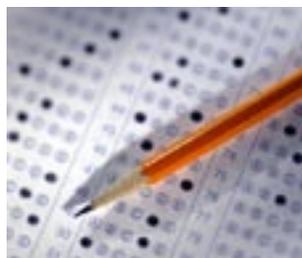




The relationship between changes in the percentage of students passing and in the percentage testing advanced on state assessment tests in Kentucky and Virginia



Summary





# The relationship between changes in the percentage of students passing and in the percentage testing advanced on state assessment tests in Kentucky and Virginia

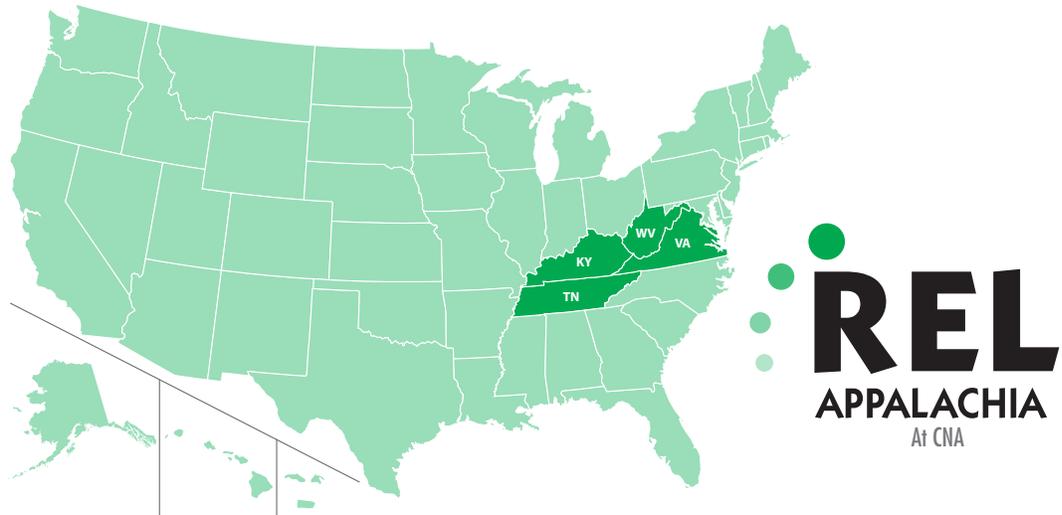
## Summary

**March 2010**

**Prepared by**

**Louis Jacobson  
CNA Education**

**Laura Holian  
CNA Education**



**Issues & Answers** is an ongoing series of reports from short-term Fast Response Projects conducted by the regional educational laboratories on current education issues of importance at local, state, and regional levels. Fast Response Project topics change to reflect new issues, as identified through lab outreach and requests for assistance from policymakers and educators at state and local levels and from communities, businesses, parents, families, and youth. All Issues & Answers reports meet Institute of Education Sciences standards for scientifically valid research.

March 2010

This report was prepared for the Institute of Education Sciences (IES) under Contract ED-06-CO-0021 by Regional Educational Laboratory Appalachia administered by CNA Education. The content of the publication does not necessarily reflect the views or policies of IES or the U.S. Department of Education nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.

This report is in the public domain. While permission to reprint this publication is not necessary, it should be cited as:

Jacobson, L., and Holian, L. (2010). *The relationship between changes in the percentage of students passing and in the percentage testing advanced on state assessment tests in Kentucky and Virginia* (Issues & Answers Report, REL 2010–No. 087). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Appalachia. Retrieved from <http://ies.ed.gov/ncee/edlabs>.

This report is available on the regional educational laboratory web site at <http://ies.ed.gov/ncee/edlabs>.

# The relationship between changes in the percentage of students passing and in the percentage testing advanced on state assessment tests in Kentucky and Virginia

**The No Child Left Behind Act of 2001 requires states to test students in reading and math and identify them as below proficient, proficient, or advanced. Schools are held accountable only for ensuring that students test proficient or better (both considered passing), leading to concerns that a focus on increasing the percentage of students testing proficient on state assessments may have an unintended consequence of reducing—or not increasing—the percentage of students testing advanced. Analysis of the data in Kentucky and Virginia finds that schools with the greatest increases in the percentage passing also have the greatest increases in the percentage testing advanced.**

The No Child Left Behind (NCLB) Act of 2001 requires states to test all students in reading and math and identify them as below proficient, proficient, or advanced, but the law holds schools accountable only for ensuring that students test proficient or better. State officials, district and school leaders, and others have expressed concern that attention to proficiency alone might have unintended consequences

if focusing on moving students from below proficient to proficient has negative consequences on moving students from proficient to advanced. An alternative view sees attention to below proficient students as possibly improving the performance of all students. Few empirical studies have examined how changes from proficient to advanced are affected by changes from below proficient to proficient.

This study examines the statistical association between changes in the percentage of students in a school testing below proficient, proficient, and advanced in Kentucky and Virginia in the early years of NCLB accountability. The study was designed to answer four questions:

1. What are the overall school-level trends in the percentage of students passing (testing proficient or advanced) and the percentage testing advanced on state assessment tests in Kentucky and Virginia?
2. What is the statistical association between annualized changes in the school-level percentage of students passing and annualized changes in the school-level percentage testing advanced?

3. Does this association vary when controlling for the percentage of students passing in 2001/02?
4. Does this association vary when controlling for characteristics of a school's students, such as level and change in the percentage of students eligible for free or reduced-price lunch, level and change in the percentage of racial/ethnic minority students, and the school's locale (urban, suburban, town, or rural)?

The study answered these questions using data on the percentages of students testing below proficient, proficient, and advanced provided by the Kentucky Department of Education and the Virginia Department of Education. In addition, the Common Core of Data (data sets maintained by the U.S. Department of Education's National Center for Education Statistics) was used for information on school characteristics. The data covered 2001/02–2005/06 in Kentucky and 2001/02–2004/05 in Virginia, so no pre- and post-NCLB comparisons can be made.

The findings of this report are:

1. Kentucky schools experienced upward trends in the percentage of students passing between 2001/02 and 2005/06, with increases in both the percentage testing proficient and the percentage testing advanced. Virginia schools also experienced upward trends in the percentage passing between 2001/02 and 2004/05, but in grade 5 reading and math and grade 3 math a greater share of students moved from proficient to advanced than from below proficient to proficient.
2. Positive associations were found between school-level changes in the percentage passing and changes in the percentage testing advanced in Kentucky and Virginia schools in both reading and math in all grades tested.
3. In most subjects and grades the positive association between school-level changes in the percentage passing and in the percentage testing advanced holds across schools regardless of whether the percentage of students passing in 2001/02 was above or below the 2004/05 annual measurable objective level. Even in schools where the 2001/02 percentage of students passing was below the 2004/05 annual measurable objective, schools whose percentage passing rate increased also saw an increase in the percentage testing advanced (with the exception of high school end of course reading exams in Virginia).
4. Controlling for school characteristics such as 2001/02 level and change in the percentage of students eligible for free or reduced-price lunch, 2001/02 level and change in percentage of racial/ethnic minority students, and locale accounts for some of the variation in changes in the percentage testing advanced but does not alter the association between changes in the percentage passing and changes in the percentage testing advanced in Kentucky schools and does not eliminate the association in Virginia schools.

It is not possible to infer from this report's findings any conclusions regarding the factors that brought about the observed relationships.