

# Investing in America's Future: The Case for Higher Education

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Americans have been known for their optimism. Throughout history, citizens have envisioned the impossible and worked to make their dreams a reality. The 20<sup>th</sup> century witnessed many unique times when the nation's elected leaders engaged public resources to do "the impossible." Through these efforts, we built a great society at home and the world's most powerful nation in global affairs.

The generations of the 20<sup>th</sup> century used the public sector to invest in the nation's future. From the G.I. Bill to health care, from highways to rural electricity, the nation defined its future through the power of its vision. Today, the nation is challenged by the growth of knowledge-based competition abroad and the constraints of budget deficits at home. As we consider solutions for America, it would be wise for us to step back and consider federal investments of previous years—our significant national investments both in physical infrastructure and in human beings. When we consider the value of these investments in today's dollars, we recognize that America's future remains limited only by its vision and its willingness to nurture the brain power and the public-private partnerships necessary to transform our visions into reality. As a starting point for this discussion, consider that in 2005, federal appropriations for student aid – including grants for Pell and campus-based aid, as well as the federal cost of loan subsidies – was approximately \$27.9 billion.

## Investing in Higher Education

The U.S. Commission on National Security/21<sup>st</sup> Century, known as the Hart-Rudman Commission, described the public-sector investment challenge facing America today when it wrote, "The inadequacy of our system of research and education poses a greater threat to U.S. national security over the next quarter century than any potential conventional war." Today, America's competitive edge--based upon the emergence of a knowledge-based global economy--is at risk. China is graduating almost four million students per year from its colleges compared to the 1.3 million we graduate here at home. India has over twice the number of college graduates as the United States.<sup>1</sup>

Higher education's role in keeping America competitive is both fundamental and complex. We must equip an increasingly diverse population to meet constantly shifting demands for the new and advanced knowledge needed both to drive the economy and to solve social problems around the globe. America's historical leadership in postsecondary education now is challenged by the growth in the quality and size of the investments in education by several other countries. While the demands on us are greater, the public investment is not keeping pace. Consider the following:

- By 2015, the traditional college-age population will grow by 16 percent, and 80% percent of the new students will be non-white; nearly half of the growth will be among Hispanic students.<sup>2</sup>
- International students have accounted for 50 percent of U.S. graduate enrollment in engineering and 40 percent of the enrollment in the sciences. Yet trends suggest that more students are now studying at home or in other countries or are returning home after their education is complete.
- In the 1980-81 academic year, state and local governments provided half the revenue for public colleges and universities. By 1999-2000, only one-third of public institutions' revenues were provided by these same governments.<sup>3</sup>

1 "The Jobs Revolution;" Steve Gunderson et al, 2<sup>nd</sup> edition printed in 2005.

2 "Investing in People;" The Business-Higher Education Forum; from data supplied to them by Anthony Carnevale and Richard Fry.

3 "The Investment Payoff;" The Institute for Higher Education Policy; February 2005

Higher education no longer is, nor can it be, a privilege reserved for the nation's elite. Rather it is the foundation upon which every citizen individually, and the nation collectively, will determine success in the 21<sup>st</sup> century. Whether it be two-year programs in specific trades and professions, the comprehensive liberal arts degrees, or a new generation of academic research founded upon graduate education, higher education's ability to meet the demands for skills and knowledge will define America's future.

*Fortune* magazine Senior Editor Geoffrey Colvin, in a comprehensive article on America's ability to compete in the world, emphatically put this into perspective when he wrote, "the greatest challenge will be changing a culture that neither values education nor sacrifices the present for the future as much as it used to – or as much as our competitors do."<sup>4</sup>

## Investing in Our Future: An American Tradition

Throughout the nation's history, our leaders have invested in physical infrastructure (highways, hospitals, bridges, airports, parks) that helped individual lives and advanced our nation as a whole. They also have made significant direct investments in human infrastructure, in our educated human capital (several G.I. Bills, numerous War on Poverty programs). All of those investments were building blocks for our economic and social successes in past decades. For example, following the investments in the original Higher Education Act, by 1970 one of every four college students received financial aid under the act, and 34 percent of college-age young people in the U.S. were enrolled in college, compared with only 15 percent of college-age youths in 1950.<sup>5</sup>

Today, investing in the information highway and the brainpower needed to keep it evolving is akin to the investments of the past in traditional highways. When we look at the dollars spent in the past and update them to 2005 dollars, we see the magnitude of the commitment and sacrifices of the past. And more importantly, we see that nothing is too big, too expensive, or too difficult for Americans when we're committed to a common goal.

The following items are just a sample of America's heritage of investments in both physical and human infrastructure, but they provide a valuable perspective for the future.

- **The Works Progress Administration, 1935**

Few acts of government have made a larger investment of resources towards the greater public good than the Works Progress Administration. Created through Executive Order by President Roosevelt in 1935, it provided jobs and income to those harmed by the Great Depression. During its eight years of existence, the WPA spent \$11 billion constructing 651 thousand miles of roads, 124 thousand bridges, 125 thousand public buildings, 8 thousand parks, and 853 airport landing fields.<sup>6</sup>

**Investment in 2005 dollars: \$162 Billion**

- **The GI Bill, 1944**

While the WPA created physical infrastructure, an equally significant legacy—for roughly the same cost--resides in the first GI Bill, signed into law by President Roosevelt on June 22, 1944. Known officially as the "Servicemen's Readjustment Act of 1944," the program provided education or training to 7.8 million veterans between 1944 and 1956. Some 2.2 million attended college, 3.4 million attended other schools, 1.4 million engaged in on-the-job training, and 690,000 trained in agriculture. The total cost of the program was \$14.5 billion.<sup>7</sup>

**Investment in 2005 dollars: \$158 Billion**

4 "Can Americans Compete? Is America the world's 97 lb Weakling?" *Fortune Magazine*, July 20, 2005

5 *Flawed Giant: Lyndon Johnson and His Times, 1961-1973*, (New York: Oxford University Press, 1998)

6 [www.indiana.edu/~liblilly/wpa/wpa\\_info.html](http://www.indiana.edu/~liblilly/wpa/wpa_info.html)

7 [www.gibill.va.gov/education/GI\\_Bill.htm](http://www.gibill.va.gov/education/GI_Bill.htm)

- **Rural Electrification Administration, 1935, and Hoover Dam, 1936**

These two classic physical infrastructure projects spread electricity throughout large geographic areas previously unserved. Through an Executive Order, President Franklin Roosevelt created the Rural Electrification Administration on May 11, 1935, at a time when only 11% of farms had electricity. In 1936, Congress appropriated \$410 million for a 10-year integrated program for electrifying American farms. Today, 98.7% of all farms in America have access to electricity.<sup>8</sup> Also at the height of the Depression, the creation of the Hoover Dam represented one of the largest domestic infrastructure projects of its time. More than 8,000 workers began laboring in 1931 to tame the Colorado River. After creating diversion tunnels to channel the river's water, the dam was created for the development of hydroelectric power at a cost of \$165 million.<sup>9</sup>

**REA Investment in 2005 dollars: \$5.6 Billion; Hoover Dam in 2005 dollars: \$2.3 Billion**

- **National Defense Education Act, 1958**

At another time of national difficulty, Congress passed the National Defense Education Act in 1958 in response to the Soviet Union's launching of Sputnik and the beginning of space exploration. This scientific achievement by the Soviets broke a Congressional stalemate over the appropriate federal role in supporting education. A total of \$575 million was authorized for research, construction of laboratories, and graduate education scholarships aimed at increasing America's science and technology workforce.<sup>10</sup>

**Investment in 2005 dollars: \$3.9 Billion**

- **Hill-Burton Act, 1946**

Sponsored by Senators Lister Hill and Harold Burton, the legislation aimed at updating health care facilities that had become obsolete between the Great Depression and World War II. Since 1946, over \$4.6 billion in grants and \$1.5 billion in loans have aided nearly 6,800 health care facilities in more than 4,000 communities.<sup>11</sup>

**Investment in 2005 dollars: \$60 Billion**

- **The Korean GI Bill, 1952**

Just a few years later and following another war came another significant investment in human capital. The Korean GI Bill provided education and training benefits to veterans who served in the military between 1950 and 1955. The program provided education to 1.2 million veterans attending college and 1.2 million in other training programs. The total cost was \$4.5 billion when the program ended in January 1965.<sup>12</sup>

**Investment in 2005 dollars: \$33 Billion**

- **The War on Poverty, 1964**

About a decade later, American leaders ushered in a new chapter in our development of human capital. Shortly before his assassination, President Kennedy had asked his advisors to craft proposals to address the problem of American poverty. President Johnson continued this call in his first State of the Union message. The resulting Economic Opportunity Act of 1964 included a variety of initiatives such as Head Start, the Job Corps, Work-Study programs for college students, VISTA, the Neighborhood Youth Corps, basic and adult education programs, and Community Action Agencies. The initial appropriation in 1964 was \$1 billion, growing to \$2 billion in 1965 and 1966. The final appropriation in 1967 was \$4 billion.<sup>13</sup>

**Investment in 2005 dollars: \$53 Billion**

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8 [WWW.usda.gov/rus/electric/ex-order.htm](http://WWW.usda.gov/rus/electric/ex-order.htm); and <http://newdeal.feri.org/tva/cooke.htm>

9 [www.pbs.org/wgbh/buildingbig/wonder/structure/hoover.html](http://www.pbs.org/wgbh/buildingbig/wonder/structure/hoover.html)

10 [http://en.wikipedia.org/wiki/National\\_Defense\\_Education\\_Act](http://en.wikipedia.org/wiki/National_Defense_Education_Act)

11 [www.hrsa.gov/osp/dfcr/about/aboutdiv.htm](http://www.hrsa.gov/osp/dfcr/about/aboutdiv.htm)

12 [www.gibill.va.gov/education/GI\\_Bill.htm](http://www.gibill.va.gov/education/GI_Bill.htm)

13 <http://us.history.wisc.edu/hist102/lectures/lecture27.html>; and [www.answers.com/topic/great-society](http://www.answers.com/topic/great-society).

- **The Federal Aid Highway Acts of 1954 and 1956**

Perhaps still the most recognizable of U.S. investments in physical infrastructure are the interstate highways. The Highway Act of 1954 set aside \$175 million for the Interstate Highway System. Quickly realizing this was woefully inadequate, Congress, under prodding from President Eisenhower, approved the 1956 Federal Aid Highway Act, authorizing a budget of \$25 billion. This legislation called for the creation of 41,012 miles of roadway. Since then, the system has been expanded to 46,380 miles of interstates.<sup>14</sup>

**Investment in 2005 dollars: \$177 Billion**

- **Vietnam Era GI Bill, 1966**

The Veterans Readjustment Benefits Act of 1966 continued the line of investment in educational benefits tied to military service, covering all veterans from the end of the Korean conflict (February 1, 1955) to the end of the Vietnam War (August 5, 1964). This program assisted 8.2 million veterans and service members with education and training. A total of 5.1 million attended college, 2.5 million attended other schools, and just over 600,000 received on-the-job or agricultural training. The total cost of this educational support was \$42 billion.<sup>15</sup>

**Investment in 2005 dollars: \$248 Billion**

## The Challenge Ahead

While no one can realistically suggest that, at least in the short term, public sector budgets will provide for the magnitude of investments we've made in the past, the message remains clear. At no time since America decided to provide universal public education has its investment in education been more important than it is now to the future of our citizenry—individually and collectively. We need to begin a serious conversation about future public investment in higher education that is grounded in recognition of our past stunning commitments and the multitude of benefits that we continue to reap from them.

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<sup>14</sup> [www.Fortune.com/fortune/sub/article/o.15114.574088.00.html](http://www.Fortune.com/fortune/sub/article/o.15114.574088.00.html); and Ricco Villanueva Slasoco, "Red, White, and Blue Highways – the Story of the U.S. Interstate," [www.infoplease.com/sppot/interstate1.html](http://www.infoplease.com/sppot/interstate1.html)

<sup>15</sup> [www.gibill.va.gov/education/GI\\_Bill.htm](http://www.gibill.va.gov/education/GI_Bill.htm)