



Feb. 2, 2012

Data shows large gaps in reading ability of Colorado third-graders

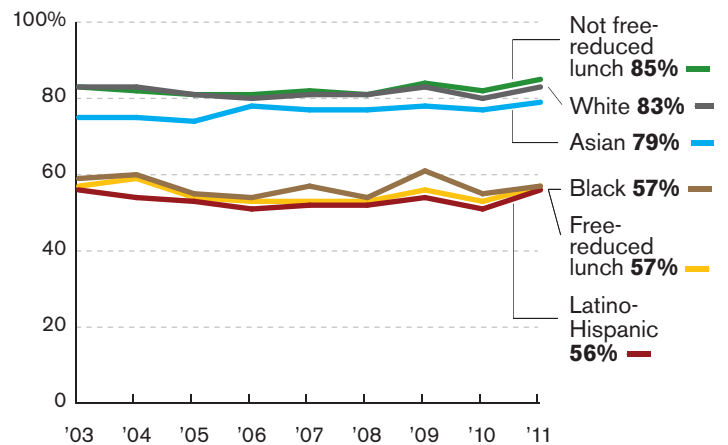
By Melody Maitland, MSW fellow

Reading proficiency in third grade is an increasingly important topic. As the common phrase goes, third grade is the point at which children transition from “learning to read” to “reading to learn.” The emphasis on third grade is rooted in decades of research that links reading proficiency in third grade to a child’s educational trajectory through high school. Children who are not proficient in third grade are less likely to be reading proficiently in high school¹ and less likely than their proficient counterparts to graduate from high school.² Overwhelmingly, the children not hitting these important milestones come from low-income and racial- and ethnic-minority families. Lower-than-average performance of these students continues to be one of the most pressing problems in Colorado’s education system.

Nationally, many students are not reading proficiently, leading some to conclude: “If we don’t get dramatically more children on track as proficient readers (by the third grade), the United States will lose a growing and essential proportion of its human capital to poverty, and the price will be paid not only by individual children and families, but by the entire country.”³ Higher school dropout rates lead to decreased individual earning potential, which stunts the nation’s competitiveness and general productivity.⁴ Reading proficiency, especially in third grade, has become increasingly more important as it has been deemed the crucial intervention point for later educational success.

There are two measures used to determine reading proficiency in the third grade. The first is the Colorado Student Assessment Program, or CSAP, which is administered at the end of third grade.⁵ The second is the National Assessment for Educational Progress, or NAEP. NAEP is administered biannually to a representative sample of new fourth-grade students in each state. While CSAP is Colorado-specific and given to all students, it is important to include both measures. Each state determines its own standard for measuring reading proficiency, and usually these standards fall below NAEP standards. NAEP provides measures to

Chart 1 **CSAP**: Proficient and advanced third-graders
(Percentages shown are for 2011)



gauge reading proficiency of students in different states and is useful for comparing progress between states. (See appendix for all data.)

CSAP

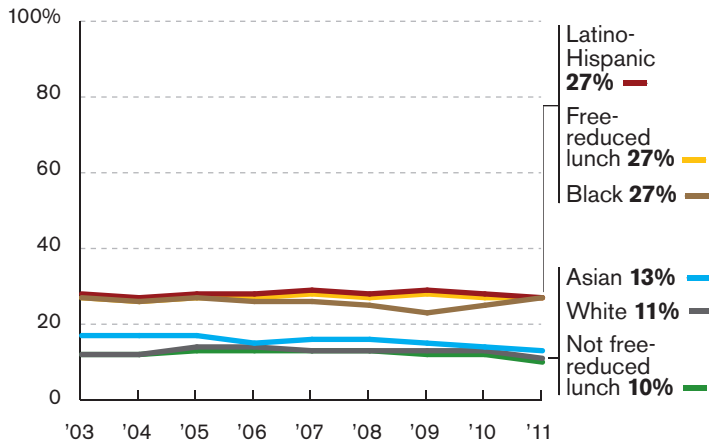
In 2011, 73 percent of Colorado’s third-grade students scored proficient or advanced on the reading portion of CSAP, a one-point increase from 2001.⁶ This



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Chart 2 **CSAP:** Partially proficient third-graders

(Percentages shown are for 2011)



lack of advancement is representative across all demographic groups; however the percentage of those proficient differs dramatically between groups. Scores broken out by race/ethnicity, gender and income status (indicated by eligibility for free/reduced lunch) show African-American, Latino and low-income students have the lowest proficiency scores: 57 percent, 56 percent and 57 percent, respectively. The achievement gap is clearly visible in Chart 1, with higher-income, white and Asian students scoring consistently higher than other groups of students over the past decade. There continues to be a small achievement gap by gender, with females scoring slightly higher than males. However, the largest gaps occur within racial/ethnic and income categories.

These gaps are also evident when analyzing data on partial proficiency. As Chart 2 shows, an inverse relationship exists. White, Asian and higher-income students are less likely to be scoring at partially proficient levels than are African-American, Latino and low-income students. The gap, however, for this measure is considerably smaller than the one that exists when examining proficient/advanced data.

NAEP

Colorado students score significantly lower on the NAEP tests than they do on CSAP. In 2011, only 38 percent of Colorado students were reading at proficient or advanced levels at the beginning of fourth grade, according to the NAEP test.⁷ Scores by various groups were also lower.

As with CSAP, the rate of change for NAEP scores has remained relatively flat over time. From 2005 to 2011, there was only a two-point increase in the percentage of Colorado students who scored proficient. This large gap (35 points) between the percentage of third- and fourth-grade readers scoring proficient and advanced on CSAP versus NAEP can be attributed to the fact that Colorado ranks relatively low compared to

Chart 3 **NAEP:** Proficient and advanced fourth-graders

(Percentages shown are for 2011)

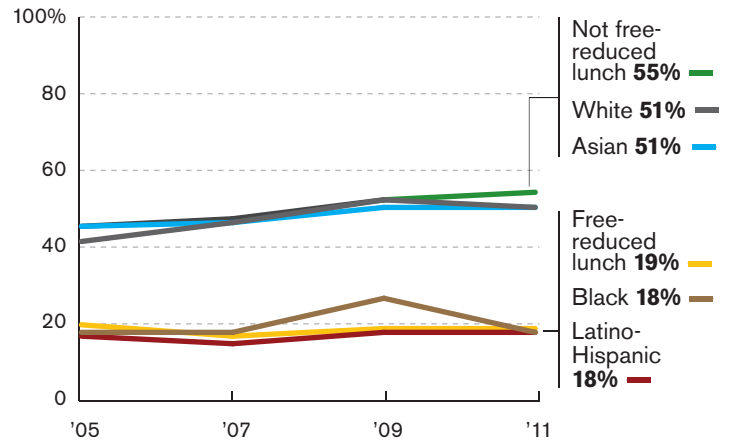
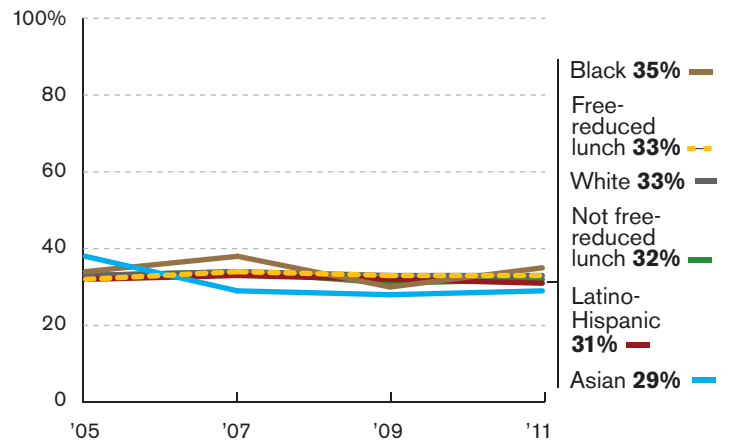


Chart 4 **NAEP:** Partially proficient fourth-graders

(Percentages shown are for 2011)



other states in how equivalent our state assessment standards are to NAEP standards. According to 2009 NAEP fourth-grading reading assessments, Colorado's standards were lower than 44 other states.⁸

Thus, students who are high performing, according to CSAP data, may not be performing at similar levels according to national standards. An analysis of NAEP data provides evidence of this. The achievement gap by race/ethnicity and income status that exists for CSAP proficient and advanced readers is still evident for NAEP proficient and advanced readers (Chart 3). However, when analyzing partially proficient data (referred to as "basic"), differing patterns emerge. Chart 4 shows that all groups have NAEP scores clustered around the same levels, and the data does not exhibit the gap shown in CSAP data (Chart 2).⁹

The most troubling aspect is that a higher percentage of African-American, Latino and low-income students are scoring at partially proficient levels compared to the percentage scoring proficient and advanced. The opposite pattern emerged in the CSAP data; a higher percentage of African-American, Latino,



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and low-income students scored at proficient and advanced compared to the percentage scoring partially proficient. Also troubling is that white, Asian and higher-income students, who had significantly higher proficient/advanced scores using CSAP data, have lower scores on the NAEP test. This indicates that the vast majority of students in Colorado, but especially racial and ethnic minorities and low-income students, are not performing as well on national standards – potentially making them less competitive nationally and internationally. Ultimately, there is much work to be done in improving third-grade reading proficiency for all of Colorado's students.

Third-grade reading proficiency is both a performance indicator and an intervention point. Early-childhood education programs are crucial for third grade success. Gov. John Hickenlooper has made early literacy, measured by third-grade reading scores, one of the three education priorities of the state.¹⁰ The creation of the Education Leadership Council (ELC) and continued work with the previously established Early Childhood Leadership Commission (ECLC) signifies a clear commitment to early literacy. Forthcoming legislation will likely focus on third-grade reading proficiency and interventions and the importance of early-childhood programs as the prerequisite for third-grade reading success.

End notes

¹ Fiester, L. (2010). *Early Warning! Why reading by the end of third grade matters*. Baltimore, Md.: Annie E. Casey Foundation.

² Hernandez, D. J. (April 2011). *Double jeopardy: How third-grade reading skills and poverty influence high school graduation*. Baltimore, Md.: Annie E. Casey Foundation; Lloyd, D.N. (1978). Prediction of school failure from third grade. *Educational and Psychological Measurement*, 38, 1193-2000.

³ Fiester, L. (2010). Page 7.

⁴ Felton, K.A. & Akos, P. (2011). The ups and downs of third-grade reading. *Educational Leadership*, 28-32.

⁵ 2011 was the 15th and final year of the CSAP test, as the Colorado Department of Education (CDE) will be changing the testing system for students. The new system, the [Transitional Colorado Assessment Program](#), or TCAP, is based on the Colorado Model of Content Standards to ensure uniformity in academic standards across the state. Colorado

Department of Education. (2011).

⁶ Colorado Department of Education (2011). [CSAP Summary Data](#). Retrieved on Nov. 21, 2011.

⁷ Colorado Department of Education (2011). [Welcome to Colorado NAEP!](#) Retrieved on Nov. 28, 2011.

⁸ Bandeira de Mello, V. (2011), *Mapping State Proficiency Standards Onto the NAEP Scales: Variation and Change in State Standards for Reading and Mathematics, 2005-2009* (NCES 2011-458). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education, Washington, D.C.: Government Printing Office. Page 10.

⁹ There is no gap because there is a third category: those who are below basic (i.e. unsatisfactory performance). If this category were included, the gap between students based on race/ethnicity and income would be seen.

¹⁰ Office of Lieutenant Governor, State of Colorado. (Press release, April 28, 2011). [Lt. Gov. Garcia announces education priorities](#).

Appendix

Table 1 **Third-grade reading scores (CSAP)**

P/A = proficient and advanced, PP = partially proficient

	All Colorado		Females		Males		Asian		Black		Latino-Hispanic		White		Free-reduced lunch		Not free-reduced lunch	
	P/A	PP	P/A	PP	P/A	PP	P/A	PP	P/A	PP	P/A	PP	P/A	PP	P/A	PP	P/A	PP
2000	60%	24%	64%	24%	57%	25%	55%	26%	37%	32%	37%	32%	69%	21%	ND	ND	ND	ND
2001	72%	18%	75%	17%	69%	19%	68%	20%	54%	28%	51%	29%	81%	13%	ND	ND	ND	ND
2002	72%	18%	75%	17%	69%	19%	71%	17%	55%	28%	51%	28%	81%	13%	ND	ND	ND	ND
2003	74%	17%	78%	16%	71%	19%	75%	17%	59%	27%	56%	28%	83%	12%	57%	27%	83%	12%
2004	74%	17%	77%	15%	70%	19%	75%	17%	60%	26%	54%	27%	83%	12%	59%	26%	82%	12%
2005	71%	18%	75%	17%	68%	20%	74%	17%	55%	27%	53%	28%	81%	14%	54%	27%	81%	13%
2006	70%	18%	73%	17%	68%	19%	78%	15%	54%	26%	51%	28%	80%	14%	53%	27%	81%	13%
2007	71%	19%	74%	18%	69%	19%	77%	16%	57%	26%	52%	29%	81%	13%	53%	28%	82%	13%
2008	70%	18%	73%	18%	67%	19%	77%	16%	54%	25%	52%	28%	81%	13%	53%	27%	81%	13%
2009	73%	18%	75%	17%	70%	19%	78%	15%	61%	23%	54%	29%	83%	13%	56%	28%	84%	12%
2010	70%	18%	73%	17%	67%	19%	77%	14%	55%	25%	51%	28%	80%	13%	53%	27%	82%	12%
2011	73%	17%	76%	16%	70%	19%	79%	13%	57%	27%	56%	27%	83%	11%	57%	27%	85%	10%

Table 2 **Fourth-grade reading scores (NAEP)**

P/A = proficient and advanced, PP = partially proficient

	All Colorado		Females		Males		Asian		Black		Latino-Hispanic		White		Free-reduced lunch		Not free-reduced lunch	
	P/A	PP	P/A	PP	P/A	PP	P/A	PP	P/A	PP	P/A	PP	P/A	PP	P/A	PP	P/A	PP
2005	36%	33%	41%	32%	33%	34%	42%	38%	18%	34%	17%	32%	46%	33%	20%	32%	46%	33%
2007	36%	34%	38%	34%	34%	34%	47%	29%	18%	38%	15%	33%	47%	34%	17%	34%	48%	34%
2009	41%	32%	44%	31%	36%	33%	53%	28%	27%	30%	18%	32%	51%	33%	19%	33%	53%	31%
2011	38%	32%	44%	31%	33%	34%	51%	29%	18%	35%	18%	31%	51%	33%	19%	33%	55%	32%