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An Analysis of Some Unintended and Negative Consequences of High-Stakes Testing

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Introduction

Although for some time tests have been used to assess intelligence, to quantify merit, and to diagnose aptness and deficiency, tests did not have their greatest effect in schools until a few decades ago. In 1983 the National Commission on Education released *A Nation at Risk* (1983)[1] in which it was argued that schools in the United States were performing poorly in comparison to other industrialized countries and the United States was in jeopardy of losing its global superiority. Although high-stakes tests existed in some states, they had not proved themselves as worthy reforms, nor had they warranted the expansion of high-stakes testing policies. Nonetheless, to alleviate the situation *A Nation at Risk* called for standards and tests to improve the academic achievement of America's youth. The commission recommended that states institute higher standards and administer assessments to hold schools accountable for meeting those standards. These assessments became known as high-stakes tests.

High-Stakes Tests Defined

High-stakes tests are tests from which results are used to make significant educational decisions about schools, teachers, administrators, and students. High-stakes testing policies have consequences for schools, for teachers, and for students. For

schools, twenty-five states offer financial rewards to successful or improved schools, and in twenty-five states, state government has the power to close, reconstitute, or take over low performing schools. The new federal pressures to "take over" and reconstitute failing schools, as a part of the *No Child Left Behind Act* of 2002, may soon result in all states having to implement high-stakes testing programs.

For teachers in eight states, high average class scores or improvements in score warrant financial bonuses, and in 17 states low average class scores may warrant the displacement or removal of teachers or administrators.[2]

For students in eight states, low scores may be used to promote or retain students in grade, and in 10 states students in schools deemed failing may enroll elsewhere. In six states high scores on high-stakes tests may result in special diplomas or scholarships, and in 18 states low scores may be used to prevent high school students from receiving a regular high school diploma. In these states, whether a student passes or fails a high school graduation exam is being used as the only determinant to whether a student receives a diploma. Granted, students must, for example, maintain a certain grade point average (GPA) or be in attendance a certain number of days to receive a high school diploma. In these 18 states, however, even if students meet all other requirements for graduation but fail the high school graduation exam, they are denied a high school diploma. All of the stakes aforementioned are summarized by state in Table 1.

Table 1: Consequences Written into State[3] K-12 Testing Policies in States with High-Stakes Tests[4]

State	High School Graduation Exams	High-Stakes Attached to Tests	Stakes Affecting: Schools		Administrators or Teachers		Students			
	Years in which graduation became contingent upon a high school graduation exam	Years in which high stakes were attached to tests in grades Kindergarten through 8 (up to 2002)	The state has the authority to close, revoke a school's accreditation, take over, or reconstitute low-scoring schools	Monetary awards are given to high performing or improving schools	Monetary awards can be used for teacher bonuses	The state has the authority to replace principals or teachers due to low test scores	Grade-to-grade promotion is contingent upon a promotion exam	The state permits students in failing schools to enroll elsewhere	Monetary awards or scholarships for college tuition are given to high-performing students	Total Stakes (including high school graduation exams) by state
Alabama	1985, 1993, 2001	1996	X	X		X				4
California	n/a	1999	X	X	X		X		X	5
Colorado	n/a	2000	X	X	X	X		X		5
Delaware	n/a	1998	X	X	X	X	X		X	6
Florida	1979, 1990, 1996	1999		X	X		X	X		5
Georgia	1984, 1995	n/a								1
Indiana	2000	1988	X	X				X		4
Kentucky	n/a	1994	X	X		X		X		4
Louisiana	1991	1989	X	X			X	X		5
Maryland	1987	1993	X	X		X		X		5
Massachusetts	n/a	1999	X			X			X	3
Michigan	n/a	1993	X	X		X		X	X	5

Table 1, continued

State	High School Graduation Exams	High-Stakes Attached to Tests	Stakes Affecting: Schools		Administrators or Teachers		Students			
	Years in which graduation became contingent upon a high school graduation exam	Years in which high stakes were attached to tests in grades Kindergarten through 8 (up to 2002)	The state has the authority to close, revoke a school's accreditation, take over, or reconstitute low-scoring schools	Monetary awards are given to high performing or improving schools	Monetary awards can be used for teacher bonuses	The state has the authority to replace principals or teachers due to low test scores	Grade-to-grade promotion is contingent upon a promotion exam	The state permits students in failing schools to enroll elsewhere	Monetary awards or scholarships for college tuition are given to high-performing students	Total Stakes (including high school graduation exams) by state
Minnesota	2000	n/a								1
Mississippi	1989	1994	X							2
Missouri	n/a	1993	X							1
Nevada	1981, 1985, 1992, 1999	1998	X			X			X	4
New Jersey	1984, 1987, 1995	1987	X			X				3
New Mexico	1990	1989	X	X		X	X			5
New York	1985, 1995	1999	X			X		X		4
North Carolina	1980, 1998	1997	X	X	X	X	X			6
Ohio	1994	1996	X			X	X		X	5
Oklahoma	n/a	1989	X			X				2
Pennsylvania	n/a	1999	X	X	X					3
South Carolina	1990	1998	X	X		X	X			5
Tennessee	1986, 1998	2000	X	X	X					4

Table 1, continued

State	High School Graduation Exams	High-Stakes Attached to Tests	Stakes Affecting: Schools		Administrators or Teachers		Students			
	Years in which graduation became contingent upon a high school graduation exam	Years in which high stakes were attached to tests in grades Kindergarten through 8 (up to 2002)	The state has the authority to close, revoke a school's accreditation, take over, or reconstitute low-scoring schools	Monetary awards are given to high performing or improving schools	Monetary awards can be used for teacher bonuses	The state has the authority to replace principals or teachers due to low test scores	Grade-to-grade promotion is contingent upon a promotion exam	The state permits students in failing schools to enroll elsewhere	Monetary awards or scholarships for college tuition are given to high-performing students	Total Stakes (including high school graduation exams) by state
Texas	1987, 1992	1993	X	X	X	X		X		6
Virginia	1986	1998	X							2
West Virginia	n/a	1989	X			X		X		3
Total Consequences	18	28	25	16	8	17	8	10	6	

Characteristics of States That Use High-Stakes Tests

Governmental Traditions

High-stakes tests and high school graduation exams are found in states that have more centralized governments. In states with centralized governments the state government assumes more power and administers more comprehensive governing mechanisms. In states with more localized governments the state government assumes less power than do local or county governments. Of the states that have centralized governments, 93 percent have implemented high-stakes tests. Of the states that have localized governments, 33 percent have implemented high-stakes tests. Of the states that have centralized governments, 87 percent have implemented high school graduation exams. Of the states that have localized governments, 17 percent have implemented high school graduation exams.[5]

Education Funding

High-stakes tests and high school graduation exams are more likely to be implemented in states that allocate less money than the national average per pupil for schooling. High-stakes tests are found in 60 percent of the states in which yearly per pupil expenditures are lower and in 50 percent of the states in which yearly per pupil expenditures are higher than the national average. High school graduation exams are found in 43 percent of the states in which yearly per pupil expenditures are lower, and in 25 percent of the states in which yearly per pupil expenditures are higher than the national average.[6]

State Size

High-stakes tests and high school graduation exams are found more frequently in the largest states and in states with the greatest population growth as compared to the nation. For example, 84 percent of the country's largest states have implemented high-stakes tests, compared with 28 percent of the country's smallest states. Similarly, 56 percent of the country's largest states have implemented high school graduation exams, compared with 16 percent of the country's smallest states. In addition, 64 percent of the states with the greatest population growth from 1990 to 2000 have implemented high-stakes tests; 52 percent of such states have implemented high school graduation exams. By comparison, 48 percent of the states with the lowest population growth in that period have implemented high-stakes tests, and only 20 percent of such states have implemented high school graduation exams.[7]

Regional Trends

High-stakes tests and high school graduation exams tend to be found in the South and Southwest. High-stakes tests are in use in 88 percent of the southern and 80 percent of the southwestern states compared with 42 percent of the mid-western, 44 percent of the northeastern, and 31 percent of the western states. High school graduation exams are in use in 69 percent of the southern and 60 percent of the southwestern states; they are found in 25 percent of the mid-western, 22 percent of the northeastern, and 15 percent of the western states. High-stakes tests will become more common throughout the nation as *No Child Left Behind* is implemented, and high school graduation exams, in particular,

will become more common in the South, Southwest, and West in the future. Over the next decade, the western states will experience the greatest increase in the proportion of states with high school graduation exams by region.[8]

Race Demographics

High-stakes tests and high school graduation exams tend to be found in states with higher percentages of African-Americans and Hispanics and lower percentages of Caucasians. Among states with higher percentages of African-Americans than the nation as whole, 88 percent have high-stakes tests and 75 percent have high school graduation exams. None of the ten states with the lowest populations of African-Americans have implemented high-stakes tests, whereas all of the ten states with the highest populations of African-Americans have done so. None of the ten states with the lowest populations of African-Americans have implemented high school graduation exams, while all but one of the ten states with the highest populations of African Americans have done so.

Eighty-nine percent and 67 percent of the states with percentages of Hispanics greater than the nation have high-stakes tests and high school graduation exams, respectively. Conversely, 42 percent and 18 percent of the states with percentages of Caucasians greater than the nation have implemented high-stakes tests and high school graduation exams, respectively.[9] Students from racial minority backgrounds are subjected to high-stakes tests at higher rates than their white peers. However, this trend does not hold true for American Indians and Asians.

Socio-economic Demographics

High-stakes tests and high school graduation exams also affect students from lower socioeconomic backgrounds disproportionately. High-stakes tests and high school graduation exams are found in states with the greatest degrees of poverty. Economically disadvantaged students are most often found in the South and the Southwest and are least often found in the Northeast and Midwest. As shown, states in these regions have high-stakes testing policies. In addition, 81 percent and 56 percent of the states with child poverty levels greater than the nation have high-stakes tests and high school graduation exams, respectively. Seventy percent of the states with the greatest 1990-1998 increases in the number of children living in poverty have or have plans to implement such tests as well.[10] Thus, high-stakes tests are implemented more frequently in states that have poorer students and poor achievement.

A State-by-State Analysis of the Unintended Consequences of High-Stakes Tests

High-stakes tests enjoy popular support because it is thought these tests will raise standards in a state's lowest achieving schools. Conversely, many argue high-stakes tests do not help to raise standards nor do they improve academic achievement, particularly in a state's lowest achieving schools. These opponents argue that states that have implemented high-stakes testing policies have fared worse than states with no- or low-stakes testing programs on independent measures of academic achievement and will continue to do so.[11]

Amrein and Berliner (2002), for example, examined multiple indicators of academic achievement to determine whether states with high-stakes tests and high school graduation exams posted greater achievement gains than states with no- or low-stakes testing programs. Of the states with high-stakes tests, they found that after such tests were implemented, 67 percent posted decreases in grade 4 math performance, 63 percent posted increases in grade 8 math performance, and 50 percent posted increases in grade 4 reading performance, compared with the nation.

Of the states with high school graduation exams, they found that after those exams were implemented, 67 percent posted decreases in ACT performance, 67 percent posted decreases in SAT performance, and 57 percent posted decreases in AP performance compared with the nation. Academic achievement improved in states with high-stakes tests or high school graduation exams on only one of six academic indicators examined in their study–the grade 8 math National Assessment of Educational Progress (NAEP).[12]

These researchers also argue that instead of creating the intended consequences for which high-stakes testing policies are implemented (increased academic achievement), high-stakes tests create negative, unintended consequences which disproportionately impact students from racial minority, language minority, and low socioeconomic backgrounds.

The purpose of this analysis is to examine whether the states that have implemented high school graduation exams–which are by definition a form of high-stakes test–have experienced the unintended consequences that some have associated

with such tests. In particular, the purpose of this examination is to discover whether, in fact, high school graduation exams have (a) increased the dropout rate,[13] (b) decreased the high school graduation rate,[14] and (c) increased the rate by which students have enrolled in General Education Diploma (GED) programs in pursuit of alternative, and often easier, high school diplomas.[15] Increased student enrollments in GED programs were measured in two ways: by examining whether the percentage of people enrolled in the GED program increased, and by investigating whether the average age of GED examinees decreased after the implementation of high school graduation exams.

These unintended consequences are examined across 16 of the 18 states that have implemented high school graduation exams to date: Alabama, Florida, Georgia, Louisiana, Maryland, Mississippi, Nevada, New Jersey, New Mexico, New York, North Carolina, Ohio, South Carolina, Tennessee, Texas, and Virginia. State-level data are analyzed to assess the effects of each state's testing policy. The effects of high school graduation exams in Indiana and Minnesota are not examined because high school graduation exams were implemented in both states in 2000, and data are unavailable beyond 2000 for the indicators used in this study. A brief review of the research surrounding each of the possible unintended consequences is also included.

The second purpose of this report is to review the empirical work—news reports and qualitative data—pertaining to other unintended consequences of high-stakes tests. These data are generally not quantitative. We will review the literature about how low performing students are being retained in grade in excessive numbers before pivotal testing years to ensure the students are properly prepared to take high-stakes tests;[16] how

low performing students are being suspended before testing days, expelled from school before tests, and are being reclassified as exempt from testing because they are determined to be either Special Education or Limited English Proficient (LEP), a method to prevent low-scoring students from taking high-stakes tests;[17] how teachers in urban schools are "teaching to the test" by teaching students only those things they know will be tested, spending hours memorizing facts, drilling students on test taking strategies, and rehearsing test protocols;[18] how students are being denied opportunities to learn subject areas other than those tested: art, music, science, social studies, and physical education; how, because teachers are increasingly losing control of their classroom,[19] they are leaving teaching and are leaving public schools to teach in private schools free of such state mandates; and how teachers and other school personnel are compromising their ethics by cheating on high-stakes tests.[20]

School personnel across the country have been charged with giving students extra time to complete tests, giving students hints on the tests, and in some cases changing answers on bubble sheets in attempts to boost composite scores and to avoid the negative or realize the positive consequences attached to high-stakes tests.

Conducting an investigation of the unintended consequences of high-stakes testing–both with quantitative data and through newspaper and teacher reports–is crucial to determining the efficacy of these testing policies as they proliferate throughout the nation.

This investigation addresses the following policy questions: From the year in which the first graduating class was required to pass a high school graduation exam in each state (and exam revisions thereafter, if applicable)—

a) What happened to state dropout rates (1990-1998)?[21]

b) What happened to state high school graduation rates (1971-1995)?[22]

c) What happened in state GED programs (1986-1999)?[23]

    i) How did the percentage of people who took the GED change?

    ii) How did the average age of people who took the GED change?

For a more detailed discussion of the methods used to conduct this study see the Technical Appendix. An overview of each state's high school graduation exam policies, the trend lines used to examine how the unintended consequences examined in this study changed after the introduction of a high school graduation exam, and the conclusions drawn from the data in each state per indicator are also included in the Technical Appendix.

In short, if changes in rates after the introduction of a high school graduation exam match the nation, the effects of the high school graduation exam are classified as **unclear**. Otherwise, effects of high school graduation exams are classified as **increases** or **decreases** as compared to the nation, and overall effects are classified as **weak** or **strong** when summed together.

Overall effects are classified as **weak** if increases or decreases are present after the implementation of a high school graduation exam on one of two indicators and **strong** if increases or decreases are present after the implementation of a high school

graduation exam across both measures. For the dropout rate analysis, for example, if a state's data illustrate **decreases** in the dropout rate and **increases** in the high school graduation rate after the point at which a high school graduation exam was implemented, the state would be classified as illustrating **strong** evidence that after a high school graduation exam was implemented, the rates by which students were graduated from high school **increased**, or were positively affected. For the GED analysis, if a state's data illustrate **increases** in the rate by which students enrolled in the GED program, but **unclear** changes regarding how the average age of GED test-takers changed, the state would be classified as illustrating **weak** evidence that after the implementation of a high school graduation exam, the rate by which students sought out GEDs instead of regular high school diplomas **increased**, or was negatively effected.

A brief overview of each state's testing policies, the assertions drawn per indicator, and the overall findings that are drawn for each state follow.

ALABAMA

HIGH SCHOOL GRADUATION EXAMS:

High school students in Alabama must pass Alabama's High School Graduation Test to receive a high school diploma. The class of 1985 was the first and the class of 1993 was the second graduating class required to pass different versions of a high school graduation exam to receive a diploma.

OVERALL FINDINGS:

DROPOUT/GRADUATION RATE

After Alabama's high school graduation exams were implemented, Alabama's dropout rate **decreased** at the same time Alabama's graduation rate **decreased** as compared to the nation. There is **unclear** evidence to suggest how, after the implementation of high school graduation exams in Alabama, the rate by which students dropped out or were not graduated from high school changed.

GED PARTICIPATION

After Alabama's high school graduation exams were implemented, the rate by which people took the GED exam **decreased** at the same time the average age of people who took the GED exam **increased** as compared to the nation. There is **strong** evidence to suggest that after the implementation of high school graduation exams in Alabama, the rate by which students enrolled in the GED program **decreased**.

FLORIDA

HIGH SCHOOL GRADUATION EXAMS:

High school students in Florida must pass the High School Competency Test (HSCT) to receive a diploma. The class of 1979 was the first, the class of 1990 was the second, and the class of 1996 was the third graduating class required to pass different versions of a high school graduation exam to receive a diploma.

OVERALL FINDINGS:

DROPOUT/GRADUATION RATE

After Florida's high school graduation exams were implemented, how Florida's dropout rate changed is **unclear**. Florida's graduation rate **decreased** as compared to the nation. There is **weak** evidence to suggest that after the implementation of high school graduation exams in Florida, the rate by which students dropped out or were not graduated from high school **increased**.

GED PARTICIPATION

After Florida's high school graduation exams were implemented, the rate by which people took the GED exam **increased** at the same time the average age of people who took the GED exam **decreased** as compared to the nation. There is **strong** evidence to suggest that after the implementation of high school graduation exams in Florida, the rate by which students enrolled in the GED program **increased**.

GEORGIA

HIGH SCHOOL GRADUATION EXAMS:

High school students in Georgia must pass the Georgia High School Graduation Test (GHSGT) to receive a diploma. The class of 1984 was the first and the class of 1995 was the second graduating class required to pass different versions of a high school graduation exam to receive a diploma.

OVERALL FINDINGS:

DROPOUT/GRADUATION RATE

After Georgia's high school graduation exams were implemented, Georgia's dropout rate **increased** at the same time Georgia's graduation rate **decreased** as compared to the nation. There is **strong** evidence to suggest that after the implementation of high school graduation exams in Georgia, the rate by which students dropped out or were not graduated from high school **increased**.

GED PARTICIPATION

After Georgia's high school graduation exams were implemented, the rate by which people took the GED exam **increased** at the same time the average age of people who took the GED exam **decreased** as compared to the nation. There is **strong** evidence to suggest that after the implementation of high school graduation exams in Georgia, the rate by which students enrolled in the GED program **increased**.

LOUISIANA

HIGH SCHOOL GRADUATION EXAMS:

High school students in Louisiana must pass Louisiana's Graduation Exit Exam (GEE) to receive a diploma. The class of 1991 was the first graduating class required to pass the Graduation Exit Exam (GEE) to receive a diploma.

OVERALL FINDINGS:

DROPOUT/GRADUATION RATE

After Louisiana's high school graduation exam was implemented, how Louisiana's dropout rate changed is **unclear**. Louisiana's graduation rate **increased** as compared to the nation. There is **weak** evidence to suggest that after the implementation of the high school graduation exam in Louisiana, the rate by which students dropped out or were not graduated from high school **decreased**.

GED PARTICIPATION

After Louisiana's high school graduation exam was implemented, the rate by which people took the GED exam **increased** at the same time the average age of people who took the GED exam **increased** as compared to the nation. There is **unclear** evidence to suggest how after the implementation of the high school graduation exam in Louisiana, the rate by which students enrolled in the GED program changed.

MARYLAND

HIGH SCHOOL GRADUATION EXAMS:

High school students must pass the Maryland Functional Tests (MFT) to receive a diploma. The class of 1987 was the first graduating class required to pass the tests to receive a diploma.

OVERALL FINDINGS:

DROPOUT/GRADUATION RATE

After Maryland's high school graduation exam was implemented, Maryland's dropout rate **decreased** at the same time Maryland's graduation rate **decreased** as compared to the nation. There is **unclear** evidence to suggest how after the implementation of the high school graduation exam in Maryland, the rate by which students dropped out or were not graduated from high school changed.

GED PARTICIPATION

After Maryland's high school graduation exam was implemented, the rate by which people took the GED exam **decreased** at the same time the average age of people who took the GED exam **decreased** as compared to the nation. There is **unclear** evidence to suggest how after the implementation of the high school graduation exam in Maryland, the rate by which students enrolled in the GED program changed.

MISSISSIPPI

HIGH SCHOOL GRADUATION EXAMS:

High school students in Mississippi must pass the Mississippi Functional Literacy Exam (FLE) to receive a diploma. The class of 1989 was the first graduating class required to pass the FLE to receive a diploma.

OVERALL FINDINGS

DROPOUT/GRADUATION RATE

After Mississippi's high school graduation exam was implemented, Mississippi's dropout rate **increased** at the same time Mississippi's graduation rate **decreased** as compared to the nation. There is **strong** evidence to suggest that after the implementation of the high school graduation exam in Mississippi, the rate by which students dropped out or were not graduated from high school **increased**.

GED PARTICIPATION

After Mississippi's high school graduation exam was implemented, the rate by which people took the GED exam **increased** at the same time the average age of people who took the GED exam **decreased** as compared to the nation. There is **strong** evidence to suggest that after the implementation of the high school graduation exam in Mississippi, the rate by which students enrolled in the GED program **increased**.

NEVADA

HIGH SCHOOL GRADUATION EXAMS:

High school students must pass the Nevada High School Proficiency Examination (HSPE) to receive a diploma. The class of 1981 was the first, the class of 1985 was the second, the class of 1992 was the third, and the class of 1999 was the fourth graduating class required to pass different versions of high school graduation exams in Nevada to receive a diploma.

OVERALL FINDINGS:

DROPOUT/GRADUATION RATE:

After Nevada's high school graduation exams were implemented, Nevada's dropout rate **increased** at the same time Nevada's graduation rate **decreased** as compared to the nation. There is **strong** evidence to suggest that after the implementation of high school graduation exams in Nevada, the rate by which students dropped out or were not graduated from high school **increased**.

GED PARTICIPATION:

After Nevada's high school graduation exams were implemented, the rate by which people took the GED exam **increased** at the same time the average age of people who took the GED exam **increased** as compared to the nation. There is **unclear** evidence to suggest how after the implementation of high school graduation exams in Nevada, the rate by which students enrolled in the GED program changed.

NEW JERSEY

HIGH SCHOOL GRADUATION EXAMS:

High school students in New Jersey must pass the Grade 11 High School Proficiency Test (HSPT-11) to receive a diploma. The class of 1984 was the first, the class of 1987 was the second, and the class of 1995 was the third graduating class required to pass different versions of a high school graduation exam in New Jersey.

OVERALL FINDINGS:

DROPOUT/GRADUATION RATE

After New Jersey's high school graduation exams were implemented, New Jersey's dropout rate **decreased** at the same time New Jersey's graduation rate **increased** as compared to the nation. There is **strong** evidence to suggest that after the implementation of high school graduation exams in New Jersey, the rate by which students dropped out or were not graduated from high school **decreased**.

GED PARTICIPATION

After New Jersey's high school graduation exams were implemented, the rate by which people took the GED exam **decreased** at the same time the average age of people who took the GED exam **increased** as compared to the nation. There is **strong** evidence to suggest that after the implementation of high school graduation exams in New Jersey, the rate by which students enrolled in the GED program **decreased**.

NEW MEXICO

HIGH SCHOOL GRADUATION EXAMS:

High school students in New Mexico must pass the New Mexico High School Competency Exam (NMHSCE) to receive a diploma. The class of 1990 was the first graduating class required to pass the NMHSCE to graduate.

OVERALL FINDINGS:

DROPOUT/GRADUATION RATE

After New Mexico's high school graduation exam was implemented, New Mexico's dropout rate **increased** at the same time New Mexico's graduation rate **increased** as compared to the nation. There is **unclear** evidence to suggest how after the implementation of the high school graduation exams in New Mexico, the rate by which students dropped out or were not graduated from high school changed.

GED PARTICIPATION

After New Mexico's high school graduation exam was implemented, the rate by which people took the GED exam **decreased** at the same time the average age of people who took the GED exam **decreased** as compared to the nation. There is **unclear** evidence to suggest how after the implementation of the high school graduation exam in New Mexico, the rate by which students enrolled in the GED program changed.

NEW YORK

HIGH SCHOOL GRADUATION EXAMS:

High school students in New York must pass New York's Regents Exams to receive a diploma. The class of 1985 was the first and the class of 1995 was the second class that had to pass different versions of New York's Regents Exams to graduate with a local diploma.

OVERALL FINDINGS:

DROPOUT/GRADUATION RATE

After New York's high school graduation exams were implemented, New York's dropout rate **increased** at the same time New York's graduation rate **decreased** as compared to the nation. There is **strong** evidence to suggest that after the implementation of high school graduation exams in New York, the rate by which students dropped out or were not graduated from high school **increased**.

GED PARTICIPATION

After New York's high school graduation exams were implemented, the rate by which people took the GED exam **decreased** at the same time the average age of people who took the GED exam **increased** as compared to the nation. There is **strong** evidence to suggest that after the implementation of high school graduation exams in New York, the rate by which students enrolled in the GED program **decreased**.

NORTH CAROLINA

HIGH SCHOOL GRADUATION EXAMS:

High school students in North Carolina must pass the North Carolina Competency Tests[24] to receive a diploma. The class of 1980 was the first and the class of 1998 was the second graduating class required to pass different versions of the tests to graduate.

OVERALL FINDINGS:

DROPOUT/GRADUATION RATE

After North Carolina's high school graduation exams were implemented, North Carolina's dropout rate **decreased** as compared to the nation. How North Carolina's graduation rate changed is **unclear**. There is **weak** evidence to suggest that after the implementation of high school graduation exams in North Carolina, the rate by which students dropped out or were not graduated from high school **decreased**.

GED PARTICIPATION

After North Carolina's high school graduation exams were implemented, the rate by which people took the GED exam **decreased** at the same time the average age of people who took the GED exam **decreased** as compared to the nation. There is **unclear** evidence to suggest how after the implementation of high school graduation exams in North Carolina, the rate by which students enrolled in the GED program changed.

OHIO

HIGH SCHOOL GRADUATION EXAMS:

High school students in Ohio must pass Ohio's Proficiency Test to receive a diploma. The class of 1994 was the first graduating class required to pass the test to receive a diploma.

OVERALL FINDINGS:

DROPOUT/GRADUATION RATE:

After Ohio's high school graduation exam was implemented, Ohio's dropout rate **increased** at the same time Ohio's graduation rate **decreased** as compared to the nation. There is **strong** evidence to suggest that after the implementation of the high school graduation exam in Ohio, the rate by which students dropped out or were not graduated from high school **increased**.

GED PARTICIPATION:

After Ohio's high school graduation exam was implemented, the rate by which people took the GED exam **decreased** at the same time the average age of people who took the GED exam **decreased** as compared to the nation. There is **unclear** evidence to suggest how after the implementation of the high school graduation exam in Ohio, the rate by which students enrolled in the GED program changed.

SOUTH CAROLINA

HIGH SCHOOL GRADUATION EXAMS:

High school students in South Carolina must pass South Carolina's Basic Skills Assessment Program (BSAP) Exit Examination to receive a diploma. The class of 1990 was the first graduating class required to pass the BSAP to receive a diploma.

OVERALL FINDINGS:

DROPOUT/GRADUATION RATE

After South Carolina's high school graduation exam was implemented, South Carolina's dropout rate **decreased** at the same time South Carolina's graduation rate **decreased** as compared to the nation. There is **unclear** evidence to suggest how after the implementation of the high school graduation exam in South Carolina, the rate by which students dropped out or were not graduated from high school changed.

GED PARTICIPATION

After South Carolina's high school graduation exam was implemented, the rate by which people took the GED exam **increased** at the same time the average age of people who took the GED exam **increased** as compared to the nation. There is **unclear** evidence to suggest how after the implementation of the high school graduation exam in South Carolina, the rate by which students enrolled in the GED program changed.

TENNESSEE

HIGH SCHOOL GRADUATION EXAMS:

High school students in Tennessee must pass the Tennessee Comprehensive Assessment Program Competency Test (TCAP/CT) to receive a diploma. The class of 1986 was the first and the class of 1998 was the second graduating class required to pass different versions of the TCAP/CT to receive a diploma.

OVERALL FINDINGS:

DROPOUT/GRADUATION RATE

After Tennessee's high school graduation exams were implemented, how Tennessee's dropout rate changed is **unclear**. Tennessee's graduation rate **increased** as compared to the nation. There is **weak** evidence to suggest that after the implementation of high school graduation exams in Tennessee, the rate by which students dropped out or were not graduated from high school **decreased**.

GED PARTICIPATION

After Tennessee's high school graduation exams were implemented, the rate by which people took the GED exam **increased** at the same time the average age of people who took the GED exam **decreased** as compared to the nation. There is **strong** evidence to suggest that after the implementation of high school graduation exams in Tennessee, the rate by which students enrolled in the GED program **increased**.

TEXAS

HIGH SCHOOL GRADUATION EXAMS:

High school students in Texas must pass the Texas Assessment of Academic Skills (TAAS) to receive a diploma. The class of 1987 was the first graduating class and the class of 1992 was the second graduating class required to pass different versions of the high school graduation exam to graduate.

OVERALL FINDINGS:

DROPOUT/GRADUATION RATE:

After Texas's high school graduation exams were implemented, Texas's dropout rate **increased** at the same time Texas's graduation rate **decreased** as compared to the nation. There is **strong** evidence to suggest that after the implementation of high school graduation exams in Texas, the rate by which students dropped out or were not graduated from high school **increased**.

GED PARTICIPATION:

After Texas's high school graduation exams were implemented, the rate by which people took the GED exam **increased** at the same time the average age of people who took the GED exam **decreased** as compared to the nation.
There is **strong** evidence to suggest that after the implementation of high school graduation exams in Texas, the rate by which students enrolled in the GED program **increased**.

VIRGINIA

HIGH SCHOOL GRADUATION EXAMS:

High school students in Virginia must pass Virginia's Literacy Passport Test (LPT) to receive a diploma. The class of 1986 was the first graduating class required to pass the LPT to receive a diploma. Since the spring of 1998, students in Virginia have been taking Virginia's SOLs (Standards of Learning) tests.

OVERALL FINDINGS:

DROPOUT/GRADUATION RATE

After Virginia's high school graduation exam was implemented, Virginia's dropout rate **increased** at the same time Virginia's graduation rate **increased** as compared to the nation. There is **unclear** evidence to suggest how after the implementation of the high school graduation exam in Virginia, the rate by which students dropped out or were not graduated from high school changed.

GED PARTICIPATION

After Virginia's high school graduation exam was implemented, the rate by which people took the GED exam **increased** at the same time the average age of people who took the GED exam **decreased** as compared to the nation. There is **strong** evidence to suggest that after the implementation of the high school graduation exam in Virginia, the rate by which students enrolled in the GED program **increased**.

Findings

The effects of high-stakes tests across states are summarized in Table 2.

Table 2 - Overall Results from the Analysis of the Unintended Consequences of High School Graduation Exams[25]

State	Overall changes in indicator						
	Dropout Rate	HS Graduation Rate	**Overall** rate by which students dropped out or were not graduated	GED Enrollment	Average Ave of GED Participants	**Overall** rate by which students participated in the GED program	Overall Impact of HS Grad. Exam by State
Alabama	–[26]	–[27]	Unclear	–[28]	+[29]	Strong Decrease	Positive Impact
Florida	U	–	Weak Decrease	+	–	Strong Increase	Negative Impact
Georgia	+	–	Strong Increase	+	–	Strong Increase	Negative Impact
Louisiana	U	+	Weak Decrease	+	+	Unclear	Positive Impact
Maryland	–	–	Unclear	–	–	Unclear	Unclear Impact
Mississippi	+	–	Strong Increase	+	–	Strong Increase	Negative Impact
Nevada	+	–	Strong Increase	+	+	Unclear	Negative Impact
New Jersey	–	+	Strong Decrease	–	+	Strong Decrease	Positive Impact
New Mexico	+	+	Unclear	–	–	Unclear	Unclear Impact
New York	+	–	Strong Increase	–	+	Strong Decrease	Unclear Impact
North Carolina	–	U	Weak Decrease	–	–	Unclear	Positive Impact
Ohio	+	–	Strong Increase	–	–	Unclear	Negative Impact
South Carolina	–	–	Unclear	+	+	Unclear	Unclear Impact
Tennessee	U	+	Weak Decrease	+	–	Strong Increase	Negative Impact
Texas	+	–	Strong Increase	+	–	Strong Increase	Negative Impact
Virginia	+	+	Unclear	+	–	Strong Increase	Negative Impact
Overall Impact of HS Grad. Exam by Indicator	8 increases 5 decreases 3 unclear = Negative Impact	5 increases 10 decreases 1 unclear = Negative Impact	Negative Impact	9 increases 7 decreases = Negative Impact	6 increases 10 decreases = Negative Impact	Negative Impact	

An analysis of Table 2 reveals:

By State:

- The states not negatively affected by high school graduation exams are Alabama, Louisiana, New Jersey, and North Carolina.
- The states most negatively impacted by high school graduation exams are Georgia, Mississippi, and Texas. The other states negatively impacted by high school graduation exams are Florida, Nevada, Ohio, Tennessee, and Virginia.
- Overall, eight states exhibited negative and four states exhibited positive effects after high school graduation exams were implemented. Thus, after high school graduation exams were implemented, 66 percent of the states were negatively impacted.

By Indicator:

- Dropout Rate: The dropout rate increased in eight and decreased in five states after high school graduation exams were implemented. Thus, after high school graduation exams were implemented, 62 percent of the states posted an increase in the dropout rate.
- High School Graduation Rate: The high school graduation rate increased in five and decreased in 10 states after high school graduation exams were implemented. Thus, after high school graduation exams were implemented, 67 percent of the states posted a decrease in the rate by which students were graduated from high school.

- GED Enrollment: The rate by which people took the GED exam increased in nine and decreased in seven states after high school graduation exams were implemented. Thus, after high school graduation exams were implemented, 56 percent of the states posted an increase in the rate by which people sought GEDs.
- Average Age of GED Examinees: The average age of the GED examinee increased in six and decreased in 10 states after high school graduation exams were implemented. Thus, after high school graduation exams were implemented, 63 percent of the states posted an decrease in the average age of GED examinees. In states with high school graduation exams, GED examinees were getting younger than the GED examinees in other states without such exams.

A discussion of the other unintended consequences of high-stakes testing follows.

The Other Unintended Consequences of High-Stakes Tests

High-stakes tests are often associated with other unintended consequences. They include retention of students in grade before tests; suspension, expulsion, and reclassification of students before tests; "teaching to the test;" the narrowing of the curriculum; the loss of teachers from the profession; and cheating. This review covers the 26 states that have the highest stakes written into their K-12 testing policies. These states not only have the most severe consequences written into their K-12 testing policies, but they also lead the nation in school closures, school interventions, state takeovers, teacher/administrator dismissals, school promotion/retention policies, and stringent high school graduation exam policies (see Table 1).

Grade Retention in States with High School Graduation Exams

Some researchers posit that low-achieving students are being retained in grade the year before pivotal testing years in states with high school graduation exams so students can have more time to prepare for high-stakes tests. This is also being done, some argue, so the scores of low-performing students will not negatively skew classroom, school, and district composite scores. Most records of this come from Massachusetts[30] and Texas.[31]

In Massachusetts, it has been noted that 9th graders are being retained in grade at increasingly higher rate now that 10th graders are being required to pass Massachusetts' high school graduation exam. In the second largest school district in Massachusetts the number of 9th graders who were retained jumped from 16.6 percent in 1999 when 10th

graders did not have to pass the MCAS to earn a diploma to 21.1 percent in 2000 when 10th graders did.[32]

In Texas, there is evidence that students from racial minority and low socioeconomic backgrounds are also being retained in grade 9 at very high rates before taking the TAAS in grade 10.[33] In 1997, almost one in every six 9th graders was retained. The ratios were magnified for Hispanic and African-American students. Almost one in every four 9th graders from Hispanic and African-American backgrounds was retained.[34] In 1998, the overall 9th grade retention rate was 17.8 percent. But when you partial out race the numbers provide a different picture. Only 9.6 percent of white 9th graders were retained while 24.2 percent of African-American and 25.9 percent of Hispanic 9th graders were retained.[35]

Whether students in schools in which high-stakes tests matter are being systematically held back from being tested needs further investigation. This is necessary because evidence of this practice comes only from two states, although the evidence from Texas is more substantial than illustrated here.

Expelled Students

Some students are being expelled from school before, or dismissed from school during, the administration of high-stakes tests. This appears to be because their low scores will impact school or district averages.[36]

One examiner found in his conversations with principals that low-scoring students were being expelled from school before big tests because they were not "test ready."[37] In

a study conducted 10 years ago, teachers and administrators acknowledged this practice as well. They confirmed that low-achieving high school students were suspended during test time or were actually encouraged to drop out of school to enhance test scores.[38]

In yet another study, researchers interviewed teachers who reported that low-achieving students were dismissed from school on testing days or were sent on field trips to excuse them from taking the test.[39] More recently, a superintendent in California was heavily criticized after he removed 50 low-achieving middle and high school students who had recently transferred into the district. He expelled them before they took the SAT9, the test used to calculate a large portion of each school's Academic Performance Index (API). The superintendent was criticized for artificially boosting his district's API.[40]

In Alabama, the Birmingham school district was charged with "pushing out" 522 high school students to raise scores on Alabama's high-stakes test, also the SAT9. The city school superintendent received a substantial bonus and pay raise for posting gains, and several schools avoided being taken over by the state. The district acknowledged that 522 students were in fact "administratively withdrawn, but district officials noted it was merely coincidental that the students were withdrawn just before high-stakes tests were administered. Alabama's Department of Education defended the local school system.[41]

When students are pushed out of school what results is that test scores increase. Dropout may increase as well. Test scores rise artificially though, because a school's poorest performing students do not contribute their scores to composite tabulations.

Moreover, schools that play by the rules, including all of their students in the testing program, may get punished for their honesty.

Special Education Exemptions

Many also argue that many low-achieving, or poor and minority students are being reclassified as learning disabled or handicapped so they will be exempt from taking high-stakes exams.[42]

One principal interviewed almost one decade ago explained that to raise achievement (s)he encouraged teachers to exempt all special education students and those students who teachers even "thought" might be learning disabled.[43]

After the Houston Independent School District was congratulated for posting gains on TAAS (Texas Assessment of Academic Skills) scores in high poverty schools, a team of external researchers found that personnel within the district were exempting students under special education regulations at greater rates than other Texas school districts with similar demographics. In addition, test documents to account for eligible students were missing. These students and their test scores went unaccounted for.[44]

Overall in Texas, the percentage of special needs students exempted from the TAAS increased steadily from 1994 to 1998,[45] and from 1998-1999 the percent of students exempted from the TAAS grew two times faster than the total public school enrollment. More than 30,000 special education students who took the TAAS in 1998 did not take it in 1999.[46]

When students are exempted from tests, test scores are distorted and they increase. The greater the exemptions, the greater the increase in composite score.

Limited English Proficient (LEP) Exemptions

Students in states where Limited English Proficient (LEP) students can be exempted from high-stakes tests are also being reclassified as exempt. The low scores posted by language minority students pose a threat to school personnel whose careers are at stake. As such, personnel are stretching regulations pertaining to LEP exemptions and are excusing language minority students from participating in high-stakes tests as well[47].

The president's assessment committee verified this. Over 2 million Hispanic students were exempted from state testing programs in 2000. In the states that allowed schools to exempt students from testing, "Hispanics disappear[ed] from the accountability reports."[48]

In addition, students who are not LEP are being reclassified as LEP so they may also be exempted from participating in high-stakes testing.[49] Low performing students who might be from Hispanic backgrounds but who speak fluent English, for example, are being exempted from high-stakes tests simply because their surnames make such exemptions feasible.

In the Houston Independent School District, for example, a group of external researchers found that personnel in the district were exempting more students than districts with equal or more students from LEP backgrounds. This during an era in which

Houston schools celebrated, and were congratulated for, some of the largest achievement gains in Texas.[50]

Teachers "Teaching to the Test"

Tests are also shaping what is taught in schools. Teachers are transforming learning and instruction to test learning and instruction. This practice has been termed "teaching to the test."

The degree to which this happens varies but seems to happen with greater frequency in urban, traditionally low-performing schools,[51] and as testing dates approach. In these schools tests are becoming the "objects" rather than the "measures" of teaching and learning for which the tests were intended.[52]

When teachers teach to the test, the exams define the curriculum. As teachers become familiar with high-stakes testing programs they analyze the intellectual activities required on tests, see the test questions themselves, and use what they learn to give their students an extra edge on the test. By doing so teachers teach students how to respond to practice test items even if students have never learned the underlying concepts.

Teachers teach test-taking strategies, develop curricula that match the tests, coach students on items similar to those that will be on the test, use commercial materials designed specifically for test-preparation purposes (often supplied by the same companies that make the tests), present facsimile test items that teachers construct themselves, and present actual test items before the test is actually administered.[53] All of these actions compromise the quality of the classroom curriculum, and may cause validity problems.

When preparation for the tests is uneven from district to district and from student to student an inference about their true score on the test is impossible to make.

Indeed, tests can help school personnel focus in on standards and align what is taught with what is tested.[54] Repeated drilling of students with test facts or confining instruction just to the content of the test, however, impairs educational quality.[55]

In one study researchers showed that teachers of minority students engaged in unethical test preparation practices more often than teachers of more well-to-do white students. Teachers of minority students spent more time preparing for tests, reviewing concepts on tests, and were more likely to use test items from tests administered in previous years to provide students with more practice.[56]

In another study, researchers found that teachers in classes with large proportions of students from poor and minority backgrounds used standardized tests to teach.[57]

Researchers in still another study found that inquiry-oriented teaching, or teaching that emphasizes the role of the student in the learning process, was more prevalent in districts that served the wealthy and test teaching was more prevalent in districts that served the poor, particularly as high-stakes testing dates approached.[58] Because students in poor, urban districts have more at stake under high-stakes testing policies, their teachers are more likely to focus only on those skills and subjects tested on the high-stakes test, respectively.

When teachers teach to the test, students become experts at answering test questions without entirely understanding the concepts behind their answers.[59] Because

teaching to the test causes scores to increase, teaching to the test is the most popular practice in which school personnel engage to raise scores on high-stakes tests.

In Tacoma, Wash., scores from the 1995 fall and spring administrations of the Comprehensive Test of Basic Skills (CTBS) jumped from the 42nd percentile in the fall to the 63rd percentile in the 4th grade, and from the 45th percentile in the fall to the 58th percentile in the 8th grade. The superintendent was promoted to a chancellor position in New York despite reports the gains were spurious. Indeed, the superintendent had hired a consulting firm to raise scores, encouraged teachers to create practice tests on which students could be rehearsed time and again, and transformed curricula to match questions on which students would be tested. After the superintendent left, the school district test scores fell back to the way they looked in school years prior.[60]

Narrowing of the Curriculum

In the same vein, high-stakes tests are directing what subject and content areas are being taught in schools.[61] Math and language arts are the subjects most frequently tested; hence, science, social studies, and the arts are increasingly being pushed aside for subjects that *matter*—subjects included on high-stakes tests. Especially in urban schools, science, social studies, and the arts are being taught only when time allows for deviations from the core, or tested curriculum.[62] Topics within reading, writing, and arithmetic not included on the tests are disappearing as well.

In a survey conducted by *Education Week*, 69 percent of the teachers in poor schools reported that high-stakes tests were forcing them to concentrate excessively on material covered on the tests at the expense of other subject and content areas.[63] Similarly,

in California, because history and science are not tested on the Stanford 9, teachers are teaching these subjects less often.[64] Science and social studies teachers are being required to suspend both subjects or to replace both subjects with math for weeks before high-stakes tests are administered.[65] And in a poll of Ohio's 8th grade teachers, 70 percent of the teachers revealed that they relinquished classes like music and art to focus on test preparation.[66]

For example, in Minnesota after one school celebrated some of the largest gains in math scores in the state, it was discovered that teachers overemphasized math, above all other subjects. The rate by which students passed the math test shot up from 31 percent in 2000 to 55 percent in 2001. One teacher in her glory stated the gains could be attributed to the fact that even in "courses that weren't necessarily math courses, they made sure they did the math." Unfortunately, the school's reading scores fell from 70 percent to 52 percent at the same time.[67]

School personnel are also doing away with electives for older students, class meetings, school activities, and discussions about current events because these areas are not tested.[68] Even recess for young children is becoming extinct in the name of higher standards. *The New York Times* published a piece about the growing tendency to eliminate recess because recess was perceived to be "a waste of time," particularly within a standards-based educational context.[69]

In many cases what results after curricula are narrowed in these ways is an increase in scores. Test scores are raised artificially, however, because school personnel focused too narrowly on what the test assesses. Particularly in urban schools, narrowing

the curriculum is one more practice in which school personnel engage to avoid the negative consequences or reap the positive ones attached to high-stakes tests.

Focusing on "Borderline" Students

As school personnel focus in on curricula, they also refocus their energies on the percentages of students they need to meet certain standards. Students that are most likely to help school personnel reach these standards are called "borderline" students. Borderline students are students who are on the border of passing or failing high-stakes tests. Whether borderline students pass high-stakes tests may have a vital impact on a school or district's composite scores.

Researchers in one study interviewed teachers and administrators who openly acknowledged they focused on borderline students more than they focused on students whose failures were certain. Borderline students were grouped together and given an extra teacher to prepare them for the tests. Their passing scores translated to increased composite scores for the school.[70]

In another study, school personnel termed these students "bubble" students and willingly told why they were not going to "waste their time" on the children who would never pass. Hence, for the time leading up to the test, the least and most able students went about the normal school day while the bubble students were drilled on what was to come on the high-stakes test.[71]

A Teacher Exodus

Teachers may employ the foregoing practices, even though they do not always believe in them, in order to reconcile the consequences attached to high-stakes tests. Being put into these situations, however, decreases teacher morale, increases teacher stress, and increases the incidences in which teachers must question their own professional integrity.[72]

Consequently, some argue an exodus of teachers has followed the implementation of high-stakes tests exacerbating problems related to teacher retention. Teachers are leaving the profession after high-stakes testing policies are implemented, and new teachers and teachers who teach in grades in which high-stakes tests are administered are avoiding or are transferring out of the grades in which high-stakes tests matter.[73]

Researchers in one study found that roughly 75 percent of the teachers had left one school over the summer. They left because the state designated the school as a low-performing school, and they wanted to avoid the forthcoming consequences.[74]

In Texas, another researcher found teachers were leaving teaching because of the restraints and pressures the TAAS placed on them and their students.[75] In addition, 43 percent of teacher respondents indicated they were "seriously considering" leaving teaching because of low pay, poor benefits, and the stress associated with the TAAS. One Texas teacher reported leaving a public school because of having to teach just to the test and because of the consequences attached to the TAAS.[76]

In New York, a 25-year veteran left teaching because of how the tests cheated her students and overpowered what she taught in her classroom. In fact, many of New York's

4th grade teachers, particularly in urban schools, are seeking teaching assignments in other grades.[77]

In sum, teachers are beginning to exit grades in which high-stakes tests are administered, are leaving public schools for private schools in which they are exempt from such policies, and are leaving teaching altogether after high-stakes tests are implemented.

Cheating

The pressures associated with high-stakes tests are also leading teachers and other school personnel to cheat on tests.[78] School personnel across the country have been charged with increasing time limits on timed portions of tests, changing students' answers to test questions, helping students answer test questions correctly, providing hints to students, and rephrasing or clarifying test questions as students take tests. School personnel have also been observed heightening the importance of tests by threatening students that, for example, if they do not perform well on high-stakes tests they will not get into college.[79]

As stakes attached to tests become more severe, the likelihood that school personnel will cheat on tests increases.[80] Likewise, monetary rewards and consequences attached to high-stakes tests also increase the likelihood school personnel will cheat.[81] In New York City, for example, 32 schools and dozens of teachers were under investigation for cheating on their high-stakes tests.[82] And in Ohio a few weeks after President Clinton

visited to showcase a Columbus school's progress in meeting its state standards, a cheating scandal consumed the school's fourth grade.[83]

In Maryland, one county expended almost $500,000 to replace the high-stakes test a teacher administered to students in advance of the actual test to help the students prepare for that test.[84] Across the country, in California, fifty-one schools turned in tests with too many erasures or posted unreasonable gains in score from the previous year.[85] In northern California several teachers were charged with cheating on the test to boost their test scores, to raise their ranking on California's Academic Performance Index (API), making them competitive for the monetary bonuses made available by the state.[86]

In some of Houston's higher scoring high-poverty schools teachers and principals were also found cheating. Large numbers of tests with perfect scores were found, and in some cases, more than 50 percent of all students taking the TAAS scored a perfect score of 100 percent. Likewise, testing software detected excessive eraser marks on which incorrect answers were corrected.[87]

In Michigan, more than 71 schools, mostly in Detroit, were charged with cheating on Michigan's high-stakes test. Test evaluators found significant similarities among students' written responses on the science, social studies and writing exams.[88]

Conclusions

Analyses in this study provide evidence to suggest that high school graduation exams increase dropout rates, decrease high school graduation rates, and increase the rates by which students enroll in GED programs. The tests' effect on GED enrollment is

also indicated by a relative decrease in the average age of GED participants in states with high school graduation exams compared with the nation. Using the best external measures available, evidence exists that high-stakes tests do create the negative, unintended consequences about which critics worry and that make high-stakes high school graduation exams objectionable. The adverse consequences of high-stakes tests appear to outweigh what few benefits such tests may have.

Notes and References

[1] U.S. Department of Education (1983). *A nation at risk: The imperative for educational reform*. Retrieved from http://www.ed.gov/pubs/NatAtRisk/index.html

[2] The states in which low-scores may be used to dismiss teachers are Alabama, Colorado, Delaware, Louisiana, Maryland, Massachusetts, Michigan, Missouri, Nevada, New Mexico, New York, North Carolina, Oklahoma, South Carolina, Texas, and West Virginia.

[3] The stakes listed in this table include only those stakes that are written into state policy. In many of the states, districts and schools are given the right to employ such accountability measures but such decisions are made at the local level. Only state policies are listed herein.

[4] Information included has been pooled from each state department web site, multiple telephone interviews and email exchanges with state testing personnel and testing directors, and Quality Counts. (2001) *Education Week*. Retrieved from http://www.edweek.org/sreports/qc01 A state department testing official in each state verified the information included in this description.

[5] Whether states were classified as more or less centralized followed Elazar's classification of state's governmental traditions of centralism and localism. Elazar, D. J. (1984). *American federalism: A view from the states* (3rd ed.). New York, NY: Harper and Row, Publishers. Hawaii and Alaska were not included in his analyses.

[6] 1997 data were downloaded from the National Center for Education Statistics website at http://nces.ed.gov Numbers were adjusted for cost of living.

[7] 2000 data were downloaded from the Census Bureau website at http://www.census.gov

[8] Ibid.

[9] Ibid.

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[14] Ibid.

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[22] The percent of high school graduates 1971–1995 was calculated by dividing the number of high school graduates by the total secondary enrollment in public schools. The total secondary enrollment was used as the denominator because it was most appropriate, given the NCES data available. Both data sets were downloaded from the NCES web site at http://nces.ed.gov

[23] Data were pulled from GED statistical reports, 1984–1992, and Who took the GED? 1993–1999, available at http://www.acenet.edu/calec/ged/intro–R.html

[24] The competency tests are equivalent forms of the end-of-grade tests at grade 8. Those students who do not pass the tests at the end of 8th grade must pass the competency tests to graduate.

[25] The effects of high school graduation exams in Indiana and Minnesota cannot be examined because high school graduation exams were just implemented in both states in 2000. Data were not available for 2000 and beyond.

[26] A "–" sign means a relative decrease and a "+" signifies a relative increase in the dropout rate as compared to the nation. A "U" indicates the effects were notably unclear.

[27] A "–" sign means a relative decrease and a "+" signifies a relative increase in the rate by which students were graduated as compared to the nation. A "U" indicates the effects were notably unclear.

[28] A "–" sign means a relative decrease and a "+" signifies a relative increase in the rate by which students enrolled in the GED program as compared to the nation. A "U" indicates the effects were notably unclear. In addition, just because students enroll, however, does not mean they complete the GED.

[29] A "–" sign means a relative decrease and a "+" signifies a relative increase in the average age of GED participants as compared to the nation. A "U" indicates the effects were notably unclear.

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