

Amendment 66: Economic analysis

Investing in education will boost Colorado economy

Investing in education will not only help Colorado students do better in school, it will also give the state a powerful tool to boost its economy.^{1, 2} Where education thrives, higher wages, higher productivity and faster economic growth are the norm.³ Coloradans can give their kids, themselves and future generations a hand up by approving Amendment 66 to the state Constitution this November. It will provide crucial funding to our schools, allowing for smaller class sizes, expanded pre-school and kindergarten and other improvements that will create a lifetime of opportunity for Colorado children and their families.

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The evidence is impressive:

- States with a well-educated workforce have a high median wage and a high level of economic productivity.
- Students learn better in small classes and go on to earn higher incomes as adults than their peers who were in more crowded classrooms as students.
- Children who go to full-day kindergarten outperform those in half-day kindergarten. Full-day kindergarten also plays a key role in narrowing the gap in learning and achievement between students from low-income families and those from better-off households.
- Full-day kindergarten increases the likelihood that mothers will gain full-time employment in the kindergarten year. It allows parents to enter the workforce a year sooner after a child's birth and save a year's worth of child-care expenses.
- Adults from low-income families who had early childhood education had higher earnings and were more likely to have graduated from high school and to hold a job. One study found that for every \$1 invested in early education, almost \$13 was returned to society in the form of reductions in crime, increased revenue from taxes on higher earnings and education savings over the long term.
- Children living in poverty who go through the Colorado Preschool Program consistently outperform those living in poverty who did not attend preschool in reading, writing and math, setting them on a course for better grades and higher-paying careers later in life.

The demand for well-educated, highly skilled workers is growing. More than ever, businesses are attracted to states where education is valued, schools are well-funded and young people are prepared to join the workforce when they graduate from high

school, technical school or college.⁴ Better jobs and better pay are the result.

Yet, despite the proven economic benefits of investing in education, Colorado spends less than most states on its public schools.⁵ Amendment 66 will start to reverse that. By shrinking class sizes, it will allow teachers to give more individual attention to students, which improves their learning and can lead to higher incomes later in life.⁶ By giving more kids a chance to attend pre-school, it will ensure that children from all walks of life have an opportunity to start their school years prepared to learn and grow. And by providing full-day kindergarten to all families that want it, Amendment 66 will lay the groundwork for better achievement by students as they advance through grade school and middle school.

Investing in a changing economy

In the past, state economies had a large need for unskilled labor. However, as businesses in the United States have become more technologically advanced, the demand for highly educated workers is growing. And these workers are commanding far higher wages than those with only a high school diploma or less.⁷ By 2020, an estimated 74 percent of Colorado jobs will require some level of post-secondary education.⁸

Skills like complex decision-making, communications and analysis will be in high demand.⁹ Unless Colorado and other states do a better job of preparing people, the nation will be 5 million workers short of the number needed to fill these types of jobs. That preparation starts with a quality education, from preschool to 12th grade and beyond.

But Colorado is falling behind in its investment in education compared to neighboring states and the rest of the nation. It spends about \$2,000 less per pupil than the national average, putting it near the bottom (42nd) among the 50 states and the District of Columbia.¹⁰ Put another way, the average state is

Amendment 66

This fall, Coloradans will have a rare opportunity to secure better investments for their schools and boost the economy at the same time. From Oct. 15 through Nov. 5, 2013, they will vote on Amendment 66, a ballot measure to fund education reforms that will help schools provide a top-notch education to the children who will eventually become the workforce of Colorado's future and the backbone of its economy.

Amendment 66 proposes to increase the state income tax rate to 5 percent on the first \$75,000 of taxable income and to 5.9 percent on all taxable income above \$75,000. The current rate is a flat 4.63 percent. The typical Colorado taxpayer would pay about \$133 more per year – around \$11 each month – and the plan will raise an estimated \$950 million annually. That revenue can be used only to fund reforms and improvements to preschool through 12th-grade education enacted by the legislature. These include:

- Expanding early childhood education and full-day kindergarten.
- Improving reading skills by the third grade.
- Decreasing class sizes by reducing the number of students taught by each teacher.
- Ensuring more individual attention for all students, especially low-income, gifted and talented and special-education students, as well as English-language learners.
- Implementing new teacher-support and evaluation procedures.
- Increasing public understanding of education spending and making school officials more accountable for that spending.

Some of these reforms are already law but have never been funded. Others will go into effect only if Amendment 66 passes. The amendment is necessary because the TABOR amendment to the state constitution forbids the state legislature from increasing taxes to fund the reforms it enacts. Only voters can raise taxes.

investing roughly \$60,000 more in a classroom of 30 students than Colorado is.

Although Colorado has a relatively well-educated workforce, the truth is the state is importing much of that talent: About 75 percent of all Colorado adults with an associate's degree or higher were born outside of Colorado.¹¹

By investing so little in education, Colorado policymakers are not only shortchanging our schools and our students, they are holding back the entire economy. States with high median wages overwhelmingly have a well-educated workforce.¹² Likewise, states with more college graduates saw higher economic productivity and more robust business profits between 1979 and 2012.¹³ These higher incomes and higher profits, in turn, make for stronger state revenue, allowing for even more investment in education and other services that make for a strong economy, such as health care and transportation.

Amendment 66 will increase the per-pupil funding level for Colorado schools, helping the state to begin catching up.

Early education: A key to lifelong prosperity

Early learning is a key not only to success in school but also to opportunity later in life. Children from low-income families who are part of Colorado's main early learning initiative, the Colorado Preschool Program, consistently do better in reading, writing and math than those low-income children who did not participate in the program, setting them on a course for improved school and career success later in life.¹⁴

Indeed, adults who grew up in low-income families but began their education early in life have higher earnings and are more likely to have graduated from high school and to hold a job.¹⁵ One study found that for every dollar invested in early education, there was a \$16.14 return on that investment – \$3.24 to the individual and \$12.90 to society in the form of reduced crime (88 percent), increased taxes due

to higher earnings (7 percent), education savings (4 percent) and welfare savings (1 percent).¹⁶

But the Colorado Preschool Program is available only to a portion of eligible 3- to 5-year-olds. In 2011-2012, school districts identified 8,016 at-risk children who were eligible but could not enroll because there weren't enough spaces available.¹⁷ ("At-risk" children include foster children, children who qualify for free and reduced lunch and children whose guardians are abusive, homeless, teenagers, high-school dropouts and/or frequently relocating.) Furthermore, funding for the program has decreased by more than \$4 million since 2008, even as the number of eligible students has skyrocketed.¹⁸

The Colorado Preschool Program would be expanded under Amendment 66 to serve all eligible children.

The amendment would also expand kindergarten, providing funding for full-day kindergarten for all families who want it. Under current law, the state funds only half-day kindergarten.

Children who have the opportunity to participate in full-day kindergarten outperform their peers who participate in half-day kindergarten, both in the short- and the long-term. In one case, full-day kindergarten students scored higher on basic-skills tests in the third, fifth and seventh grades than those who attended half-day kindergarten or did not attend kindergarten at all. Furthermore, the long-term benefits of full-day kindergarten were the greatest for students from disadvantaged families, showing that it is an important way to narrow the growing gap in academic achievement between low-income students and those from better-off families.¹⁹

Full-day kindergarten can also boost the economic prospects of parents. It allows them to enter the workforce a year sooner after a child's birth and avoid some child-care expenses.

Full-day kindergarten coupled with expanded availability of preschool in Colorado will

demonstrate our commitment to giving Colorado’s students the strong foundation they need for the jobs of tomorrow.

Smaller class sizes will allow students to thrive

Amendment 66 will allow schools to shrink class sizes and lower the number of students that each teacher has in the classroom. In Colorado, that number has increased in recent years.²⁰

Student-teacher ratios are important because they have a big impact on academic achievement and, later in life, personal income.²¹ One study compared elementary school students in classes with around 15 students to students in classes with around 22 students. Over four grades, students in the smaller classes scored substantially higher on the reading and math sections of a common standardized test than students in larger classes.²² Furthermore, as part of the study, 17 of the poorest school districts were given the resources to make smaller classrooms for kindergarteners, first-graders and second-graders. In the year-end rankings these districts jumped from well-below average to above-average in reading and math. Small class sizes have a large impact because they give students better access to individual help and attention.

Amendment 66 is a good investment in our children and our economic future

In November, Colorado voters will have the opportunity to dramatically increase our commitment to Colorado students, and in doing so lay the groundwork for a brighter economic future for them, their families and the state as a whole.

If voters approve Amendment 66, Colorado will be able to enroll thousands more children in pre-school, make full-day kindergarten available to all Colorado children and increase funding for our schools, allowing for smaller class sizes. These targeted investments will boost the performance of thousands of children across the state, especially the most disadvantaged. These gains in the classroom will

translate into better jobs and better earnings later in life, helping to strengthen Colorado’s economy.

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This is one of three issue briefs outlining the economic benefits of Amendment 66. The other two will show that the tax increase called for under the amendment won’t hurt the economy; and that the amendment will improve our state tax system.

¹ Fisher (1997); Baldwin and Borrelli (2008)

² Fisher, R. C (1997). The Effects of State and Local Public Services on Economic Development New England Economic Review, 53-67

³ Bergen and Fisher (2013); Miller (2007)

⁴ Carnevale, et. al. “Recovery: Projections of Jobs and Education Requirements Through 2020.” Georgetown University Center on Education and the Workforce. June 2013.
<http://www9.georgetown.edu/grad/gppi/hpi/cew/pdfs/Recovery2020.FR.Web.pdf>

⁵ Census Bureau. Public School Finance Data, 2011.
<http://www.census.gov/govs/school/>.

⁶ Mosteller, Frederick (1995) The Tennessee Study of Class Size in the Early Grades. The Future of Children , Vol. 5, No. 2, Critical Issues for Children and Youths, 117-121.

⁷ Committee for Economic Development. “Unfinished Business, Executive Summary.”

⁸ Carnevale, et. al. “Recovery: Projections of Jobs and Education Requirements Through 2020, State Report.” Georgetown University Center on Education and the Workforce.
<http://cew.georgetown.edu/recovery2020/states/>

⁹ Carnevale, et. al. “Recovery: Projections of Jobs and Education Requirements Through 2020.” Georgetown University Center on Education and the Workforce. June 2013.
<http://www9.georgetown.edu/grad/gppi/hpi/cew/pdfs/Recovery2020.FR.Web.pdf>

¹⁰ Census Bureau. Public School Finance Data, 2011.
<http://www.census.gov/govs/school/>.

¹¹ CCLP analysis of 2011 American Community Survey Data. Adult population includes Coloradans ages 25-99 at time of survey.

¹² Bergen, Noah and Fisher, Peter. “A Well-Educated Workforce is Key To State Prosperity.” Economic Policy Institute, August 2013.

¹³ Ibid.

¹⁴ Colorado Children’s Campaign. “Kids Count in Colorado 2013.”

¹⁵ Lifetime Effects: The High/Scope Perry Preschool Study Through Age 40. (2005)
http://www.highscope.org/file/Research/PerryProject/spcialssummary_rev2011_02_2.pdf

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http://www.highscope.org/file/Research/PerryProject/specialssummary_rev2011_02_2.pdf
- ¹⁷ Colorado Department of Education (2012). Colorado Preschool Program 2013 Legislative Report.
- ¹⁸ Colorado Department of Education (2012). Colorado Preschool Program 2012 Legislative Report.
- ¹⁹ National Education Association, “Full-Day Kindergarten: An Advocacy Guide.”
http://www.nea.org/assets/docs/HE/mf_kadvoguide.pdf
- ²⁰ Colorado Department of Education. Colorado Education Facts and Figures,
<http://www.cde.state.co.us/dataandaccountability>
- ²¹ Mosteller, Frederick (1995) The Tennessee Study of Class Size in the Early Grades. The Future of Children, Vol. 5, No. 2, Critical Issues for Children and Youths, 117-121.
- ²² Mosteller, Frederick (1995) The Tennessee Study of Class Size in the Early Grades. The Future of Children, Vol. 5, No. 2, Critical Issues for Children and Youths, 117-121.