



January 2010  
PE 09-20-466

Departmental Review

# DEPARTMENT OF EDUCATION

## AUDIT OVERVIEW

The State's Average High School Graduation Rate Has Had No Upward Trend in the Past 15 Years. Larger High Schools and Reading Deficiencies Are Significant Factors That Prevent the Advancement of the Graduation Rate

West Virginia's Academic Test Scores at the State and National Levels Have Been Mixed. Improvements in Reading and Math at the State Level Have Peaked, While at the National Level Progress Is Being Made in Math But Reading Scores Show No Improvement

Prekindergarten Programs Are Increasing for Four-year Olds but Are Underutilized for Three-year Olds in West Virginia

The Effectiveness of School Choice in the State Is Limited by Substandard Guidance and an Inadequate Parental Notification Process

The Department of Education's High Quality Teacher Requirements Meet NCLB Guidelines

The DOE Has Done Well to Incorporate Technology Into Policies and Records Management



---

## JOINT COMMITTEE ON GOVERNMENT OPERATIONS

### Senate

Edwin J. Bowman, Chair  
Herb Snyder, Vice-Chair  
Walt Helmick  
Donna Boley  
Clark S. Barnes

### House of Delegates

Jim Morgan, Chair  
Dale Stephens, Vice-Chair  
Sam Argento  
Ruth Rowan  
Patti Schoen  
Craig Blair, Nonvoting  
Scott G. Varner, Nonvoting

### Agency/ Citizen Members

Dwight Calhoun  
John A. Canfield  
W. Joseph McCoy  
Kenneth Queen  
James Willison

## JOINT COMMITTEE ON GOVERNMENT ORGANIZATION

### Senate

Edwin J. Bowman, Chair  
Herb Snyder, Vice-Chair  
Richard Browning  
Dan Foster  
Jeffrey V. Kessler  
Brooks McCabe  
Joseph M. Minard  
Corey L. Palumbo  
Robert H. Plymale  
Randy White  
Bob Williams  
Jack Yost  
Donna J. Boley  
Don Caruth  
Dave Sypolt

### House of Delegates

Jim Morgan, Chair  
Dale Stephens, Vice-Chair  
Sam J. Argento  
Brent Boggs  
Greg Butcher  
Samuel J. Cann, Sr.  
Roy Givens  
Daniel J. Hall  
William G. Hartman  
Barbara Hatfield  
Mike Manypenny  
Dale Martin  
Daniel Poling  
Mike Ross

Doug Skaff, Jr  
Margaret A. Staggars  
Randy Swartzmiller  
Joe Talbott  
Daryl E. Cowles  
Pat McGeehan  
Carol Miller  
Jonathan Miller  
Thomas Porter  
Ruth Rowan



WEST VIRGINIA LEGISLATIVE AUDITOR

## PERFORMANCE EVALUATION & RESEARCH DIVISION

Building 1, Room W-314  
State Capitol Complex  
Charleston, West Virginia 25305  
(304) 347-4890

Aaron Allred  
Legislative Auditor

John Sylvia  
Director

Derek Thomas  
Research Analyst

Michael Potter  
Research Analyst

Megan Kueck  
Referencer

---

# CONTENTS

Executive Summary .....	5
Objective, Scope and Methodology.....	9
Background .....	11
Issue 1: The State’s Average High School Graduation Rate Has Had No Upward Trend in the Past 15 Years. Larger High Schools and Reading Deficiencies Are Significant Factors That Prevent the Advancement of the Graduation Rate.....	15
Issue 2: West Virginia’s Academic Test Scores at the State and National Levels Have Been Mixed. Improvements in Reading and Math at the State Level Have Peaked, While at the National Level Progress Is Being Made in Math But Reading Scores Show No Improvement .....	35
Issue 3: Prekindergarten Programs Are Increasing for Four-year Olds but Are Underutilized for Three-year Olds in West Virginia .....	49
Issue 4: The Effectiveness of School Choice in the State Is Limited by Substandard Guidance and an Inadequate Parental Notification Process.....	57
Issue 5: The Department of Education’s High Quality Teacher Requirements Meet NCLB Guidelines.....	69
Issue 6: The DOE Has Done Well to Incorporate Technology Into Policies and Records Management.....	73
List of Figures	
Figure 1: Average 9th Grade Enrollment and Graduate Statistics .....	17
Figure 2: NCES Graduation Rate Estimates U.S. vs West Virginia .....	18
Figure 3: EPE Research Center Estimates of Graduation Rates .....	19
Figure 4: 4th Grade Public School Students NAEP Average Reading Scores 1998-2007.....	38
Figure 5: 8th Grade Public School Students NAEP Average Reading Scores 1998-2007.....	39
Figure 6: 4th Grade Public School Students NAEP Average Mathematics Scores 2000-2009 .....	40
Figure 7: 8th Grade Public School Students NAEP Average Mathematics Scores 2000-2009 .....	41
Figure 8: Percentage of West Virginia 4th and 8th Grade Students At or Above Proficient on the NAEP Mathematics Test 2000-2009.....	42
Figure 9: Percentage of West Virginia 4th and 8th Grade Students At or Above Proficient on the NAEP Reading Test 2000-2009 .....	43
Figure 10: West Virginia’s NAEP Reading Test Scores Versus Its Westest Scores.....	45
Figure 11: West Virginia’s NAEP Math Test Scores Versus Its Westest Scores.....	46
Figure 12: Percentage of Four Year-olds Enrolled in Pre-K .....	51
Figure 13: Percentage of Three Year-olds Enrolled in Pre-K .....	52
Figure 14: Spending By Government Per Pupil for Pre-K.....	52
Figure 15: West Virginia Counties With One Elementary School.....	64
Figure 16: West Virginia Counties With One Middle School.....	64
Figure 17: West Virginia Counties With One High School .....	65
Figure 18: Length of Notification for Students Who Exercised School Choice in West Virginia 2008-2009.....	66

List Of Tables

Table 1: West Virginia High School Graduation Rates Completer Formula vs 4-Year Cohort Method ..... 16

Table 2: West Virginia Annual Dropout Rate ..... 20

Table 3: Correlates of West Virginia 2008 High School Graduation Rules ..... 22

Table 4: Regression Analysis of the 2008 Graduation Rate ..... 23

Table 5: Westest Reading Proficiency 2004-08 ..... 25

Table 6: Size-Statistics by School District..... 28

Table 7: Average District Class Sizes for Select Required Courses 2008-09

Table 8: Westest Proficiency Scores for All Students Reading, Mathematics, Science and Social Studies 2004-08 ..... 36

Table 9: Westest Proficiency Scores Major Student Sub-Groups 2005-08 ..... 37

Table 10: Level of Compliance of School Choice Notification Letters for West Virginia Schools for 2008..... 61

Table 11: Timeline for Notification of Test Scores to School Districts for 2009..... 65

Table 12: Praxis I Passing Scores Reported by 28 Applicable States 2007-2008..... 70

Table 13: Praxis II Passing Scores for Core Subjects 2007-2008 ..... 71

List Of Appendices

Appendix A: Transmittal Letters to Agency ..... 77

Appendix B: West Virginia Graduation Rate..... 81

Appendix C: Regression Analysis High School Size and the 2008 Graduation Rate ..... 83

Appendix D: Parent Letter for School Choice..... 85

Appendix E: Agency Response..... 87

## EXECUTIVE SUMMARY

This report represents the Departmental Review of the West Virginia Department of Education (DOE), as required by West Virginia Code §4-10-8. The report contains six issue areas. Overall, the Legislative Auditor finds that the DOE is making progress in certain areas; however, there is a lack of progress in other key areas.

### Report Highlights:

#### **The State's Average High School Graduation Rate Has Had No Upward Trend in the Past 15 Years. Larger High Schools and Reading Deficiencies Are Significant Factors That Prevent the Advancement of the Graduation Rate.**

- A preferred method for all states to use in calculating their high school graduation rate will show West Virginia's graduation rate is significantly lower than has been previously measured.
- Under the preferred method of calculating the high school graduation rate, West Virginia has been consistently above the national average; however, the state has had no upward trend in the past 15 years.
- The state's high school dropout rate is likely higher than previously reported by the DOE.
- Reading deficiencies, larger high school sizes and larger high school class sizes are among the factors that inhibit advancement of the state's high school graduation rate.

#### **West Virginia's Academic Test Scores at the State and National Levels Have Been Mixed. Improvements in Reading and Math at the State Level Have Peaked, While at the National Level Progress Is Being Made in Math But Reading Scores Show No Improvement.**

- Proficiency scores on the state's assessments for reading, mathematics, science and social studies have improved; however, scores have peaked over the last three years.
- The state's proficiency scores on the national academic assessments for reading have shown no improvement for 4<sup>th</sup> grade students and

8<sup>th</sup> grade scores have declined over the last 10 years. Although the state's reading scores on the national assessments are presently below the national averages, they are close enough that West Virginia has a realistic opportunity to exceed the reading proficiencies of the national assessments within a relatively short time.

- The state's proficiency scores on the national assessment for 4<sup>th</sup> grade math have shown significant improvement over the last 10 years, while 8<sup>th</sup> grade math scores show slight progress over the same time period. However, West Virginia has much ground to make up in math compared to the national averages because national progress in math has consistently exceeded the state's progress.
- The DOE has recently increased academic standards for the 2008-09 school year. Evidence suggests that prior to the 2008-09 school year, West Virginia's reading and math standards were too low and not conducive to significant academic progress. The higher standards as measured by Westest-2 should have long-term educational benefits for the state.

### **Prekindergarten Programs Are Increasing for Four-year Olds but Are Underutilized for Three-year Olds in West Virginia.**

- West Virginia has committed significant resources to improving prekindergarten statewide and has established a cutting edge program. However, the implementation timeline for universal four-year-old prekindergarten is unrealistic and should focus on elimination of waiting lists.
- The WV Department of Education should make a concerted effort to publicize the State's Pre-K program to increase its usage. Furthermore, greater transparency should be encouraged for private partners who provide services for Pre-K.

### **The Effectiveness of School Choice in the State Is Limited by Substandard Guidance and an Inadequate Parental Notification Process.**

- The Legislative Auditor analyzed school-choice notification letters for compliance with "No Child Left Behind" requirements. The majority of

letters did not comply with federal requirements.

- The Department of Education should be more proactive in supervising school choice notifications and make an effort to increase the ability of students to exercise school choice options. This should include consideration of a mandate that parents be notified earlier of school choice options by school districts.

### **The Department of Education's High Quality Teacher Requirements Meet NCLB Guidelines.**

- The Department of Education's licensure requirements ensure most new teachers come into the profession meeting the standards to be considered highly qualified.
- A goal of the NCLB law is that all classes be taught by highly qualified teachers. In AY2007-2008, 91 percent of classes were taught by highly qualified teachers in West Virginia.

### **The DOE Has Done Well to Incorporate Technology Into Policies and Records Management.**

- West Virginia received high marks in a recent national study on the use of technology in education.
- The Department of Education is to be commended on its records management and data availability.

### **Recommendations:**

1. *The West Virginia Department of Education and the Legislature should implement all aspects of the May 2009 Southern Regional Education Board recommendations for making reading improvement first priority.*
2. *The Department of Education should consider studying or contracting a study of the full effects of large school districts, large high schools and school consolidation on the graduation and dropout rates, and other education outcomes.*

3. *The Department of Education should make the necessary enhancements to its data system that will improve the ability to conduct longitudinal studies, attach more at-risk indicators for each student, and to provide for continuous monitoring of student-level data of academic and social performance.*
4. *The Department of Education should provide for a more accurate calculation of the state's dropout rate.*
5. *The Department of Education should encourage or consider incorporating in appropriate schools and districts a more personalized learning environment that includes establishing small learning communities and creating smaller classes.*
6. *The Department of Education should ensure that teachers are teaching at the higher standards and that professional development adequately provides teachers with the skills to teach and develop lessons based on the higher standards.*
7. *The Legislative Auditor recommends that the West Virginia Department of Education makes a concerted effort to publicize the State's Pre-K program.*
8. *The Legislative Auditor recommends that the Legislature encourage greater transparency for private partners who provide services for the State Pre-K program. The State should consider instituting an increased reporting requirement for entities that partner with local school boards.*
9. *The Legislative Auditor recommends that the Department of Education make an effort to increase the ability of students to exercise school choice options within West Virginia. The state should explore ways to bolster the state's school choice program beyond merely attempting to meet federal standards.*
10. *The Legislative Auditor recommends that the Department of Education should be more proactive in supervising school choice notifications.*
11. *The Legislative Auditor recommends that the Legislature consider mandating that parents be notified earlier of school choice options by school district.*

## OBJECTIVE, SCOPE & METHODOLOGY

### Objective

This report represents the Departmental Review of the West Virginia Department of Education (DOE) pursuant to West Virginia Code §4-10-8. The objective is to evaluate performance outcomes and assess the effectiveness in achieving educational goals of the DOE.

### Scope

The scope of this review in terms of data collected comprises academic years from 1998 through 2009. Although data were obtained from various offices within the DOE, a specific performance review of any particular office or division of the DOE was not conducted. The scope of the review focused strictly on the progress in achieving certain outcome measures and how the DOE is meeting certain elements of the No Child Left Behind Act of 2001 (NCLB). The outcome measures that were evaluated included the state's average high school graduation rate, reading and mathematics proficiency scores on the state's assessment tool (Westest) and the national assessments (National Assessment of Educational Progress). Other areas that were reviewed included the level of pre-k availability statewide, the implementation of the NCLB requirements for school choice, the credentialing process of teachers and the DOE's incorporation of technology in the public school system.

### Methodology

The Legislative Auditor's Office acquired data from the DOE and national organizations. Research studies were used from various research publications. Other information was obtained through personal interviews with personnel of the DOE. The Legislative Auditor staff performed correlation and regression analysis on acquired data, as well as other non-statistical analysis. Various state education policies were also measured against the Federal No Child Left Behind Act. Every aspect of this review complied with Generally Accepted Government Auditing Standards (GAGAS) as set forth by the United States Comptroller General.



## BACKGROUND

The Superintendent of Schools is required by West Virginia Code §18-3-9 to maintain the West Virginia Department of Education (DOE) to fulfill provisions set forth in state code regarding education. The Superintendent, a constitutionally mandated position, has the authority to employ assistants and any other staff as needed to fulfill these provisions. The Superintendent, and therefore the DOE, is responsible for the general supervision of free schools, county and city school superintendents, as well as carrying out the rules set forth by the West Virginia Board of Education. Currently the DOE reports an office staff of 67. The DOE’s operations budget for FY 2010 is \$41,751,192.

The DOE works as a flow through agency for funding of local school districts. The state’s education budget is divided among the districts via the school aid formula. The formula accounts for various local issues such as enrollment, socio economic status and contributions from the community.

Table 1 illustrates the budget summary of the DOE for the past 10 years. Though, not included in the table, the Special Revenue line item is figured into the total. The DOE received between three and four million dollars in special revenue in each year represented.

**Table 1  
WVDOE Budget Summary FY2000 to FY2010**

<b>Year</b>	<b>FTE Positions*</b>	<b>Fund 0313**</b>	<b>State Aid and Other Programs</b>	<b>Lottery Revenue</b>	<b>Federal Revenue</b>	<b>Total</b>
FY2000	477.6	\$23,656,974	\$1,389,684,063	\$38,965,683	\$277,157,248	\$1,709,330,0473
FY2001	511.6	\$26,367,083	\$1,424,856,214	\$38,966,886	\$289,008,019	\$1,756,449,777
FY2002	529.6	\$19,421,214	\$1,457,192,656	\$77,737,067	\$297,062,079	\$1,835,484,157
FY2003	541.2	\$15,726,752	\$1,530,705,435	\$74,833,228	\$326,739,414	\$1,935,996,644
FY2004	553	19,694,154	\$1,570,782,166	\$73,777,240	\$351,000,000	\$1999,372,744
FY2005	570	\$29,174,777	\$1,613,577,740	\$71,226,132	\$292,000,000	\$2,081,472,210
FY2006	574	\$31,202,458	\$1,688,114,533	\$69,545,429	\$457,235,993	\$2,218,478,408
FY2007	582	\$31,628,542	\$1,710,783,479	\$69,703,553	\$509,000,000	\$2,293,120,020
FY2008	618	\$52,793,814	\$1,794,320,872	\$71,908,239	\$484,666,623	\$2,354,469,779
FY2009	645	\$48,626,262	\$1,841,775,055	\$72,190,948	\$464,650,664	\$2,382,559,698

*Source: West Virginia Department of Education, Report to the Joint Committee on Governmental Organizations required by West Virginia Code §4-10-6, May 2009.*

*\*Approximately 25% of total employees are federally funded and includes teachers in correctional institutions.*

*\*\*Fund devoted to the administration and operations of DOE.*

---

## Legislative Goals Set Forth in Vision 2020

The DOE operates on a system of legislative goals and objectives which encourages all levels of state education to improve performance measures. Chief among these legislative goals is the recently enacted as West Virginia Code §18-1-4 Vision 2020: An Education Blueprint for Two Thousand Twenty. This legislation charges the Board of Education with providing a plan to achieve several specific goals within certain time frames.

Vision 2020 includes both broad policy-based objectives and more specific performance goals. Some of the most notable policy objectives are the establishment of a 21<sup>st</sup> century oriented school curriculum with an emphasis on learning skills and technology tools; alignment with public schools, post-secondary education and workplace readiness programs to increase the coordination between institutions; and the availability of universal pre-kindergarten education to all eligible West Virginia students.

The more specific goals set forth in Vision 2020 are generally quantifiable as performance measures, some with established time frames earlier than 2020. Examples of such goals are as follows:

- reduce the gap between the county with the lowest college going rate and that of the state average by 50 percent by 2012;
- reduce that gap further by another 50 percent by 2020;
- increase the state's college going rate to equal that of the other Southern Regional Education Board's (SREB) member states by 2012;
- increase the state's college going rate to exceed that of SREB's member states by five percent by 2020;
- achieve 90 percent of ninth graders graduating from high school by 2020;
- improve by 50 percent the performance of West Virginia students in the lowest quartile of national and international measures by 2020.

## Recent Implementation of WESTEST-2

In an effort to raise academic standards, the DOE has developed a more rigorous West Virginia Educational Standards Test, which is Westest-2. The higher standards and testings were administered for the first time during the 2008-2009 school year. The DOE has stated that the WESTEST 2 has been developed and aligned with its 21<sup>st</sup> Century Content Standards and

Objectives (CSO). The new CSO was developed by a group of education stakeholders beginning in February of 2006. The purpose for these new standards is to expand student understanding in core subjects to much higher levels; align the West Virginia CSOs with national standards; and integrate 21st century knowledge and skills into the learning objectives.



## ISSUE 1

### **The State’s Average High School Graduation Rate Has Had No Upward Trend in the Past 15 Years. Larger High Schools and Reading Deficiencies Are Significant Factors That Prevent the Advancement of the Graduation Rate.**

The graduation rate of high school students is an important indicator of a school system’s performance. The No Child Left Behind Act of 2001 required states to use the graduation rate as an accountability indicator for high schools. However, NCLB originally did not specify how the calculation should be made. In addition, the U.S. Department of Education (ED) did not initially provide states with options to choose from in calculating the graduation rate. Consequently, states used different formulas to calculate their respective graduation rate, and no comparisons could be made between states. The graduation rate that a state used had to be approved by the ED through the submission of its Accounting Workbook. The ED approved West Virginia’s use of the Completer Formula for its graduation rate.

The State’s Completer Formula divides the total number of 4-year graduates who received standard high school diplomas by the total number of 4-year graduates and the students who dropped out during the four years of high school for that graduation class. This method is similar to what most states have used. According to one estimate, 33 states used similar methods in calculating their graduation rate, while 10 states used longitudinal data and the remaining 7 states used an assortment of methods.<sup>1</sup>

In 2008, the ED emphasized an “on-time” graduation rate with the purpose of developing a common measure for all states. This common measure is the 4-year Cohort Method, similar to the method recommended by the National Governor’s Association. This method uses longitudinal data that involves tracking students enrolled in the ninth grade and identifying those who graduate in four years. The longitudinal method is considered a more reflective measure of the true graduation rate; however, states must have a data system capable of tracking and distinguishing different student outcomes over time. No Child Left Behind now requires that all states use the 4-year Cohort Method starting with the 2010-11 school year. States will have the option to choose a four-year or five-year graduation period. The West Virginia DOE already has a data system capable of using longitudinal data required for the 4-year Cohort Method.

---

*The No Child Left Behind Act of 2001 did not specify how states were to calculate their graduation rate. Consequently, states used different formulas to calculate their respective graduation rate, and no comparisons could be made between states.*

---

---

*No Child Left Behind now requires that all states use the 4-year Cohort Method starting with the 2010-11 school year. This required method of calculating the graduation rate will estimate West Virginia’s graduation rate significantly lower than what has been previously reported by the DOE.*

---

---

<sup>1</sup>American Federation of Teachers, *Graduation Rates: An AFT Update of Research*, Research Review, September 2006, p. 10.

## The State’s High School Graduation Rate Is Significantly Lower Using the 4-Year Cohort Measure

The Legislative Auditor’s Office requested that the DOE calculate West Virginia’s graduation rate using the 4-year Cohort Method. This information was requested for the 2007-08 school year by county and the state average. Table 1 shows the difference in the calculations between the Completer Formula and the 4-year Cohort Method. The 4-year Cohort Method calculates West Virginia’s graduation rate at 75.2 percent for 2008, which is 8.8 percentage points lower than the Completer Formula for the same year. The primary reason that the Completer Formula produces a higher graduation rate estimate than the 4-year Cohort Method is that it incorporates dropout statistics in the formula. According to education research, methods using dropout rates in the calculation, such as the Completer Formula, will have higher estimates than other methods because dropout statistics are generally underreported.<sup>2</sup>

*The 4-year Cohort Method calculates West Virginia’s graduation rate at 75.2 percent for 2008, which is 8.8 percentage points lower than the Completer Formula for the same year.*

Year	Old Graduation Rate Completer Formula	New Graduation Rate 4-Year Cohort Method
2006	84.6%	n/a
2007	84.7%	n/a
2008	84.0%	75.2%

*Source: West Virginia Department of Education*

Appendix B of this report contains a map of the state showing the estimated 2008 graduation rates for each county using the 4-year Cohort Method. The range varies from a low of 67.97 percent in Kanawha County and a high of 90.13 percent in Tyler County.

*The 2008 high school graduation rates at the county level have a range from a low of 67.97 percent in Kanawha County and a high of 90.13 percent in Tyler County.*

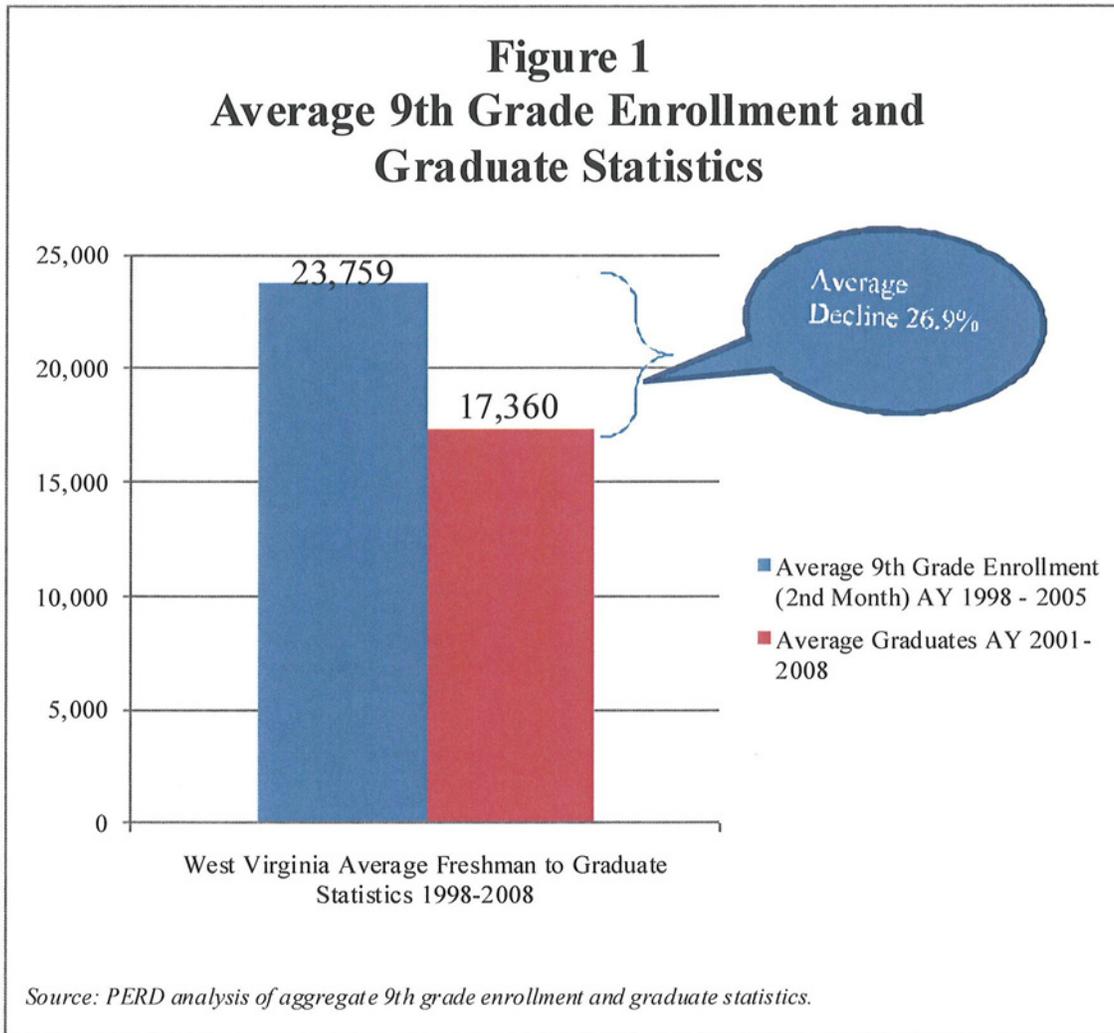
## The State’s Graduation Rate Has Had No Upward Trend in the Past 15 Years

Intuitively, the State’s statistics on 9<sup>th</sup> grade enrollment and the number of graduates four years later reveals that the Completer Formula has been providing an inflated West Virginia high school graduation rate.

<sup>2</sup> *Ibid.*, p.10.

Figure 1 shows the average difference between the number of West Virginia high school graduates and the number of 9<sup>th</sup> graders enrolled four years earlier. The graph shows that for the past 10 years, the number of graduates each year from 2001 to 2008 averages about 73 percent of those enrolled in 9<sup>th</sup> grade four years earlier. This suggests a graduation rate in the mid-seventy percent, which gives credence to the 4-Year Cohort Method.

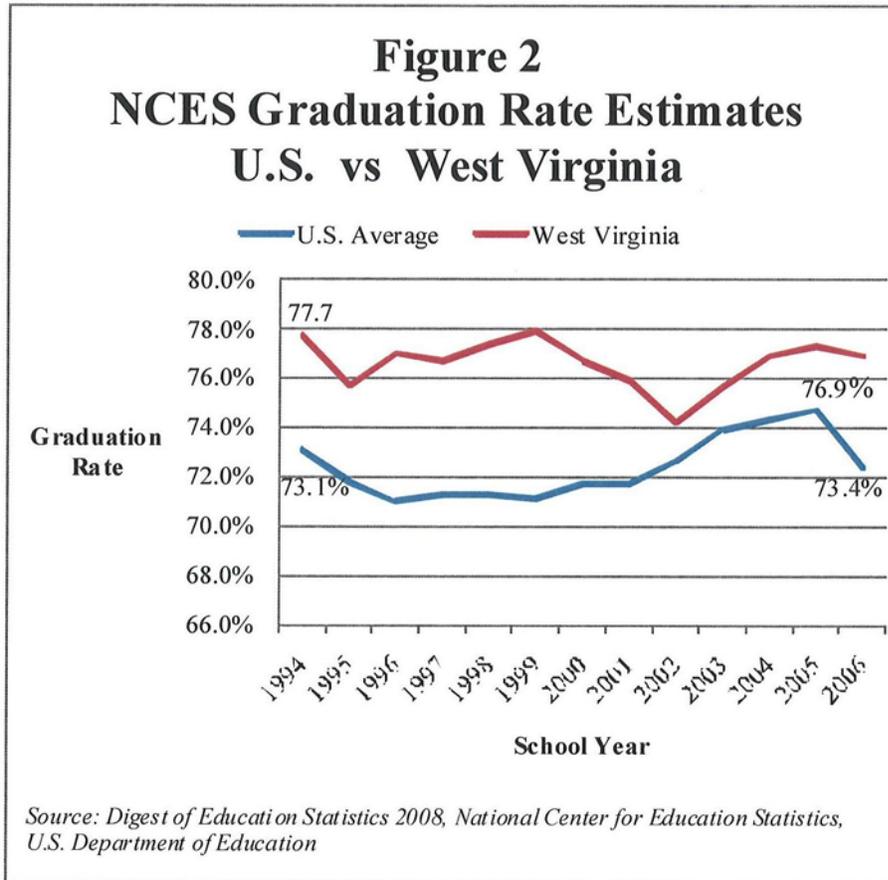
*The graph shows that for the past 10 years, the number of graduates each year from 2001 to 2008 averages about 73 percent of those enrolled in 9<sup>th</sup> grade four years earlier. This suggests a graduation rate in the mid-seventy percent, which gives credence to the 4-Year Cohort Method.*



Other estimates further substantiate a lower graduation rate for the state as well as a flat trend line for several years. The U.S. Department of Education's National Center for Education Statistics (NCES) previously calculated a common measure graduation rate in its 2008 Digest of Education Statistics. The common measure is the Average Freshman Graduation Rate, which is an estimate of the percentage of students who receive a regular diploma within four years of entering ninth grade. This estimate uses

aggregate ninth grade enrollment data and total graduate data for four years later. The NCES provided average freshman graduation rates from 1994 through 2006. The estimates indicate that West Virginia has generally been above the national average graduation rate; however, there has been relatively no progress in advancing the state's graduation rate over the 12-year period.

*The estimates indicate that West Virginia has generally been above the national average graduation rate; however, there has been relatively no progress in advancing the state's graduation rate over the 12-year period.*



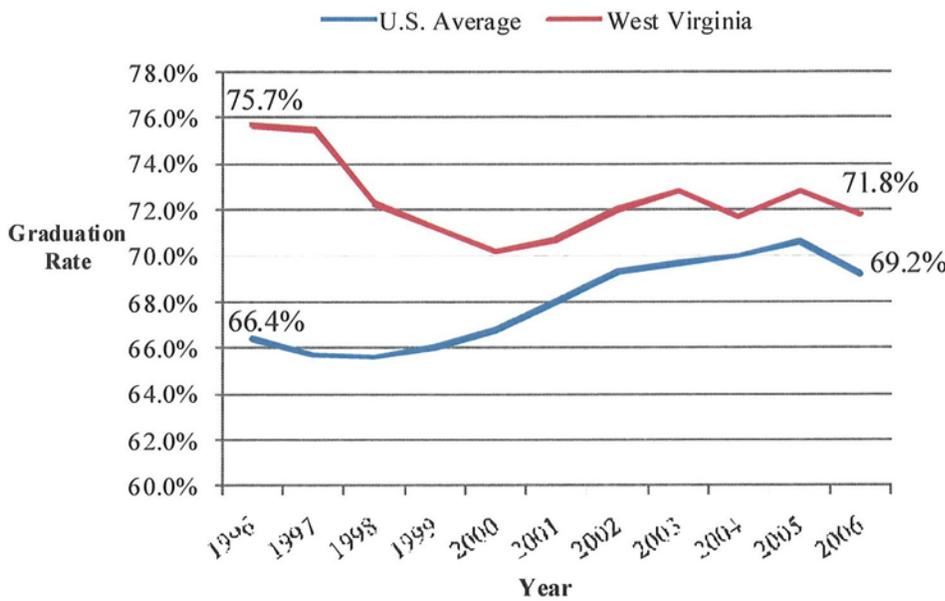
Another study of graduation rates was conducted by the Research Center of the Editorial Projects in Education (EPE). The EPE used the Cumulative Promotion Index formula to estimate graduation rates. This method calculates the percentage of high school students who are promoted from each of the four high school grades, with graduation being the last promotion for 12<sup>th</sup> graders. For each year there are four grade-promotion ratios that are combined to represent that year's graduation rate. The graduation rate estimates using this method for West Virginia and the nation are shown in Figure 3. The EPE estimates are somewhat lower than the NCES estimates by an average of four to five percentage points. Also, the EPE shows a decline by four percentage points over the 1996-2006 time

period; whereas the NCES shows a relatively flat trend line over the same period. The gap between West Virginia's and the nation's graduation rates in 2006 is estimated at 3.5 percentage points according to the NCES and 2.6 percentage points according to the EPE.

Some of the different methods of estimating the state's high school graduation rate suggest that West Virginia's graduation rate is significantly lower than what has been estimated by the DOE. The more accurate graduation rate could be as much as 10 percentage points lower than what the DOE has reported. In addition, it appears that West Virginia is above the national average graduation rate. However, there are no signs of an upward trend for more than 10 years. This has the immediate concern that the State's current approaches to advance graduation rates have been insufficient, at least on a state average basis. The State has the goal of achieving a 90 percent graduation rate from high school for 9<sup>th</sup> grade students by the year 2020. With the graduation rate at an estimated mid-seventy percent and the current trend being relatively flat, the State will fall short of achieving a 90 percent graduation rate by a sizable margin.

*With the graduation rate at an estimated mid-seventy percent and the current trend being relatively flat, the State will fall short of achieving a 90 percent graduation rate by a sizable margin.*

**Figure 3**  
**EPE Research Center**  
**Estimates of Graduation Rates**



Source: West Virginia: State Graduation Brief 2009, Education Week's Diplomas Count 2009, Editorial Projects in Education Research Center

## The High School Dropout Rate Has Also Been Understated

The DOE has reported the average annual state dropout rate at close to three percent over the last several years (see Table 2). The state's dropout rate is determined through Dropout Reports submitted to the DOE by school districts, which includes students who are listed as having dropped out as of a certain date of the school year. This information is adjusted for students who returned to school, received their GED prior to the start of the next school year, transferred out of state, or died. These students would be removed from the Dropout Report for the respective year. The data from the Dropout Reports are used in the calculation of the graduation rate.

Year	Annual Dropout Rate
2007-08	3.0%
2006-07	2.7%
2005-06	2.7%

*Source: West Virginia Department of Education*

*Given the lower graduation rate as measured by the 4-year Cohort Method, which is a more accurate estimate, the state's dropout rate is likely higher than previously reported. Therefore, it is likely that West Virginia's true annual dropout rate is closer to five or six percent.*

Given the lower graduation rate as measured by the 4-year Cohort Method, which is a more accurate estimate, the state's dropout rate is likely higher than previously reported. It is difficult to determine the extent to which the number of dropouts is undercounted. However, it is clear that a high school graduation rate of 75 percent indicates that 25 percent of 9<sup>th</sup> grade students do not graduate within 4 years of high school. Some of these students may have transferred out of state or were required to take more than 4 years to graduate; however it is unlikely that this would account for much of the 25 percent drop in 9<sup>th</sup> graders who do not graduate in 4 years. **Therefore, it is likely that West Virginia's true annual dropout rate is closer to five or six percent.**

## Larger High Schools and Reading Deficiencies Are Major Barriers in Advancing the High School Graduation Rate

There are several factors that are associated with dropout statistics and, consequently, with the graduation rate. In 2002, the U.S. Government Accountability Office (GAO), formally the General Accounting Office, reviewed the research on high school dropout rates. The GAO found that

research studies identified two main factors in dropping out: 1) family characteristics, and 2) a student's experience in school.<sup>3</sup> Research shows that students from households of single parents, low income and less educated parents drop out at a much higher rate than other students. In addition, students with low grades, high absenteeism and disciplinary problems and retention of one or more grades dropout at a much higher rate than students not experiencing these issues.<sup>4</sup> Furthermore, the research surveyed by the GAO indicates that dropping out of school "...is a long-term process of disengagement that occurs over time and begins in the earliest grades."<sup>5</sup>

The Legislative Auditor analyzed various factors that affect the graduation rate. The 4-year Cohort graduation rate as calculated by the DOE for the 2007-08 school year was used as the basis for correlation and regression analyses. Table 3 shows several variables that correlate with the 2008 graduation rate. It shows variables that reflect family characteristics are correlated to the graduation rate. There is a negative relationship between the graduation rate and the percentage of children under 18 years of age living in families headed by a single female. However, there is a positive relationship between the graduation rate and the percentage of children under 18 years of age living in families headed by a married couple. Academic performance of students has a positive correlation with the graduation rate. The 2008 graduation rate is positively correlated with the percentage of 10<sup>th</sup> grade students who performed at or above the proficiency level on the Westest for reading and math two years before graduation. However, it is interesting to note that the district and high school sizes, in terms of total enrollment, have a negative correlation on the graduation rate. Other variables were tested but proved to be statistically insignificant. These variables included the percentage of economically disadvantaged students in the school district (students eligible for free and reduced lunch through the National School Lunch Program), county per capita income, and the percentage of county population that attained a bachelor degree or higher for age groups 25-34 and 35-44.

---

*Academic performance of students has a positive correlation with the graduation rate. The 2008 graduation rate is positively correlated with the percentage of 10<sup>th</sup> grade students who performed at or above the proficiency level on the Westest for reading and math two years before graduation. However, it is interesting to note that the district and high school sizes, in terms of total enrollment, have a negative correlation on the graduation rate.*

---

---

<sup>3</sup> U.S. General Accounting Office, *School Dropouts: Education Could Play a Stronger Role in Identifying and Disseminating Promising Prevention Strategies*, GAO-02-240, February 2002, p. 15.

<sup>4</sup> *Ibid*, p. 15.

<sup>5</sup> *Ibid*, p. 16.

**Table 3**  
**Correlates of West Virginia 2008**  
**High School Graduation Rates**

Variables	Correlation Coefficient	Significance Level
<b>District_Size</b> (Average school district size in terms of total (2 <sup>nd</sup> month) enrollment for 2005-08)	-0.474	99%
<b>Read10th_2006</b> (Westest 10 <sup>th</sup> grade reading proficiency percentage two years prior to graduation)	+0.421	99%
<b>Avg_High_School_Size</b> (Average 2005-08 individual high school enrollment)	-0.341	99%
<b>Avg_High_School_Class_Size</b> (A district's average high school class size for 2007-08)	-0.314	98%
<b>Female_HH</b> (Children under 18 with a female householder, no husband present)- 2000 Census Data	-0.308	98%
<b>Married_HH</b> (Children under 18 in a Married-couple family) 2000 Census Data	+0.288	97%
<b>Math10th_2006</b> (Westest 10 <sup>th</sup> grade math proficiency percentage two years prior to graduation)	+0.266	95%
<b>Read8th_2004</b> (Westest 8 <sup>th</sup> grade reading proficiency percentage four years prior to graduation)	+0.231	91%
<b>Urban</b> (Percent Urban Population of the School District)- 2000 Census Data	-0.224	90%
<b>HQT_High_School</b> (Percentage of High School Classes taught by Highly Qualified Teachers)	+0.199	86%
<b>Math8th_2004</b> (Westest 8 <sup>th</sup> grade math proficiency percentage four years prior to graduation)	+0.157	75%

*Source: PERD statistical analysis of DOE and U.S. Census data.*

A regression analysis (see Table 4) shows that 43 percent of the variation in the 2008 four-year Cohort graduation rate is explained by two variables: 1) the average (2005-2008) number of high school students (9<sup>th</sup> through 12<sup>th</sup> grade) enrolled per county, and 2) the percentage of county 10<sup>th</sup> grade students scoring at or above proficient on the 2006 Westest reading test. The independent variables of the regression analysis are statistically significant at the 99 percent confidence level. The independent variable for reading proficiency of 10<sup>th</sup> grade students two years prior to graduation

suggests that academic achievement in years leading up to graduation is important in students remaining in school. The variable for 10<sup>th</sup> grade math proficient percentages in 2006 was also significant at the 95 percent confidence interval, but it did not have the statistical explanatory power as the reading scores. The variable for 2004 proficient reading percentages for the 8<sup>th</sup> grade (four years prior to graduation) was statistically significant at the 91 percent confidence interval. It is possible that if the Westest was given to 9<sup>th</sup> grade students, the proficient percentages in reading and math would explain the variation in the 2008 graduation rate to a greater extent than the 10<sup>th</sup> grade scores. Nevertheless, the correlation of the 10<sup>th</sup> grade 2006 reading and math scores to the 2008 graduation rate supports the idea that students are more likely to finish school if they are achieving at adequate academic levels.

---

*Nevertheless, the correlation of the 10<sup>th</sup> grade 2006 reading and math scores to the 2008 graduation rate supports the idea that students are more likely to finish school if they are achieving at adequate academic levels.*

---

**Table 4  
Regression Analysis  
of the 2008 Graduation Rate**

<b>Dependent Variable</b>		
<b>2008 Four-Year Cohort Graduation Rate</b>		
<b>Independent Variables</b>	<b>Regression Coefficient</b>	<b>T-Value</b>
<b>Intercept</b>	50.184	7.145
<b>District Size</b>	-0.0006	-4.917*
<b>Read10th_2006</b>	0.4119	4.451*
R-Squared	0.438	
Durbin-Watson	2.348	
F-Ratio	20.293	

*Source: PERD statistical analysis of DOE data.  
\*Significant at the 99% confidence interval.*

## **Improving Reading Skills Is Critical in Advancing Graduation Rates**

The fact that the 2006 Westest reading scores is such a strong explanatory variable of the 2008 graduation rates confirms the importance of reading in the early grades as the foundation for success in high school. The

Southern Regional Education Board (SREB) published a report in May 2009 encouraging all SREB states (which includes West Virginia) to make reading in the middle grades and high school their top priority. The SREB report state that,

Reading is the key to helping students reach higher levels of learning in all subjects. Yet student achievement in middle grades and high school reading is low and not progressing. For these reasons, **improvement of students' reading skills needs to be the top priority in all middle grades and high schools in the Southern Regional Education Board (SREB) states...**States will not be able to raise high school and college graduation rates unless they help more students learn to read at higher levels.<sup>6</sup> (emphasis included)

---

*Reading is the key to helping students reach higher levels of learning in all subjects. States will not be able to raise high school and college graduation rates unless they help more students learn to read at higher levels.*

---

The statistical findings of this report support the SREB assertion. For West Virginia, 10<sup>th</sup> grade reading proficiency has been declining and 8<sup>th</sup> grade reading proficiency has been flat (see Table 5). Also, the state's NAEP reading test scores for 4<sup>th</sup> grade students have been flat the past 10 years, and 8<sup>th</sup> grade students have had declining NAEP test scores over the same time period (see Figures 1 and 2 of Issue 2). The SREB report indicated further that:

Students who leave eighth grade with weak reading skills quickly fall behind in high school. More students in SREB states repeat ninth grade than any other grade, swelling ninth-grade enrollment by 14 percent in the SREB median states in 2005. Students who falter in ninth grade are likely to become high school dropouts.<sup>7</sup>

---

*Students who leave eighth grade with weak reading skills quickly fall behind in high school. Students who falter in ninth grade are likely to become high school dropouts.*

---



---

<sup>6</sup>Southern Regional Education Board, *A Critical Mission: Making Adolescent Reading an Immediate Priority in SREB States*, May 2009, pp. 1-2.

<sup>7</sup>*Ibid.*, p. 3.

<b>Table 5</b> <b>Westest Reading Proficiency</b> <b>2004-08</b>		
School Year	8 <sup>th</sup> Grade Reading Proficiency	10 <sup>th</sup> Grade Reading Proficiency
2007-08	80.5	73.9
2006-07	80.1	75.0
2005-06	81.2	76.3
2004-05	80.0	75.0
2003-04	80.0	77.0

*Source: West Virginia Department of Education.*

Clearly, if West Virginia is going to make meaningful progress in the graduation rate, it will have to develop a comprehensive reading improvement program at the middle and high school levels of instruction. According to the SREB, a major shift in focus from other priorities towards improving reading is necessary. The SREB acknowledges that additional state funding will be required, but a reallocation of funds from existing programs can help offset some of the increases. The recommendations made by the SREB’s Committee to Improve Reading and Writing in Middle and High School should be reviewed by the DOE and considered for implementation. Some of the recommendations made in the 2009 SREB report are listed below.

1. States should create a panel of education experts to establish the reading skills students are expected to learn in key academic subjects through 12<sup>th</sup> grade and have these tied to the academic standards for those subjects.
2. States should produce a guide for improving adolescent reading through high school that explains the teacher’s responsibilities in raising reading skills in the middle and high school grades, and that outlines the strategy statewide in improving reading skills.
3. States need to develop an effective reading intervention program that involves diagnostic testing, separate from the state assessment tool, to determine if each student is reading at grade level, identifies the specific areas of weakness, and provides tutoring and additional instruction that is designed for their specific need and based on the results of the diagnostic assessments.
4. States should identify best practices for teaching reading skills, and ensure that teachers in all subjects receive intensive training on how to incorporate reading instruction into each subject.

---

*Clearly, if West Virginia is going to make meaningful progress in the graduation rate, it will have to develop a comprehensive reading improvement program at the middle and high school levels of instruction. According to the SREB, a major shift in focus from other priorities towards improving reading is necessary.*

---

5. States should revise its certification process of teachers to ensure that they demonstrate competency in teaching subject-related reading. It should also be required that professional development includes training on effective ways to teach reading in each subject.
6. States should align the rigor of its academic standards and assessments closer to the NAEP proficiency level.

There are several other specific recommendations of the 2009 SREB report that the DOE should consider in making reading a top priority throughout the state. West Virginia will need to implement a major policy change that will increase the amount of time students spend in reading instruction, and provide additional instruction for those who are below appropriate reading standards.

---

*West Virginia will need to implement a major policy change that will increase the amount of time students spend in reading instruction, and provide additional instruction for those who are below appropriate reading standards.*

---

## Larger High School Sizes Also Have Negative Impact on West Virginia's Graduation Rate

As the regression analysis and other correlates indicate, other variables besides academic performance are important factors in students remaining in school. Family characteristics and the school environment are also important factors. The regression analysis shown in Table 4 indicates that there is an inverse relationship between the size of West Virginia school districts and the district high school graduation rate, and that this relationship is independent of academic (reading) performance. The two variables of the regression analysis combine to explain nearly 44 percent of the variation in the district level graduation rates. **However, much of the 44 percent is accounted for by the District\_Size variable compared to the Read10th\_2006 variable.** The incremental R-square for each variable shows that the District-size variable is 0.261 and the Read10th\_2006 is 0.177. This suggests that district size is having a more telling impact on the graduation rate than academic performance.

---

*The regression analysis shown in Table 4 indicates that there is an inverse relationship between the size of West Virginia school districts and the district high school graduation rate, and that this relationship is independent of academic (reading) performance.*

---

It is difficult to measure statistically all of the influences on West Virginia's graduation rate that are derived from larger school districts. The influences that can be measured statistically are high school size and class sizes. Generally, the larger the school district the larger the schools and class sizes. For West Virginia, there is no statistically significant relationship between district size and elementary and middle school sizes. However, for West Virginia high schools there is a clear statistical relationship (+0.518

correlation coefficient) revealing that the larger the district, the larger the high school sizes. Furthermore, there is a statistically significant relationship in West Virginia that the larger the school district, the larger the district's average class size for all grades and subjects. This relationship (+0.357 correlation coefficient) is not as strong as high school size, but nevertheless is statistically significant at the 99 percent confidence level.

In addition, this analysis shows that a district's average high school size, in terms of enrollment, has a negative correlation (-0.341) with the graduation rate and has explanatory power in regression analysis (see Appendix C). The graduation rate is also negatively correlated with the district's overall class size (-0.292) and average high school class size (-0.314). Both are statistically significant at the 97 percent and 98 percent confidence level respectively.

Besides larger class sizes, larger high schools have a host of negative influences on graduation rates and dropout rates. There has been an extensive amount of research on the relationship between the size of schools and school districts and educational outcomes. In 1997, Kathleen Cotton, of the Northwest Regional Educational Laboratory, reviewed 103 research documents that identified a relationship between school size and elements of schooling.<sup>8</sup> The findings from Cotton's review of the research largely support small schools over large schools in most categories. Small-school students had more positive attitudes towards school, participated in more extracurricular activities, had less behavior problems, had better school attendance, and lower dropout rates than large-school students.<sup>9</sup> GAO's research review found that in 10 studies on the graduation and dropout rates, 9 concluded that graduation rates are higher for small schools and one study showed mixed results.<sup>10</sup> A 1991 study conducted by Fowler and Walberg concluded that there is an inverse relationship between school size and student outcomes.<sup>11</sup> A review of the research literature by Fowler and Walberg cited a 1987 study by Pittman and Haughwout, which concluded that larger student bodies produce a poor school climate that encourages dropouts. This study of 744 schools revealed that "For every 400-student increase in the high school student population there

---

*In addition, this analysis shows that a district's average high school size, in terms of enrollment, has a negative correlation (-0.341) with the graduation rate and has explanatory power in regression analysis (see Appendix C).*

---



---

*Besides larger class sizes, larger high schools have a host of negative influences on graduation rates and dropout rates. There has been an extensive amount of research on the relationship between the size of schools and school districts and educational outcomes. The findings from Cotton's review of the research largely support small schools over large schools in most categories. GAO's research review found that in 10 studies on the graduation and dropout rates, 9 concluded that graduation rates are higher for small schools and one study showed mixed results.*

---

<sup>8</sup> Kathleen Cotton, *School Size, School Climate, and Student Performance*, School Improvement Research Series, Northwest Regional Educational Laboratory, 1997, Portland, OR.

<sup>9</sup> *Ibid.*, pp. 6-8.

<sup>10</sup> *GAO*, p. 16.

<sup>11</sup> William J. Fowler, Jr. and Herbert J. Walberg, *School Size, Characteristics, and Outcomes*, *Educational Evaluation and Policy Analysis*, Summer, 1991, Vol. 13, No. 2, p200.

would be approximately a 1 percent rise in the dropout rate at that school.”<sup>12</sup>

For West Virginia, the regression analyses indicate that on average for 2008, the graduation rate is lower by 1 percent for every additional 210 students in a high school, and a school district’s graduation rate is lower by 1 percent for every additional 1,700 students. Table 6 shows some of the size-statistics for West Virginia’s school system. The state’s average graduation rate for the 2007-08 school year is 75.2 percent. The county with the lowest graduation was Kanawha County at 68 percent, and Tyler County had the highest graduation rate at 90.1 percent.

---

*For West Virginia, the regression analyses indicate that on average for 2008, the graduation rate is lower by 1 percent for every additional 210 students in a high school, and a school district’s graduation rate is lower by 1 percent for every additional 1,700 students.*

---

	<b>Minimum District</b>	<b>Maximum District</b>	<b>State Average</b>
District Size (2009-10)	939	28,483	5,124
High School Size (9-12 grade)	113	1,883	797
Average District Class Size (all grades and subjects)	13.0	22.4	19.61
Average District High School Class Size	9.80	23.2	19.01

*Source: PERD analysis of Department of Education data.*

Some studies have concluded that students in small classes (12 to 17 students) out-achieved students of large classes (21 to 25 students). While there are dissenters of small class sizes because of concerns with teacher quality suffering when more teachers are employed, the general consensus is that class sizes less than 17 students are best. West Virginia’s 2008 average high school class size was 19 students. However, PERD examined the class sizes of certain required courses for various grade levels, which would be expected to have larger class sizes (see Table 7). The averages are slightly higher than overall district class sizes, but the variances are significantly higher because of a higher maximum class size. It is important to point out that some of these outliers are from relatively smaller school districts.

---

*Some studies have concluded that students in small classes (12 to 17 students) out-achieved students of large classes (21 to 25 students). While there are dissenters of small class sizes because of concerns with teacher quality suffering when more teachers are employed, the general consensus is that class sizes less than 17 students are best.*

---

<sup>12</sup> Ibid., p. 190.

**Table 7  
Average District Class Sizes for  
Select Required Courses  
2008-09**

Required Courses	Minimum District Class Size	Maximum District Class Size	State Average
Math 4 (4 <sup>th</sup> grade mathematics)	12.0	31.7	20.9
Math 6 (6 <sup>th</sup> grade mathematics)	14.1	35.3	21.1
English-Language 4 (4 <sup>th</sup> grade English/language)	14.8	27.0	20.9
English-Language 6 (6 <sup>th</sup> grade English/language)	13.3	35.5	21.1
English-Language 8 (8 <sup>th</sup> grade English/language)	11.2	28.0	21.0
English-Language 9 (9 <sup>th</sup> grade English/language)	10.0	27.1	20.0
English-Language 11 (11 <sup>th</sup> grade English/language)	10.5	25.9	18.0
English-Language 12 (12 <sup>th</sup> grade English/language)	11.0	28.5	19.6

*Source: PERD analysis of data from the West Virginia Department of Education.*

Although West Virginia is relatively small in population, it apparently has not escaped the ill-effects of large districts and schools, according to the statistical analysis of this report. School consolidation over the years in West Virginia has resulted in larger middle and high schools. Research shows that larger schools are not as personable with students as smaller schools. Some large-school students may not receive the individual attention they need, and are less involved in school activities than at smaller schools. As a result, large-school students may not feel as connected to the school as they would in a smaller school. There are other factors as well that reduce the holding influence on students in larger high schools.

It should be pointed out that the analysis of this report does not reveal any relationship between academic achievement, in terms of test score proficiencies, and the size of schools or districts. The lack of a relationship between school size and academic achievement was also cited by several studies reviewed by Kathleen Cotton.<sup>13</sup> Therefore, the effects on the graduation rate from large districts and schools are generally coming from non-academic sources.

---

*It should be pointed out that the analysis of this report does not reveal any relationship between academic achievement, in terms of test score proficiencies, and the size of schools or districts. Therefore, the effects on the graduation rate from large districts and schools are generally coming from non-academic sources.*

---

<sup>13</sup>Cotton, pp. 6-7.

It is apparent that large high schools in West Virginia have negative influences on the dropout and graduation rates that are distinct from academic performance. These negative influences are more likely associated with the school environment, student attitudes towards the school, and a lack of interpersonal relationships with faculty members. However, larger high schools and class sizes are only a part of the influences that come from larger district sizes. Other factors are having a negative influence on the graduation rates that are not easy to measure. As a result of the multi-faceted issues that affect the graduation and dropout rates that are derived from larger districts, there is a need for a comprehensive approach to overcome the obstacles to improving the state's high school graduation rate. Part of that approach must include a DOE study of the full impact that school consolidation is having on education outcomes, such as the graduation rate.

---

*As a result of the multi-faceted issues that affect the graduation and dropout rates that are derived from larger districts, there is a need for a comprehensive approach to overcome the obstacles to improving the state's high school graduation rate. Part of that approach must include a DOE study of the full impact that school consolidation is having on education outcomes, such as the graduation rate.*

---

## **The Focus of DOE's Approach to Drop-out Prevention Is Too Narrow**

The effects on society of students dropping out of secondary school are substantial and widespread. Studies have shown that dropouts earn less income than high school graduates and they are more likely to need various forms of government assistance. Moreover, dropouts have a higher likelihood of becoming involved in criminal activity than high school graduates.<sup>14</sup> Also, studies show that students who have parents with college education have a greater chance of success in secondary school than students with less educated parents. Consequently, dropouts who will have children may perpetuate the cycle of their children dropping out of school. Therefore, attempts to improve the graduation rate by lowering the state's dropout rate will have substantial long term societal benefits for the state overall.

---

*The DOE indicated that its dropout prevention efforts are focused on providing several academic programs that are intended to help students learn the basic skills in their developmental years.*

---

The DOE indicated that its dropout prevention efforts are focused on providing several academic programs that are intended to help students learn the basic skills in their developmental years. The DOE listed programs such as Global 21, early childhood education (pre-K), Response to Intervention, Reading First, and Development Guidance. These programs are designed to give the necessary intervention and educational strengthening for academic success in the early school years. Other programs that the DOE mentioned in its dropout prevention for intermediate intervention are Student Assistance

---

<sup>14</sup> Dynarski, M., Clarke, L., Cobb, B., Finn, J., Rumberger, R., and Smink, J., *Drop-out Prevention: A Practice Guide* (NCEE 2008-4025). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education, P. 4.

Teams, Attendance/Social Work/Counseling, School Connectedness programs, and alternative education programs.

The DOE's approach to dropout prevention is to provide programs that will improve the long term academic performance of its students in their early school years. The Legislative Auditor agrees that the academic success of students is a significant factor in students staying in school. The results of this report's regression analysis support this concept. However, it is important to note that poor academic performance is one of several factors that influence students to drop out of school. There are other factors that outweigh student academic performance. Therefore, the DOE must address issues beyond academic performance in order to see advancement in the graduation rate.

---

*An analysis on dropout prevention programs by the U.S. Department of Education indicated that dropout prevention intervention almost always involves multiple components.*

---

An analysis on dropout prevention programs by the U.S. Department of Education indicated that dropout prevention intervention almost always involves multiple components.<sup>15</sup> The analysis listed six recommendations for reducing dropout rates. These are:

**Recommendation 1:** Utilize data systems that are able to identify students at high risk of dropping out, and can accurately determine the number of graduates, withdrawals, and dropouts. These data systems should be able to:

- Use longitudinal, student-level data with unique student identification numbers that, at a minimum, contains data on student absences, grade retention, and academic achievement.
- Monitor students' academic and social performance continually.
- Monitor students' sense of engagement and belonging in school.

**Recommendation 2:** Assign adult advocates to students at risk of dropping out. Advocates should be adults who are committed to investing in a student's personal and academic success.

---

<sup>15</sup>Ibid., P. 8.

**Recommendation 3:** Provide academic support to improve academic performance.

**Recommendation 4:** Implement programs to improve students' classroom behavior and social skills.

**Recommendation 5:** Personalize the learning environment and instructional process. This may include:

- establishing small learning communities,
- creating smaller classes, and
- encouraging student participation in extracurricular activities.

**Recommendation 6:** Provide rigorous and relevant instruction to better engage students in learning and provide the skills needed to graduation.

---

*The DOE has some of these components already in place, such as Student Assistance Teams, School Connectedness programs, and education intervention programs. However, given the performance audits conducted by the DOE's Office of Education Performance Audit, it is not clear how consistent these components are available and effective statewide.*

---

The DOE has some of these components already in place, such as Student Assistance Teams, School Connectedness programs, and education intervention programs. However, given the performance audits conducted by the DOE's Office of Education Performance Audit, it is not clear how consistent these components are available and effective statewide. West Virginia's school system has alternative forms of education, but it is primarily for disruptive students. More alternative education should be available for non-disruptive students who are at risk of dropping out.

Personalizing the learning environment and instructional process, creating smaller classes, and creating small learning centers may be the more challenging components for the DOE, particularly in the state's larger districts. Studies show that in larger schools, a disproportionate number of students do not participate in extracurricular activities and do not identify with the school. Large schools become less personal.

The DOE has been recognized as being among the leaders of technology in education. It has an extensive data system that can monitor students' performance through the school system. There are likely needs for improvement. The DOE needs to arrive at a more accurate count of dropouts and develop more at-risk indicators for each student. In addition, the DOE

needs to study or contract a study of the effects of large high schools and high school consolidation on the graduation and dropout rates, and other education outcomes. The most recent high school consolidation, Lincoln County High School in 2006, presents a good opportunity to evaluate the consequences of consolidation on education outcomes. In addition, the consolidation of Dupont and East Bank high schools into Riverside high school is recent enough to possibly allow for research into the effects it had on education outcomes.

## Conclusion

West Virginia's high school graduation rate is significantly lower than what the DOE has routinely reported. Conversely, the state's dropout rate has been understated. Although the state graduation rate has been consistently above the national average, its long-term trend has shown no upward advancement for some time. The Legislature has established the goal of a 90 percent graduation rate by the year 2020. Given a current state average graduation rate of 75 percent and a historically flat trend, the DOE will not achieve 90 percent by the year 2020 under its current approach. The DOE should reevaluate its overall approach if it intends to establish a consistent upward trend in the graduation rate. To date, the DOE's strategies to reduce the number of students who drop out of high school have been unsuccessful, and approaches to improving reading have been insufficient at the state and national level. **A complete revamping of the DOE's approach towards dropout prevention and academic improvement is necessary.** The DOE must concede that current programs that are essential must be enhanced and new programs will need to be created.

---

*To date, the DOE's strategies to reduce the number of students who drop out of high school have been unsuccessful, and approaches to improving reading have been insufficient at the state and national level. A complete revamping of the DOE's approach towards dropout prevention and academic improvement is necessary. The DOE must concede that current programs that are essential must be enhanced and new programs will need to be created.*

---

This research substantiates the recommendations made by the SREB in May 2009, in which it encourages states to make reading improvement the number one priority. West Virginia's reading proficiency percentages on its Westest has peaked for a few years at 80 percent. However, the Westest through 2008 represented a lower reading standard in comparison to the new Westest-2, which was instituted for the 2009 school year to be more aligned with the NAEP. On the national level, West Virginia has shown no progress on the NAEP 4<sup>th</sup> grade reading test over the past 10 years, and 8<sup>th</sup> grade reading has declined over the same time period. Improving reading statewide will have a significant impact on reducing the dropout rate and increasing the graduation rate. The Department of Education and the Legislature should implement all aspects of the May 2009 SREB recommendations for making reading improvement first priority. The DOE has moved in this direction by increasing its testing standards with the 2009 implementation of Westest-2. The DOE also has other aspects of the SREB recommendations in place, such as a reading intervention program. However, these programs will need

to be enhanced with diagnostic testing for all students, in addition to the state assessment. Stricter policies and additional programming may also have to be implemented to ensure that all students are reading at grade level. This may require additional funding by the Legislature.

It is important for the DOE to recognize that improving academic achievement is only one part of reducing the dropout rate. Other factors, independent of academic performance, are having a significant effect on the dropout and graduation rates. The DOE must address the large-district effects that are present in the school system. Larger high schools and high school class sizes are a portion of the effects from large districts. There are other effects that the DOE should attempt to identify. Furthermore, the DOE needs to take an active role in evaluating or contracting for the evaluation of the effects of school consolidation on education outcomes. There are high school and middle school consolidations that are recent enough to measure the effects they have had on education outcomes.

## Recommendations

1. *The West Virginia Department of Education and the Legislature should implement all aspects of the May 2009 Southern Regional Education Board recommendations for making reading improvement first priority.*
2. *The Department of Education should consider studying or contracting a study of the full effects of large school districts, large high schools and school consolidation on the graduation and dropout rates, and other education outcomes.*
3. *The Department of Education should make the necessary enhancements to its data system that will improve the ability to conduct longitudinal studies, attach more at-risk indicators for each student, and to provide for continuous monitoring of student-level data of academic and social performance.*
4. *The Department of Education should provide for a more accurate calculation of the state's dropout rate.*
5. *The Department of Education should encourage or consider incorporating in appropriate schools and districts a more personalized learning environment that includes establishing small learning communities and creating smaller classes.*

---

*It is important for the DOE to recognize that improving academic achievement is only one part of reducing the dropout rate. Other factors, independent of academic performance, are having a significant effect on the dropout and graduation rates. The DOE must address the large-district effects that are present in the school system. Larger high schools and high school class sizes are a portion of the effects from large districts.*

---

## ISSUE 2

### **West Virginia's Academic Test Scores at the State and National Levels Have Been Mixed. Improvements in Reading and Math at the State Level Have Peaked, While at the National Level Progress Is Being Made in Math But Reading Scores Show No Improvement.**

#### **Issue Summary**

West Virginia's academic test scores at the state level, as measured by the Westest assessment, reflect gains in all tested subjects since the 2003-04 school year; however, test scores have peaked over the last three years in all subjects. On the National Assessment of Educational Progress (NAEP), West Virginia has made steady improvement in 4<sup>th</sup> grade math and marginal improvement in 8<sup>th</sup> grade math. Despite this progress, the state is significantly below the national proficiency averages primarily because math progress at the national level is out pacing West Virginia's progress. However, West Virginia's reading test scores on the NAEP have not shown improvement; nevertheless, the state is not far behind the national proficiency averages.

The West Virginia Department of Education has raised the reading and math test standards this past academic year (2008-09) with the implementation of Westest-2 so that they are closer to the NAEP reading and math standards. An evaluation of West Virginia's test scores on the NAEP and Westest in math and reading indicates that the state's reading standards have been too low in comparison to the NAEP reading standards. This may explain why West Virginia has had no gains in reading at the national level. However, the state's math standards have been closer to the national standards, particularly for 4<sup>th</sup> grade, which would explain why West Virginia has made advancements in math at the national level. Raising the state's reading and math standards should have long-term benefits that should result in closing the gap between the state and national proficiency percentages, assuming students are taught at the higher standards.

#### **State Test Scores Have Reached a Peak in All Tested Subjects**

As seen in Table 8, Westest Proficiency Scores in the core subjects have remained fairly constant over the past three years. There has been little to no improvement in scores since the 2005 to 2006 school year. The most significant increase in that time was a .7 percent increase in Science Proficiency.

---

*An evaluation of West Virginia's test scores on the NAEP and Westest in math and reading indicates that the state's reading standards have been too low in comparison to the NAEP reading standards. This may explain why West Virginia has had no gains in reading at the national level.*

---

---

*Raising the state's reading and math standards should have long-term benefits that should result in closing the gap between the state and national proficiency percentages, assuming students are taught at the higher standards.*

---

West Virginia students have improved somewhat in all proficiency categories since the 2003-2004. Most notably there was an increase in proficiency of 7.3 percentage points in mathematics and an increase of 6.4 percentage points in social studies.

**Table 8**  
**Westest Proficiency Scores for All Students**  
**Reading, Mathematics, Science and Social Studies**  
**2004-08**

<b>School Year</b>	<b>Reading Proficiency</b>	<b>Mathematics Proficiency</b>	<b>Science Proficiency</b>	<b>Social Studies Proficiency</b>
2007-08	80.0	75.3	85.5	75.4
2006-07	80.0	75.6	85.0	75.1
2005-06	80.0	75.4	84.8	75.2
2004-05	78.9	73.2	83.9	73.8
2003-04	77.0	68.0	82.0	69.0

*Source: West Virginia Department of Education*

Table 9 illustrates Westest Proficiency Scores among the state's major student sub-groups. Each sub-group has shown some improvement since the 2004-2005 school. The most significant improvement was shown in the black student population which improved 4.3 percentage points in reading and 4.6 points in mathematics over the four year span. However black students still fall considerably below the average proficiencies of all West Virginia students; 6.5 percentage points in reading and 10.8 in math. Economically disadvantaged students are similarly behind in these core subjects, ranking 7.2 points behind in reading and 7.8 in math.

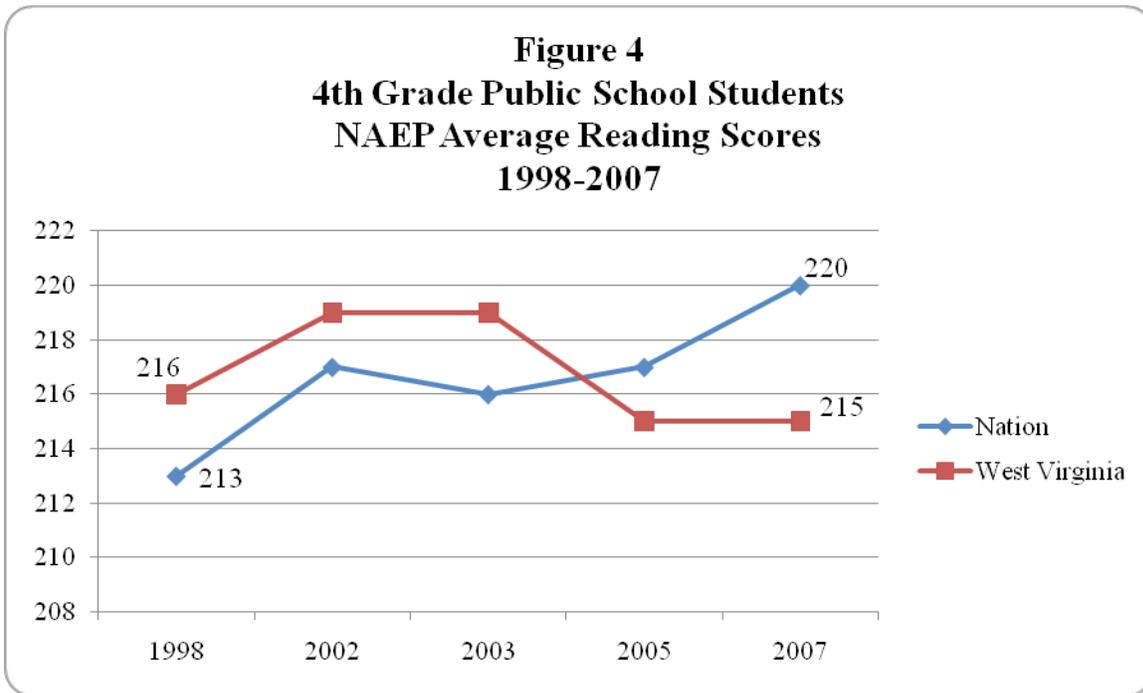
<b>Table 9 Westest Proficiency Scores Major Student Sub-Groups 2005-08</b>				
<b>Reading Proficiency</b>				
<b>School Year</b>	<b>White</b>	<b>Black</b>	<b>Special Education</b>	<b>Economically Disadvantage</b>
2007-08	80.3	73.5	41.8	72.8
2006-07	80.4	72.3	41.3	72.7
2005-06	80.5	71.7	39.8	72.5
2004-05	79.3	69.2	37.4	70.9
<b>Mathematics Proficiency</b>				
<b>School Year</b>	<b>White</b>	<b>Black</b>	<b>Special Education</b>	<b>Economically Disadvantage</b>
2007-08	75.9	64.5	39.9	67.5
2006-07	76.2	63.9	42.1	67.7
2005-06	76.0	62.1	41.9	67.4
2004-05	73.8	59.9	36.0	64.6
<i>Source: West Virginia Department of Education</i>				

## **Educational Progress at the National Level Has Been Mixed**

In order to determine the educational achievement of the nation as a whole, the National Assessment of Educational Progress was developed. NAEP assesses educational progress for each state of the country. Since students of each state are being tested with the same instrument, NAEP test results allow valid comparisons between states. NAEP has become widely known as the “Nation’s Report Card.” Representative samples of 2,500 to 3,000 students are assessed statewide in each state in grades 4 and 8 in several subject areas, including reading, mathematics and science.

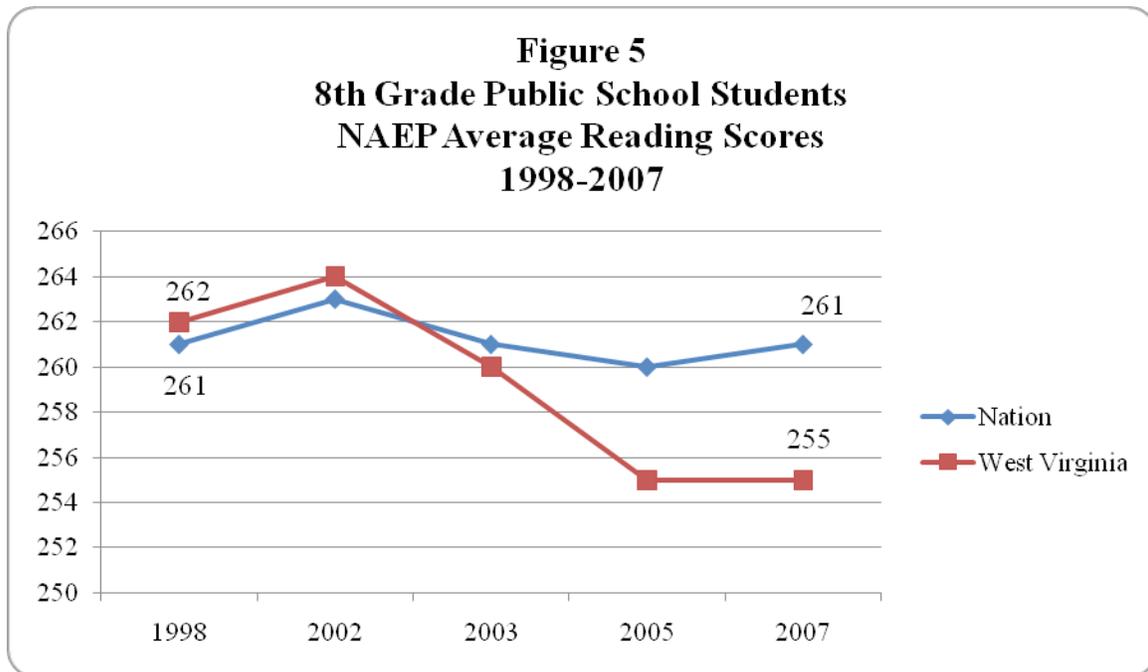
Figure 4 shows that average 4<sup>th</sup> grade NAEP reading scores have declined four points since 2003. West Virginia was above the national average for the years 1998, 2002 and 2003 with a peak score of 219. In 2005, 4<sup>th</sup> graders’ average scores dropped four points as the national average increased; putting West Virginia below the national average. The national average increased again in 2007, while West Virginia scores remained constant. Thus, over the last five NAEP exams administered,

West Virginia 4<sup>th</sup> graders went from three points above the national average to five points below in 2007. NAEP reading scores for 2009 will be released early in 2010.



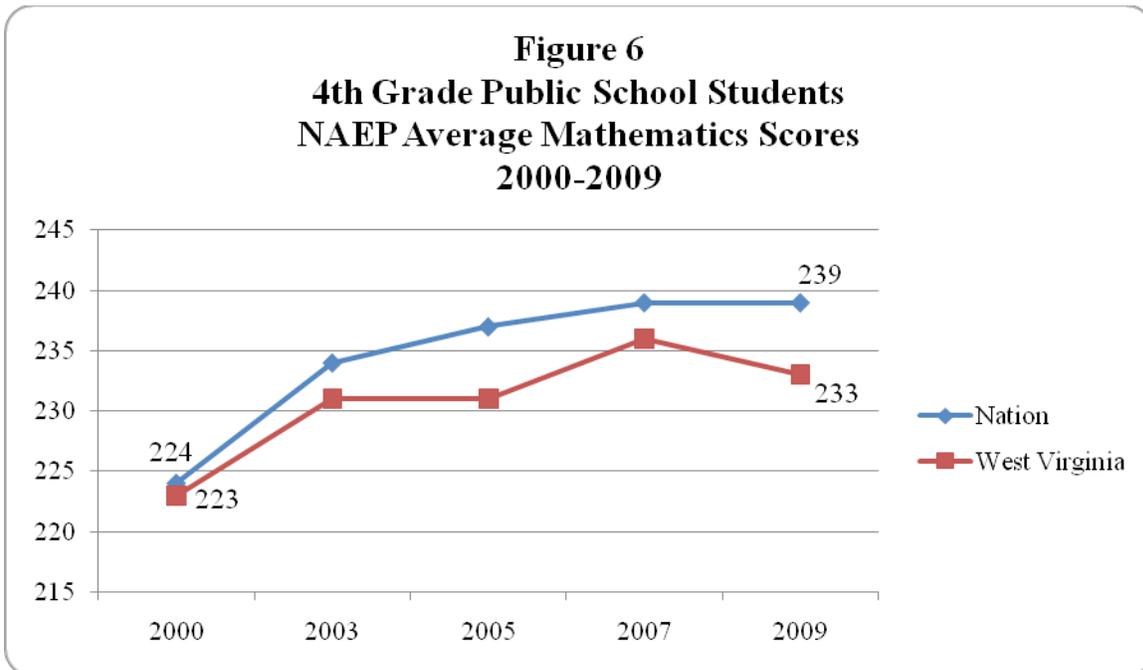
*The Nation's Report Card, NAEP Reading 2007, Institute of Education Science, U.S. Department of Education*

Figure 5 shows that there has been a sharp decline in NAEP reading scores for West Virginia 8<sup>th</sup> grade students since 2002. In 2002 West Virginia 8<sup>th</sup> graders fared slightly above the national average, but in 2003 fell slightly below. The scores dropped significantly again in 2005 and leveled off on the next NAEP in 2007. West Virginia's average score dropped from the recent peak of 264 in 2002 to average score of 255 in 2007. It should be noted that the national average has shown no growth in the average 8<sup>th</sup> grade reading scores since 1998.



*The Nation's Report Card, NAEP Reading 2007, Institute of Education Science, U.S. Department of Education*

Figure 6 shows West Virginia’s 4<sup>th</sup> grade average NAEP mathematics scores have seen significant increase over the past four tests administered. Average scores have increased 10 points from 2000 to 2009. However, West Virginia has remained below the national average for each of the tests administered, primarily because the national progress has exceeded West Virginia’s progress. The national average has increased with each test from 2000 to 2007. The 2009 NAEP math scores were released in October 2009. The 2009 national average math score shows signs of slowing progress.



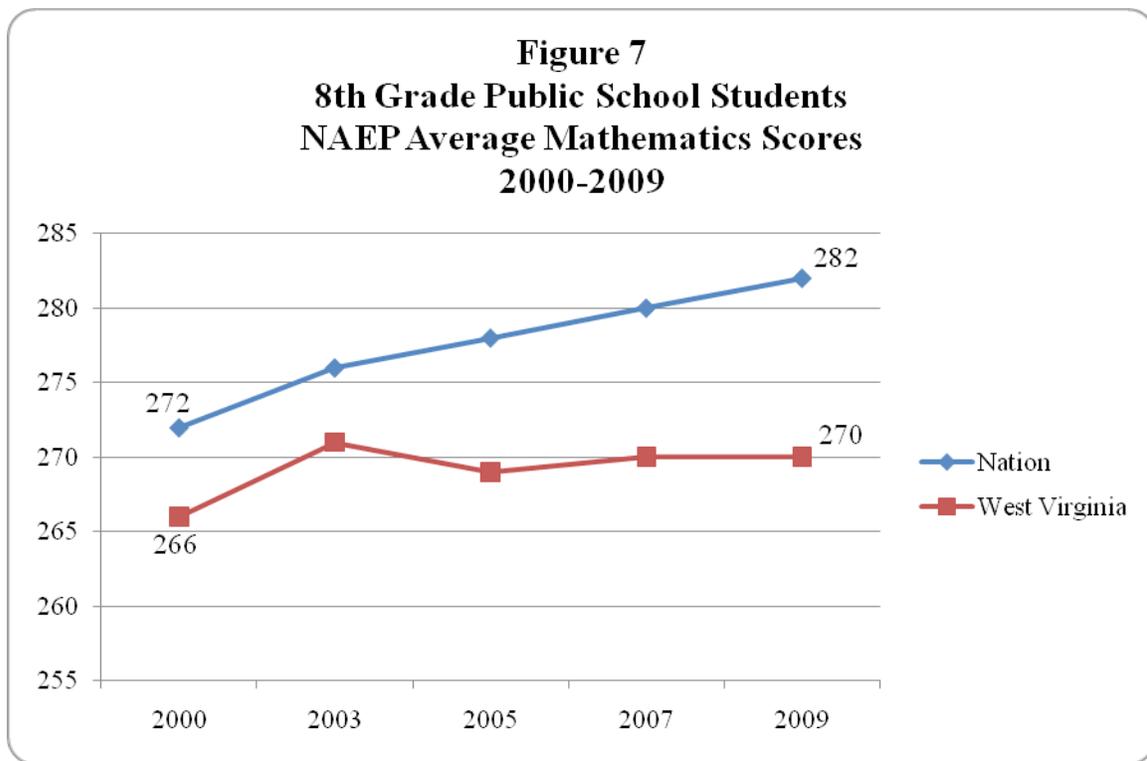
The Nation's Report Card, NAEP Mathematics 2009, Institute of Education Science, U.S. Department of Education

Figure 7 shows West Virginia's 8<sup>th</sup> grade NAEP mathematics scores have had some improvement since 2000. It is evident that the national progress in 8<sup>th</sup> grade math has outpaced West Virginia's progress. National averages have increased with each test and the gap between the national average and West Virginia's average has doubled since 2000. West Virginia's average NAEP math score was 6 points below the national average in 2000, but it is 12 points below the national average in 2009.

---

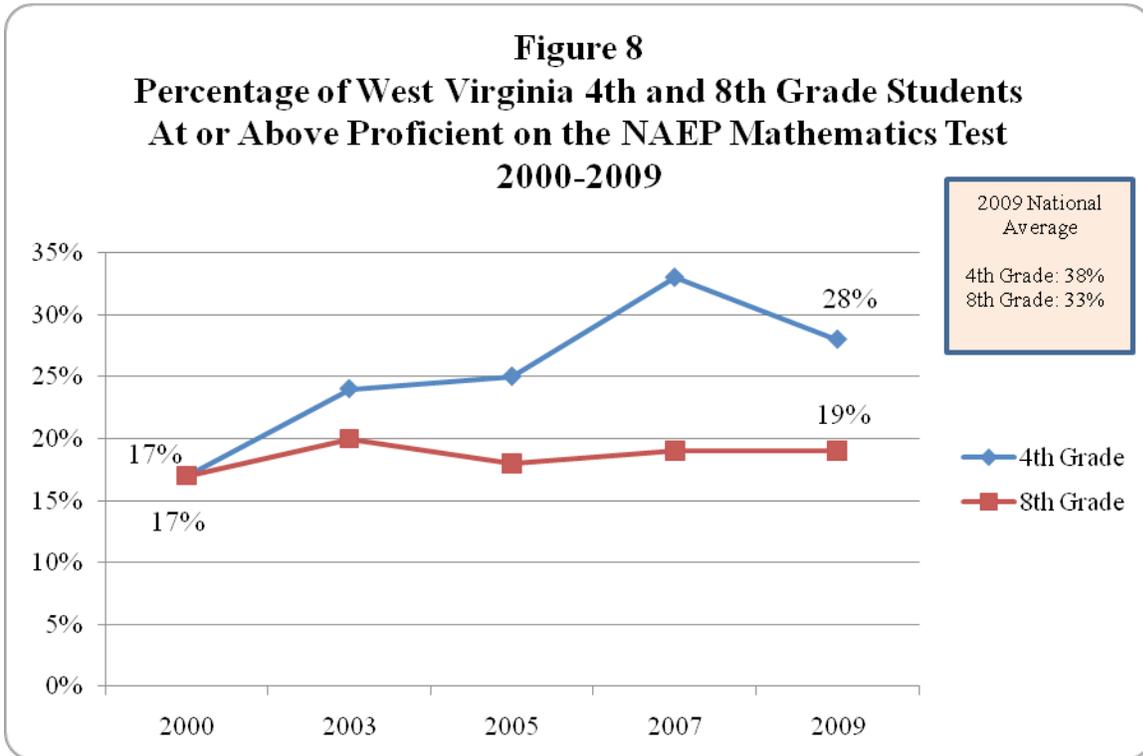
*Figure 6 shows West Virginia's 4<sup>th</sup> grade average NAEP mathematics scores have seen significant increase over the past four tests administered. Average scores have increased 10 points from 2000 to 2009. However, West Virginia has remained below the national average for each of the tests administered, primarily because the national progress has exceeded West Virginia's progress.*

---



*The Nation's Report Card, NAEP Mathematics 2009, Institute of Education Science, U.S. Department of Education*

Figure 8 shows the percentage of students who scored at or above the proficiency level on the 4<sup>th</sup> grade and 8<sup>th</sup> grade NAEP math tests. The 2009 national average proficiency percentage is 38 percent for 4<sup>th</sup> grade compared to 28 percent for West Virginia. For 8<sup>th</sup> grade math, the 2009 national average proficiency percentage is 33 percent compared to 19 percent for West Virginia. West Virginia's 4<sup>th</sup> grade NAEP proficiency percentages show progress, but it has not kept pace with the national advancement. West Virginia's 8<sup>th</sup> grade NAEP math proficiency percentages have been relatively flat and the state has lost ground compared to the national average.



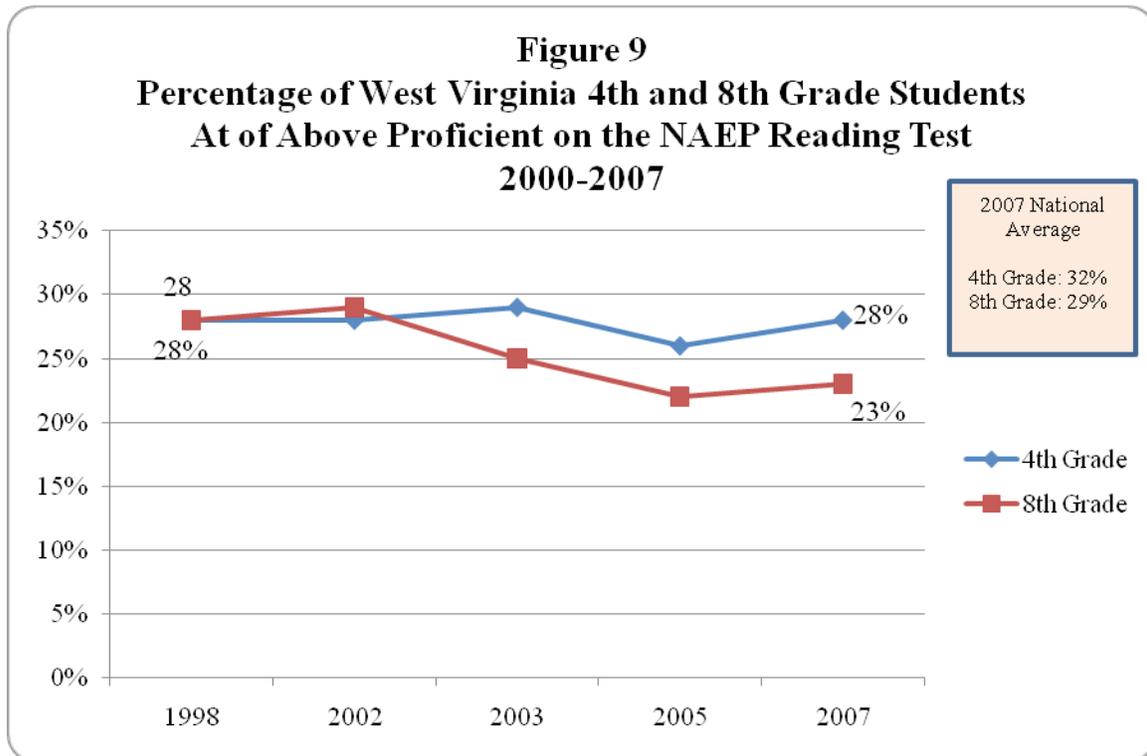
*The Nation's Report Card, NAEP Mathematics 2009, Institute of Education Science, U.S. Department of Education*

Figure 9 shows the percentage of students who scored at or above the proficiency level on the 4<sup>th</sup> grade and 8<sup>th</sup> grade NAEP reading tests. Although the state in general has not made improvement in NAEP reading scores, the proficiency percentages for both 4<sup>th</sup> and 8<sup>th</sup> grade reading are not far behind the national percentages. The 2007 national average proficiency percentage is 32 percent for 4<sup>th</sup> grade students compared to 28 percent for West Virginia 4<sup>th</sup> graders. For 8<sup>th</sup> grade reading, the 2007 national average proficiency percentage is 29 percent compared to 23 percent for West Virginia.

---

*The 2009 national average proficiency percentage is 38 percent for 4<sup>th</sup> grade compared to 28 percent for West Virginia. For 8<sup>th</sup> grade math, the 2009 national average proficiency percentage is 33 percent compared to 19 percent for West Virginia. West Virginia's 4<sup>th</sup> grade NAEP proficiency percentages show progress, but it has not kept pace with the national advancement.*

---



*The Nation's Report Card, NAEP Mathematics 2009, Institute of Education Science, U.S. Department of Education*

## Higher Reading and Math Test Standards Should Be Beneficial in the Long Run

The West Virginia Department of Education raised the reading and mathematics test standards through the implementation of Westest-2 for the 2008-09 school year. This is a positive step towards improving academic achievement, assuming that students will be taught at the higher standards. The SREB has recommended that all states set their academic standards closer to the NAEP proficiency level because having standards at the appropriate levels is crucial in raising academic achievement.<sup>16</sup> The SREB indicated that when standards are raised there is an initial drop in test scores, followed by increases at the state and national level over time.<sup>17</sup>

---

*The SREB has recommended that all states set their academic standards closer to the NAEP proficiency level because having standards at the appropriate levels is crucial in raising academic achievement.*

---

<sup>16</sup>*Southern Regional Education Board, Keeping Middle Grades Students on the Path to Success in High School, Challenge to Lead Series, 2009, pp. 11-12.*

<sup>17</sup>*Ibid, p. 12.*

---

Aligning the state's assessment to the NAEP standard involves having state standards in which the percentage of students who are proficient on the state's assessment fall between the percentages scoring at the NAEP Basic and Proficient levels for West Virginia NAEP test-takers. The NAEP Basic level represents "partial mastery" of subject matter at the respective grade level. Figure 10 shows the ranges of the NAEP Basic and Proficient percentage levels for reading for West Virginia test-takers in 2005 and 2007. If a state's standards are aligned with NAEP, the percentage of students who scored at the proficient level on the state's assessment should be within the range of the NAEP Basic and Proficient percentages achieved by West Virginia students for that same academic year. As Figure 10 shows, West Virginia's proficiency percentages on its Westest were outside of the range on the upper end, which means that the state's reading standards for both 4<sup>th</sup> and 8<sup>th</sup> grade were too low or not aligned with the NAEP standards. NAEP reading test scores for 2009 will not be released until early in 2010, at which time we will be able to determine if the Westest-2 reading standards have been raised closer to the NAEP standards. Given last year's NAEP reading Proficiency and Basic levels and the 2008-09 Westest-2 reading proficiency scores for 4<sup>th</sup> and 8<sup>th</sup> grades (64 and 61 respectively), West Virginia will likely be closets to the NAEP reading standards for 4<sup>th</sup> and 8<sup>th</sup> grades.

---

*As Figure 10 shows, West Virginia's proficiency percentages on its Westest were outside of the range on the upper end, which means that the state's reading standards for both 4<sup>th</sup> and 8<sup>th</sup> grade were too low or not aligned with the NAEP standards.*

---

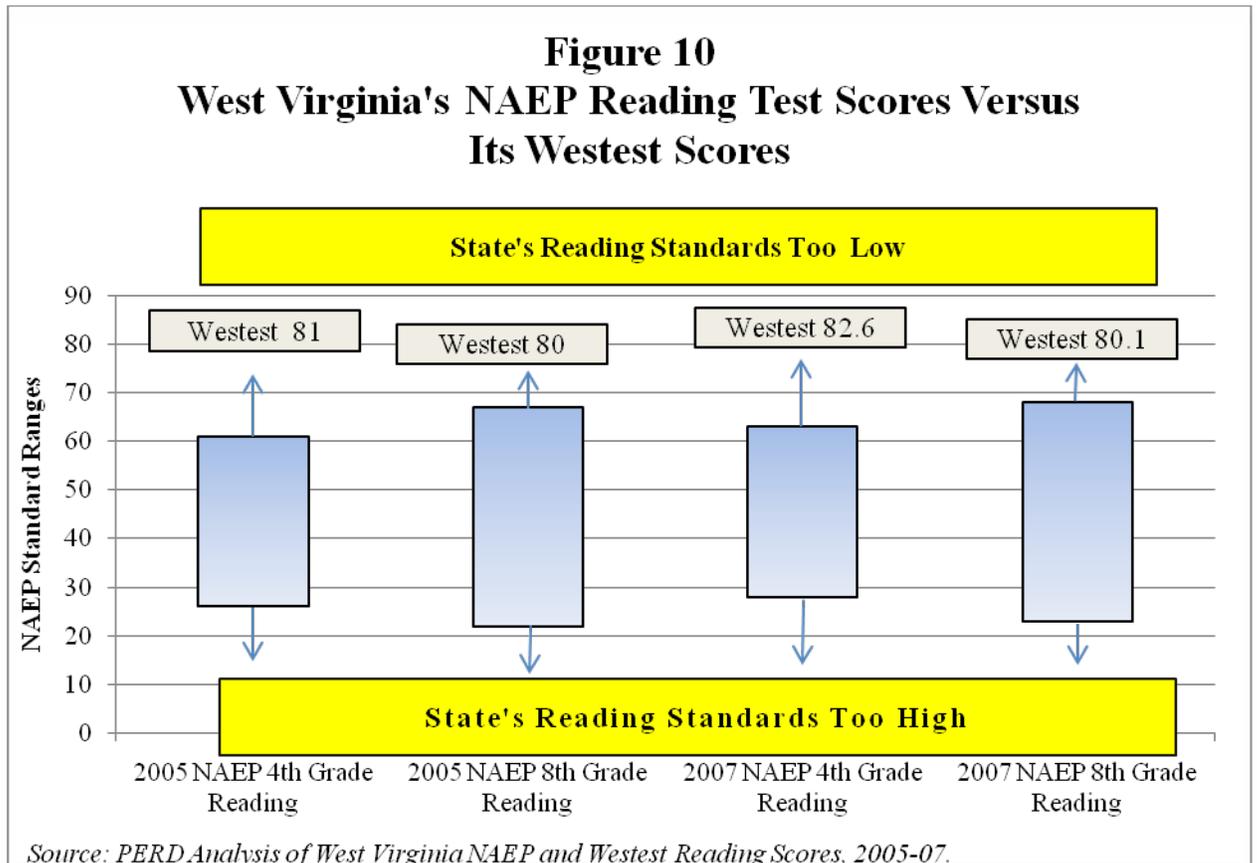
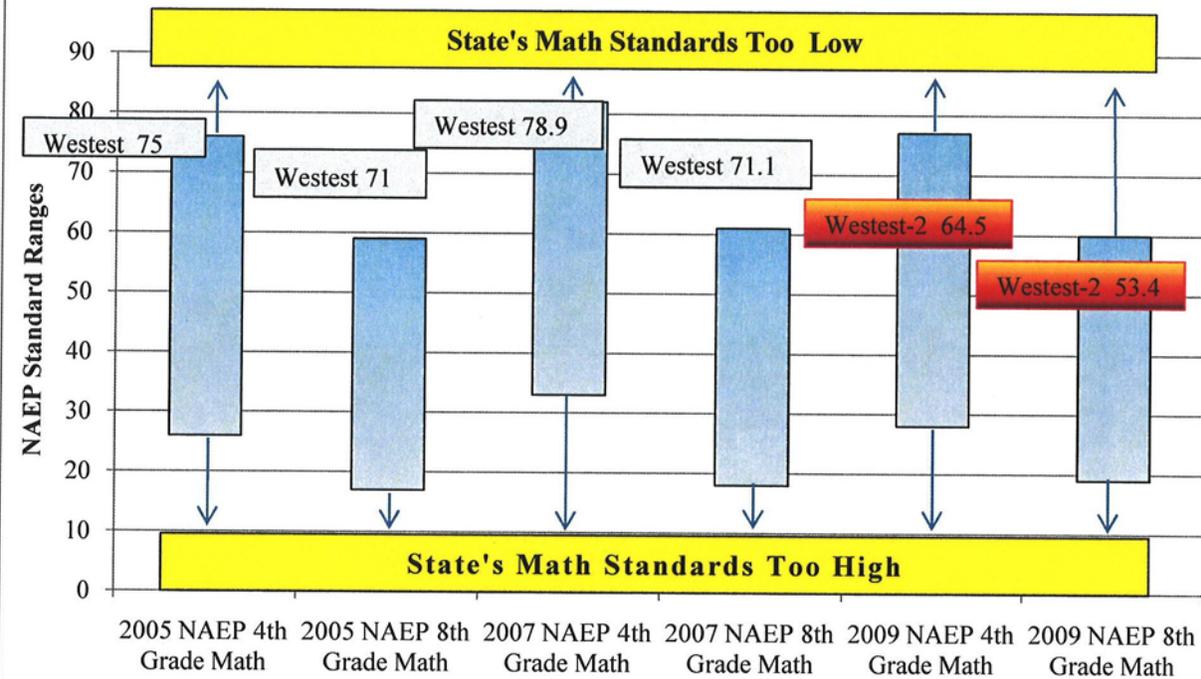


Figure 11 shows that in math, the state's 4<sup>th</sup> grade standards were on the upper end of the NAEP standard in 2005 and 2007, while the state's standards were too low for 8<sup>th</sup> grade math in those years. However, with the changes made through Westest-2, it can be seen that with the release of the 2009 NAEP math scores, Westest-2 math scores are within the NAEP range for both 4<sup>th</sup> and 8<sup>th</sup> grade math.

**Figure 11**  
**West Virginia's NAEP Math Test Scores Versus**  
**Its Westest Scores**



Source: PERD Analysis of NAEP, Westest and Westest-2 Math Test Scores, 2005-2009.

## Conclusion

The Legislature has established the goal to have its students exceed the academic achievement measures of NAEP. Currently, West Virginia is below all relevant NAEP levels. At the state level progress has been made; however, the progress has slowed over the last three years. At the national level, West Virginia has a realistic opportunity to exceed the reading Proficiency levels of NAEP within a relatively short time. However, with respect to math, West Virginia has made significant progress in its NAEP proficiency level for 4<sup>th</sup> grade and little progress for 8<sup>th</sup> grade. Nevertheless, West Virginia is well behind the NAEP proficiency levels in math for both grades, primarily because national progress in math has exceeded West Virginia's progress. It will take a considerable amount of time for West Virginia to exceed NAEP

---

*The increase in standards for reading and math with the implementation of Westest-2 should be beneficial in the long run if teachers teach at the higher level.*

---

proficiency levels in math. The increase in standards for reading and math with the implementation of Westest-2 should be beneficial in the long run if teachers teach at the higher level. The Department of Education will need to ensure that teachers are teaching at the higher level and that professional development will prepare teachers to teach at the higher standards.

## **Recommendation**

*6. The Department of Education should ensure that teachers are teaching at the higher standards and that professional development adequately provides teachers with the skills to teach and develop lessons based on the higher standards.*



## ISSUE 3

### **Prekindergarten Programs Are Increasing for Four-year Olds but Are Underutilized for Three-year Olds in West Virginia.**

#### **Issue Summary**

Prekindergarten programs are viewed by many scholars as an important part of improving early childhood education, especially for disadvantaged students. In West Virginia, prekindergarten is offered through private and public sector organizations. West Virginia has committed significant resources to improving prekindergarten statewide. The Legislative Auditor recommends that the Legislature consider revisiting the implementation timeline for universal four-year-old prekindergarten. Furthermore, the WV Department of Education should make a concerted effort to publicize the State's Pre-K program to increase its usage. Finally, the Legislative Auditor recommends that the Legislature consider encouraging greater transparency for private partners who provide services for Pre-K.

---

*Support for Pre-K programs has become more widespread as the evidence of their benefit to students has been more widely publicized.*

---

### **Prekindergarten Programs Are Viewed by Many Scholars as an Important Part of Improving Education, Especially for Disadvantaged Students**

Prekindergarten (Pre-K) are programs designed for three and/or four year olds in order to provide supplemental special education or preparation for kindergarten. Support for Pre-K programs has become more widespread as the evidence of their benefit to students has been more widely publicized. Many states are subsidizing Pre-K in an attempt to improve their students' preparation for kindergarten and overall academic achievement. As of 2004, state-funded prekindergarten programs existed in 38 states (Barnett, Robin, Hustedt, & Shulman, 2004).

The academic debate surrounding Pre-K focuses generally on cost issues and demographic specifics. There is an academic consensus that Pre-K is beneficial to at least some students. The full range of those who benefit from the programs is still debated. However, it is generally acknowledged that if the resources are present, state-funded Pre-K is beneficial.

Most Pre-K programs are designed to prepare children for kindergarten. Studies have shown that well resourced preschool programs

are useful for improving children's short- and long-term success in school and in life (Barnett, 2002). Barnett, Lamy, and Jung (2004) found significant and meaningful effects on children's language, literacy, and math skills. They wrote:

*We found these state-funded preschool programs to have statistically significant and meaningful impacts on children's early language, literacy and mathematical development, with some evidence of an enhanced program effect for print awareness skills for children in low-income families.*

---

***This study is one of many that supports the contention that quality preschool programs produce broad gains in children's learning and development.***

---

The most significant improvements were in math and vocabulary skills. Both of these form the basis for the testing relating to No Child Left Behind. This study is one of many that supports the contention that quality preschool programs produce broad gains in children's learning and development. This study's results are consistent with findings from other studies of state preschool education programs (Gormley et al., 2004; Barnett et al., 2004; Frede & Barnett, 1992; Irvine, Horan, Flint, Kukuk, & Hick, 1982).

While most of the academic studies that related to Pre-K surveyed were generally positive, there is an undercurrent of resistance. Most of this relates to who really benefits from Pre-K programs. Dalmia & Snell (2008) in Wall Street Journal article point-out that the evidence thus far in support of universal Pre-K tends to look at improvement in disadvantaged populations as the barometer for success. They contended that the effect Pre-K has on students who are not disadvantaged is less understood and has largely not been studied. They wrote:

*In the last half-century, U.S. preschool attendance has gone up to nearly 70% from 16%. But fourth-grade reading, science, and math scores on the National Assessment of Educational Progress (NAEP) -- the nation's report card -- have remained virtually stagnant since the early 1970s.*

The criticism of the lack of research regarding effect that Pre-K has on more successful students is misleading. First, it ties all measure of success to the NAEP testing, which is an oversimplification. Other types of tests such as the SAT/ACT should be taken into account when gauging Pre-K if practicable. Second, by stating that there is a lack of evidence for positive results is based in the reality that there has not been as much research conducted in this area as there have been in others relating to Pre-K. There have been

several scholarly studies regarding the impact that Pre-K has on other types of student. A study in 2004 by Gormley dealt with the impact that Pre-K had on middle class students. It found that it had far reaching benefits for children of all income levels.

An ancillary benefit of the Pre-K program is that it allows the state to subsidize some of the childcare costs for its residents. This can be a significant cost for families that live at or near the poverty line. A study in 2008 by Wat stated:

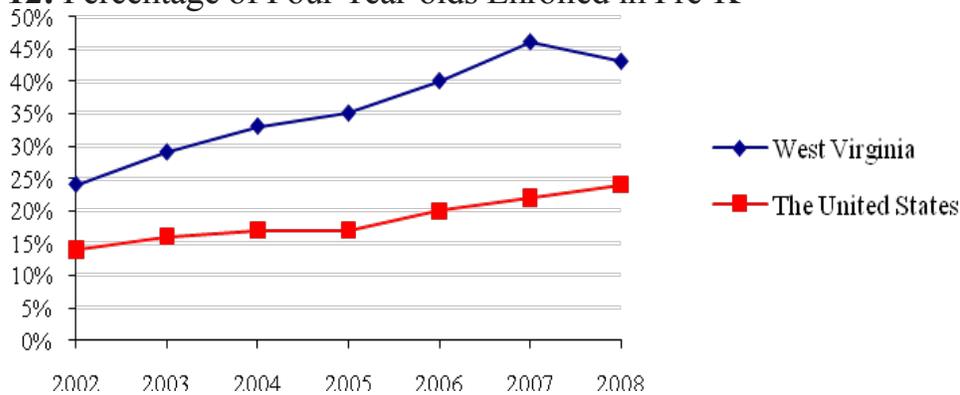
*For families with two young children, the added cost of care for an infant or toddler raises the burden to as much as 32 percent of the state median income.*

Taking all of this evidence into account, the scholarly debate comes down firmly in support of Pre-K as a useful tool in preparing students of all races and classes for kindergarten. This is symmetrical with the West Virginia Legislature’s commitment to enlarging its Pre-K offerings. West Virginia has made Pre-K a priority in its long-term education plan. It has invested significantly and seen enrollment rise steadily throughout the decade. Both West Virginia’s and the national percentages for four-year olds enrolled in Pre-K have substantially increased since 2002 (see Figure 12).

*A study in 2004 by Gormley dealt with the impact that Pre-K had on middle class students. It found that it had far reaching benefits for children of all income levels.*

*West Virginia has made Pre-K a priority in its long-term education plan. It has invested significantly and seen enrollment rise steadily throughout the decade.*

**Figure 12:** Percentage of Four Year-olds Enrolled in Pre-K

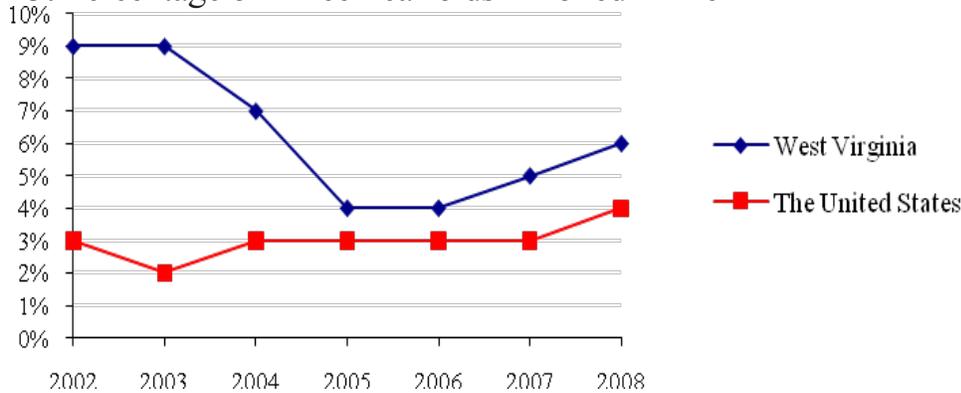


Source: National Institute for Early Education Research (2008). *The State of Preschool 2008-State Preschool Yearbook*. Website accessed at [www.nieer.org](http://www.nieer.org)

Nationally, more than 1.1 million four year-old children attend a state-funded pre-school program. The numbers for three year-olds are significantly less with only 300,000 attending. Generally, the three year-olds who attend preschool are more likely to be enrolled in special education or be from low-income families. Four year-old enrollment tends towards a broader cross-section of society (see Figure 13).

*Nationally, more than 1.1 million four year-old children attend a state-funded pre-school program.*

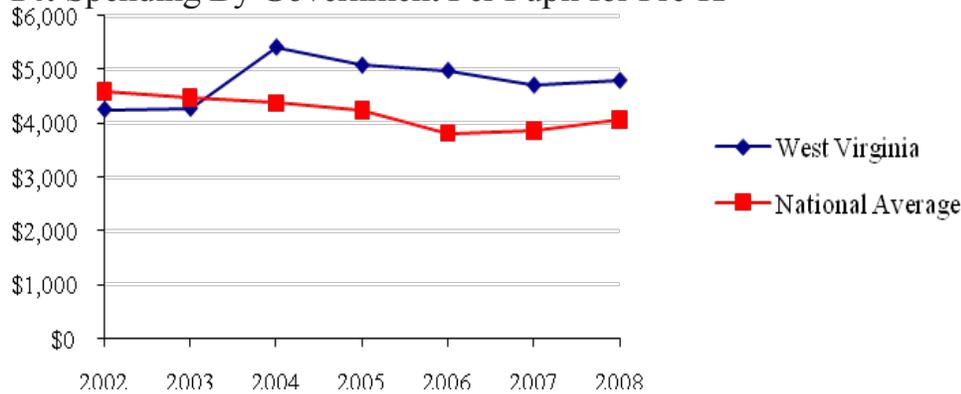
**Figure 13: Percentage of Three Year-olds Enrolled in Pre-K**



Source: National Institute for Early Education Research (2008). *The State of Preschool 2008-State Preschool Yearbook*. Website accessed at [www.nieer.org](http://www.nieer.org)

During 2008, 87% of the states with Pre-K saw an increase in their enrollment. Total funding in these states amounted to \$5.2 billion. West Virginia has consistently funded beyond the national average for Pre-K programs on a per-pupil basis (see Figure 14):

**Figure 14: Spending By Government Per Pupil for Pre-K**



Source: National Institute for Early Education Research (2008). *The State of Preschool 2008-State Preschool Yearbook*. Website accessed at [www.nieer.org](http://www.nieer.org)

While West Virginia’s Pre-K program for four year-olds is trending positively, there has been a significant drop-in the percentage of three-year olds attending Pre-K. There maybe several reasons for this decline. First, the emphasis on universal four-year old enrollment may have redirected many of the assets that previously benefited the three-year old program. Second, the increased number of four-year olds may

have made parents concerned about the attention that three year olds are given. The program has placed a marked emphasis on four-year old participation, possibly at the expense of three year olds. Finally, the State has consistently used attendance percentage targets to gauge Pre-K program success. *The State might be better served by focusing resources on eliminating waiting lists rather than an attendance rate target for universal four year-old prekindergarten.* This would allow programs to be developed in response to demand rather than an arbitrary percentage target.

---

*The State might be better served by focusing resources on eliminating waiting lists rather than an attendance rate target for universal four year-old prekindergarten.*

---

## **West Virginia Has Committed Significant Resources to Improving Prekindergarten Statewide**

West Virginia’s Pre-K program is ambitious and innovative. First it is one of only a handful of states with a universal Pre-K program for four-year olds. This is different from many states that require those who qualify for the Pre-K program not exceed a prescribed income level. Studies have shown that children from lower-income households benefit from being in class with those who have a wealthier background (Pianta et al 2005). This means that in states where only the poorest children are allowed to attend state-sponsored Pre-K, the education impact on the children of low socio-economic status is somewhat mitigated.

---

*West Virginia’s Pre-K program is ambitious and innovative.*

---

While Pre-K has been offered in certain districts for several years, the universal Pre-K program is driven by legislative mandate. Local school boards have had the authority to offer Pre-K since 1983. The Public School Early Childhood Initiative gave authority for the establishment programs for three and four year-olds. In 2002, the Legislature passed an act requiring West Virginia school systems to provide access to Pre-k for all four year-olds by 2012. *W. Va. Code § 18-5-44* states:

*...beginning no later than the school year two thousand twelve - two thousand thirteen, and continuing thereafter, county boards shall provide early childhood education programs for all children who have attained the age of four prior to the first day of September of the school year in which the pupil enters the early childhood education program.*

The Legislature has set the amount of acceptable time for instruction. By code (W. Va. C.S.R. §126-28-3) instruction must be between 12-30 hours a week and not less than 108 days a year.

A study by the Department of Education found some important aspects of Pre-K within the state. First, rural counties have seen greater growth in Pre-K enrollment than their non-rural counterparts. The participation rate in non-rural counties is 35% while in rural counties it is 48%. From 2002-2007, participation was estimated at 119 students per county. The estimated average eligible population for a county was 386. The study also showed that Pre-K participation rates correlate to graduation rates in counties. Also, counties with smaller public school enrollment tend to have greater participation (UD DOE 2009 p.19).

There may be an inverse relationship between county income and participation. This could be caused by several factors. First, wealthier families may view Pre-K programs as being generally for lower income students and opt for pricier programs that are not state-supported. Second,, lower income families may be more likely to have working single parents and need more child care. Finally, wealthier families may be more likely to have a “stay at home” parent (US DOE 2009). Nevertheless, the Department of Education would be served to better publicize Pre-K to encourage the program’s growth. Currently there is a website being developed by the agency that will show Pre-K providers in counties throughout the state and allow parents to better understand their options. While this is an excellent start, more still needs to be done to publicize the program.

---

*Rural counties have seen greater growth in Pre-K enrollment than their non-rural counterparts.*

---



---

*Currently there is a website being developed by the agency that will show Pre-K providers in counties throughout the state and allow parents to better understand their options.*

---

## **Prekindergarten in West Virginia Is Offered through Private and Public Sector Organizations**

The state’s Pre-K is funded by the public system and functions through both public schools and private contractors such as preschools, other community childcare, and the Head Start program (W.Va. C.S.R. § 126-28-6). Private sector providers must comprise at least 50% of the Pre-K programs and must meet state standards (W.Va. C.S.R. § 126-28-3). The state’s reliance on child care centers and other private organizations complicates accountability and transparency issues. These organizations are acting “In Loco Parentis” and receiving significant funding from the state and while they do have to meet state standards, they do not have the same disclosure requirements as public entities.

Overall, the program has grown at a steady rate. However, in order to meet the benchmark gleaned from *W. Va. Code § 18-5-44* of universal Pre-K by 2012, it will be a challenge. The DOE has enunciated this goal as 80% participation and no waiting list statewide. In order for this to occur, a 6% annualized growth rate is necessary until 2012. Previously, the annualized increase since 2002 has been 4.2 percent and this likely is skewed by start-up gains. Rather than focusing enforcement efforts on the attendance rate, a more realistic metric may be the elimination of waiting lists so there is ample capacity for all who want to participate (US DOE 2009).

## **Conclusion**

In sum, prekindergarten programs are viewed by many scholars as an important part of improving early childhood education, especially for disadvantaged students. Prekindergarten in West Virginia is offered through private and public sector organizations. Therefore, the Legislature should consider adjusting the implementation of the State's prekindergarten program by fostering greater transparency, publicizing the program, and incorporating a realistic implementation timeline.

## **Recommendations**

7. *The Legislative Auditor recommends that the West Virginia Department of Education makes a concerted effort to publicize the State's Pre-K program.*
  
8. *The Legislative Auditor recommends that the Legislature encourage greater transparency for private partners who provide services for the State Pre-K program. The State should consider instituting an increased reporting requirement for entities that partner with local school boards.*



## ISSUE 4

### **The Effectiveness of School Choice in the State Is Limited by Substandard Guidance and an Inadequate Parental Notification Process.**

#### **Issue Summary**

School choice provisions are a centerpiece of “No Child Left Behind.” These provisions are triggered by the failure of a school to make Adequately Yearly Progress (AYP) for two years. The Legislative Auditor analyzed school-choice notification letters for compliance with “No Child Left Behind” requirements. We found that the majority of letters did not comply with federal requirements. Furthermore, by notifying parents earlier it would make it easier for them to exercise school choice. Finally, many school districts in West Virginia have few schools and this limits their ability to offer school choice. The Legislative Auditor recommends that the Department of Education should be more proactive in supervising school choice notifications and make an effort to increase the ability of students to exercise school choice options. Also, the Legislative Auditor recommends that the Legislature consider mandating that parents be notified earlier of school choice options by school district.

#### **School Choice Provisions Are a Centerpiece of “No Child Left Behind”**

This analysis deals primarily with the implementation of school choice in West Virginia. School choice in West Virginia is similarly structured to Ohio. Both states have limited open enrollment. Of the adjoining states, Ohio and West Virginia have the most liberal school choice laws. Pennsylvania and Kentucky have fewer school choice provisions and Virginia and Maryland have virtually none (Education Commission 2008). Currently, the State has enacted a limited open enrollment policy for school choice. There are three statutorily mandated policies. They are:

- *Intradistrict/voluntary policy*- This statute states that upon the written request of any parent or guardian, or person legally responsible for any student, or for reasons affecting the best interests of the schools, the superintendent may transfer students from one school to another within the county (West Virginia Code §18-5-16).

- *Interdistrict/voluntary policy*- This statute gives the board of education of each county the authority to transfer pupils on a part-time or full-time basis from one school district to another school district within the state (West Virginia Code § 18-5-16a).
- *Intradistrict/mandatory policy*- This statute allows students in low-performing schools, as designated by the state, to attend a different school within their school district (West Virginia Code §18-2E-5(o)).

This analysis deals primarily with the “Intradistrict/mandatory policy” as mandated under the school choice section of the No Child Left Behind Act of 2001-Pub.L. 107-110 (NCLB). The notification provisions focus of NCLB on informing parents in a timely and straightforward manner that the school their child attends has not met AYP for two years.

---

*By statute, both the West Virginia Department of Education and LEA have responsibilities triggered by the school choice provisions of NCLB.*

---

## **School Choice Provisions Are Triggered by a School Not Making Adequately Yearly Progress for Two Years**

The failure to meet AYP triggers the option for parents to send their children to an alternative school within the Local Education Agency (LEA) or if the local district has negotiated an agreement, to a nearby school in another district. By statute, both the West Virginia Department of Education and LEA have responsibilities triggered by the school choice provisions of NCLB. According to regulations, the LEA is required to:

- Notification of parents of their child’s eligibility for public school choice 14 days before the start of the school year<sup>18</sup> [ 34 C.F.R. §200.44(2) ]
- Notification through regular mail or email, and through means such as the Internet, the media, and public agencies serving the student population and their families [34 C.F.R. §200.36(c)]

---

<sup>18</sup> The subsequent analysis was focused on compliance with NCLB standards as of August 2008. Prior to the issuance of the new rule published in the Federal Register, October 29, 2008 (Volume 73, Number 2100: 64435-64513), the rule stated that parents must be notified prior to the beginning of the school year.

- Notification must be in an understandable and uniform format and in a language that parents can understand [34 C.F.R. §200.36(b)]
- Notification should present information in an unbiased manner that does not seek to dissuade parents from exercising their opportunity to choose a new school [34 C.F.R. §200.37(b)(4)(iii)]
- Notification must describe the procedures and timelines that parents must follow in selecting a school for their child [34 C.F.R. §200.37(b)(4)(iii)]
- Notification must include an explanation if no school choice is available [34 C.F.R. §200.36(b)]
- Notification must explain to parents their school choice options [34 C.F.R. §200.36(b)]
- Notification must inform parents that their child is eligible to attend another public school and may receive transportation to the school [34 C.F.R. §200.37(b)(4)]
- Notification must identify and provide information on the academic achievement of each public school that parents may select [34 C.F.R. §200.37(b)(4)]
- Notification must discuss how transportation to the new school will be provided and funded [34 C.F.R. §200.37(b)(4)(iii)]

According to *Title IX, Part C, Section 9302 of the Elementary and Secondary Education Act (Public Law 107-110)*, the West Virginia Department of Education is required to include, in its annual Consolidated State Performance Report to the United States Department of Education, information on public school choice. This should include:

- the number of schools from which and to which students transferred,
- the number of students eligible for and participating in public school choice, and
- funds spent on choice-related transportation.

---

## **The Legislative Auditor Analyzed School-Choice Notification Letters for Compliance With No Child Left Behind Requirements**

The Legislative Auditor requested copies of the notification letters sent-out to parents regarding school-choice from schools that did not meet AYP for two years consecutively. Notification letters from 23 schools in 18 counties were analyzed for their compliance with the requirements of NCLB. Compliance was rated as either “Compliant” which met all of the statutory requirements for notification, and “Non-compliant” which did not meet minimum requirements for notification. Of these letters eight (representing 35%) fell under the “Compliant” category. While 15 were “Non-compliant” (representing 65%). The breakdown by schools was as follows:

**Table 10: Level of Compliance of School Choice Notification Letters for West Virginia Schools for 2008**

<b>School</b>	<b>Compliance with NCLB Notification Requirements</b>
Brookview Elementary School	Compliant
Clay Middle	Compliant
Doddridge County Middle	Compliant
Doddridge Elementary	Compliant
Franklin Elementary	Compliant
Jefferson Elementary	Compliant
Sherman Elementary	Compliant
Van Devender Middle	Compliant
Cherry River Elementary	Non-compliant
George Ward Elementary	Non-compliant
Keyser Primary/Middle	Non-compliant
Kingwood Elementary	Non-compliant
Mt. View Elementary	Non-compliant
Nutter Fort Intermediate	Non-compliant
Orchard View Intermediate	Non-compliant
Petersburg Elementary	Non-compliant
Phillippi Elementary	Non-compliant
West Hamlin Elementary	Non-compliant
Enslow Middle	Non-compliant
J.E. Robbins Elementary	Non-compliant
Mason-Dixon Elementary	Non-compliant
Pt. Pleasant Intermediate	Non-compliant
Terra Alta East Preston School	Non-compliant

“school choice” option. Many of the letters simply implied that transportation would be supplied rather than addressing specifically how this would occur. According to 34 C.F.R. §200.37(b)(4)(iii) the notification should include specifics about how transportation will be provided. Generally, the “Non-compliant” letters either took a biased tone against school choice or did not provide any information regarding academic achievement as required by 34 C.F.R. §200.37(b)(4).

Perhaps the most troubling non-complaint letter was that of Mason-Dixon Elementary School in Monongalia County. The school refused to offer school choice to its students because it contended that *State Law 126-92, Policy 4336 Appendix B* limits the number of minutes that students may be transported on a bus. The specific language of the rule referenced is as follows:

*6. Recommended One-Way Transportation Time- Due to the rural nature of the State of West Virginia, the following are recommended one-way transportation times for students transported to/from school.*

*6.1 Early childhood (Pre-K through grade 4) - thirty minutes.*

*6.2 Middle childhood/junior high (grades 5-8 or 7-9) - forty-five minutes.*

*6.3 Adolescent/high school (grades 9-12 or 10-12) - sixty minutes.*

However, No Child Left Behind’s Regulation 34 C.F.R. §200.44(b) states:

*(b)Limitation on State law prohibition. An LEA may invoke the State Law prohibition on choice described in paragraph (a)(5) of this section only if the State law prohibits choice through restrictions on public school assignments or the transfer of students from one public school to another public school.*

Clearly the recommended travel times do not meet the exemption set forth under 34 C.F.R. §200.44(b). First, *State Law 126-92, Policy 4336 Appendix* is merely a recommendation not a mandate. Second, the guidelines are meant to inform the planning of bus routes and not the assignment of student to particular schools. Clearly, the federal statute supersedes the state

---

*The most common reason for non-compliance was a lack of specific information on the funding of transportation of students exercising their “school choice” option.*

---



---

*Generally, the “Non-compliant” letters either took a biased tone against school choice or did not provide any information regarding academic achievement as required.*

---



---

*Failure by the State Board of Education to compel the district to offer school choice could result in legal exposure.*

---

recommendation. Failure by the State Board of Education to compel the district to offer school choice could result in legal exposure.

According to this evidence, it is clear that the Title I coordinators for the school districts that had schools that didn't meet AYP used the template provided by the DOE (see Exhibit 1). Unfortunately, the template letter was non-compliant, therefore most of the notifications of individual schools were also non-compliant. The West Virginia Board of Education has not been exercising its oversight responsibility as enumerated under Article 12 section 2 of the West Virginia Constitution which states that "The general supervision of the free schools of the State shall be vested in the West Virginia board of education which shall perform such duties as may be prescribed by law." This should extend to providing the school districts with clear compliance guidance regarding the NCLB notifications to ensure that they comply with federal mandates. Furthermore, the legal rationale advanced by Monongalia Schools for their failure to offer school choice to Mason-Dixon Elementary school students should have been verified by a legal opinion. Guidance to the LEAs could take the form of:

- The state providing a template letter with boxed language that legally should not be changed.
- Approval of notification letters by counsel within the Department of Education.
- A "best practices" seminar on the notification requirements for LEA Title I coordinators.

---

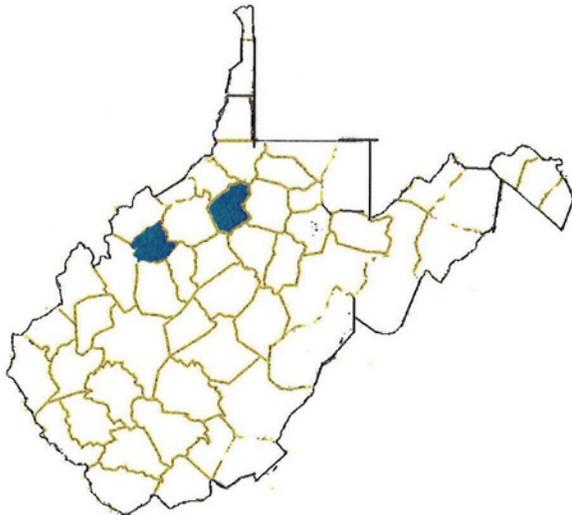
*Federal requirements allow school districts with no other viable schools to be excluded from school-choice provisions.*

---

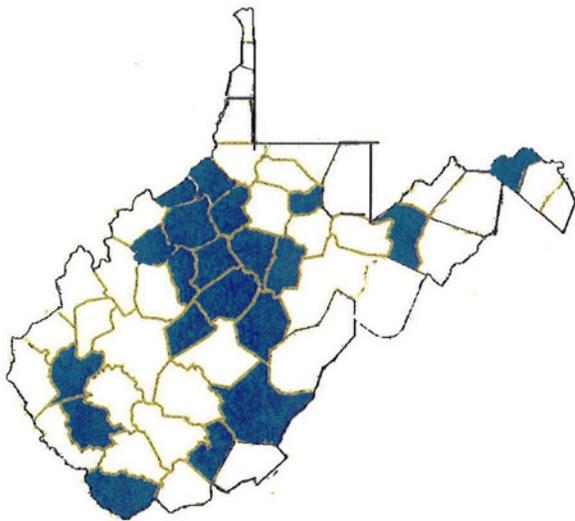
### **Many School Districts in West Virginia Have Few Schools and Limited School Choice**

Federal requirements allow school districts with no other viable schools to be excluded from school-choice provisions. Due to the rural nature of the state and in some cases, school consolidation, many school districts in West Virginia do not have the capability to offer school-choice whether or not they are compliant with NCLB (see Figures 15-17). This limits the effectiveness of school choice provisions in West Virginia.

**Figure 15:** West Virginia Counties With One Public Elementary School



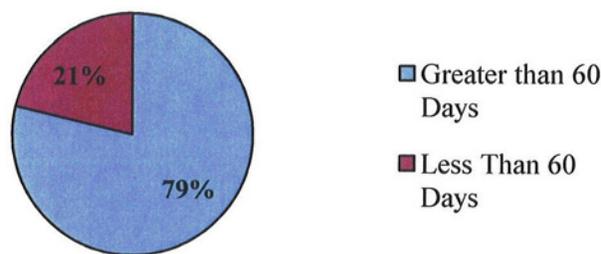
**Figure 16:** West Virginia Counties With One Public Middle School





For schools in the first year of corrective action, delaying notification of parents of school until late August hampers parents' ability to exercise school choice. For these schools, the Legislature should consider mandating that school choice notification letters should be sent home with students during the last week of the previous school year. For schools waiting to see if they have moved out of improvement status, the Legislature should consider mandating that the notification letter be sent-out within seven days of the electronic notification of testing results. This would be roughly August 1. These changes would allow parents more time to research and consider their options and make necessary accommodations (see Figure 18).

**Figure 18:** Length of Notification for Students Who Exercised School Choice in West Virginia 2008-2009



Of the 22 schools mandated to provide school choice in 2008-2009, only three schools notified parents more than 10 days in advance of the school year. Of the 19 schools, 14 did not need to wait for receipt of their 2008 scores in order to determine whether or not they were still under corrective action.

Federal law [ 34 C.F.R. §200.44(2) ] currently mandates that notification occur no later than 14 days prior to the beginning of the school year. For these schools, the legislature should consider mandating that school choice notification letters should be sent home with students during the last week of the previous school year. For schools waiting to see if they have moved out of improvement status, the Legislature should consider mandating that the notification letter be sent-out within seven days of the electronic notification of testing results. This would be roughly August 1. These changes would allow parents more time to research and consider their options and make necessary accommodations.

## Conclusion

---

*For schools waiting to see if they have moved out of improvement status, the Legislature should consider mandating that the notification letter be sent-out within seven days of the electronic notification of testing results.*

---

In sum, school choice provisions are a centerpiece of “No Child Left Behind.” These provisions are triggered by the failure of a school to make AYP for two years. The Legislative Auditor analyzed school-choice notification letters for compliance with “No Child Left Behind” requirements. We found that the majority of letters did not comply with federal requirements. Furthermore, by notifying parents earlier it would make it easier for them to exercise school choice. Many school districts in West Virginia have few schools and this limits their ability to offer school choice. Also, the State should explore ways to bolster the state’s school choice program beyond merely attempting to meet federal standards. This could take the form of brokering school choice agreement between counties with limited choice or conducting informational meetings on the benefits of a school choice program. During 2008 only 94 students within the 23 schools identified for school choice exercised the option. In 2008, in Florida, 645,184 students exercised school choice from 2,512 schools that did not make AYP<sup>19</sup>. While admittedly, the underutilization cannot be directly accountable to the notification process, it does appear that many administrators are not attempting to make this program a vibrant and viable option. Finally, by notifying parents earlier it would make it easier for them to exercise school choice.

## **Recommendations**

*9. The Legislative Auditor recommends that the Department of Education make an effort to increase the ability of students to exercise school choice options within West Virginia. The state should explore ways to bolster the state’s school choice program beyond merely attempting to meet federal standards.*

*10. The Legislative Auditor recommends that the Department of Education should be more proactive in supervising school choice notifications.*

*11. The Legislative Auditor recommends that the Legislature consider mandating that parents be notified earlier of school choice options by school district.*

---

<sup>19</sup> Florida Department of Education



## ISSUE 5

### **The Department of Education's High Quality Teacher Requirements Meet NCLB Guidelines**

#### **Issue Summary**

The DOE's requirements for teacher certification ensure that new teachers come into the profession considered Highly Qualified Teachers (HQT). The DOE has also made steps to ensure teachers hired prior to the passage of the Federal No Child Left Behind Law receive HQT status. However, there has been a recent decline in the percentage of classes taught by highly qualified teachers in the state. However, the DOE indicated that initially in measuring the percentage of classes taught by highly qualified teachers, the reporting practices were rough estimates that were likely overstatements. A refinement of reporting practices suggests that a downward trend is not occurring.

---

*The DOE's requirements for teacher certification ensure that new teachers come into the profession considered Highly Qualified Teachers (HQT).*

---

#### **West Virginia Uses the Praxis Tests to Determine HQT Status**

It is a goal of the federal No Child Left Behind law that all teachers be considered highly qualified. NCLB defines highly qualified teachers new to the profession as those with at least a bachelor's degree and have passed a rigorous test demonstrating competency in all core academics. Experienced teachers employed before the passage of NCLB have some alternative options for becoming highly qualified. The DOE reported that 91 percent of all courses were taught by highly qualified teachers in Academic Year (AY) 2007-2008. However, that is a decrease of five percentage points from AY 2004-2005, in which a four year high of 96 percent was reported.

According to the DOE, this decrease is attributed to the lack of a comprehensive mechanism for reporting HQT numbers. For AY 2004-2005, existing data was used. Once the data was more clearly defined and recorded a more accurate number of HQT's was reported. Therefore, the decrease is not necessarily a loss of HQT's; it is a reflection of a more refined measurement of previous HQT numbers.

Under NCLB, new middle and secondary school teachers must pass a test in the subjects they teach as well as have a degree or some form of advanced credentials in those subjects. While states have the option of developing their own tests, West Virginia has opted to use the Praxis Tests, I and II.

The Praxis I is divided into three exams, one for each core subject math, reading and writing. In addition to these core Praxis I tests, teachers in West Virginia must pass the Praxis II test titled Principles of Learning and Teaching (PLT). The PLT is available in four categories: Early Childhood, Grades K-6, Grades 5-9 and Grades 7-12. West Virginia does not require the PLT Early Childhood exam. The PLT is a less common requirement for licensure among states using the Praxis Tests. **It should also be noted that requiring the PLT for licensure goes beyond the NCLB definition of highly qualified teachers.**

---

*Each state requiring the Praxis Tests determines its own passing score on each test.*

---

The Praxis tests are developed by a non-profit organization called Educational Test Services (ETS) and are used in most states. Praxis I is required for licensure in West Virginia and is a basic skills assessment. Praxis II comes in various forms and assesses teachers' content specific knowledge in the subjects taught as well as general teaching skills. The Praxis Tests are used in the Teacher Licensure Process of approximately 40 states. Other states have opted to develop their own tests for content specific knowledge.

---

*West Virginia's passing scores tend to skew in the lower half of the passing score range on many of the Praxis Tests.*

---

Each state requiring the Praxis Tests determines its own passing score on each test. There are 28 states that report minimum passing scores to the ETS for the Praxis I. The Legislative Auditor examined these scores to evaluate the DOE's standards for Highly Qualified Teacher status. West Virginia's passing scores tend to skew in the lower half of the passing score range on many of the Praxis Tests. Table 12 shows the range of Praxis I passing scores from the 28 states that reported scores to the ETS. The actual median scores on exams that were submitted to DOE for consideration of licensure in the state are also included.

**Table 12  
Praxis I Passing Scores Reported by 28 Applicable States 2007-2008**

<b>Subject</b>	<b>Range of All State Passing Scores</b>	<b>WV Passing Score</b>	<b>WV Median Score Computerized</b>	<b>WV Median Score Written</b>	<b>Number of Examinees*</b>
Math	169 to 178	172	176	177	1441
Reading	170 to 178	174	177	178	1716
Writing	171 to 176	172	174	175	1655

*Source: Praxis Test Series Passing Scores by Test and State from Electronic Test Services and the Praxis State Agency Summary Report*

*\*Combined Computerized and Written Exams Received by DOE*

The Praxis II is now required for most new teachers in West Virginia to be certified and endorsed in their fields of study. Therefore most new teachers in West Virginia come into the profession meeting the NCLB guidelines to be highly qualified. Passing a Praxis II exam is also among the options for experienced teachers, employed prior to the passage of NCLB, to be considered highly qualified. There is a Praxis II exam for virtually every subject commonly taught from kindergarten through high school. Table 13 gives some statistics for three core subjects for which West Virginia uses the Praxis II exam.

<b>Table 13 Praxis II Passing Scores for Core Subjects 2007-2008</b>				
<b>Subject</b>	<b>Range of Passing Scores in Applicable States</b>	<b>WV Passing Score</b>	<b>Median Score for WV</b>	<b>Number of WV Examinees</b>
Math	123 to 156	133	138	80
English	142 to 172	155	175	141
General Science Part 2	149*	149	157	61

*Source: Praxis Test Series Passing Scores by Test and State from Education Test Services and the Praxis State Agency Summary Report*  
*\*Two States Report Passing Scores for this Exam, Both are 149*

Under NCLB, each state has some freedom in defining the requirements to be considered a highly qualified teacher (HQT). These can vary by the grade levels at which a teacher is employed. For instance there are different requirements for being considered highly qualified as an elementary teacher than that of a middle or high school teacher. If a teacher is considered a HQT in one field but is teaching a course in another field, that course is not considered to be taught by a HQT.

---

*Under NCLB, each state has some freedom in defining the requirements to be considered a highly qualified teacher (HQT).*

---

As stated before, new teachers in the state are considered highly qualified due to the teacher certification requirement of passing the Praxis II. Experienced, Pre-NCLB teachers have a few options to be considered highly qualified. They may pass a Praxis II exam in the subject they teach, have an academic major (21 semester hours) in the course taught or advanced credentials such as a master’s or doctoral degree.

A performance evaluation using Housse standards was formerly an option to attain HQT status; that option expired at the end of AY 2007-2008. That evaluation, as described in WVBE Policy 5310, was essentially

---

a performance review by a supervisor to assess a teacher's knowledge of a given subject. Teachers who passed this evaluation prior to its expiration retain HQT status in that subject.

The Legislative Auditor finds that meeting NCLB guidelines for HQT status as part of West Virginia's teacher certification process is a positive step toward reaching some goals found in Vision 2020. The most immediate goal would be equitable teacher quality for all students. The benefits of achieving this goal would likely increase prospects for meeting several of Vision 2020's academic goals for students.

## Conclusion

By enacting policies requiring new teachers to be considered HQT status, the DOE has made positive steps toward the goal that 100 percent of classes be taught by highly qualified teachers. It is also commendable that the DOE requirements for new teachers go beyond the NCLB requirements for HQT status.

---

*The Legislative Auditor finds that meeting NCLB guidelines for HQT status as part of West Virginia's teacher certification process is a positive step toward reaching some goals found in Vision 2020.*

---

## ISSUE 6

### **The DOE Has Done Well to Incorporate Technology Into Policies and Records Management.**

#### **Issue Summary**

The DOE has placed emphasis on technology and 21<sup>st</sup> century learning in many of its policies and practices. West Virginia recently received exemplary marks in a 2009 study of technology in schools. The DOE has also made good use of technology to store and distribute information pertaining to West Virginia's public education system.

---

*The state received all A's in the three major categories of the State Technology Report Card 2009.*

---

### **West Virginia Received High Marks for Technology in Education in 2009**

In a recent report by the Education Research Center (ERC), West Virginia received high marks for technology policies in education. The state received all A's in the three major categories of the State Technology Report Card 2009. Those categories are Use of Technology, Capacity to Use Technology and Access to Technology.

---

*West Virginia performed well in all of the sub-categories, as well, faring better than the national average in virtually every aspect of the report.*

---

West Virginia is one of only three states in Capacity and one of nine in the Use of Technology categories to receive an A grade. West Virginia scored a 96.3 in the Access category. West Virginia performed well in all of the sub-categories, as well, faring better than the national average in virtually every aspect of the report.

The A grade in Use of Technology is based on West Virginia having the following policies in place:

- **Student standards include technology:** Technology standards for West Virginia were established in the Board of Educations Legislative Rules under §126-44N. All levels of public education from Pre-K through 12 are included. All 50 states have a technology policy.
- **State tests students on technology:** There are 13 other states that also test on technology.
- **State has established a virtual school:** The West Virginia Virtual School was created by the Legislature on July 1, 2000. A variety of courses are available online through outside content providers such as

distance learning companies and higher education institutions. The DOE reviews courses and their providers for quality and alignment with the State's educational standards. There are virtual schools in 29 other states.

- **State offers computer-based assessments:** These are offered in 26 other states. An example of this is the DOE's use of the Online Technology Assessment (OTA). Designed using National Education in Technology Standards for Students, the OTA utilizes applications such as Microsoft Word, Excel, PowerPoint and Internet Explorer. The OTA is administered statewide to students Kindergarten through eighth grade.

No other policies were examined in this category. West Virginia has a policy in place for each sub-category.

The A grade for Capacity to Use Technology is based on West Virginia including technology in the following categories:

- **Teacher standards:** DOE Policy 5310 requires teachers to demonstrate knowledge and implement practices of technology concepts in the learning environment.
- **Administrator standards;**
- **Initial teacher-license requirements;**
- **Initial administrator-license requirements;**
- **Teacher-recertification requirements:** Under CSR §126-136-10.1.4, one of the criteria to be met for teacher license renewal is three semester hours of course work related to instructional technology operations and concepts.
- **Administrator-recertification requirements:** Administrators are also required to take three hours of coursework related to instructional technology under BOE's Legislative Rules.

No other sub-categories were examined.

The A grade in Access to Technology is based on 100 percent access to computers for fourth graders and 97 percent for eighth graders. This is higher than the national average which is 95 percent and 83 percent respectively. The grade is also based on the low number of students per instructional computer, 3.2 for the state against 3.8 nationally. Furthermore, the state maintains three students per high-speed internet computer versus 3.7 nationally.

---

*The A grade in Access to Technology is based on 100 percent access to computers for fourth graders and 97 percent for eighth graders.*

---

A further distinction for West Virginia's technology policies is that the state is one of 11 to include technology in both a stand-alone and embedded form. Stand-alone refers to a distinct document outlining strictly technology based standards whereas embedded means the incorporation of technology standards within core subjects such as math, English, science and/or history.

## **The DOE Has Managed Records Well and Maintains a Comprehensive Website**

Though it was not a factor in the aforementioned ERC study; the Legislative Auditor commends the DOE's management of information. In the field of public education, records and information are produced, reported and analyzed at a constant rate and in great volume. The DOE has done a good job of managing, storing and reporting information to the both the public and the Legislature. The amount of useful information readily available on the DOE's website is comparable to that of any of the SREB member states' education websites. Also, the DOE has been able to produce much of the information requested by the Legislative Auditor in a timely manner. This would indicate that pertinent information is on hand and well organized should the Legislature or education stakeholders require it on a deadline.

---

*The DOE has done a good job of managing, storing and reporting information to the both the public and the Legislature. The amount of useful information readily available on the DOE's website is comparable to that of any of the SREB member states' education websites.*

---

While a large amount of record keeping is required and necessary for such a vital industry as education, the DOE has gone beyond that requirement in many instances. Between the DOE's website and that of the West Virginia Education Information System, interested parties can obtain useful information regarding virtually all aspects of the state's public education system. However, the large amount of information on the websites can make it difficult to navigate in some cases. Otherwise the site is fairly user friendly, and what is lost in convenience is a trade off with data volume. These are valuable tools in measuring and improving education in West Virginia. The Legislative Auditor recommends the DOE maintain this diligence in maintaining and reporting information in the future.



Appendix A: Transmittal Letter

**WEST VIRGINIA LEGISLATURE**  
*Performance Evaluation and Research Division*

Building 1, Room W-314  
1900 Kanawha Boulevard, East  
Charleston, West Virginia 25305-0610  
(304) 347-4890  
(304) 347-4939 FAX



John Sylvia  
Director

December 30, 2009

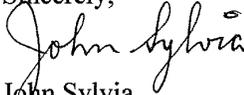
Dr. Steven Paine, State Superintendent of Schools  
West Virginia Department of Education  
Bldg. 6, Room 2004  
1900 Kanawha Blvd., East  
Charleston, WV 25305

Dear Dr. Paine:

This is to transmit a draft copy of Issue 1 of the Agency Review of the West Virginia Department of Education. We wanted to get this first issue transmitted as soon as possible. There are other issues in the review that will be transmitted soon. This report is scheduled to be presented during the January 10-12, 2010 interim meetings of the Joint Committee on Government Operations, and Joint Committee on Government Organizations. We will inform you of the exact time and location once the information becomes available. It is expected that a representative from your agency be present at the meeting to orally respond to the report and answer any questions the committees may have.

We need to schedule an exit conference to discuss any concerns you may have with the report. We would like to have the meeting on Tuesday January 5, 2010. Please notify us to schedule an exact time. In addition, we need your written response by noon on Thursday, January 7, 2010 in order for it to be included in the final report. If your agency intends to distribute additional material to committee members at the meeting, please contact the House Government Organization staff at 340-3192 by Thursday, January 7, 2010 to make arrangements.

We request that your personnel not disclose the report to anyone not affiliated with your agency. Thank you for your cooperation.

Sincerely,  
  
John Sylvia

Enclosure

JS/dt

*Joint Committee on Government and Finance*

**WEST VIRGINIA LEGISLATURE**  
*Performance Evaluation and Research Division*

Building 1, Room W-314  
1900 Kanawha Boulevard, East  
Charleston, West Virginia 25305-0610  
(304) 347-4890  
(304) 347-4939 FAX



John Sylvia  
Director

December 31, 2009

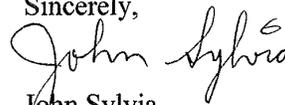
Dr. Steven Paine, State Superintendent of Schools  
West Virginia Department of Education  
Bldg. 6, Room 204  
1900 Kanawha Blvd., East  
Charleston, WV 25305

Dear Dr. Paine:

This is to transmit a draft copy of Issues 3 through 6 of the Agency Review of the West Virginia Department of Education. There is one other issue that will be transmitted as soon as possible. This report is scheduled to be presented during the January 10-12, 2010 interim meetings of the Joint Committee on Government Operations, and Joint Committee on Government Organizations. We will inform you of the exact time and location once the information becomes available. It is expected that a representative from your agency be present at the meeting to orally respond to the report and answer any questions the committees may have.

As discussed, we will plan to meet for the exit conference at 10 A.M. on Tuesday January 5, 2010 in Building 6, Room 358. In addition, we need your written response by noon on Thursday, January 7, 2010 in order for it to be included in the final report. If your agency intends to distribute additional material to committee members at the meeting, please contact the House Government Organization staff at 340-3192 by Thursday, January 7, 2010 to make arrangements.

We request that your personnel not disclose the report to anyone not affiliated with your agency. Thank you for your cooperation.

Sincerely,  
  
John Sylvia

Enclosure

JS/dt

\_\_\_\_\_ *Joint Committee on Government and Finance* \_\_\_\_\_

**WEST VIRGINIA LEGISLATURE**  
*Performance Evaluation and Research Division*

Building 1, Room W-314  
1900 Kanawha Boulevard, East  
Charleston, West Virginia 25305-0610  
(304) 347-4890  
(304) 347-4939 FAX



John Sylvia  
Director

January 5, 2010

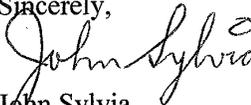
Dr. Steven Paine, State Superintendent of Schools  
West Virginia Department of Education  
Bldg. 6, Room 204  
1900 Kanawha Blvd., East  
Charleston, WV 25305

Dear Dr. Paine:

This is to transmit a draft copy of Issue 2 of the Agency Review of the West Virginia Department of Education. This is the final issue of the report to be transmitted. There are no further issues to be included in this review. This report is scheduled to be presented during the January 10-12, 2010 interim meetings of the Joint Committee on Government Operations, and Joint Committee on Government Organizations. We will inform you of the exact time and location once the information becomes available. It is expected that a representative from your agency be present at the meeting to orally respond to the report and answer any questions the committees may have.

In addition, we need your written response by noon on Thursday, January 7, 2010 in order for it to be included in the final report. Please include Issue 2 in your response. If your agency intends to distribute additional material to committee members at the meeting, please contact the House Government Organization staff at 340-3192 by Thursday, January 7, 2010 to make arrangements.

We request that your personnel not disclose the report to anyone not affiliated with your agency. Thank you for your cooperation.

Sincerely,  
  
John Sylvia

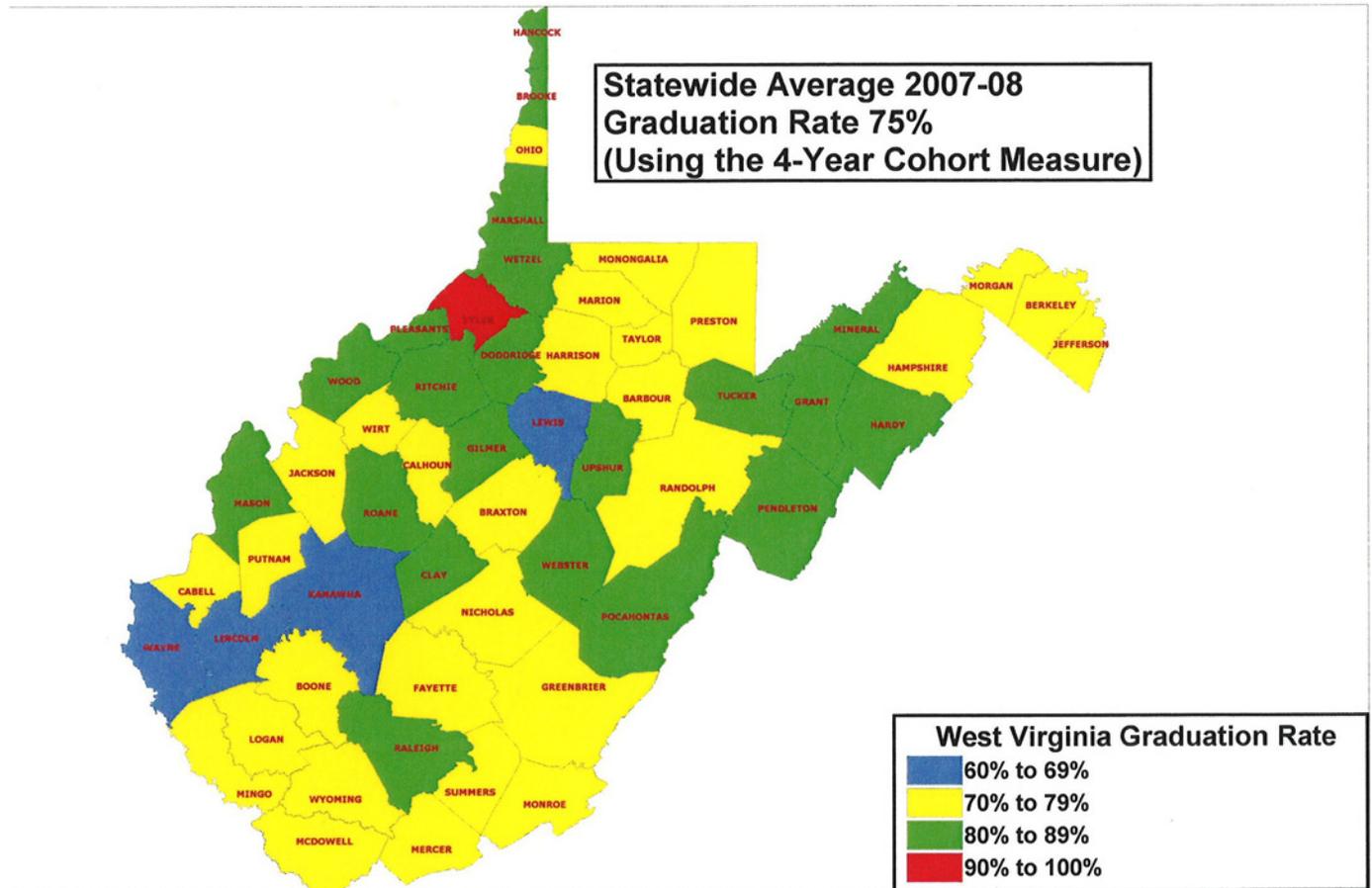
Enclosure

JS/dt \_\_\_\_\_

*Joint Committee on Government and Finance* \_\_\_\_\_



## Appendix B: West Virginia Graduation Rate





Appendix C: Regression Analysis High School Size and the 2008 Graduation Rate

<b>Regression Analysis High School Size and the 2008 Graduation Rate</b>		
<b>Dependent Variable</b>		
<b>2008 Four-Year Cohort Graduation Rate</b>		
<b>Independent Variables</b>	Regression Coefficient	T-Value
<b>Intercept</b>	54.027	6.730
<b>Avg Size High School</b>	-0.0048	-2.833*
<b>Read10th 2006</b>	0.3672	3.534*
R-Squared	0.287	
Durbin-Watson	1.983	
F-Ratio	10.478	
<i>Source: PERD statistical analysis of DOE data. *Significant at the 99% confidence interval.</i>		



## Appendix D: Parent Letter for School Choice

### Parent Letter for School Choice

Date must be prior to the beginning of the school year. *Content of letter reflects federal requirements and should not be altered to, in any way, distort the message.*

Dear Parent/Guardian:

West Virginia's public schools have been working hard to improve the performance of our students in reading, writing, and mathematics. On state tests, most students are scoring well and are achieving mastery in these core subjects. Our schools have shown that they can and will rise to high standards.

The federal law, *No Child Left Behind*, requires that schools that do not meet the state standards for two consecutive years are identified for school improvement. **[Name of School]** has not met the state standards for Adequate Yearly Progress in \_\_\_\_\_ and/or \_\_\_\_\_. As a result, you have the right to request that your child be transferred to \_\_\_\_\_ or \_\_\_\_\_ School **pending space available**. (Insert information on the academic achievement of schools that parents may select, including a description of special academic programs or facilities, extended day / year programs, etc.) Additional information regarding the schools may be found on the attachment to this notice. (See Kanawha County's sample)

Students with disabilities have special and specific needs. It may not be appropriate to offer students with disabilities the same school choices as offered to non-disabled students. In determining the choices available to disabled students, the county will match the abilities and needs of a student with disabilities with those schools that have the capability to provide appropriate services. Therefore, if the parent(s) of a student with a disability expresses an interest in exercising the school choice option, education representatives will meet with the parent(s) to discuss their child's specific needs in relation to choice option(s). The parent must request this meeting by calling the [name of county] Central Office at [phone number]. **(Or by returning completed application – Use Sample 2.)**

**[Name of district]** will accommodate as many requests for transfers as possible. However, federal law requires that first priority must be given to the lowest income and lowest achieving students based on the results of the State assessment (WESTEST). If you transfer your child to another school, he/she may remain in that school until he/or she has completed the highest grade in the school. Yet, **[name of district]** will only assume the cost of the transportation until **[name of school]** is no longer identified for school improvement. Your decision to transfer should be based on what you feel is best for your child.

The **[name of school]** staff will be re-evaluating the school's strategic plan to identify ways to strengthen instructional and support programs for students as a result of not meeting Adequate Yearly Progress and the state standards. Parent and community members are encouraged to work with the school in the development of the strategic plan.

If you chose to apply for the school choice option, please complete the attached form and return it to **[contact person]** by **[specify date]**. Questions concerning this issue should be directed to **[name of person and contact information]**. We ask that you consider all factors before making your decision.

Sincerely,

Name and Title



## Appendix E: Agency Response

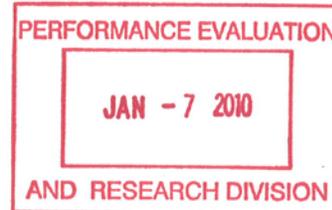


*Dr. Steven L. Paine, State Superintendent of Schools  
1900 Kanawha Boulevard, East, Building 6  
Charleston, WV 25305-0330  
Phone: 304-558-2681  
Fax: 304-558-0048*

<http://wvde.state.wv.us>

January 7, 2010

Mr. John Sylvia  
West Virginia Legislature  
Performance Evaluation and Research Division  
Building 1, Room W-314  
1900 Kanawha Boulevard, East  
Charleston, West Virginia 25305-0610



Dear Mr. Sylvia:

I appreciated the opportunity to meet with you and your staff members to discuss your agency's review of some specific initiatives of the West Virginia Department of Education before you presented the findings to a legislative committee. Your research on high school graduation rates, NAEP results, prekindergarten programs, school choice, teacher quality, and technology were thoroughly examined and well presented. Our discussion of this research completed by your office not only allowed you the opportunity to explain your findings, but also provided my staff with the opportunity to respond. Your willingness to allow meaningful input was greatly appreciated. This discussion will also be very helpful as we complete our work on the Race to the Top proposal.

I was pleased that you understood that the Department of Education has already begun to implement new rigorous standards and assessments to address the need to improve instruction in the areas of reading and mathematics. Although we need to provide more professional development to teachers and administrators on teaching the new standards and using balanced assessment, it is our belief that the State has charted the right course to improve the NAEP assessment results in the next testing cycle.

I was delighted that you understood that the Department will implement the four-year cohort graduation rate formula in 2010-11, since we had already begun to provide that data to our Board of Education. Even though the formula we have been using was federally approved, I feel it is in the best interest for West Virginia and all other states to use one standard formula so our progress can be compared. Although our graduation rate when calculated with the new formula is higher than the national average, it is important for the West Virginia schools to focus on improving graduation rates.

Let me again thank you for your research on several very complex topics. I look forward to seeking your assistance in researching some new educational issues to assist the Department as it implements its major initiatives.

Sincerely,

A handwritten signature in blue ink that reads "Steve Paine".

Steven L. Paine  
State Superintendent of Schools

SP/JM/psb

1471







WEST VIRGINIA LEGISLATIVE AUDITOR

**PERFORMANCE EVALUATION & RESEARCH DIVISION**

Building 1, Room W-314, State Capitol Complex, Charleston, West Virginia 25305

telephone: 1-304-347-4890 | [www.legis.state.wv.us/Joint/PERD/perd.cfm](http://www.legis.state.wv.us/Joint/PERD/perd.cfm) | fax: 1-304-347-4939