



THE HIGH COST OF NOT GRADUATING HIGH SCHOOL

Coloradans lose more than \$3.4 billion each year in potential earnings

“A strong economy begins with a strong, well-educated workforce. The only path to opportunity for every Coloradan travels through a quality school system.”

- Bill Owens, Colorado Governor¹

“The value in economic development is directly proportional to the education level of the workforce.”

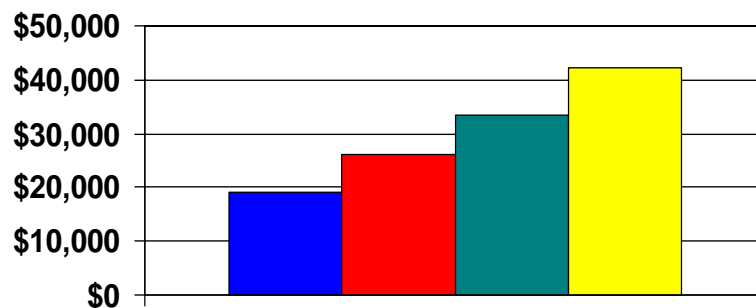
- Ray Kolibaba, Raytheon Vice President of Space Systems in Colorado²

Colorado’s business, community, and education leaders agree that our state needs to be economically competitive in the national and global marketplace. In order for this to happen, every high school student in Colorado must have the opportunity to earn a high school diploma. And yet Colorado’s students are in crisis: nearly a third of our high school students do not graduate within four years and many of those who fail to graduate on time never finish at all.³

The high school crisis exacts a huge cost on individuals, families, local communities, and the state as a whole. Using conservative assumptions, the failure of Colorado’s residents to finish high school is costing our state at least 3.4 billion dollars each year in lost earning potential.⁴ Colorado now ranks 30th nationwide in high school graduation rate.⁵ But if Colorado could increase its graduation rate to 90 percent,⁶ this could increase the annual earning power of each year’s graduating class by \$75 million a year.⁷

This is clearly both a national and state crisis. But most of the costs impact our local economies and solutions will come from these communities. In this policy brief, we use state data on graduation rates and income to estimate lost earning power for 30 of Colorado’s largest school districts.⁸

Earnings Based on Annual Income Level



■ High School Non-Graduate	■ High School Graduate
■ Associate's Degree	■ Bachelor's Degree

For those who fail to graduate, the losses are enormous, including reduced income levels, higher unemployment rates, and lost opportunity for continued employment. For the local and state economies, the losses are also enormous – failure to graduate means reduced buying power, loss of revenues to local businesses, lower tax revenues, increased costs in governmental supports, and the need to import additional high-skilled workers to fill job vacancies. Over the course of a lifetime, the loss in earning potential



between a high school dropout and a student who goes on to finish college is \$1.1 million.⁹ A high school graduate earns on average \$26,200, while a person who fails to complete high school can expect to earn only \$19,000 a year.¹⁰ That means that not finishing high school costs each student at least \$7,200 in potential annual earnings. The actual figure is probably higher, as many who could finish high school would later go on for additional education and training, increasing their earning potential even more.

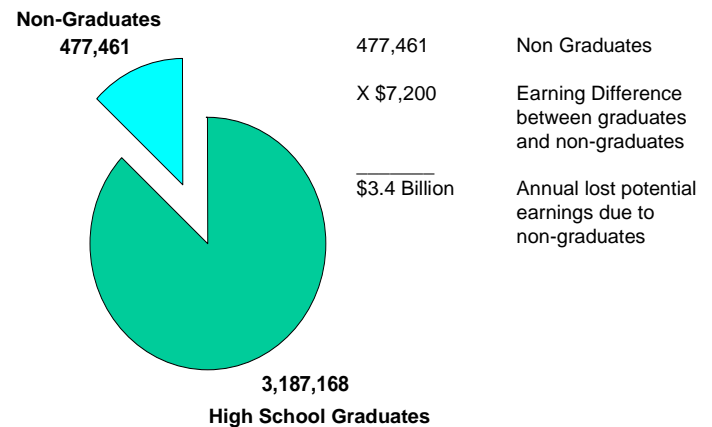
Individuals who do not complete high school are also far more likely than graduates to wind up in prison, placing a huge burden on our corrections system. Nationally, 68 percent of inmates do not have a high school diploma.¹¹ A significant portion of Colorado’s \$470 million dollar corrections budget is likely to be spent adjudicating and incarcerating our dropouts.¹²

Though traditionally disadvantaged communities—including African-Americans, Hispanics, and those living in poverty—frequently have the highest dropout rates, the effects of the crisis do not discriminate based on race or income. The problem hurts all communities and economies.

The figures cited in this report provide an estimate of the costs that those failing to complete high school place on individuals, families, local communities and the state. We don’t know exactly what the effect on our economy would be if everyone in Colorado over the age of 18 had a high school diploma. But we do know that the state’s economy would be stronger if we addressed this problem head on and significantly increased our high school graduation rates. Other states have begun taking steps toward solving this problem. It’s time for Colorado to enter the conversation.

This policy brief was researched and published by the Colorado Children’s Campaign (www.coloradokids.org) and commissioned by the Donnell-Kay Foundation. These and other issues will be taken up by *Colorado Succeeds: Great Schools are Good Business*, an initiative of the Public Education and Business Coalition, working to ensure that all of Colorado’s students are provided a world-class education to advance the state’s economic vitality and global workforce competitiveness (www.coloradosucceeds.org).

Colorado Population 18 and Older



District	9th Grade Enrollment 1999 ¹³	Graduates 2003 ¹⁴	Percent Graduating ¹⁵	Annual Lost Potential Earnings for non Graduates compared to 90% Graduation Rate ¹⁶
COLORADO	58648	42302	72.1%	\$75,464,640
ACADEMY 20	1488	1299	87.30%	\$289,440
ADAMS COUNTY 14	492	262	53.30%	\$1,301,760
ADAMS-ARAPAHOE 28J	2108	1190	56.50%	\$5,091,840
BOULDERVALLEY RE 2	2386	1895	79.40%	\$1,817,280
BRIGHTON 27J	447	329	73.60%	\$527,760
CANON CITY RE-I	430	277	64.40%	\$792,000
CHERRY CREEK 5 ¹⁷	3297	3038	92.10%	(\$509,040)
COLORADO SPRINGS 11	2938	1788	60.90%	\$6,164,640
DELTA COUNTY 50(J)	394	307	77.90%	\$342,720
DENVER COUNTY I	5355	2724	50.90%	\$15,087,600
DOUGLAS COUNTY RE I	2273	1942	85.40%	\$746,640
DURANGO 9-R	420	335	79.80%	\$309,600
ENGLEWOOD I	433	245	56.60%	\$1,041,840
FALCON 49	455	380	83.50%	\$212,400
GREELEY 6	1074	814	75.80%	\$1,098,720
HARRISON 2	915	387	42.30%	\$3,142,800
JEFFERSON COUNTY R-I	7833	5714	72.90%	\$9,617,040
LITTLETON 6	1397	1234	88.30%	\$167,760
MAPLETON I	375	197	52.50%	\$1,011,600
MESA COUNTYVALLEY 5I	1631	1189	72.90%	\$2,008,080
MONTEZUMA-CORTEZ RE-I	236	160	67.80%	\$377,280
MONTROSE COUNTY RE-IJ	419	332	79.20%	\$324,720
NORTHGLENN-THORNTON 12	2187	1809	82.70%	\$1,146,960
POUDRE R-I	1938	1616	83.40%	\$923,040
PUEBLO CITY 60	1891	999	52.80%	\$5,060,880
PUEBLO COUNTY RURAL 70	548	397	72.40%	\$692,640
ROARING FORK RE-I	434	307	70.70%	\$601,920
ST.VRAINVALLEY RE 1J	1641	1237	75.40%	\$1,727,280
THOMPSON R-2J	1201	995	82.80%	\$618,480
WESTMINSTER 50	829	486	58.60%	\$1,872,720
WIDEFIELD 3	799	526	65.80%	\$1,390,320
ALL OTHER DISTRICTS	10384	7892	76.00%	\$10,465,920

END NOTES

¹ From the 2003 Colorado State of the State Address.

² Denver Post, August 24, 2005.

³ For a more detailed discussion of Colorado's graduation rates, see: *A Call for High School Reform*, by Gary Lichtenstein for the Colorado Children's Campaign, Denver, CO, March 2003.

⁴ The \$3.4 billion figure is derived by taking the number of Coloradans aged 25 who have not completed high school, and adding to that an estimate of the number of people aged 18-24 who have not completed high school according to the U.S. Census Bureau. This second figure is determined by multiplying the number of students who do not graduate on-time with their classmates for a given year and multiplying it by the seven cohorts of students that could be expected to graduate on-time during the seven-year period ($16,346 \times 7 = 144,422$). The total number of Colorado residents aged 18 and over who do not have a diploma is then summed and multiplied by the potential earning differential: $(144,422 + 363,039) \times \$7,200 = \$3,437,719,200$. It is worth noting that the census figure counts people who earn a GED rather than a regular diploma as graduates. However, GED recipients do not have as much earning power as people with a regular diploma. Meanwhile, the estimate of people aged 18-24 does not include students who might have earned a GED in the intervening years and thus increased their earning potential. For information on the sources for the earning differential see notes 4 and 6, and for the graduation figures see notes 10 and 11.

⁵ Based on percentage of ninth graders who graduate within four years and are considered regular graduates by the state. Source: United Health Foundation, accessed via the web at www.unitedhealthfoundation.org/shr2004/components/hsgrad.html.

⁶ A 90 percent graduation rate was the goal our nation's governors charged all states to achieve by the year 2000 as part of America 2000, which was later codified in federal law under the title "Goals 2000."

⁷ Our computation of the cost of dropouts is based on the difference in average earning power based on educational attainment. The average salary for dropouts is \$19,000 per year, while the average salary for non-dropouts is \$26,200 per year – a difference of \$7,200. Our total estimate of lost wages comparing actual graduation rates with the goal of 90 percent completion equals $\$7,200 \times 10,481$ dropouts, or \$75,464,640. The total lost potential earnings for those that failed to graduate on time from among the entire entering 9th grade cohort that would later become the class of 2003 is derived as follows: $\$7,200 \times 16,346 = \$117,463,200$.

⁸ The districts included in the table were chosen based on the enrollment of the 9th grade cohort in 1999, not total enrollment. Several smaller districts, such as Durango, were included to provide examples relevant to Colorado's smaller communities.

⁹ *The Big Payoff: Educational Attainment and Synthetic Estimates of Work-Life Earnings: Special Studies*. U.S. Census Bureau, July 2002.

¹⁰ Data from U.S. Department of Commerce, as described in "Show Me the Money: Alliance Analysis Finds that States could Save Millions in Earnings by Raising High School Graduation Rates," *Straight A's*, Vol. 5, #7, Alliance for Excellent Education, Washington, DC, April 11, 2005.

¹¹ U.S. Department of Justice Programs, Bureau of Justice Statistics Special Report, "Education and Correctional Populations," Caroline Wolf Harlow, Jan. 2003, Revised April, 2003.

¹² 2003 Reference on Dept. of Corrections budget.

¹³ Colorado Department of Education, "Fall 1999, Pupil Membership by Grade," version accessed via web at: <http://www.cde.state.co.us/cdereval/download/pdf/PMBByGrade1999.pdf>.

¹⁴ Colorado Department of Education, "Four-Year Trend Graduation Trend (2000-2003)", accessed via the web at: [http://www.cde.state.co.us/cdereval/download/pdf/2003Grads/4-YearGradTrend\(2000thru2003\).pdf](http://www.cde.state.co.us/cdereval/download/pdf/2003Grads/4-YearGradTrend(2000thru2003).pdf).

¹⁵ Our estimate of Colorado's graduation rate is based on a cohort statistic approach, a widely-used measure. For more details on variations in related methods, refer to *A Call For High School Reform*. In this analysis we compared the number of ninth graders enrolled in the fall of 1999 to the number of 12th graders who graduated four years later, in the spring of 2003. According to the Colorado Department of Education, 58,648 students were enrolled in 1999 but 42,302 graduated in 2003: a dropout rate of 72.1 percent. To determine the severity of the dropout problem, we compared our estimate to the 90 percent graduation rate goal established by the nation's governors. In total, Colorado has 10,481 *more* students who do not complete high school than if we were meeting the Goals 2000 target, or 16,346 people that did not complete high school within four years after being enrolled in the 9th grade in 1999.

¹⁶ Each district's annual lost earning potential is derived as follows: (9th grade enrollment – graduates) x \$7,200.

¹⁷ Lost earnings estimates for Cherry Creek are negative because the district exceeded the 90 percent graduation rate in 2003.


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