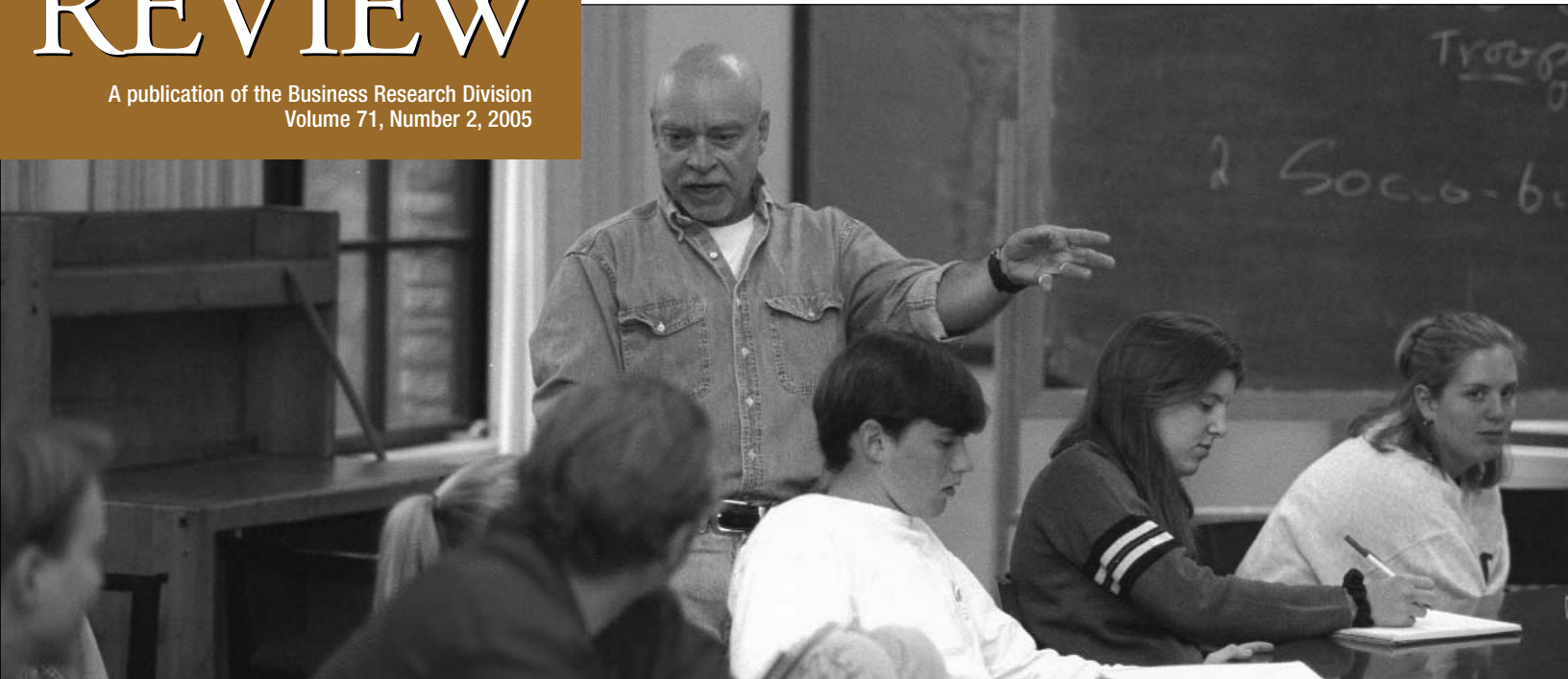


# COLORADO BUSINESS REVIEW

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**Inside:** **Developing Colorado's Future Workforce** on this page. **Economic Benefits of Education** starts on page 2. **Economic Impacts of CU and Fort Lewis College** on pages 3 and 5. **Colorado's Community Colleges** on page 4.



Dennis Van Gerven, professor of anthropology and director of the honors program, teaches a class for the Farrand Residents Academic Program at CU-Boulder.

## Colorado's Future Workforce—Building the Pipeline to Success

Debbie Woodward

Between the downturn in the economy and the steep competition from other states and nations offering attractive incentive packages, Colorado has suffered incredible job loss in the past three years. During 2002 and 2003, Colorado lost approximately 80,000 jobs statewide, of which 69,000 were in the metro area. It will take the state years to recover. On a positive note, over the past couple of years Colorado has taken great strides in aligning its collaborative efforts between the economic development community, workforce development centers, educational institutions (K–12 and higher education), state leadership, and the business community to support economic development efforts. It has also made good progress in building an educated workforce to support the business community.

Colorado can no longer rely on its incredible quality of life to attract and retain businesses in our state. A fundamental shift has occurred in

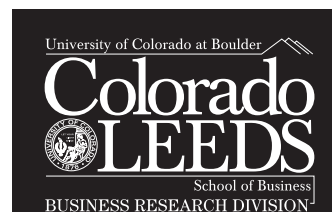
building the landscape and infrastructure necessary to grow a strong economy. Our knowledge-based economy is now focused on brain power, capital, research, innovation, and entrepreneurship. According to Professor Richard Florida, author of *The Rise of the Creative Class*, our future economy will be based on the essential three “Ts”—talent, technology, and tolerance. Ten years ago, businesses made site selection decisions based on location-location-location. Today, businesses make these same decisions based on labor-labor-labor. A trained workforce has become essential.

Despite the recent recession, Colorado maintains some of the highest national competitive rankings, especially for doing business in the high-tech arena. The state

- Ranks first in the nation in the concentration of high-tech workers (American Electronics Association)

- Ranks second in the percentage of the population with a college degree or higher (U.S. Census Bureau)
- Ranks second in the State Science & Technology Index (Milken Institute)
- Ranks third in the New Economy Index (Milken Institute)
- Ranks fourth in the list of most Tax Friendly States (Tax Foundation)

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Think Broadly.  
Act Boldly.



# The Economic Benefits of Education

Gary Horvath and Brendan Hickey

## From the Editor

As the global economy becomes more knowledge based, a well-trained and highly educated workforce is a critical business asset. This issue of the *Colorado Business Review* examines the impact of education on Colorado's economy, both in terms of training and as an economic engine. It focuses primarily on higher education; space constraints prevent us from fully recognizing the contribution of K-12 education. With that in mind, we have compiled an overview of the role of education in the state economy (this page). Another view is provided by Debbie Woodward, who examines the subject from an economic development perspective (page 1). Doug Hawk provides insight into the role played by community colleges (page 4). Finally, we present summaries of the economic impact of the state's largest university system, CU (page 3), and Fort Lewis College, a small liberal arts college located in Durango (page 5).

—Richard L. Wobbekind

A well-developed educational infrastructure is a necessary component of any society. In Colorado, the major byproduct of this infrastructure—a well-trained and highly educated workforce—is one of the state's most marketable business assets. By serving as a mechanism for training and educating the workforce, a quality educational system supports and fosters growth of all current and emerging industries. Additionally, it is important to realize that education is more than purely an infrastructure component that supports the economy; it is also an industry in and of itself. Colorado's K-12 schools and higher education institutions provide a significant portion of the state's employment and wages.

Education in Colorado can essentially be divided into the following five major areas: public K-12, private K-12, public higher education, private higher education, and other education. The "other" category includes schools and training centers that do not offer high school diplomas or academic degrees. Examples include business and secretarial schools, cosmetology and barber schools, flight training schools, sports camps, tutoring services, and driving schools.

## Enrollment Statistics

In 2003, total enrollment in the Colorado educational system (including all public and private K-12 and higher education) was nearly 1.1 million students. To put this into context, the population of the state of Colorado was roughly 4.5 million in 2003. The majority of these students, nearly 820,000, attended K-12 schools. Enrollment in the state's K-12 public school districts was 757,668. An additional 61,943 pupils attended private K-12 schools. Higher education enrollment totaled approximately 274,135. Of this, the majority attended public colleges and universities, with the CU and CSU systems the dominant institutions. Table 1 (see page 6) shows the composition of total education enrollment in Colorado in 2003.

Within the category of public higher education, enrollment can be further broken down based on the level of studies and the residency classification of the student. Overall, 85,687 students were enrolled at two-year public colleges in 2003. Of these, 94% were classified as in-state students. A total of 110,278 undergraduate students, 84% of whom were in-state, were enrolled at four-year colleges and universities. Additionally, 22,375 students were in graduate-level programs, 81% of whom qualified for in-state tuition. It should be noted that graduate-level programs include

everything from MBA programs to the state's highly regarded programs for doctors, dentists, and veterinarians.

## Completion Statistics

In 2003, public high schools in Colorado awarded 42,379 diplomas. An additional 710 students received high school equivalency completion diplomas. The state's public higher education institutions awarded:

- 7,251 certificates
- 6,728 associate degrees
- 21,550 baccalaureate degrees
- 6,684 master's degrees
- 108 specialist degrees
- 544 first professional degrees
- 818 doctorates

## Employment and Wages

In order to provide future workers with the training and knowledge they need to enter the workforce, Colorado's educational system requires a workforce of its own. For the purpose of analyzing employment figures, the Colorado Department of Labor and Employment's ES202 employment and wage data series was used. This data series categorizes establishments into industries based on the North American Industrial Classification System (NAICS), which defines the education industry as NAICS Sector 61—Educational Services. Other studies may use different definitions when describing the industry.

According to ES202 data, a total of 173,202 Coloradans were employed in the Education Sector in 2003, representing more than 8% of total Colorado employment. More people are employed in Education than in Manufacturing or Construction. In fact, behind Retail Trade, Accommodations and Food Services, and Health Care and Social Assistance, Education is the fourth largest sector in the state. Wages in the Education Sector totaled nearly \$5.8 billion, or 7% of total state wages. The majority of employment in this sector comes from public K-12 schools. In 2003, the state's public elementary and secondary education system employed 112,831 workers who earned wages of approximately \$3.6 billion. An additional 4,094 people were employed by private K-12 schools, and earned \$110 million. In total, K-12 education employed a total of 116,925 workers. Employment at institutions of higher education is also significant. Public

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# The Economic Impact of the University of Colorado



A recent study conducted by the President's Office at the University of Colorado attempted to measure the economic impact the university has on the state of Colorado. The following article provides a summary of that study.

Essentially, the economic impact of the university can be divided into two areas: demand-side effects and supply-side effects.

## Expenditure and Job Creation Demand-Side Effects

The demand-side benefits that CU provides result from the various goods and services that the university and its employees, students, and visitors purchase locally. These effects are generally quantifiable.

The first major demand-side effect is in the form of expenditures. It was estimated that in fiscal year 2004, the University of Colorado System spent \$1.28 billion in Colorado. In addition, CU students spent locally an estimated \$736.7 million, and visitors an additional \$71.8 million, which brings total CU-related expenditures in Colorado to more than \$2.08 billion. Through the multiplier process, it is estimated that these expenditures resulted in a total contribution to Colorado gross state product (GSP) of \$4.03 billion. Total FY04 state unrestricted general fund appropriations for CU were \$155.2 million. This means that CU generated about \$26 in GSP for every \$1 of appropriations.

Another demand-side effect of CU is job creation. According to the study, the University of Colorado System employed nearly 24,000 people directly in October 2004. Furthermore, the demand for goods and services by CU and its workforce created an estimated 18,697 jobs indirectly. The total employment impact of the university is then calculated at nearly 42,500, roughly 2% of the total state workforce. In fact, behind the state and federal governments and the armed forces, CU is the fourth largest employer in the state of Colorado.

## Supply-Side Benefits

CU also adds supply-side benefits, based on the numerous resources provided by the university, which considerably increase the economic prosperity of Colorado. The supply of research and development (R&D) and its resulting technology, along with the supply of highly educated labor force participants, definitely provide real benefits to the state. Unfortunately, these effects

are less quantifiable than their demand-side counterparts.

In a 2002 report for the Small Business Administration (SBA), BJK Associates found a significant relationship between university R&D expenditures and the economic growth of surrounding communities. The study results indicate that this R&D increased the rate at which new, innovative firms were formed. These fast-growing firms, or "gazelles," quickly contribute to the local economy. Through the years, CU faculty and students have consistently demonstrated the ability to attract significant federal

supported directly by CU and the state's other higher education institutes, which provided the necessary highly skilled workforce, along with technical expertise and assistance. Aerospace is another industry that has experienced major growth in Colorado as a result of the university. CU is an acknowledged leader in aerospace and aeronautics research, which has led to the development of a thriving local cluster of aerospace companies.

Looking ahead, a similar growth process is taking place in the field of bioscience. CU technology has already contributed in this area, most

**FOR DECADES, CU HAS BEEN PROVIDING INVALUABLE BENEFITS TO THE COLORADO ECONOMY AND POPULATION. CLEARLY, CU HAS, AND WILL CONTINUE TO BE, A SOUND INVESTMENT IN COLORADO.**


funding for R&D purposes. In fact, in FY 2002, CU's federal R&D expenditures totaled more than \$340 million, which ranked sixth in the nation among public universities.

Through the university's Technology Transfer Office (TTO), this R&D is commercialized, ultimately reaching the public. Presently, CU has more than 250 U.S. and foreign patents in a variety of areas. In the field of biomedicine, 2 CU-created drugs have won FDA approval, and an additional 11 are currently undergoing clinical trials. This technology transfer also plays a vital role from an economic development standpoint. Not only does the presence of a major research institute support existing Colorado companies and attract out-of-state companies to the area, but it also leads to the creation of new businesses. In fact, since 1998 more than 40 Colorado companies have been spawned by CU technology, of which 38 remain operational today.

The development of new technology at CU also has a positive benefit on the overall economy of Colorado—one of diversification and long-term stabilization. Over the last 20 years, Colorado's economy has evolved from an agricultural and mining-based economy to one that is information-based. While retaining significant mining and agricultural industries, the state has also witnessed the development of new information technology industries, particularly in the area of data storage. This high-tech growth was

notably through the Nobel-prize winning research on catalytic RNA and the development of licensed pharmaceuticals commercialized by Amgen, Pfizer, and others. The university's development of the Fitzsimons campus into the Health Sciences Center is the next major step toward turning Colorado into one of the nation's leading biotech states. Through continued university support and research activity, this industry will continue to grow, resulting in a more well-balanced economy for Colorado. The more diverse the state's economy, the more resistant it will be to economic setbacks.

In addition to these demand- and supply-side effects, the University of Colorado provides a number of other less tangible benefits to the state. Clearly, the social benefits of having a more highly educated population are innumerable; however, they are generally difficult to quantify. Likewise, there are many organizations in Colorado with ties to CU. Among these are Colorado's federal labs (NIST, NOAA, NCAR, and NREL), the Colorado Bioscience Park Aurora, the Allied Health Program, the Colorado School of Public Health, and the Coleman Institute.

For decades, CU has been providing invaluable benefits to the Colorado economy and population. Looking forward, the potential of future benefits appears limitless. Clearly, CU has, and will continue to be, a sound investment in Colorado. 

# Community Colleges: Local Community Catalysts

Doug Hawk

Colorado's community colleges were borne of need. Eighty years ago, a group of determined citizens in Trinidad lobbied their legislators for a college and were successful. Over the ensuing years, their efforts spawned similar campaigns in Pueblo, Lamar, La Junta, Sterling, and Rangely. By the mid-60s, as baby boomers began graduating from high school, the need for two-year institutions in Denver became apparent and Arapahoe Community College was created. This was followed by the Community College of Denver (CCD) system, which was later broken up to form CCD, Front Range Community College, and Red Rocks Community College. It was that same need that created community

TODAY, THE COLORADO COMMUNITY COLLEGE SYSTEM ENROLLS MORE THAN 117,500 STUDENTS ACROSS THE STATE.

colleges in Colorado Springs and Fort Morgan in the late 60s and in Aurora in the early 70s.

The colleges were not created because a community needed a new employer or consumer of local goods and services; they were established to help enhance the future of the community's children and afford them access to higher education that might otherwise be denied by geography and money. More likely than not, attending a four-year institution meant living on a campus—an expense many could not afford then and cannot afford now.

That core need has not changed since Trinidad State enrolled its first 37 students in classes held in Trinidad High School at \$25 a quarter.

Today, the Colorado Community College System (CCCS) enrolls more than 117,500 students across the state. More than half these students hold jobs, and a number raise families. For comparison's sake, this 117,500 figure, which includes many part-time students, equates to a full-time equivalent enrollment of 46,573 students, making CCCS the largest system of higher education in Colorado.


As open-access institutions, community colleges take all comers. They are not interested in where a person has been, but where they want to go, and to that end, classes are kept small, and instructors are hired to teach and only to teach.

Many are traditional students who stay at home while they complete their first two years of core courses before transferring to a four-year college or university. Others seek an associate degree or certification that will

immediately help them access a promising career field. Many enroll in career and technical education programs and some return to sharpen skills or learn new ones. Frequently, people enroll for a specific course, perhaps to learn a new software application or take a business class important to their job. And a few enter in need of remedial education, which usually involves honing their reading, writing, or mathematical skills. It is worth noting that research has repeatedly shown that once a student completes remediation, they succeed every bit as well as other students and, similarly, it has been shown that community college students transferring to four-year institutions do as well as or better than native students.

The student body of community colleges is diverse. In total, CCCS has a 27% minority enrollment. This mirrors the state's demographics; minorities comprise 26% of Colorado's population. Moreover, nearly half of the state's minorities who are enrolled in higher education attend a community college. Additionally, 59% of community college enrollment is female, and the average student age is 29.

While the core mission of community colleges is to educate this diverse, burgeoning populace, they also function as economic engines in their service areas, helping local business and industry, municipalities, and public service institutions recruit and train needed workers. Often a business or industry will relocate to a community precisely because there is a two-year college that can assist in developing a workforce. In other instances, businesses turn to colleges to retrain workers during a transitional phase. Obviously, education and training impact workers' incomes. The more skills individuals bring to the table, the better their earning potential.

In short, all 13 of the schools in the CCCS serve as local catalysts for economic development that benefit both the community and the students. Yet, while their primary mission is education and economic development, the schools are far more than that; they are a focal point of their service area, a repository of knowledge, a promise of opportunity, and a doorway into a brighter future. Community colleges are exactly what their name implies: colleges for their communities. 

**Doug Hawk is manager of communications for the Colorado Community College System. He can be reached at [Doug.Hawk@cccs.edu](mailto:Doug.Hawk@cccs.edu).**



# The Economic Impact of Fort Lewis College

Deborah Walker and Megan Klocek

Fort Lewis College is a state-assisted, exclusively undergraduate liberal arts institution, with professional programs in business and education. The college offers 26 degree programs in the School of Arts, Humanities, and Social Sciences; the School of Natural and Behavioral Sciences; and the School of Business Administration. During the 2003–04 fall trimester, 4,182 students were enrolled. The college expects gradual growth during the next five to six years until it reaches a maximum enrollment of 5,000 full-time-equivalent (FTE) students. Total FTE employment at the college was 503 for the 2003–04 school year.

Fort Lewis is located in Durango, the largest city in La Plata County. The total county's estimated population in 2004 was 47,494. The economy is heavily concentrated in the services, retail trade, and government sectors, and the tourism industry plays a large role. As a result, the economy tends to be highly seasonal in nature, with the strongest activity occurring during the summer months.

## Four Primary Benefits

Essentially, Fort Lewis College provides four main types of benefits to the local community: regional economic, student, social, and taxpayer.

### Regional Economic

Fort Lewis College has a number of major impacts on the economy of La Plata County. The first measurable benefit it provides comes in the form of spending. Expenditures at the college can be divided into three major categories: spending by the college itself, spending by the employees of the college, and spending by the students at the college. In fiscal year 2003–04, local budgetary expenditures by Fort Lewis College totaled approximately \$27.1 million (excluding salaries, noncash items, and scholarships). The college's employees spent another \$10.1 million in La Plata County. Students at Fort Lewis spent an additional \$30.2 million locally. This combines for total direct expenditures of \$67.4 million. Assuming a spending multiplier of 1.5 for the college, the total economic impact of Fort Lewis on La Plata County is \$101.1 million. That figure is roughly 7.6% of total 2002 personal income in the county.

In addition to spending impacts, the college is also a major employer in the county. In 2003–04 the college directly employed 503 FTE employees. It is estimated that an additional 2,581 jobs in La Plata can be attributed to the presence of the college. In total, Fort Lewis College added 3,084 jobs, which made up approximately 12% of total county employment during 2003.

A final economic benefit of Fort Lewis College is that of stabilization. The college acts as a force for

long-term stability in the local economy through its continuing presence and gradual increase in expenditures. Moreover, the college provides much needed short-term, or seasonal, stability. With students residing in the community from September through April, the effect of the seasonal decline in the local economy during this tourism "off-season" is moderated.

### Student

In addition to the economic benefits Fort Lewis College provides to the region, the college also offers an obvious and significant benefit to its students. The benefits of obtaining a higher education include, but are certainly not limited to, increased earning power and important social development.


IN FISCAL YEAR 2003–04, LOCAL BUDGETARY EXPENDITURES BY FORT LEWIS COLLEGE TOTALED APPROXIMATELY \$27.1 MILLION (EXCLUDING SALARIES, NONCASH ITEMS, AND SCHOLARSHIPS).

### Social

An often overlooked impact provided by a college or university is its social benefit to a local community. The presence of a college in a community makes it possible for more La Plata County citizens to obtain a college degree. This translates into a better quality of life and a more educated workforce in the community.

### Taxpayer

Finally, Fort Lewis College benefits local taxpayers. The college increases sales tax revenues through student and college spending, and also boosts income tax revenues through the higher earnings of an educated workforce. This increased tax revenue flows back to the citizens in the form of improved and added community services and amenities.

Fort Lewis College is a vitally important component of the local economy and community in La Plata County. The numerous benefits it provides are expected to continue to grow in the foreseeable future. 

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**TABLE 1**  
**2003 COLORADO EDUCATION**  
**ENROLLMENT STATISTICS**

<b>Educational Category</b>	<b>Number of Enrolled Students</b>
<b>K-12</b>	
Public K-12	757,668
Private K-12	61,943
<b>Total K-12</b>	<b>819,611</b>
<b>Higher Education</b>	
CU	52,910
CSU	29,572
Other Four-Year Metro Area	40,908
Other Four-Year Rural Area	9,263
Two-Year Community College Metro Area	66,766
Two-Year Community College Rural Area	18,921
<b>Total Public Higher Education</b>	<b>218,340</b>
<b>Private Higher Education</b>	<b>55,795</b>
<b>Total Higher Education</b>	<b>274,135</b>
<b>Total Education</b>	<b>1,093,746</b>

colleges and universities throughout the state employed 37,489 workers and paid \$1.5 billion in wages. Private colleges and universities employed an additional 7,439 workers who earned \$248.5 million. In total, higher education employed nearly 45,000. The remaining 11,349 education workers were employed at one of the “other” education entities mentioned earlier.

While the education industry is clearly a major part of the Colorado economy, its importance is even greater in many other states. A useful calculation for comparing industry compositions of a local area to the U.S. average is a location quotient. A location quotient is essentially a measure of the relative concentration of an industry. A value greater than 1 implies higher than average concentration; a value less than 1 implies lower than average concentration. In Colorado, education makes up 8.2% of total employment; nationally, this percentage is 8.8%. Therefore, the employment location quotient for education in Colorado is 0.93 (8.2%/8.8%), meaning that education is less heavily concentrated in Colorado than in the nation as a

whole. A similar calculation reveals that the employment location quotient for K-12 education in Colorado is 0.92, and for higher education it is 0.86.

Despite the relatively low employment concentration, education has and will continue to play a major role in the Colorado economy. K-12 education opportunities exist in each of the state’s 64 counties. In many of the smaller, rural counties, the public school district is the single largest employer. Higher education institutions or their branches exist in 28 counties throughout the state. According to the Colorado Commission on Higher Education (CCHE), there are 12 public four-year universities or colleges, 22 public two-year colleges, and 45 accredited private higher education institutions in the state. Table 2 shows the employment and wages at Colorado higher education institutions. The majority of the higher education employment in the state is with the University of Colorado (CU) and Colorado State University (CSU) systems, along with other metro area colleges and universities.

As a major employer, higher education is critical to the local communities where the institutions are located. In fact, often times a county’s college or university will be one of its largest employers. In Alamosa County, Adams State College is larger than any private employer. Likewise, CU and CSU are larger than all private employers in Boulder and Larimer Counties, respectively. United Airlines is the only Denver County private company that employs more workers than CU-Denver. In the counties of Garfield (Colorado Mountain College), Lake (Colorado Mountain College), La Plata (Fort Lewis College), Logan (Northeastern Junior College), and Otero (Otero Junior College), only local hospitals employ more people than the university or college. In Las Animas County, Trinidad State Junior College would be the second largest private employer behind Wal-Mart, and in Rio Blanco the only private company with more employees than Colorado Northwestern Community College is Blue Mountain Energy (which operates the Deserado Mine).

**Spending**

On top of educating, training, and employing significant portions of Colorado’s population, the state’s institutions of higher education also provide a number of additional economic and social benefits. One of the most easily measured

benefits is spending. Student spending supports local businesses, and also generates significant sales tax revenue. Several studies have been conducted in Colorado to measure the impact of student spending on a local community. A 1999 study conducted by the Economic Strategy Center of Atlanta, Georgia, estimated that the average student at Mesa State College spent roughly \$880 per month locally. This translated into a total direct impact on the local economy of approximately \$38.7 million that year. Furthermore, it was estimated that campus visitor spending infused an additional \$6.7 million into the area. A more recent study, conducted at Fort Lewis College in Durango, yielded similarly impressive spending impacts. The study estimated that Fort Lewis students, in total, spent more than \$30 million locally in FY 2003–04. Another study, recently completed at the University of Colorado, projected that CU students spent nearly \$737 million in Colorado in FY 2004. The students' out-of-state visitors were estimated to have spent an additional \$72 million.

### Technology Transfer

From a technical standpoint, university-conducted research and development supports and fosters growth among existing companies in high-tech sectors. A major research university is also a tremendous draw in attracting potential businesses to an area. Moreover, the entrepreneurial spirit that the university spawns leads to the creation of new small businesses. Examples of these types of benefits include the strong bio-med and bio-ag clusters in Fort Collins. These arose largely as a result of research and development conducted at CSU's agricultural and veterinarian schools. Similarly, research and development at CU has led to significant growth in the data storage, biotech, nano-tech, aerospace, and photonics clusters in the Boulder and Denver metro areas. It should be noted that these technology benefits are not limited to major research universities. Many of the state's local small business development centers (SBDCs) are housed within community colleges. Combining the college's resources with an SBDC has proven quite successful in helping Colorado entrepreneurs get their businesses up and running.

### Intangible Benefits

Higher education's enrollment, employment, and spending impacts can be measured fairly

**TABLE 2**  
**2003 COLORADO EDUCATION EMPLOYMENT STATISTICS**

	Employment	Percentage of Total Education	Wages (In Millions of Dollars)	Percentage of Total Education	Average Annual Wages
Public K–12	112,831	65.1%	\$3,585.8	62.3%	\$31,780
Private K–12	4,094	2.4	110.0	1.9	26,873
<b>Total K–12</b>	<b>116,925</b>	<b>67.5</b>	<b>3,695.8</b>	<b>64.2</b>	<b>31,608</b>
Public Higher Education	37,489	21.6	1,490.7	25.9	39,764
Private Higher Education	7,439	4.3	248.5	4.3	33,404
<b>Total Higher Education</b>	<b>44,928</b>	<b>25.9</b>	<b>1,739.2</b>	<b>30.2</b>	<b>38,711</b>
Other Education	11,349	6.6	324.8	5.6	28,621
<b>Total Education</b>	<b>173,202</b>		<b>\$5,759.8</b>		<b>\$33,255</b>

easily. However, a number of intangible benefits must not be overlooked when considering the total value of higher education to a community. In rural counties, the local schools often serve as focal points for community activity and are used for area sporting events, as well as local meetings or other functions. The presence of a college or university can also often provide cultural and social benefits that enrich a local community. The art, music, theatre, literature, diverse people and beliefs, and spirit of intellectual debate that often accompany higher education and learning create a vibrant culture in college towns.

This vibrant culture, combined with higher education's economic impacts to local communities, provide important benefits to the citizens of Colorado. ☺

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## COLORADO'S FUTURE WORKFORCE,

CONTINUED FROM PAGE 1

Although Colorado ranks number one in the nation in the concentration of high-tech workers, the reality is we are importing a large majority of this highly educated workforce from outside the state. Additionally, we are no longer just competing for businesses and new jobs nationally, but globally. It all comes back to supply and demand. If Colorado cannot supply the workforce to meet the demand of our businesses, companies may look at other parts of the country, or world, to relocate, or they will be forced to recruit workers from out of state.

According to Richard Karlgaard, publisher of *Forbes Magazine*, China is graduating 600,000 engineers annually, compared to only 150,000 in the United States. Of these, 75,000 are immigrants. Colorado has a great demand for engineers, and many of our high-tech companies, such as Ball Aerospace, Lockheed Martin, Raytheon, and many others, have to recruit outside the state and country to find workers. Additionally, we will be experiencing a major exodus of retiring

baby boomers leaving the high-tech business community over the next decade, which emphasizes the critical need to invest in our educational system at all levels, including K-12 schools, research universities, and community colleges, and in our future workforce.

Our economic success will be based on the dedication and strength of our greatest asset—human capital. It is imperative that we understand the importance of education to our future economic vitality, and that we devote the necessary financial resources and programs to build Colorado's infrastructure and pipeline through educating and developing our human creativity and human capital in Colorado. ☎

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## EDUCATION AND EDUCATIONAL POLICY WEB SITES

### Colorado

- Colorado Commission on Higher Education—  
[http://www.state.co.us/cche\\_dir/heccche.html](http://www.state.co.us/cche_dir/heccche.html)
- Workforce Colorado—<http://www.state.co.us/syc/>
- Colorado Department of Education—  
[http://www.cde.state.co.us/index\\_home.htm](http://www.cde.state.co.us/index_home.htm)

### Regional

- Western Interstate Commission for Higher Education—<http://www.wiche.edu>

### United States

- U.S. Department of Education—  
<http://www.ed.gov/index.jhtml>
- Bureau of Labor Statistics—<http://www.bls.gov>
- U.S. Census Bureau—<http://www.census.gov>
- Institute for Higher Education Policy—  
<http://www.ihep.com>
- Education Commission of the States—  
<http://www.ecs.org>

### International

- Organisation for Economic Co-operation and Development, Education and Skills—  
<http://www.oecd.org>