment.

During the 2008-2009 funding cycle, New Mexico ABE helped more than 2,100 former dropouts earn their GED credentials; approximately 1,000 enrolled in college courses; and over 1,300 previously unemployed students found jobs after earning their GED.

The New Mexico Higher Education Department, Adult Basic Education Division estimates the states get back its original \$6.5 million investment, plus an additional \$36.8 million, broken down as follows:

- \$21,091,200 in new income from 1,352 students gaining jobs (1,352 × 2,080 hours × \$7.50/hour);
- \$21,170,000 in enhanced earning potential of GED graduates (2,117 graduates × \$10,000/year); and
- An estimated savings of \$546,000 from 42 students leaving public assistance (42 × \$13,000 average annual TANF benefits).

Rhode Island

According to a study written and produced by The Information Group of The Providence Plan, “GED passers earn an additional \$393 in each quarter in the third year” after successfully passing the GED Tests, which represents a “22 percent earnings gain for male GED passers relative to males who failed the GED exams.” This increase moves a family of three above the poverty line.^{xxix}

Tennessee

A December, 2006 report prepared for the Tennessee Department of Labor and Workforce Development reports that WIA-funded adult education activities in the state had a total economic output impact of \$96,758,540.^{xxx}

The WIA also produced a total labor income impact of \$43,834,559, and a total tax impact of \$9,013,124. In addition, the WIA was shown to have created or had an impact on just over 1,309 jobs.

Tennessee offers three additional adult education and workforce training programs, which also had substantial economic impacts on the state:

- The Tennessee secondary career and technical education program had a total impact of \$52,851,513. The total labor income impact was shown to total \$23,943,341, while the total tax impact totaled \$4,923,155. Also, CTE created or had an impact on over 715 jobs;
- The Tennessee Technology Centers had a total output impact of \$390,853,369. The total labor income and total tax impacts were substantial as well, coming in at \$176,761,775 and \$36,468,796 respectively. The Tennessee and Technology Centers also created or had an impact on just over 5,280 jobs.
- Tennessee’s Career and Technical (TCT) Community College spending had a total economic impact on the state totaling \$125,098,582. The total labor income impact was \$56,673,457, and the total tax impact was \$11,653,018. The TCT Community Colleges also created or had an impact on over 1,692 jobs.

Combining the four programs provided a total output impact of \$658,816,116. The labor income and tax impacts come out to \$302,976,467 and \$62,024,420 respectively, for a total economic impact of \$1,023,817,003.

Secondary and postsecondary career and technical education in Tennessee had a cost-benefit ratio of 1:1.99, generating nearly double the benefits relative to the costs of

operations. Also, the total number of jobs created or impacted by the four programs was just over 9,025.

Texas

The same Northeastern University study cited above for Michigan found an even more differential tax contribution in Texas, where:

- “[T]he average adult with no high school diploma paid \$1.02 in taxes for every \$1.00 he or she received in benefits in 2004–2005” (each adult paid out \$87 more than he or she received);
- At the same time, the average high school graduate paid \$2.78 in taxes for every \$1.00 received in government benefits (each adult paid \$4,734 more than he or she received that year); and
- People with some college education, including an associate’s degree, paid \$5.00 in taxes for every \$1.00 received (they each paid \$8,384 more).^{xxxii}

When the average ratios are multiplied by the large number of adults (18–64) in Texas who do not have a high school diploma (nearly three million), the result is “overwhelming,” according to the report.

“If these adults possessed a diploma or GED, their annual net fiscal contribution to national, state, and local governments would increase by \$13.5 billion. If they attended college, the annual net fiscal contribution would increase by another \$10.6 billion.”

Conclusion

In 2008 the National Commission of Literacy wrote in its report, “Reach Higher, America: Overcoming Crisis in the U.S. Workforce,” that

“If the nation reaches the Commission’s projected goals, our adult learners’ fiscal contributions to national, state and local government will more than offset the cost of paying for the build up of America’s new Adult Education and Workforce Skills system.”^{xxxiii}

That is true. The most easily quantified benefit from investing in adult education is financial.

But what is also true is that the benefits of having a smarter, better-educated, and skilled workforce go far beyond the numbers into areas that can also be supported empirically, but which may be difficult to quantify – such as self-esteem, happiness, and hope for the future.

The Tennessee economic impact study referenced earlier notes that high school and other graduates have higher levels of self-esteem, live longer, healthier lives, assume greater civic responsibility, enjoy more cultural interests, attend more athletic events, exercise better moral judgment, and nurture children better than non-graduates (NCES, 1994; Pascarella & Terenzini, 1991).

Graduates also tend to maintain healthy habits, promote wellness in their daily lives, avoid bad health habits such as smoking, and experience less stress than non-graduates. They express greater tolerance for individual differences than the less-educated, donate more to charities, and volunteer at higher rates than non-graduates (Pascarella & Terenzini, 1991).

As families, they tend to take more vacations, visit more museums, participate in and attend more sporting events, and spend more on education. They marry later in life than the general public, tend to marry spouses with similar educational credentials, and plan their families. The children of graduates are also more likely to finish high school and to attend college and are less likely to have children out of wedlock (Pascarella & Terenzini, 1991).

In August of 2005, Senator Edward Kennedy (D-MA) noted:

“It won't be 'mission accomplished' on the economy until average Americans are secure in their jobs and can provide for their families.”^{xxxiii}

The facts are that the return on investment in adult education goes beyond money to promote:

- More capable parents raising children who are better able to learn and succeed;
- Healthier citizens, who are better able to work regularly and who place a lower burden on the nation's healthcare resources; and
- Lower correctional costs.

The fact is that better educated parents produce better educated children.^{xxxiv}

The more highly educated the parents, the greater the likelihood that their children will succeed in the K-12 school system, complete high school, go on to college, and achieve

higher levels of literacy as an adult.^{xxxv} And there is evidence that investments in the education of one low-income or welfare parent may influence the school achievement of one, two, or even more of the parent's children.^{xxxvi}

Education is also good for a person's health. Researchers at the Institute for Research on Poverty put together a review of the effect of non-market outcomes of education. They found strong evidence that a person increasing their level of schooling increases their health status.^{xxxvii}

According to the results of an American Medical Association Foundation/Pfizer study referenced by the Michigan Department of Labor and Economic Growth, individuals with low health literacy incur medical expenses that are up to four times greater than patients with adequate literacy skills, costing the health care system tens of billions of dollars every year for unnecessary doctor visits and hospital stays.

The effect of education on health also extends to family members and others. A positive association was demonstrated between an individual's level of schooling and the health status of the person's family, controlling for other factors.^{xxxviii} One of the most compelling findings was an empirical study by Michael Grossman that found schooling has a positive and statistically significant effect on current health, even when controlling for past health.^{xxxix}

Finally, prison inmates who attempt to earn GEDs or take postsecondary course work while in prison have lower rates of recidivism than other prisoners. This is significant, as 95 percent of the more than 2.3 million inmates incarcerated in the United States will eventually be released (Hughes and Wilson n.d.).

Low-skilled ex-cons face a labor market that increasingly requires postsecondary education degrees or certificates, and their very status as former inmates can undermine their ability to find and maintain a living-wage job (Bushway 1998).

Lacking the skills necessary to function successfully in society and on the job, many ex-offenders return to their criminal behavior. One study found that inmates were more likely to participate in programs if they believed their participation could help secure employment after release, and that inmates enrolled in such programs while incarcerated had a better chance of maintaining employment and earning slightly higher wages than non-participants.^{xi}

Anthony Carnevale, Director of the Georgetown University Center on Education and the Workforce, writes that:

“In an economy where good jobs require postsecondary education and training, the growing economic divide between those with and those

without postsecondary education and training will continue to widen, fostering intergenerational reproduction of economic and cultural elites inimical to our democratic ethos and our worthiness for leadership in the global contest of cultures.”^{xli}

Current federal adult education and workforce skills programs need to be better funded, but they also need to be redesigned and connected more effectively to state and local programs. We must have an integrated system of adult education and workforce development that serves millions of Americans in accessible, affordable, and accountable ways – on the job, online, and in the classroom.

The federal government, the states, the business community, the nonprofit sector, and the general public all need to be more aware of what is at stake, more committed, and more involved in the issue.

“[A] decade into the 21st Century, America faces a choice. We can invest in the basic education and skills of our workforce and remain competitive in today’s global economy, or we can continue to overlook the glaring evidence of a national crisis and move further down the path to decline.”^{xlii}

###

ⁱ MarketWatch, September 20, 2010 - <http://www.marketwatch.com/story/us-recession-ended-june-2009-nber-says-2010-09-20>

ⁱⁱ 9.2 percent, according to the [U.S. Bureau of Labor Statistics](http://www.bls.gov) – as of Apr 6, 2011

ⁱⁱⁱ Carnevale, Anthony P., Strohl, Jeff and Smith, Nicole, “Help Wanted: Postsecondary Education and Training Required,” Chapter 3 of *New Directions for Community Colleges*, no. 146, Summer 2009, p. 29.

^{iv} Nicholas Johnson, Phil Oliff, and Erica Williams, “An Update on State Budget Cuts: At Least 46 States Have Imposed Cuts That Hurt Vulnerable Residents and the Economy” (Washington: Center on Budget and Policy Priorities, 2010), available at <http://www.cbpp.org/cms/?fa=view&id=1214>.

^v Carnevale, Anthony P., Strohl, Jeff and Smith, Nicole, “Help Wanted: Postsecondary Education and Training Required,” Op. cit.

^{vi} Investment in Education: Private and Public Returns, Vice Chairman Jim Saxton (R-NJ), Joint Economic Committee, U.S. Congress, January, 2000, p. 11.

^{vii} U.S. Bureau of Labor Statistics: <http://www.bls.gov/news.release/empsit.t04.htm>.

^{viii} Reder, Stephen, Adult Literacy Development and Economic Growth, August 2010, National Institute for Literacy.

^{ix} Greenstone, Michael and Looney Adam, “June’s Employment Numbers Highlight America’s Increasingly Distressed Communities,” Brookings’ The Hamilton Project, July 19, 2010, http://www.brookings.edu/opinions/2010/0702_jobs_greenstone.aspx?p=1

^x Bureau of Labor Statistics 2009: <http://www.bls.gov/news.release/ecopro.nr0.htm>

^{xi} “Help Wanted: Postsecondary Education and Training Required,” Ibid.

^{xii} Funding Career Pathways and Career Pathway Bridges: A Federal Policy Toolkit for States, The Center for Postsecondary and Economic Success (CLASP), May 2010.

^{xiii} Georgetown University Center on Education and the Workforce, “Estimates of Education Demand to 2018” <http://cew.georgetown.edu/>

^{xiv} Adair Crosley and Brandon Roberts. *Strengthening State Policies to Increase the Education And Skills of Low-Wage Workers*. Working Poor Families Project. 2007.

^{xv} Bozell, M.R. and Goldberg, M, “Employers, Low-Income Young Adults and Post-Secondary Credentials: A Practical Typology for Business, Education and Community Leaders,” The Work Strategy Center, 2009

^{xvi} Alliance for Excellent Education Fact Sheet, October 2009.

^{xvii} Report of the National Commission on Adult Literacy, June, 2008 - Source: U.S. Census Bureau, 2006, American Community Survey (Public Use Microdata Samples); prepared by National Center for Higher Education Management Systems (NAHEMS). Unduplicated population = 88,003,964

^{xviii} Thirty million adult Americans score at “below basic” literacy level and another 63 million adults can only perform simple literacy tasks, according to the National Center on Education Statistics, National Assessment of Adult Literacy, (NAAL, 2003), U.S. Department of Education, 2005.

^{xix} James Mingle, Bruce Chaloux and Angela Birkes. “Investing Wisely in Adult Learning is Key to State Prosperity.” Southern Regional Education Board, Atlanta, 2005, pg. 1.

^{xx} www.ncsdae.org/2010%20Adult%20Education%20Waiting%20List%20Report.pdf

^{xxi} The Economic Impact of Secondary and Post-Secondary Career and Technical Education in Tennessee, Sparks BBER and The University of Memphis (2006)

^{xxii} Employment and Training Administration, U.S. Department of Labor, Workforce System Results, March 31, 2010.

^{xxiii} Employment and Training Administration, U.S. Department of Labor, Workforce System Results: April—June 2010.
http://www.doleta.gov/Performance/results/quarterly_report/June_30_2010/WSR_June_30_2010.pdf - page=1 Also see, Employment and Training Administration, U.S. Department of Labor, WIASRD Databook PY 2009, Tables II-37 and III-40.

^{xxiv} Brown, Emily Ann, “Study rates return on Investment of CTE programs, *Education Daily*, March 24, 2011.

^{xxv} www.tcsg.edu

^{xxvi} Andrew Sum, *The Fiscal Consequences of Adult Educational Attainment*, Center for Labor Market Studies, Northeastern University, for the National Commission on Adult Literacy, 2007, p. 41

<http://www.nationalcommissiononadulthoodliteracy.org/content/fiscalimpact.pdf>

^{xxvii} The Michigan State Department of Labor and Economic Growth Impact Report, *Workforce & Literacy*, 2005; source: *The Canadian Press*.

^{xxviii} <http://www.nevadaemployerhelp.com/2011/03/why-is-adult-education-important-to-the-nevada-workforce/>

^{xxix} “**Low** Skilled Workers and the Rhode Island Labor Market: The Role of Education Credentials” by John H. Tyler and Jillian Berk, December 2008

<http://www.ride.ri.gov/adulteducation/AdultEdGED/pdf/GEDfinal.pdf>

^{xxx} *The Economic Impact of Secondary and Post-Secondary Career and Technical Education in Tennessee*, Op. cit.

^{xxxi} Andrew Sum, op cit.

^{xxxii} *Reach Higher, American: Overcoming Crisis in the U.S. Workforce*, a Report of the National Commission on Adult Literacy, June, 2008.

^{xxxiii}

http://www.democraticunderground.com/discuss/duboard.php?az=view_all&address=132x1998278

^{xxxiv} Sticht, T. (1983, February). *Literacy and Human Resources Development at Work: Investing in the Education of Adults to Improve the Educability of Children*. Professional Paper 2-83. Alexandria, VA: Human Resources Research Organization (ERIC No. ED 262 2-1)

^{xxxv} Sticht, T. & Armstrong, W. (1994, February). *Adult Literacy in the United States: A Compendium of Quantitative Data and Interpretive Comments*, Washington, D.C.: National Institute for Literacy.

^{xxxvi} Van Fossen, S. & Sticht, T. (1991, July). *Teach the Mother and Reach the Child: Results of the Intergenerational Literacy Action Research Project of Wider Opportunities for Women*. Washington, D.C. : Wider Opportunities for Women.

^{xxxvii} Barbara Wolfe and Samuel Zuvekas, “Nonmarket Outcomes of Schooling,” Institute for Research on Poverty, Discussion Paper 1065-95 (May 1995), 3.

^{xxxviii} Ibid. Wolfe and Zuvekas, 1.

^{xxxix} Michael Grossman, “The Correlation Between Health and Schooling,” In Household Production and Consumption , ed. Nestor E. Terleckyj (New York, NY: National Bureau of Economic Research, 1976), 220.

^{xl} Stana, R. (1993). Federal prisons: Inmate and staff views on education and work training programs. Report to the Chairman, Select Committee on Narcotics Abuse and Control, U.S. House of Representatives. Washington, DC: U.S. General Accounting Office.

^{xli} Carnevale, Anthony, P., Strohl, Jeff and Smith, Nicole, Help Wanted: Postsecondary Education and Training Required, *New Directions for Community Colleges*, no. 146, Summer, 2009, p.30

^{xlii} *Reach Higher, American: Overcoming Crisis in the U.S. Workforce*, Op. cit.