

Teacher Absence and Student Achievement in Jeffco

by Tom Coyne

Jeffco's goal is to graduate students who are career and college ready. Taxpayers have invested heavily to achieve that goal: The most recent data show that Jeffco's total revenue is about \$11,000 per student per year; this means that on average we invest \$126,500 in each Jeffco student over the course of their education in grades K-11 (with kindergarten counted at \$5,500).

Unfortunately, taxpayers -- not to mention students and their parents -- have been earning a very disappointing return on this investment.

Every student in Colorado takes the ACT test in eleventh grade. It is the last comprehensive measure we have of the cumulative result of the taxpayers' investment in twelve years (K-11) of their education. In 2015, only 44% of Jeffco students met the ACT's "college and career ready" (C&C) standard in reading, only 44% in math, and only 40% in science. Between 2008 and 2015, over 27,000 Jeffco 11th graders have failed to meet the C&C standard in reading, over 28,000 have failed to meet the math standard, and over 34,000 have failed to meet the science standard.

Among Jeffco students eligible for free and reduced lunch (FRL), just 24% met the C&C reading standard, 20% met the math standard, and 18% met the science standard. However, only 50% of non-FRL eligible students met the C&C reading standard, 54% met the math standard, and 47% met the science standard.

Thanks to globalization and the rapidly advancing capabilities of technology, our children will have to make their living in an intensely competitive and highly uncertain world that puts an increasingly high premium on their cognitive abilities. If they aren't graduating college and career ready, they're going to struggle for years.

These depressing results beg the question of what we can do to improve them.

According to a recent report, "As common sense suggests, teacher attendance is directly related to student outcomes: the more teachers are absent, the more their students' achievement suffers. When teachers are absent ten days, the decrease in student achievement is equivalent to the difference between having a brand new teacher and one with two or three years more experience...No matter how engaging or talented teachers may be, they can only have an impact on student learning if they are in the classroom" (*Roll Call: The Importance of Teacher Attendance*, by the non-partisan National Council for Teacher Quality).

Teacher absence negatively affects student achievement in many ways. Another research report found that, "First, instructional intensity may be radically reduced when a regularly assigned teacher is absent ... A second mechanism through which teacher absences may affect student achievement is through the creation of discontinuities of instruction, the disruption of the regular routines and procedures of the classroom... [Third], substitutes' lack of detailed knowledge of students' skill levels makes it difficult for them to provide differentiated instruction that addresses the needs of individual students... [Fourth] teacher absences may inhibit attempts by school faculties to implement consistent instructional practices across classrooms

and grades. Common planning time, during which teachers may collaborate on improving instruction, is often so scarce that even low rates of teacher absence could almost completely undermine its purpose” (*Do Teacher Absences Impact Student Achievement?* by Miller, Murnane, and Willett for the National Bureau of Economic Research).

Finally, there are both direct and opportunity costs associated with teacher absences. For example, Jeffco is budgeted to spend six million dollars on substitute teachers in 2015 – 2016. The opportunity cost of these funds – the alternative activities on which they could be spent to improve student achievement – is huge. Moreover, with Student Based Budgeting, the cost of substitutes comes out of each school’s budget, reducing the amount of money that is available for other purposes.

In addition, there is the also the opportunity cost of the large amount of administrators' time that must be spent on substitute teacher related issues, instead of on other activities that could improve student achievement.

So how large is the teacher absence problem in Jeffco?

Every two years since 2009, the Civil Rights Division of the U.S. Department of Education has collected data at the district and school level on the percent of teachers who were absent for ten or more days during the school year. The Civil Rights Division notes that, “A teacher [is considered] absent if he or she was not in attendance on a day in the regular school year when the teacher would otherwise be expected to be teaching students in an assigned class. This includes both days taken for sick leave and days taken for personal leave. Personal leave includes voluntary absences for reasons other than sick leave. Administratively approved leave for professional

development, field trips or other off-campus activities with students is not [counted as an absence].”

In the 2009/2010 school year, the Civil Right’s Division’s first survey found that 67% of Jeffco teachers were absent more than ten days out of their 187 day work year. This is the equivalent of missing at least one day of work every two weeks during the school year (unsurprisingly, the research shows that a disproportionate number of these teacher absences occur on Mondays and Fridays).

By the 2013/2014 school year, “only” 30% of Jeffco teachers were absent for more than ten days – but this is still a shockingly high number that has undoubtedly contributed to both Jeffco’s budget strains and its student achievement shortfalls.

At a time when Recall supporters are complaining that teachers are leaving Jeffco, I have a different suggestion: Let’s start by having more of them show up for work.

The following table shows, for each school in Jeffco, the percent of teachers who were absent for more than ten days in 2013/2014:

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Civil Rights Data Collection
Percent of Teachers Absent for 10 or More Days
2013-2014

School Name	2013-2014
ROCKY MOUNTAIN ACADEMY OF EVERGREEN CHARTER	81%
MC LAIN HIGH SCHOOL	68%
BRADFORD INTERMEDIATE SCHOOL	60%
MOORE MIDDLE SCHOOL	56%
WAYNE CARLE MIDDLE SCHOOL	56%
WILMOT ELEMENTARY SCHOOL	55%
COAL CREEK CANYON K-8 SCHOOL	55%
THOMSON ELEMENTARY SCHOOL	55%
STOBER ELEMENTARY SCHOOL	53%
PECK ELEMENTARY SCHOOL	53%
RALSTON VALLEY HIGH SCHOOL	52%
PARMALEE ELEMENTARY SCHOOL	51%
ROONEY RANCH ELEMENTARY SCHOOL	51%
CONNECTIONS LEARNING CENTER	50%
RALSTON ELEMENTARY SCHOOL	48%
MANNING SCHOOL (OPTION)	46%
WESTRIDGE ELEMENTARY SCHOOL	46%
DENNISON ELEMENTARY SCHOOL	46%
ALAMEDA HIGH SCHOOL	45%
SOUTH LAKEWOOD ELEMENTARY SCHOOL	44%
EVERGREEN HIGH SCHOOL	44%
SUMMIT RIDGE MIDDLE SCHOOL	44%
NORMANDY ELEMENTARY SCHOOL	42%
BLUE HERON ELEMENTARY SCHOOL	41%
VAN ARSDALE ELEMENTARY SCHOOL	40%
STEVENS ELEMENTARY SCHOOL	40%
JEFFERSON HIGH SCHOOL	39%
SEMPER ELEMENTARY SCHOOL	39%
KENDRICK LAKES ELEMENTARY SCHOOL	39%
RYAN ELEMENTARY SCHOOL	38%
FOSTER ELEMENTARY SCHOOL	38%
WEBER ELEMENTARY SCHOOL	38%
VANDERHOOF ELEMENTARY SCHOOL	38%
PROSPECT VALLEY ELEMENTARY SCHOOL	38%

FLETCHER MILLER SPECIAL EDUCATION SCHOOL	38%
SWANSON ELEMENTARY SCHOOL	38%
WHEAT RIDGE HIGH SCHOOL	38%
MC LAIN COMMUNITY HIGH SCHOOL	38%
EVERITT MIDDLE SCHOOL	37%
ALLENDALE ELEMENTARY SCHOOL	37%
KEN CARYL MIDDLE SCHOOL	37%
EVERGREEN MIDDLE SCHOOL	37%
ARVADA K-8	36%
MOLHOLM ELEMENTARY SCHOOL	36%
PATTERSON INTERNATIONAL	36%
GOLDEN HIGH SCHOOL	36%
OBERON MIDDLE SCHOOL	36%
WITT ELEMENTARY SCHOOL	36%
DUNSTAN MIDDLE SCHOOL	35%
WEST JEFFERSON MIDDLE SCHOOL	35%
MOUNT CARBON ELEMENTARY SCHOOL	35%
KULLERSTRAND ELEMENTARY SCHOOL	35%
MARSHDALE ELEMENTARY SCHOOL	35%
PARR ELEMENTARY SCHOOL	34%
PEIFFER ELEMENTARY SCHOOL	34%
KYFFIN ELEMENTARY SCHOOL	34%
VIVIAN ELEMENTARY SCHOOL	34%
MEIKLEJOHN ELEMENTARY SCHOOL	34%
DRAKE MIDDLE SCHOOL	33%
BERGEN VALLEY INTERMEDIATE SCHOOL	33%
HACKBERRY HILL ELEMENTARY SCHOOL	32%
FALCON BLUFFS MIDDLE SCHOOL	32%
MAPLE GROVE ELEMENTARY SCHOOL	32%
DEANE ELEMENTARY SCHOOL	32%
PLEASANT VIEW ELEMENTARY SCHOOL	32%
POWDERHORN ELEMENTARY SCHOOL	32%
FOOTHILLS ELEMENTARY SCHOOL	32%
LUMBERG ELEMENTARY SCHOOL	32%
STOTT ELEMENTARY SCHOOL	31%
FAIRMOUNT ELEMENTARY SCHOOL	31%
HUTCHINSON ELEMENTARY SCHOOL	31%
JEFFERSON ACADEMY CHARTER SENIOR HIGH SCHOOL	30%
DAKOTA RIDGE SENIOR HIGH SCHOOL	30%

LEAWOOD ELEMENTARY SCHOOL	30%
GREEN MOUNTAIN HIGH SCHOOL	30%
MANDALAY MIDDLE SCHOOL	30%
WEST WOODS ELEMENTARY SCHOOL	30%
ARVADA HIGH SCHOOL	30%
LAKESWOOD HIGH SCHOOL	30%
STONY CREEK ELEMENTARY SCHOOL	29%
FREMONT ELEMENTARY SCHOOL	29%
LASLEY ELEMENTARY SCHOOL	29%
SHELTON ELEMENTARY SCHOOL	29%
WHEAT RIDGE 5-8 SCHOOL	29%
SECRET ELEMENTARY SCHOOL	28%
SHERIDAN GREEN ELEMENTARY SCHOOL	28%
STEIN ELEMENTARY SCHOOL	28%
COLUMBINE HIGH SCHOOL	28%
WARREN TECH SCHOOL	28%
DUTCH CREEK ELEMENTARY SCHOOL	28%
DEER CREEK MIDDLE SCHOOL	28%
BEAR CREEK K-8 SCHOOL	28%
GOVERNOR'S RANCH ELEMENTARY SCHOOL	28%
CONIFER SENIOR HIGH SCHOOL	27%
BRADY EXPLORATION SCHOOL	27%
D'EVELYN JUNIOR/SENIOR HIGH SCHOOL (OPTION)	27%
FREE HORIZON MONTESSORI CHARTER SCHOOL	27%
SLATER ELEMENTARY SCHOOL	27%
ARVADA WEST HIGH SCHOOL	27%
WESTGATE ELEMENTARY SCHOOL	26%
EDGEWATER ELEMENTARY SCHOOL	26%
O'CONNELL MIDDLE SCHOOL	26%
CHATFIELD HIGH SCHOOL	26%
BRADFORD PRIMARY SCHOOL	26%
ELK CREEK ELEMENTARY SCHOOL	25%
BEAR CREEK HIGH SCHOOL	25%
MITCHELL ELEMENTARY SCHOOL	25%
CAMPBELL ELEMENTARY SCHOOL	24%
SHAFFER ELEMENTARY SCHOOL	23%
WELCHESTER ELEMENTARY SCHOOL	23%
ADAMS ELEMENTARY SCHOOL	23%
SIERRA ELEMENTARY SCHOOL	22%

STANDLEY LAKE HIGH SCHOOL	22%
EXCEL ACADEMY CHARTER SCHOOL	22%
KENDALLVUE ELEMENTARY SCHOOL	22%
BERGEN MEADOW PRIMARY SCHOOL	21%
DEVINNY ELEMENTARY SCHOOL	21%
CORONADO ELEMENTARY SCHOOL	21%
BELL MIDDLE SCHOOL	21%
GLENNON HEIGHTS ELEMENTARY SCHOOL	20%
UTE MEADOWS ELEMENTARY SCHOOL	20%
MOUNTVIEW YOUTH SERVICE CENTER	20%
SOBESKY ACADEMY	20%
LUKAS ELEMENTARY SCHOOL	20%
GREEN GABLES ELEMENTARY SCHOOL	19%
COLUMBINE HILLS ELEMENTARY SCHOOL	19%
NORTH ARVADA MIDDLE SCHOOL	19%
FITZMORRIS ELEMENTARY SCHOOL	18%
WEST JEFFERSON ELEMENTARY SCHOOL	18%
LAWRENCE ELEMENTARY SCHOOL	18%
BELMAR ELEMENTARY SCHOOL	18%
EIBER ELEMENTARY SCHOOL	18%
POMONA HIGH SCHOOL	17%
WARDER ELEMENTARY SCHOOL	17%
COLOROW ELEMENTARY SCHOOL	17%
JEFFERSON COUNTY OPEN ELEMENTARY SCHOOL	16%
WARREN TECH NORTH SCHOOL	15%
CREIGHTON MIDDLE SCHOOL	13%
RED ROCKS ELEMENTARY SCHOOL	12%
LINCOLN ACADEMY CHARTER SCHOOL	12%
PENNINGTON ELEMENTARY SCHOOL	11%
WILMORE DAVIS ELEMENTARY SCHOOL	11%
NEW AMERICA CHARTER SCHOOL	11%
LITTLE ELEMENTARY SCHOOL	10%
CARMODY MIDDLE SCHOOL	9%
JEFFERSON ACADEMY CHARTER ELEMENTARY SCHOOL	9%
MORTENSEN ELEMENTARY SCHOOL	8%
JEFFERSON ACADEMY CHARTER JUNIOR HIGH SCHOOL	8%
COLLEGIATE ACADEMY OF COLORADO CHARTER	7%
TWO ROADS CHARTER SCHOOL	6%
JEFFCO'S 21ST CENTURY VIRTUAL ACADEMY	5%

COMPASS MONTESSORI - GOLDEN CHARTER SCHOOL	5%
JEFFERSON COUNTY OPEN SECONDARY	5%
GREEN MOUNTAIN ELEMENTARY SCHOOL	4%
WOODROW WILSON ACADEMY CHARTER SCHOOL	4%
ADDENBROOKE CLASSICAL ACADEMY CHARTER	0%
COMPASS MONTESSORI - WHEAT RIDGE CHARTER SCHOOL	0%
JEFFCO FAMILY LITERACY PRESCHOOL	0%
JOHN AND KAREN LITZ PRESCHOOL	0%
LONGVIEW HIGH SCHOOL	0%
MONTESSORI PEAKS ACADEMY CHARTER SCHOOL	0%
MOUNTAIN PHOENIX COMMUNITY CHARTER SCHOOL	0%
NORMA ANDERSON PRESCHOOL	0%
ROCKY MOUNTAIN DEAF SCHOOL	0%
District Average	30%