



TECHNICAL APPENDIX

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

by

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December 2002

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Technical Appendix

An archival time-series research design is used for this study. Archival time-series studies are useful for determining the degree to which large-scale social or governmental policies make an impact.¹ In archival time-series designs, strings of observations of the dependent variables—the dropout rate and the graduation rate, which are inversely related, and the rate by which students enroll in the GED program and the average age of GED participants—are made before and after the treatments (high school graduation exams) are introduced. This enables the researcher to gain convincing evidence about the affects that high-stakes tests have over time. Displaying trend lines and studying the patterns in the trend lines before and after high-stakes tests are introduced helps to demonstrate the statistical relationships between high-stakes tests and their effects.²

Two major controls are used to help evaluate the certainty and strength of the effects. First, data points before the introduction of the treatment provide baseline information.³ Whether changes in the dependent variable are authentic or artificial is determined on a case-by-case basis using baseline data. If a change after the intervention is noted, it is concluded the treatment had an effect.

Secondly, national trend lines are positioned alongside state trend lines to help control for normal fluctuations and extraneous influences on the data.⁴ The national

group is used as a nonequivalent comparison group to help estimate how the dependent variable would have oscillated less any treatment.⁵ The national trend lines help control for whether effects at the state level are genuine or mere reflections of the national trend.

All effects are calculated in the short- and long-term. Trends are defined in the short-term by the difference in rate one year after the point of implementation of high-stakes tests. Trends are defined in the long-term by the difference in rate from the implementation of one testing policy to the next or 2001. The decision to assess one-year effects and long-term effects is somewhat arbitrary so each state's trend line is included for the convenience of those who, for example, would argue the effects of high-stakes tests may lay dormant for a different number of years.

In addition, the data sources that are used in this study are not comprehensive. They do not, for example, cover the same range of years across measures nor do all measures provide for baseline data. States, such as Florida, in which their high school graduation exam was first implemented in the late 1970s, for example, do not have baseline data for all of the measures as data across measures are available for less than 20 years. These data are adequate enough to draw conclusions regarding the effects of high-stakes tests in states after x years of using high school graduation exams, however. This is possible if, in those states, conclusions are formulated using the second, third, and in one case, the fourth high school graduation exam implemented.

In short, if changes in rate 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 illustrated after the implementation of a high school graduation exam on one of two indicators and **strong** if increases or decreases are illustrated after the implementation of a high school graduation exam across both measures. For the dropout rate analyses, for example, if a state 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 rate by which students were graduated from high school **increased**, or were positively effected. For the GED analyses, if a state illustrate **increases** in the rate by which students enroll in the GED program but **unclear** changes regarding how the average age of GED participants 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.

In each analysis, the magnified ♦ symbolizes the year *before* the first graduating class was required to pass the first high school graduation exam in each state. If, for example, students were first expected to pass a graduation exam in 1995, as was the case in Georgia, you would be most likely to observe an effect from 1994, the year before students had to pass the test to 1995, the year students had to pass the test. The ♦ also symbolizes the year *before* the years in which graduating classes were first required to pass exam revisions thereafter.

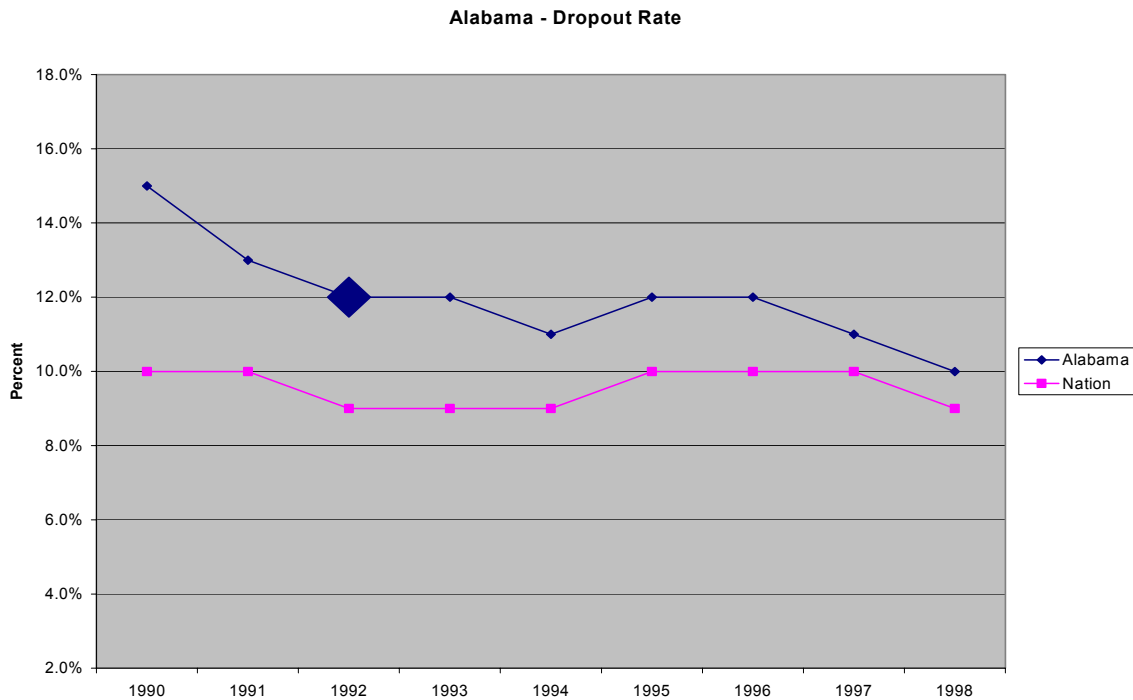
An overview of each state's high school graduation exam policies, the trend lines used to examine how the unintended consequences examined in this study changed after the introduction of a high school graduation exam, and the conclusions drawn from the data in each state follow.

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 a high school graduation exam to receive a diploma. The Alabama High School Graduation Exam (AHSGE) is replacing the graduation test. Starting with the class of 2001, students will have to pass certain sections of the AHSGE to receive a diploma.

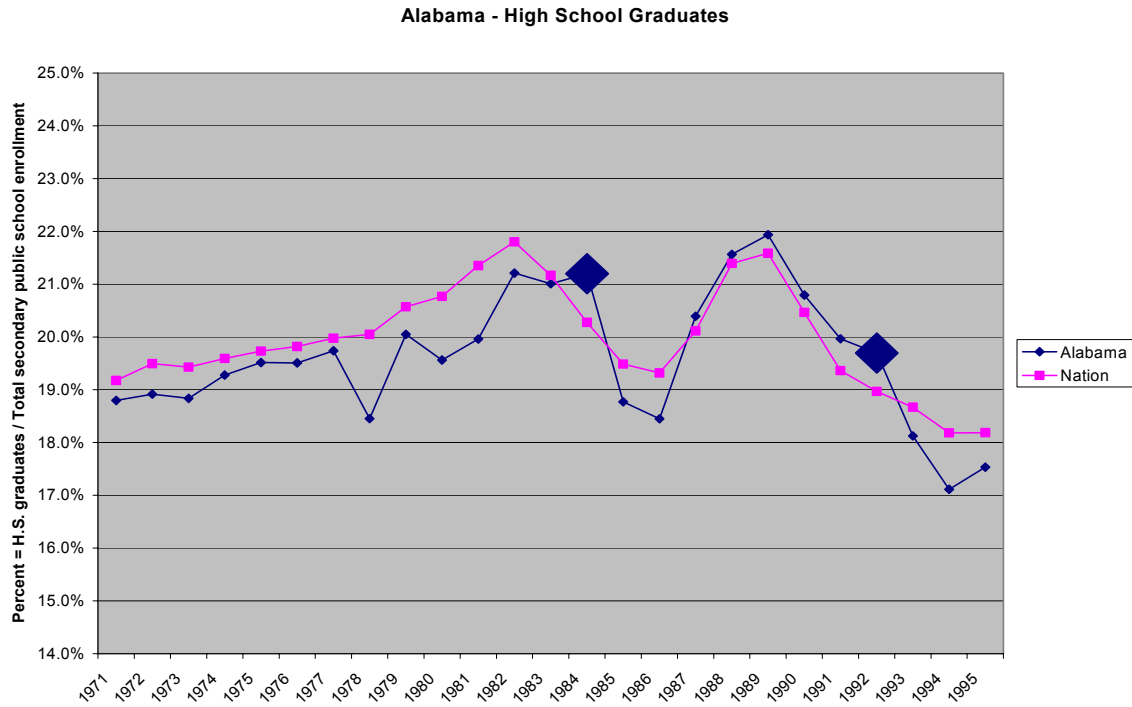
Dropout rate:



- From 1990-1992 2 percent fewer students dropped out in Alabama than in the nation.
- From 1992-1993 Alabama maintained its percentage, as did the nation.
- From 1992-1998 Alabama 2 percent fewer students dropped out in Alabama than in the nation.

After Alabama's high school graduation exams were implemented, Alabama's dropout rate **decreased** as compared to the nation.

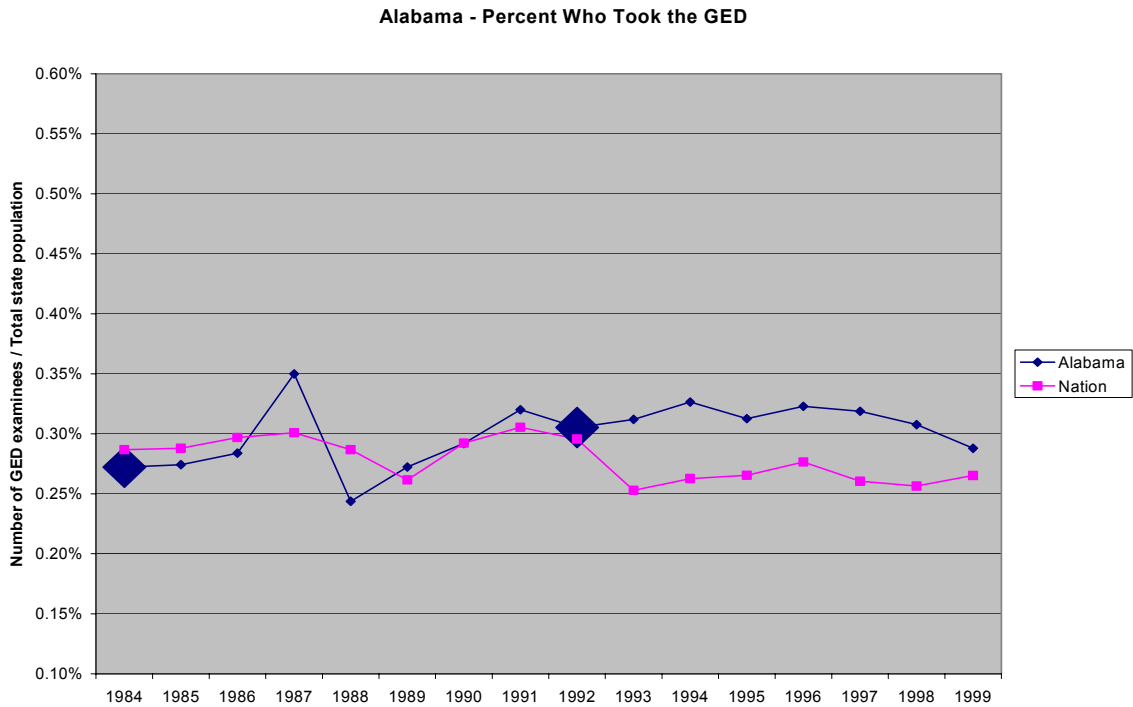
Graduation rate:



- From 1984-1985 1.6 percent fewer students were graduated in Alabama than in the nation.
- From 1984-1992 .3 percent fewer students were graduated in Alabama than in the nation.
- From 1992-1993 1.3 percent fewer students were graduated in Alabama than in the nation.
- From 1992-1995 1.4 percent fewer students were graduated in Alabama than in the nation.

After Alabama's high school graduation exams were implemented, Alabama's graduation rate **decreased** as compared to the nation.

Rate by which people took the General Education Diploma (GED) Exam:

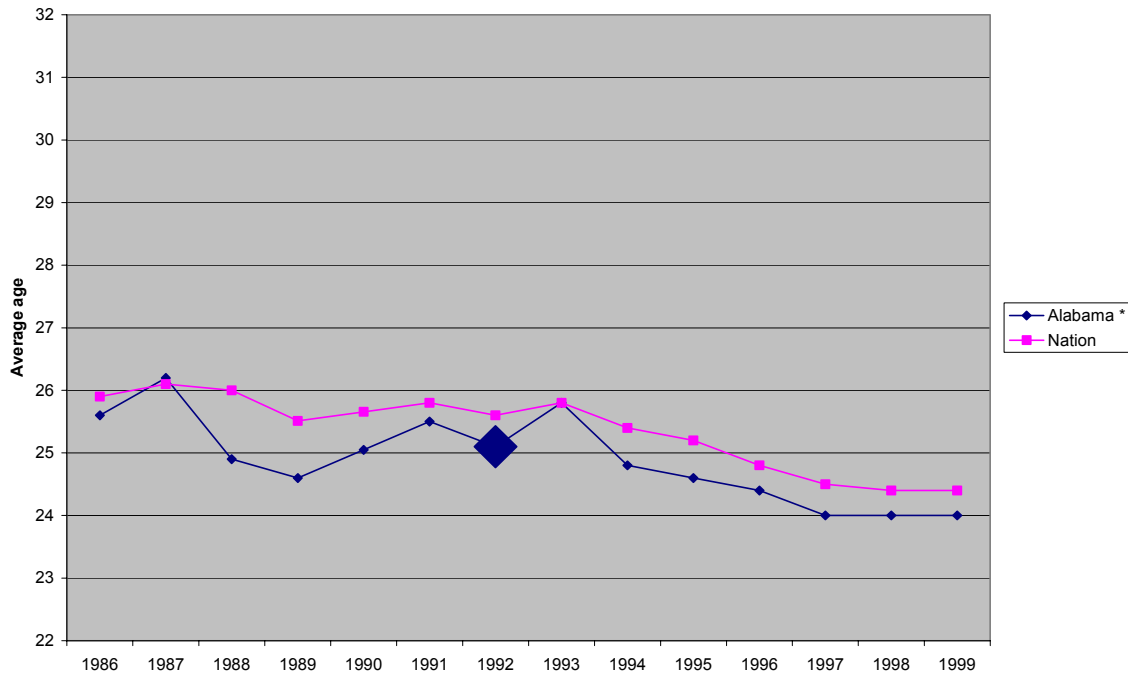


- From 1984-1985 Alabama maintained its percentage, as did the nation.
- From 1984-1992 .03 percent more students took the GED in Alabama than in the nation.
- From 1992-1993 .05 percent fewer students took the GED in Alabama than in the nation.
- From 1992-1999 .01 percent fewer students took the GED in Alabama than in the nation.

After Alabama's high school graduation exams were implemented, the rate by which people took the GED exam **decreased** as compared to the nation.

Average age of General Education Diploma (GED) Examinees:

Alabama - Average Age of People Who Took the GED Test



- From 1986-1992 the average age of GED examinees decreased .2 more years in Alabama than in the nation.
- From 1992-1993 the average age of GED examinees increased .5 more years in Alabama than in the nation.
- From 1992-1999 the average age of GED examinees increased .1 more years in Alabama than in the nation.

After Alabama's high school graduation exams were implemented, the average age of people who took the GED exam **increased** as compared to the nation.

OVERALL FINDINGS:

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 as compared to the nation.

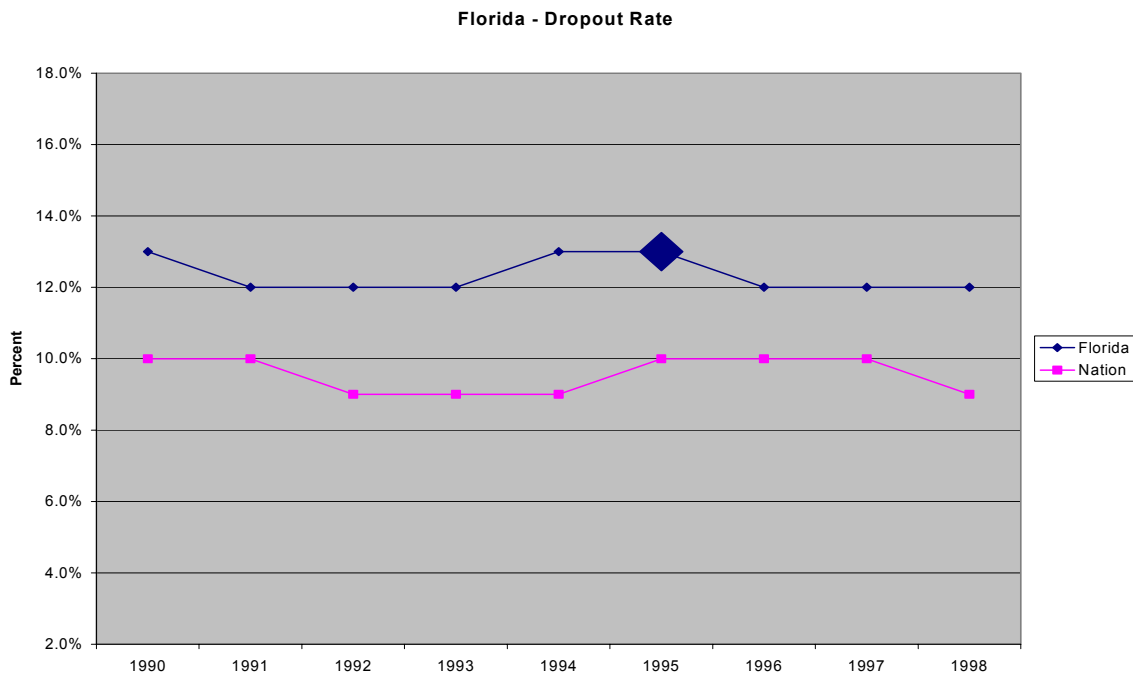
There is **strong** evidence to suggest that after the implementation of high school graduation exams in Alabama, the rate by which students enrolled in the GED program **decreased** as compared to the nation.

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 a high school graduation exam to receive a diploma. The Florida Competency Assessment Test (FCAT) is replacing the HSCT. The class of 2003 will be required to pass the FCAT reading and math tests to receive a high school diploma.

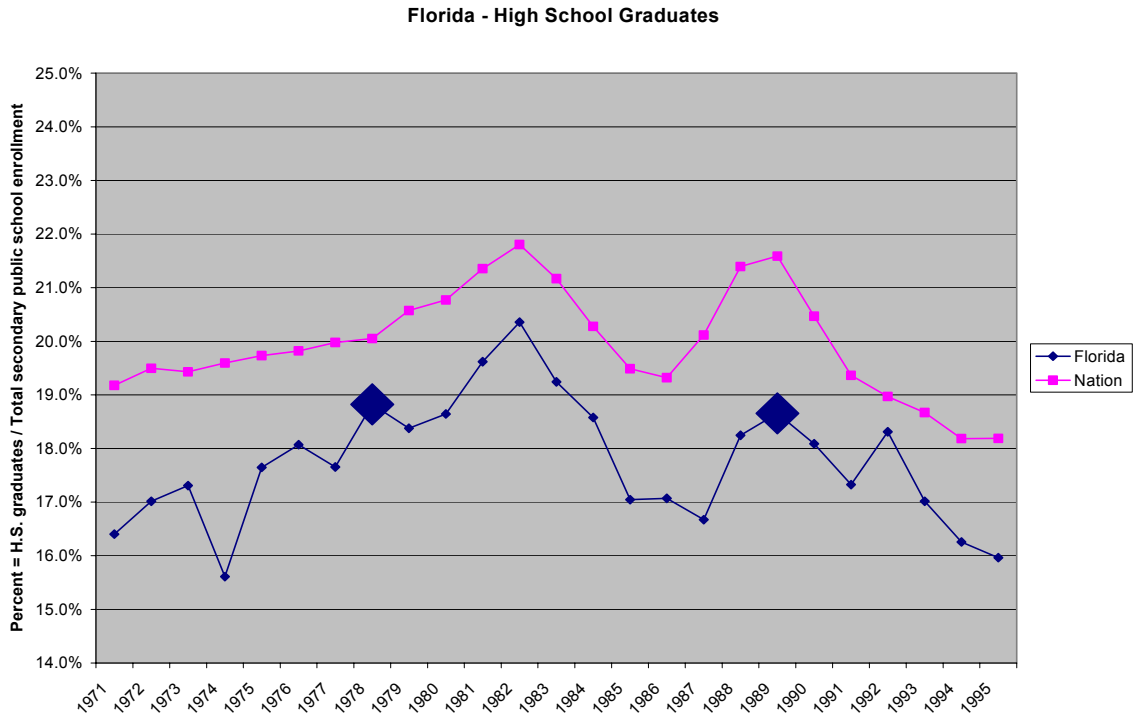
Dropout rate:



- From 1990-1995 Florida maintained its percentage, as did the nation.
- From 1995-1996 1 percent fewer students dropped out in Florida than in the nation.
- From 1995-1998 1 percent more students dropped out in Florida than in the nation.

After Florida's high school graduation exams were implemented, how Florida's dropout rate changed as compared to the nation is **unclear**.

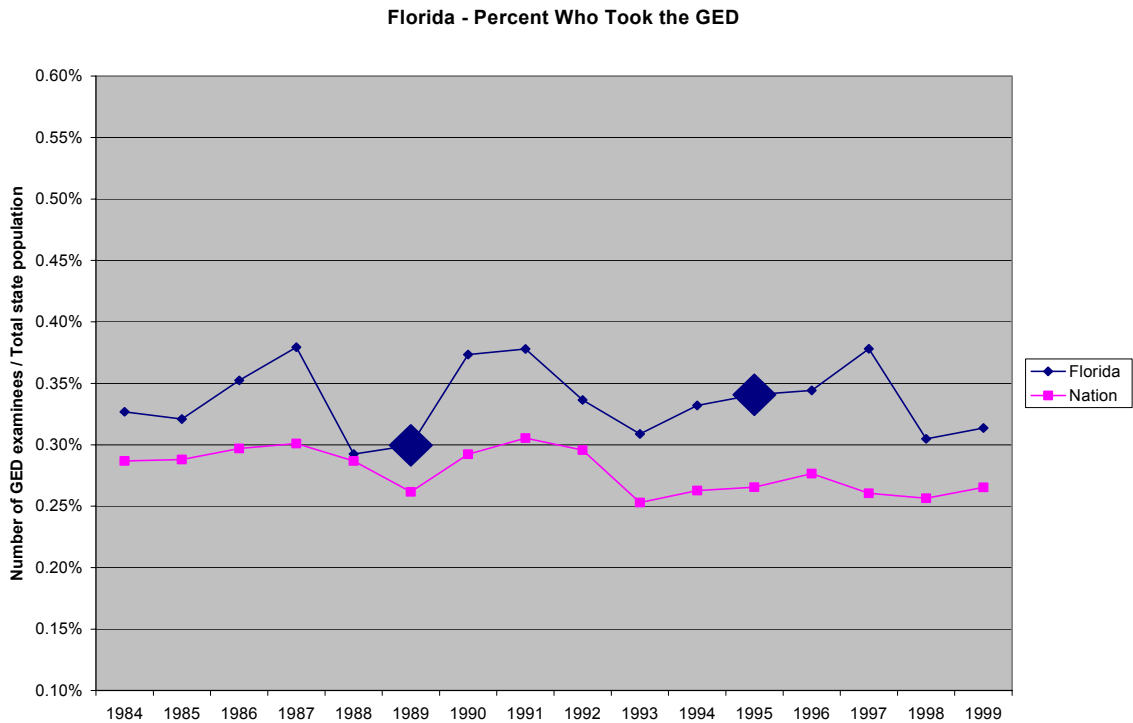
Graduation rate:



- From 1978-1979 .9 percent fewer students were graduated in Florida than in the nation.
- From 1978-1989 1.6 percent fewer students were graduated in Florida than in the nation.
- From 1989-1990 .5 percent more students were graduated in Florida than in the nation.
- From 1989-1995 .7 percent more students were graduated in Florida than in the nation.

After Florida's high school graduation exams were implemented, Florida's graduation rate **decreased** as compared to the nation.

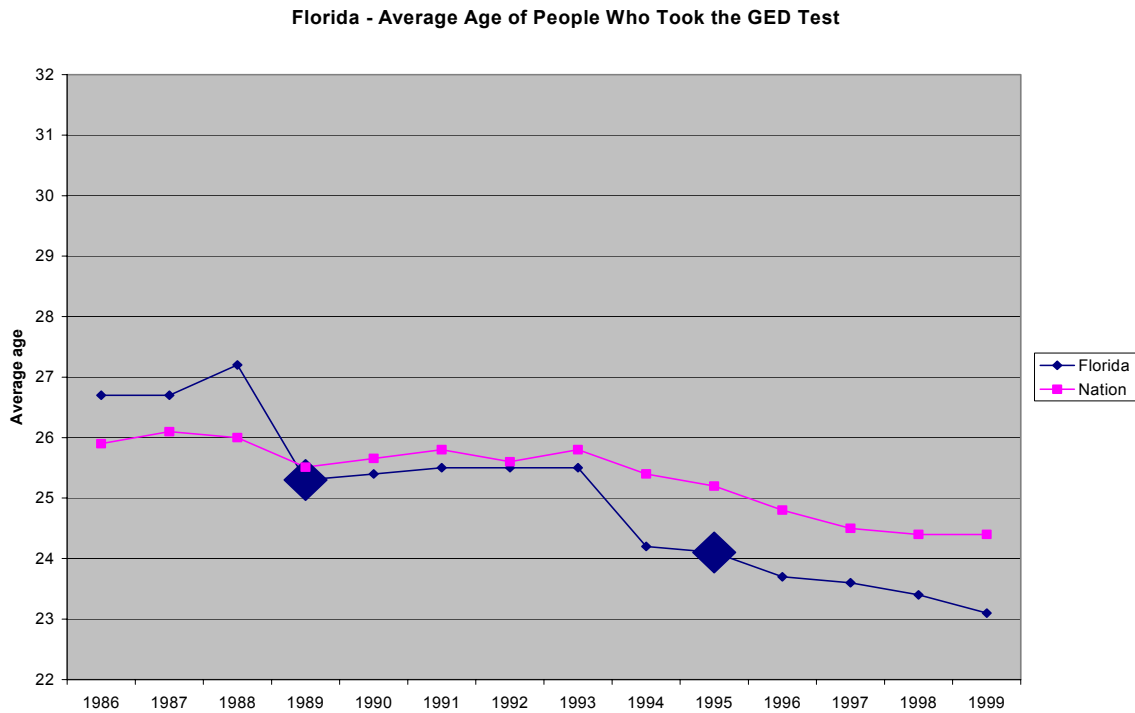
Rate by which people took the General Education Diploma (GED) Exam:



- From 1984-1989 Florida lost .03 percent, as did the nation.
- From 1989-1990 .05 percent more students took the GED in Florida than in the nation.
- From 1989-1995 .03 percent more students took the GED in Florida than in the nation.
- From 1995-1996 .01 percent fewer students took the GED in Florida than in the nation.
- From 1995-1999 .03 percent fewer students took the GED in Florida than in the nation.

After Florida's high school graduation exams were implemented, the rate by which people took the GED exam **increased** as compared to the nation.

Average age of General Education Diploma (GED) Examinees:



- From 1986-1989 the average age of GED examinees decreased 1 more year in Florida than in the nation.
- From 1989-1990 the average age of GED examinees increased .1 more year in Florida than in the nation.
- From 1989-1995 the average age of GED examinees decreased .9 more year in Florida than in the nation.
- From 1995-1996 the average age of GED examinees decreased .4 more year in Florida than in the nation.
- From 1995-1999 the average age of GED examinees decreased .2 more year in Florida than in the nation.

After Florida's high school graduation exams were implemented, the average age of people who took the GED exam **decreased** as compared to the nation.

OVERALL FINDINGS:

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** as compared to the nation.

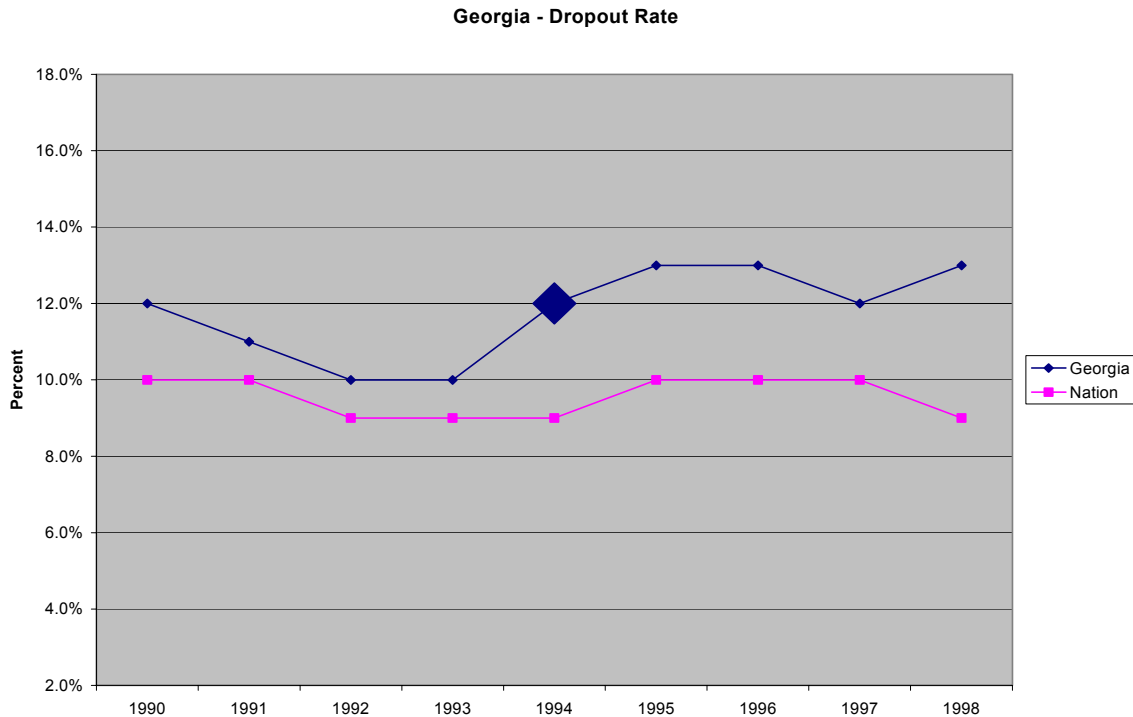
There is **strong** evidence to suggest that after the implementation of high school graduation exams in Florida, the rate by which students enrolled in the GED program **increased** as compared to the nation.

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 a high school graduation exam to receive a diploma. The GHSGT is being replaced by new end-of-course tests.

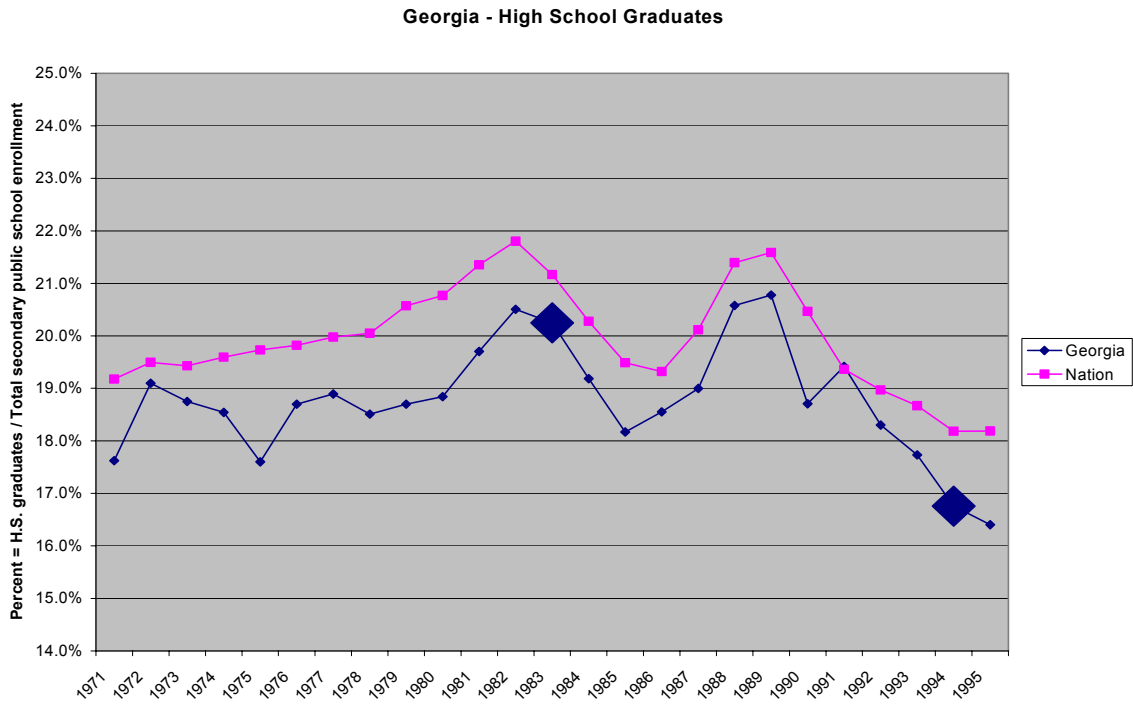
Dropout rate:



- From 1990-1994 1 percent more students dropped out in Georgia than in the nation.
- From 1994-1995 Georgia gained 1 percent, as did the nation.
- From 1994-1998 1 percent more students dropped out in Georgia than in the nation.

After Georgia's high school graduation exams were implemented, Georgia's dropout rate **increased** as compared to the nation.

Graduation rate:

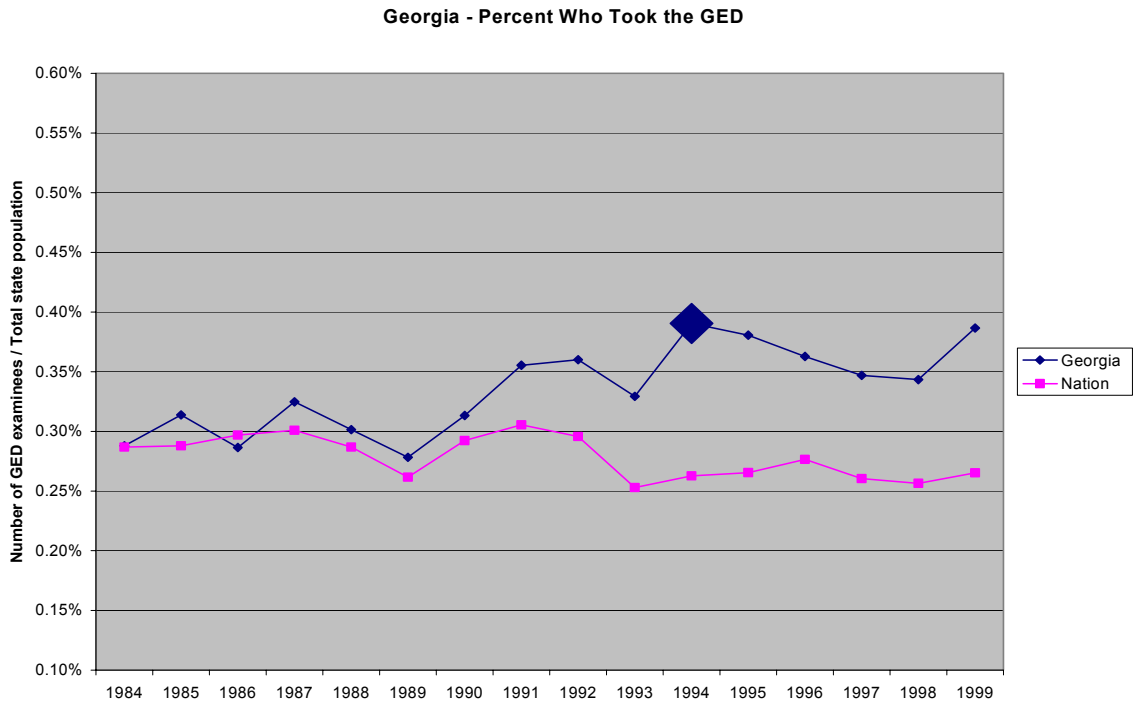


- From 1983-1984 .1 percent fewer students were graduated in Georgia than in the nation.
- From 1983-1994 .8 percent fewer students were graduated in Georgia than in the nation.
- From 1994-1995 .1 percent fewer students were graduated in Georgia than in the nation.

After Georgia's high school graduation exams were implemented,

Georgia's graduation rate **decreased** as compared to the nation.

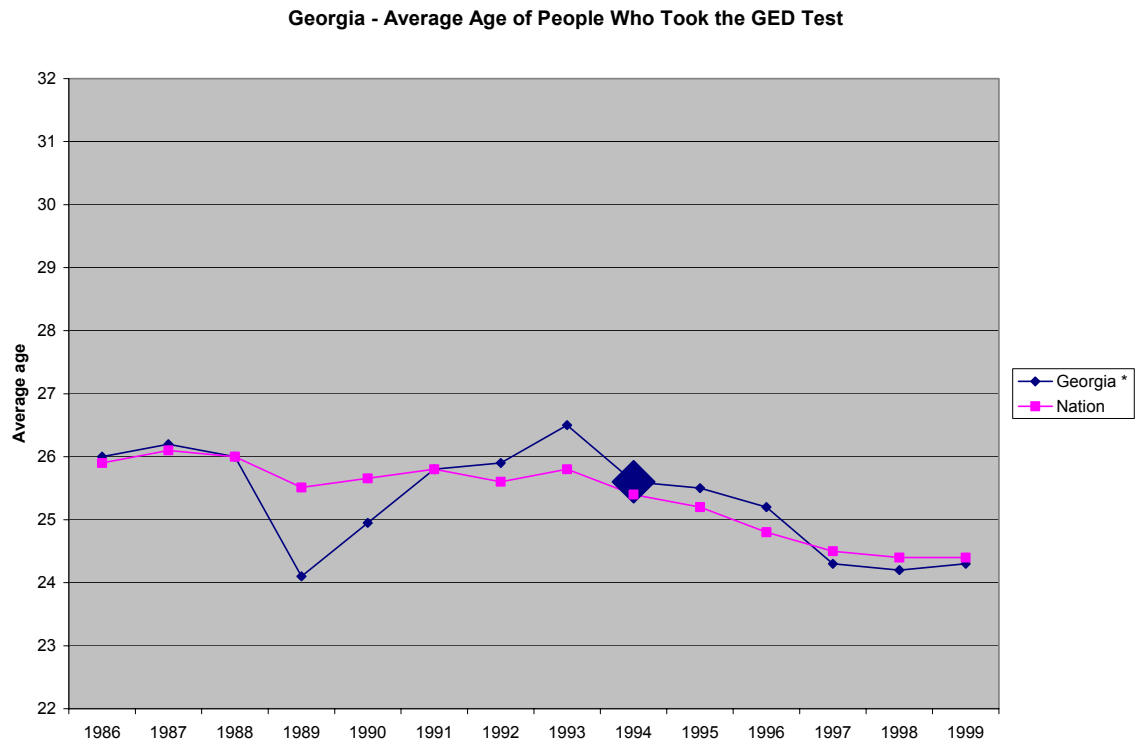
Rate by which people took the General Education Diploma (GED) Exam:



- From 1984-1994 .13 percent more students took the GED in Georgia than in the nation.
- From 1994-1995 .02 percent fewer students took the GED in Georgia than in the nation.
- From 1994-1999 .01 percent fewer students took the GED in Georgia than in the nation.

After Georgia's high school graduation exams were implemented, the rate by which people took the GED exam **increased** as compared to the nation.

Average age of General Education Diploma (GED) Examinees:



- From 1986-1994 the average age of GED examinees increased .1 more years in Georgia than in the nation.
- From 1994-1995 the average age of GED examinees increased .1 more years in Georgia than in the nation.
- From 1994-1999 the average age of GED examinees decreased .3 more years in Georgia than in the nation.

After Georgia's high school graduation exams were implemented, the average age of people who took the GED exam **decreased** as compared to the nation.

OVERALL FINDINGS:

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** as compared to the nation.

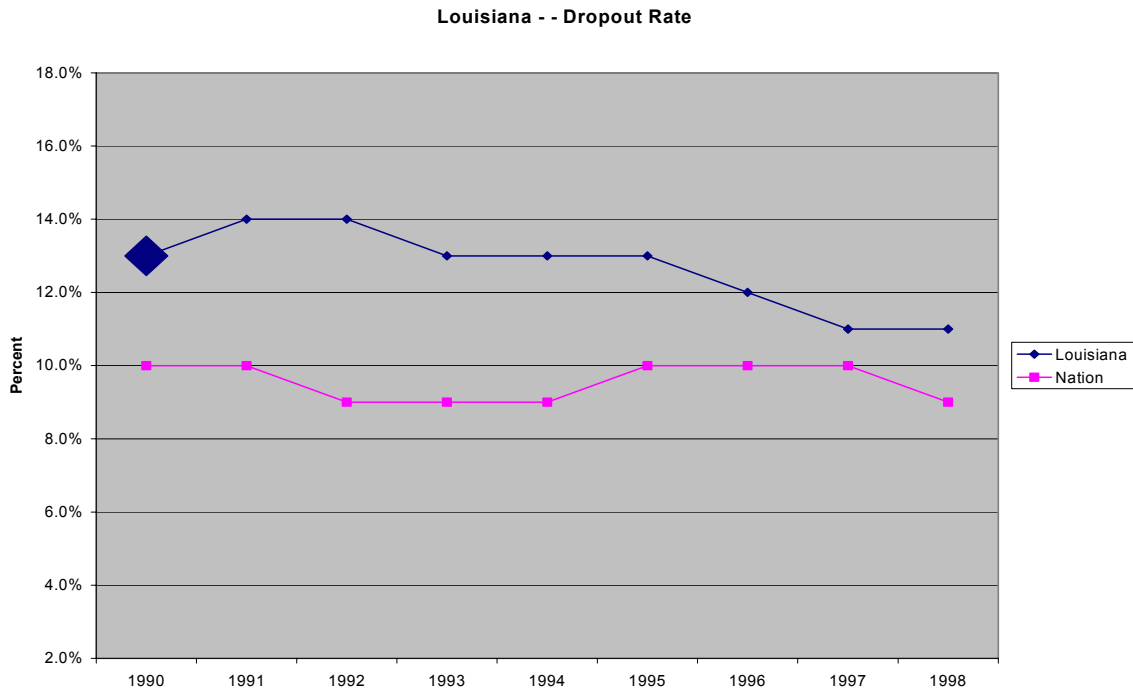
There is **strong** evidence to suggest that after the implementation of high school graduation exams in Georgia, the rate by which students enrolled in the GED program **increased** as compared to the nation.

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. Louisiana's Graduation Exit Exam for the 21st Century (GEE 21) is replacing the GEE. The class of 2003 will be required to pass English language arts and math tests to receive a diploma.

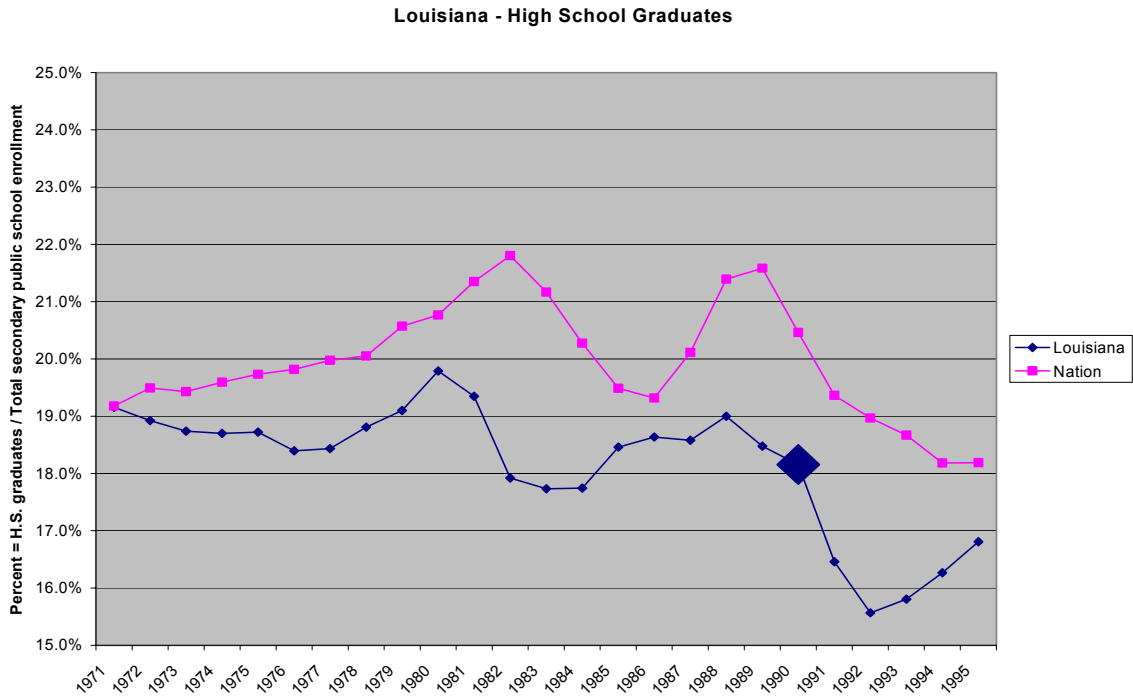
Dropout rate:



- From 1990-1991 1 percent more students dropped out in Louisiana than in the nation.
- From 1990-1998 1 percent fewer students dropped out in Louisiana than in the nation.

After Louisiana's high school graduation exam was implemented, how Louisiana's dropout rate changed as compared to the nation is **unclear**.

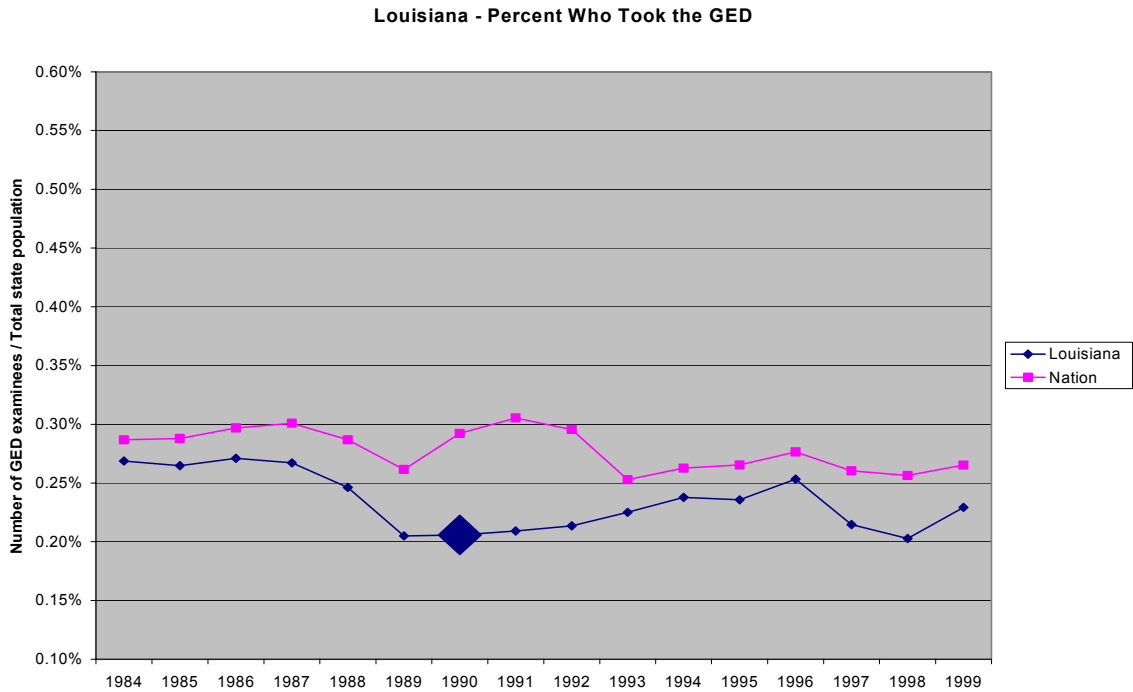
Graduation rate:



- From 1990-1991 .6 percent fewer students were graduated in Louisiana than in the nation.
- From 1990-1995 .9 percent more students were graduated in Louisiana than in the nation.

After Louisiana's high school graduation exam was implemented, Louisiana's graduation rate **increased** as compared to the nation.

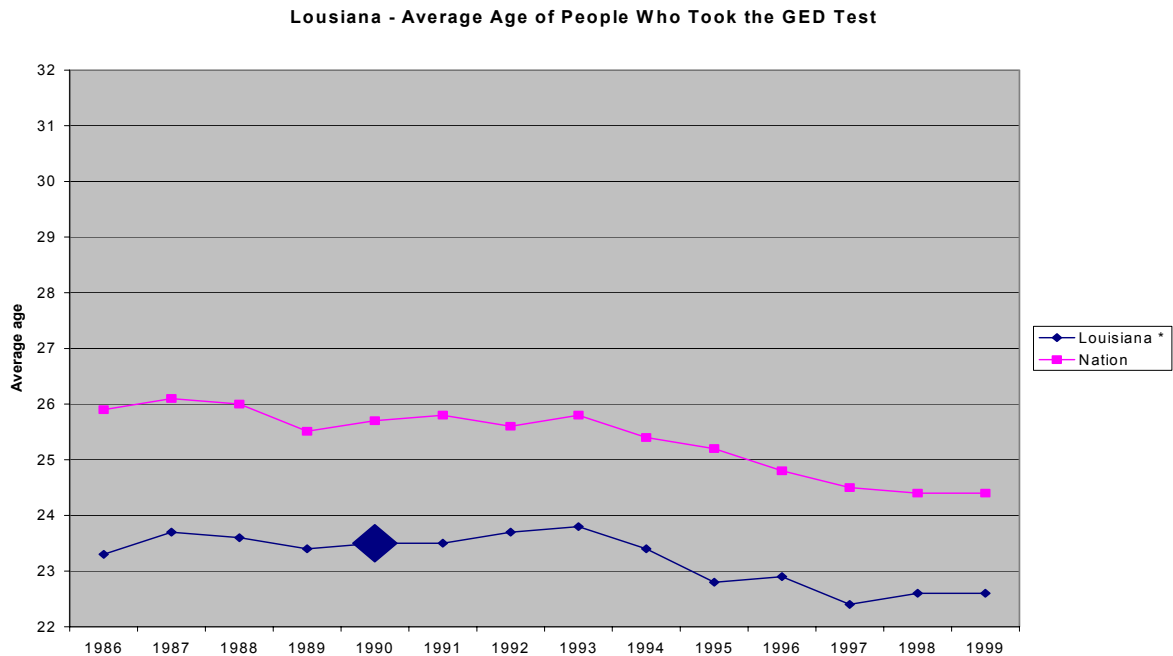
Rate by which people took the General Education Diploma (GED) Exam:



- From 1990-1991 .02 percent fewer students took the GED in Louisiana than in the nation.
- From 1990-1999 .04 percent more students took the GED in Louisiana than in the nation.

After Louisiana's high school graduation exam was implemented, the rate by which people took the GED exam **increased** as compared to the nation.

Average age of General Education Diploma (GED) Examinees:



- From 1990-1991 the average age of GED examinees decreased .2 more years in Louisiana than in the nation.
- From 1990-1999 the average age of GED examinees increased .4 more years in Louisiana than in the nation

After Louisiana's high school graduation exam was implemented, the average age of people who took the GED exam **increased** as compared to the nation.

OVERALL FINDINGS:

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** as compared to the nation.

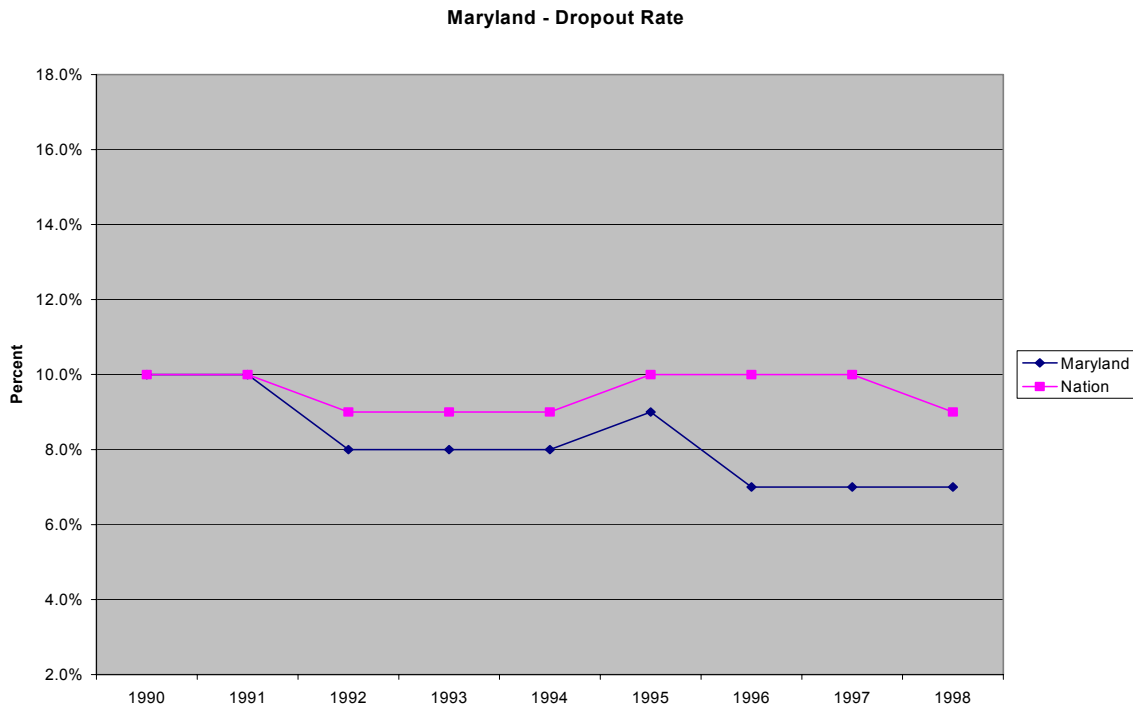
There is **unclear** evidence to suggest how after the implementation of the high school graduation exam in Louisiana, the rate by which students enrolled in the GED program changed as compared to the nation.

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. The MFT is used today but is being replaced by the end-of-course exams called the Maryland High School Assessments.

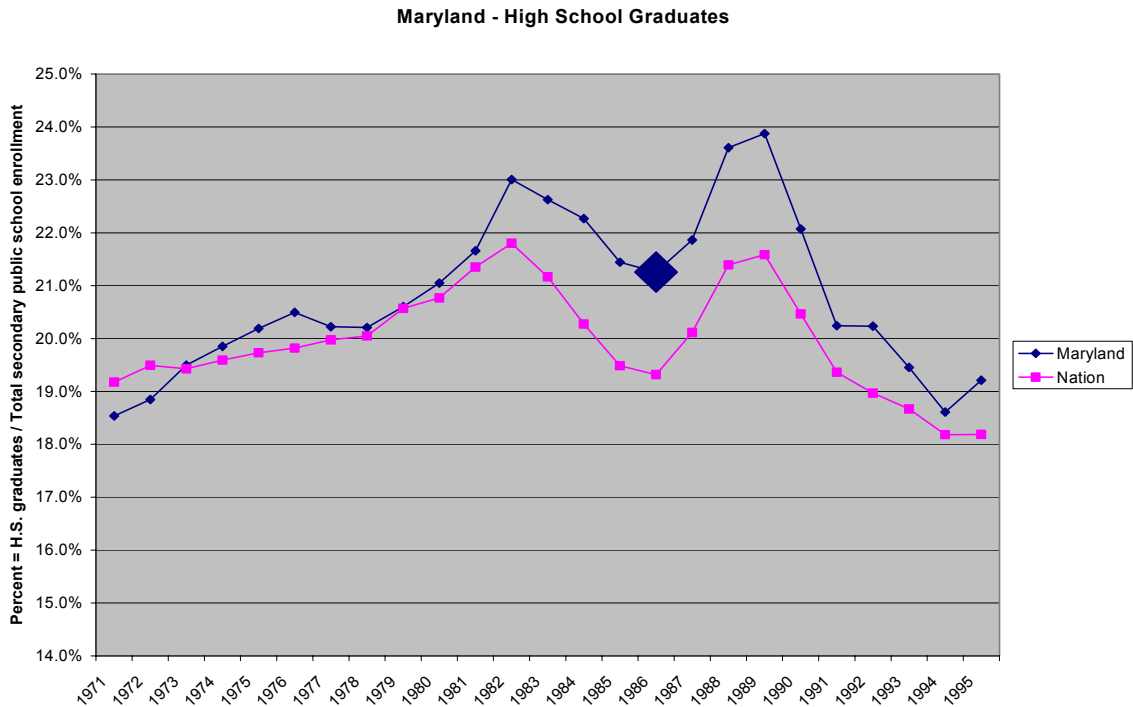
Dropout rate:



- From 1990-1998 2 percent fewer students dropped out in Maryland than in the nation.

After Maryland's high school graduation exam was implemented, Maryland's dropout rate **decreased** as compared to the nation.

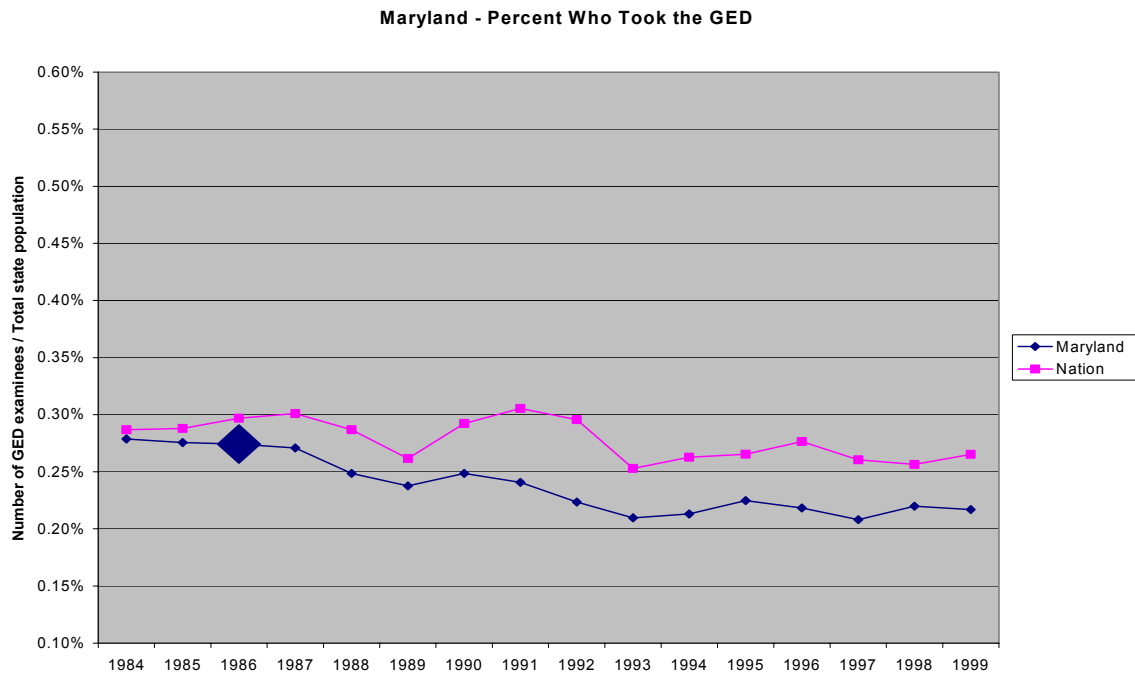
Graduation rate:



- From 1986-1987 .2 percent fewer students were graduated in Maryland than in the nation.
- From 1986-1995 1 percent fewer students were graduated in Maryland than in the nation.

After Maryland's high school graduation exam was implemented, Maryland's graduation rate **decreased** as compared to the nation.

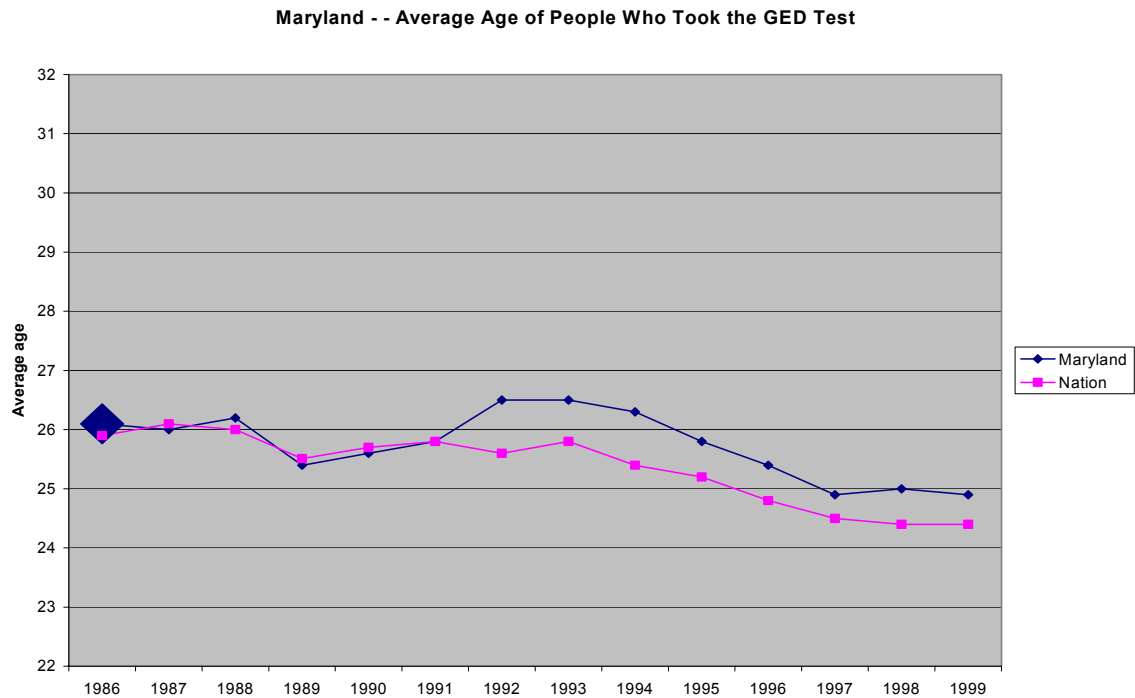
Rate by which people took the General Education Diploma (GED) Exam:



- From 1986-1987 Maryland maintained its percentage, as did the nation.
- From 1986-1999 .02 percent fewer students took the GED in Maryland than in the nation.

After Maryland's high school graduation exam was implemented, the rate by which people took the GED exam **decreased** as compared to the nation.

Average age of General Education Diploma (GED) Examinees:



- From 1986-1987 the average age of GED examinees decreased .3 more years in Maryland than in the nation.
- From 1986-1999 the average age of GED examinees increased .2 more years in Maryland than in the nation.

After Maryland's high school graduation exam was implemented, the average age of people who took the GED exam **decreased** as compared to the nation.

OVERALL FINDINGS:

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 as compared to the nation.

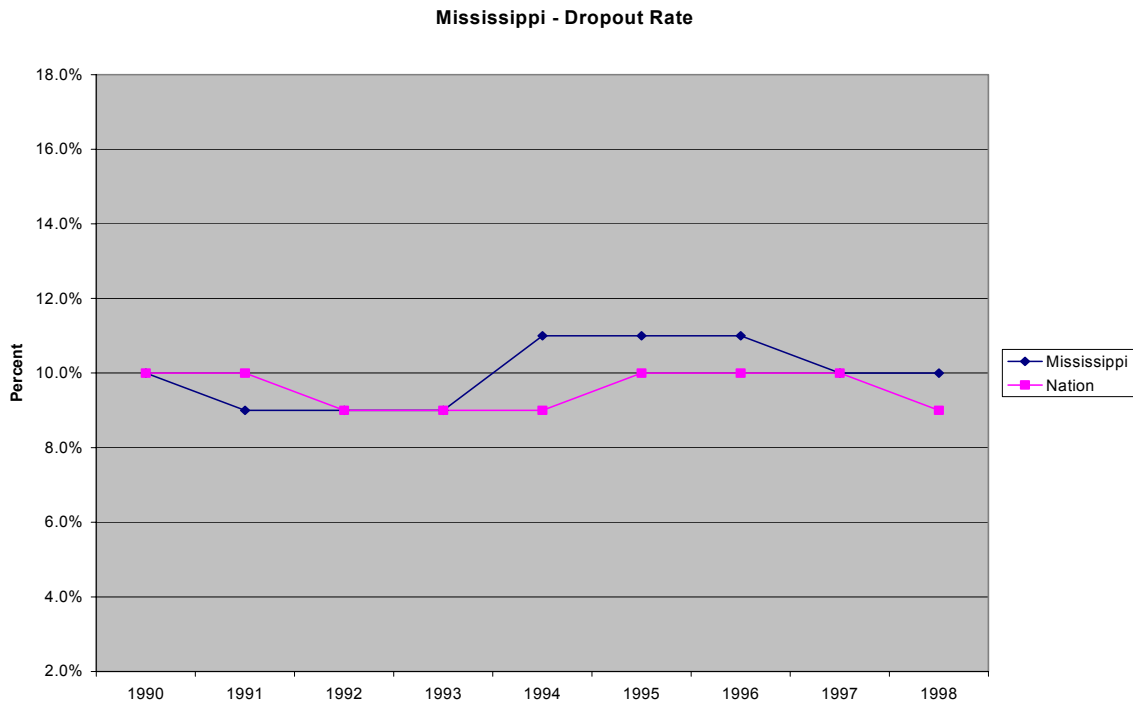
There is **unclear** evidence to suggest how after the implementation of the high school graduation exam in Maryland, the rate by which students enrolled in the GED program changed as compared to the nation.

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. End-of-course exams called Subject Area Testing Program (SATP) Assessments are replacing the FLE. The FLE will continue to be administered until each new Subject Area Test has been approved to replace it.

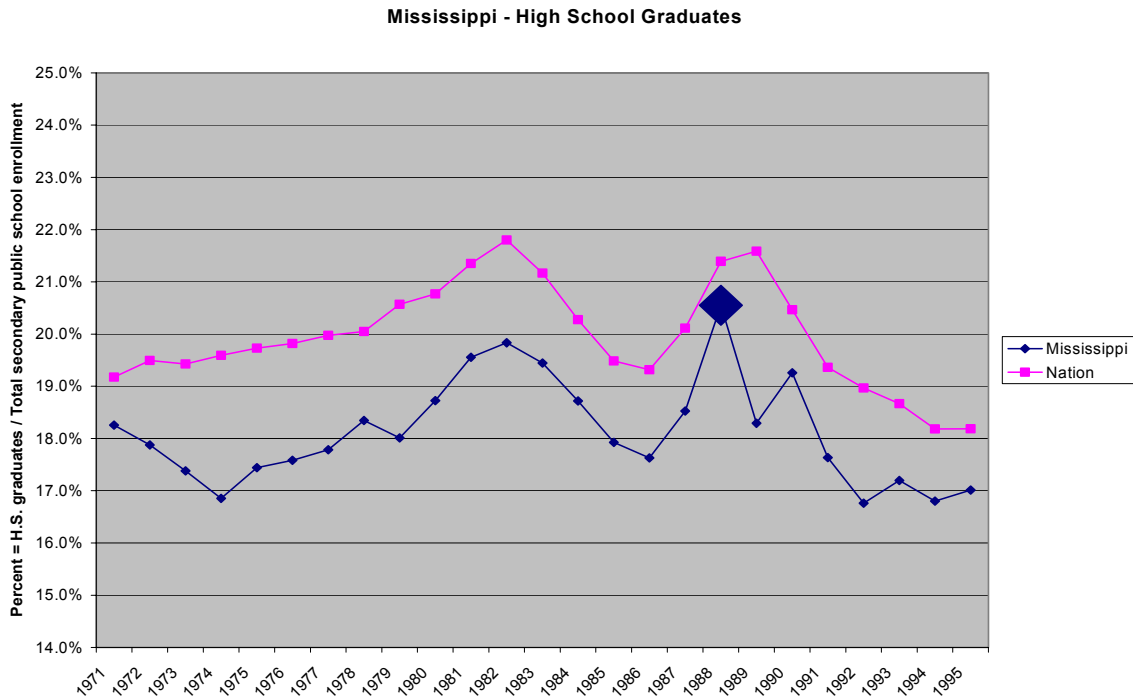
Dropout rate:



- From 1990-1998 1 percent more students dropped out in Mississippi than in the nation.

After Mississippi's high school graduation exam was implemented, Mississippi's dropout rate **increased** as compared to the nation.

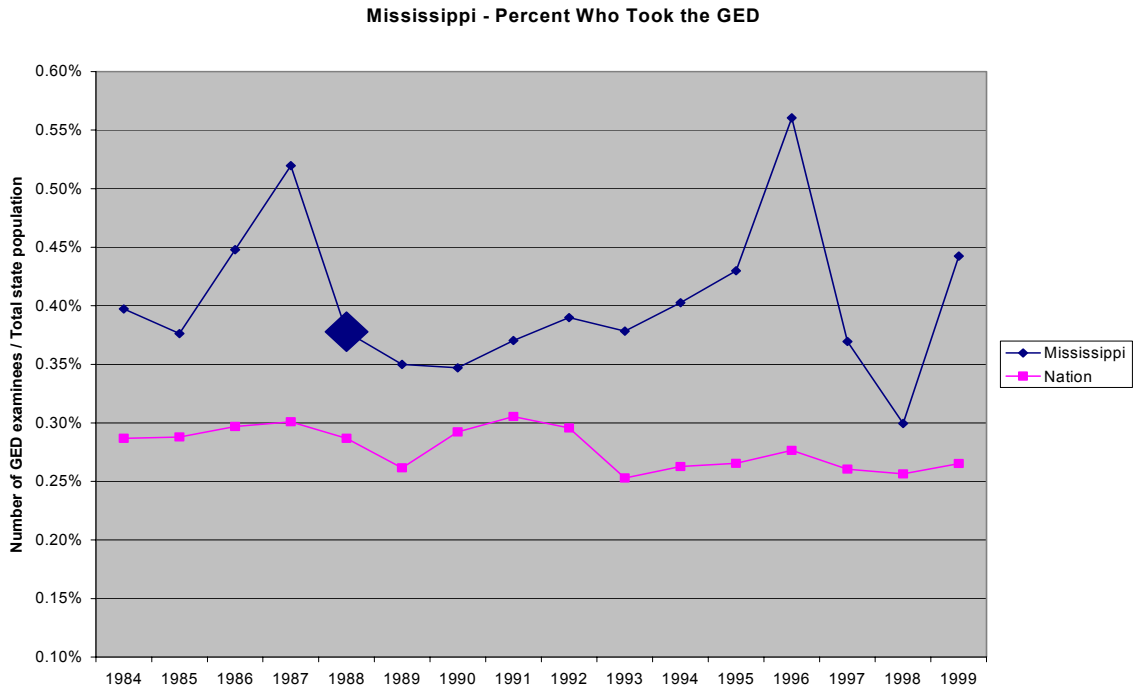
Graduation rate:



- From 1988-1989 2.5 percent fewer students were graduated in Mississippi than in the nation.
- From 1988-1995 .4 percent fewer students were graduated in Mississippi than in the nation.

After Mississippi's high school graduation exam was implemented, Mississippi's graduation rate **decreased** as compared to the nation.

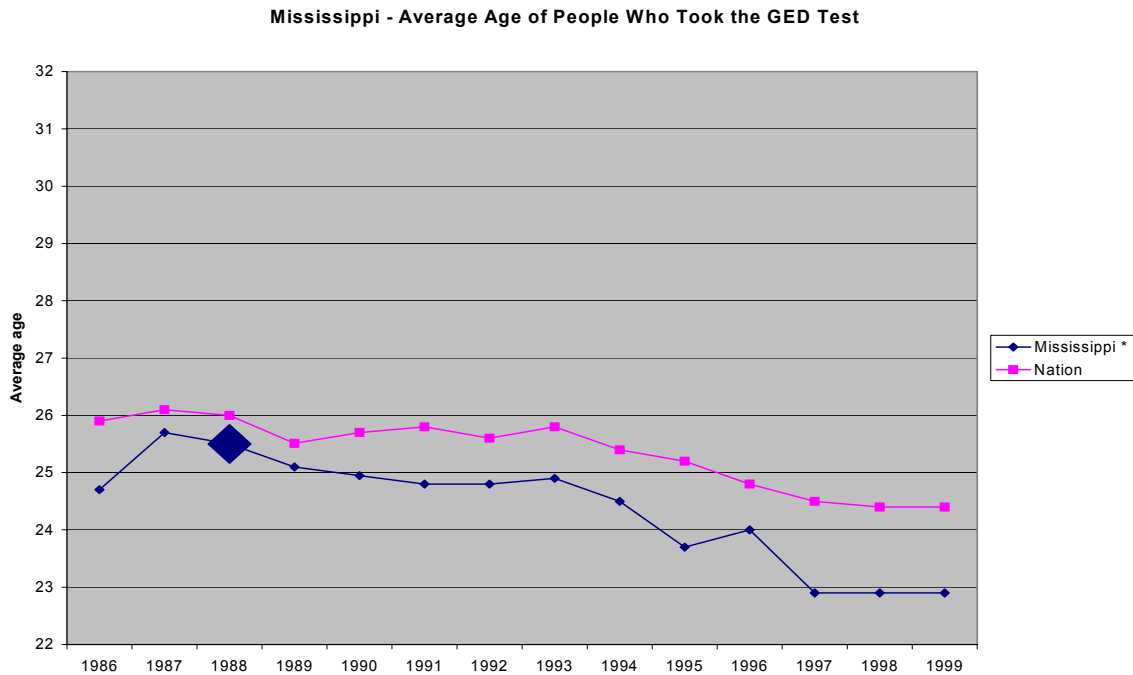
Rate by which people took the General Education Diploma (GED) Exam:



- From 1988-1989 Mississippi lost .03 percent, as did the nation.
- From 1988-1999 .08 percent more students took the GED in Mississippi than in the nation.

After Mississippi's high school graduation exam was implemented, the rate by which people took the GED exam **increased** as compared to the nation.

Average age of General Education Diploma (GED) Examinees:



- From 1988-1989 the average age of GED examinees increased .1 more years in Mississippi than in the nation.
- From 1988-1999 the average age of GED examinees decreased 1 more year in Mississippi than in the nation.

After Mississippi's high school graduation exam was implemented, the average age of people who took the GED exam **decreased** as compared to the nation.

OVERALL FINDINGS:

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** as compared to the nation.

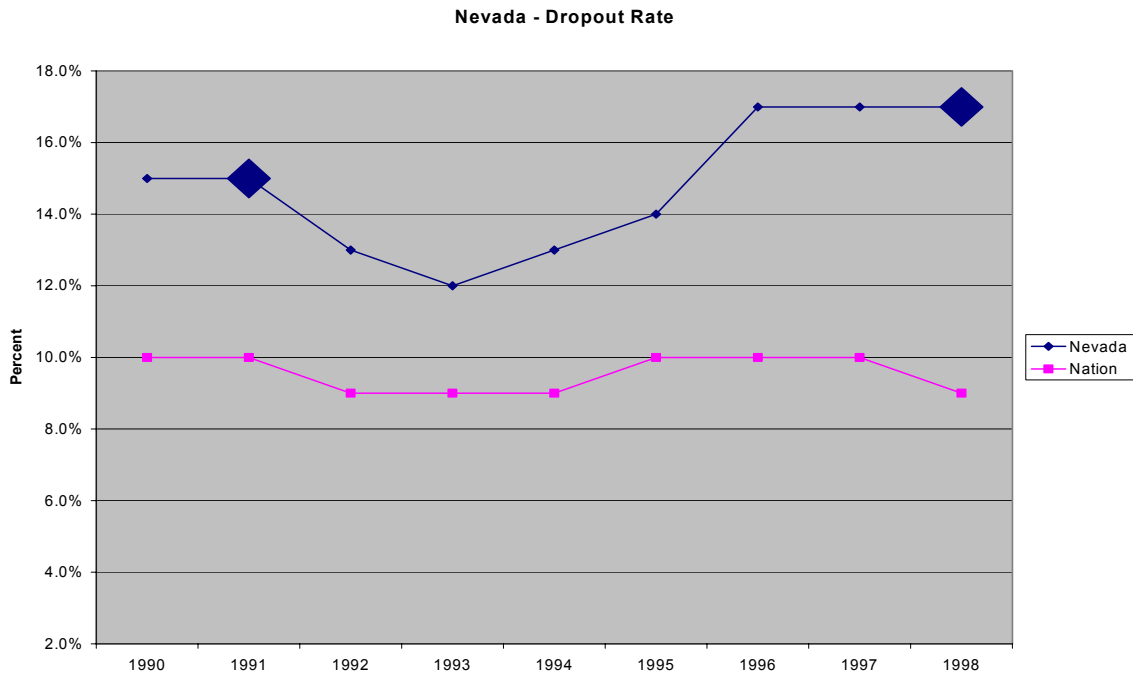
There is **strong** evidence to suggest that after the implementation of the high school graduation exam in Mississippi, the rate by which students enrolled in the GED program **increased** as compared to the nation.

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 high school graduation exams in Nevada to receive a diploma. The class of 2003 will have to pass the new HSPE to graduate.

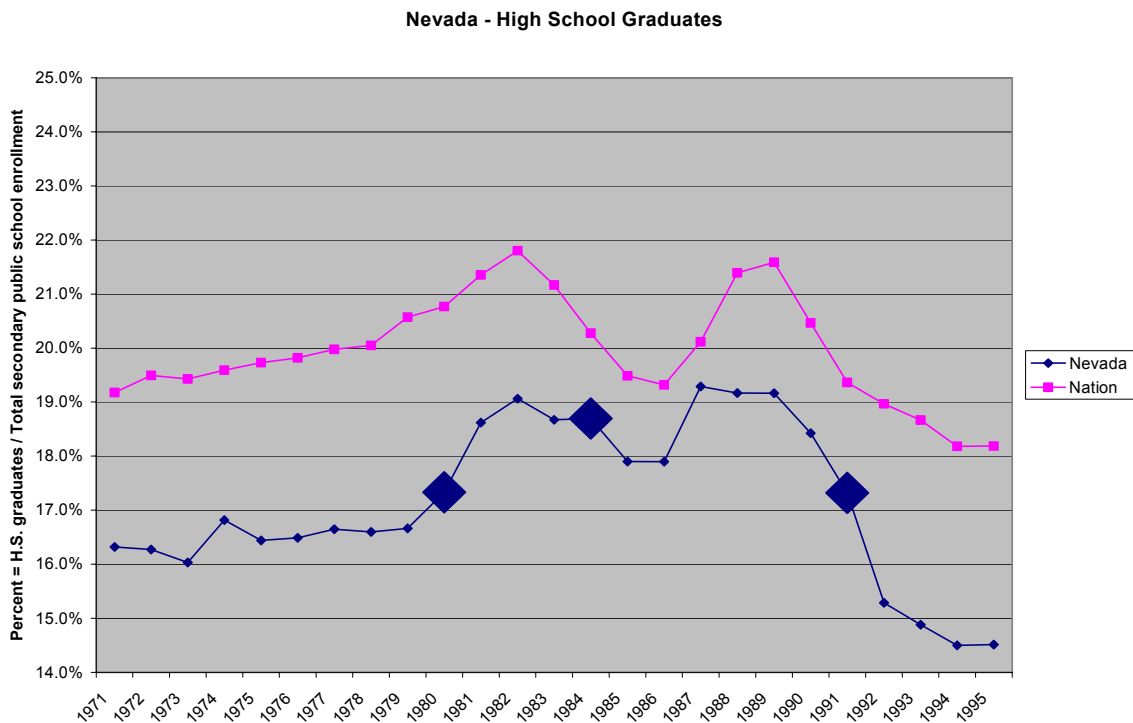
Dropout rate:



- From 1990-1991 Nevada maintained its average, as did the nation.
- From 1991-1992 1 percent fewer students dropped out in Nevada than in the nation.
- From 1991-1998 3 percent more students dropped out in Nevada than in the nation.

After Nevada's high school graduation exams were implemented, Nevada's dropout rate **increased** as compared to the nation.

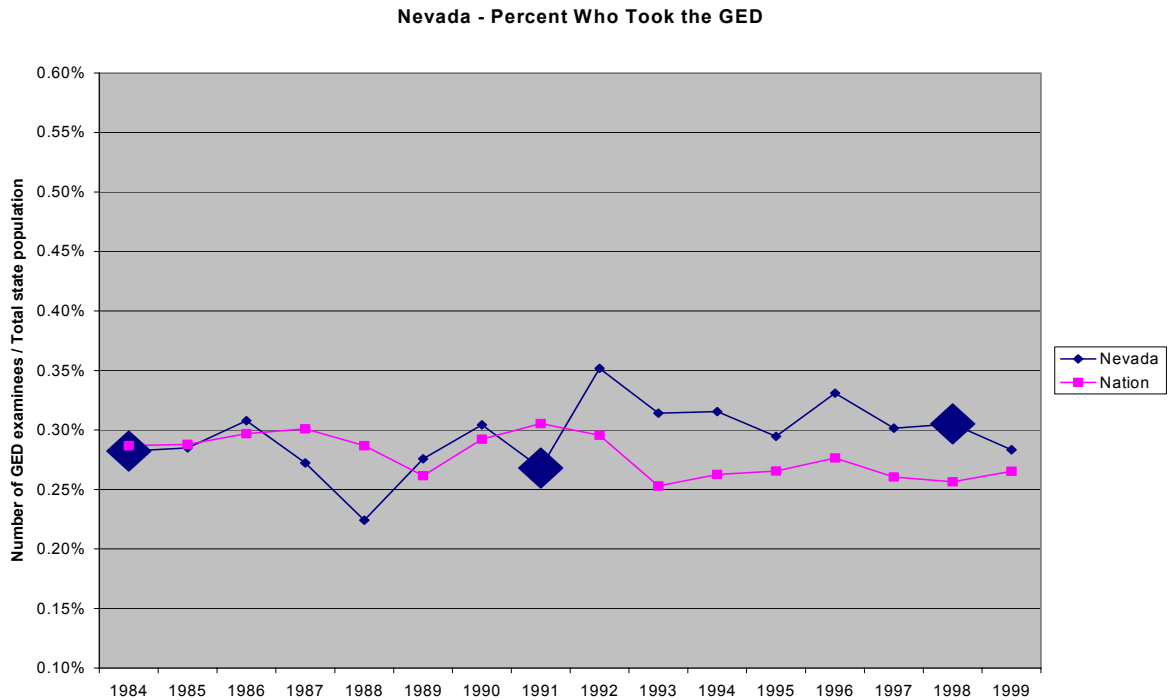
Graduation rate:



- From 1980-1981 .7 percent more students were graduated in Nevada than in the nation.
- From 1980-1984 1.9 percent more students were graduated in Nevada than in the nation.
- From 1984-1985 .8 percent fewer students were graduated in Nevada than in the nation.
- From 1984-1991 .5 percent fewer students were graduated in Nevada than in the nation.
- From 1991-1992 1.6 percent fewer students were graduated in Nevada than in the nation.
- From 1991-1995 1.6 percent fewer students were graduated in Nevada than in the nation.

After Nevada's high school graduation exams were implemented, Nevada's graduation rate **decreased** as compared to the nation.

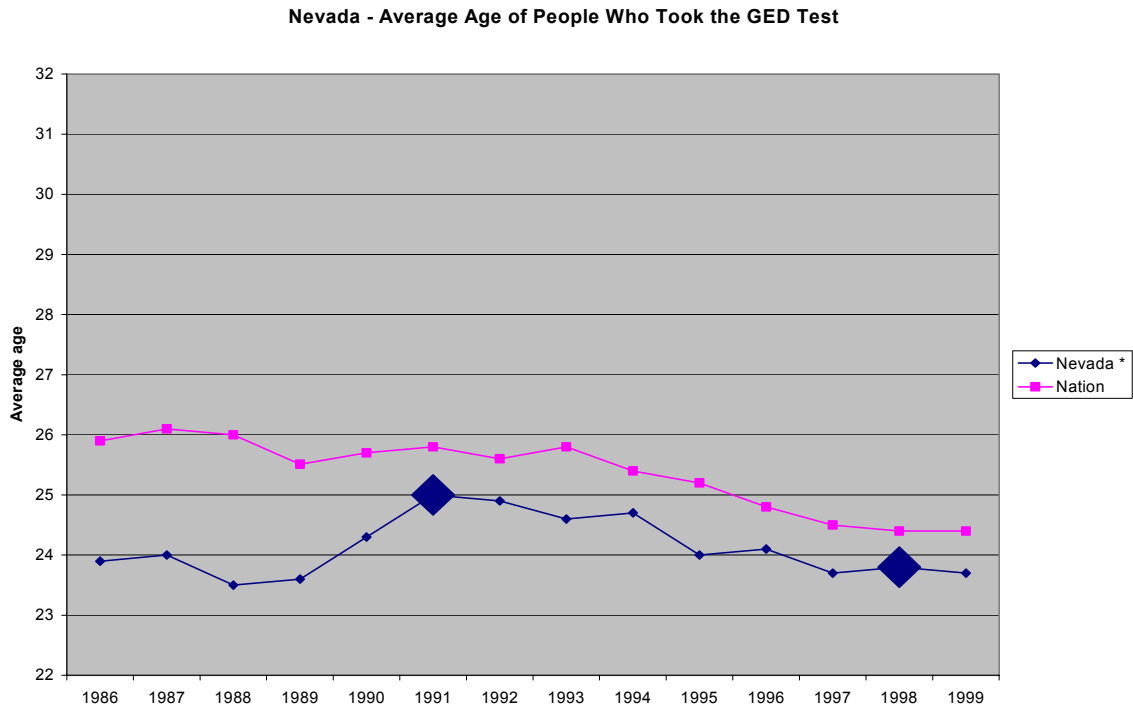
Rate by which people took the General Education Diploma (GED) Exam:



- From 1984-1985 .01 percent fewer students took the GED in Nevada than the nation.
- From 1984-1991 .03 percent fewer students took the GED in Nevada than in the nation.
- From 1991-1992 .09 percent more students took the GED in Nevada than in the nation.
- From 1991-1998 .09 percent more students took the GED in Nevada than in the nation.
- From 1998-1999 .04 percent fewer students took the GED in Nevada than in the nation.

After Nevada's high school graduation exams were implemented, the rate by which people took the GED exam **increased** as compared to the nation.

Average age of General Education Diploma (GED) Examinees:



- From 1986-1991 the average age of GED examinees increased 1.2 more years in Nevada than in the nation.
- From 1991-1992 the average age of GED examinees increased 1 more year in Nevada than in the nation.
- From 1991-1998 the average age of GED examinees increased 2 more years in Nevada than in the nation.
- From 1998-1999 the average age of GED examinees decreased .1 more years in Nevada than in the nation.

After Nevada's high school graduation exams were implemented, the average age of people who took the GED exam **increased** as compared to the nation.

OVERALL FINDINGS:

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** as compared to the nation.

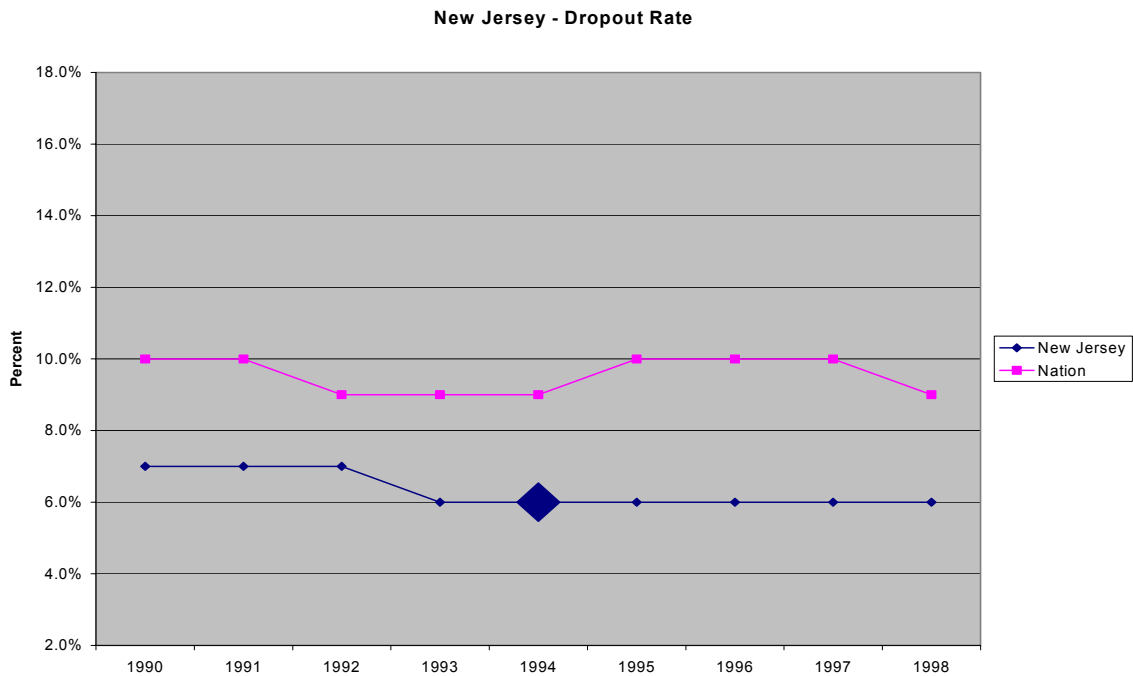
There is **unclear** evidence to suggest how after the implementation of high school graduation exams in Nevada, the rate by which students enrolled in the GED program changed as compared to the nation.

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 a high school graduation exam in New Jersey to receive a high school diploma. The class of 2003 will be required to pass the language arts literacy and math tests on the new High School Proficiency Assessments (HSPAs) to receive a diploma.

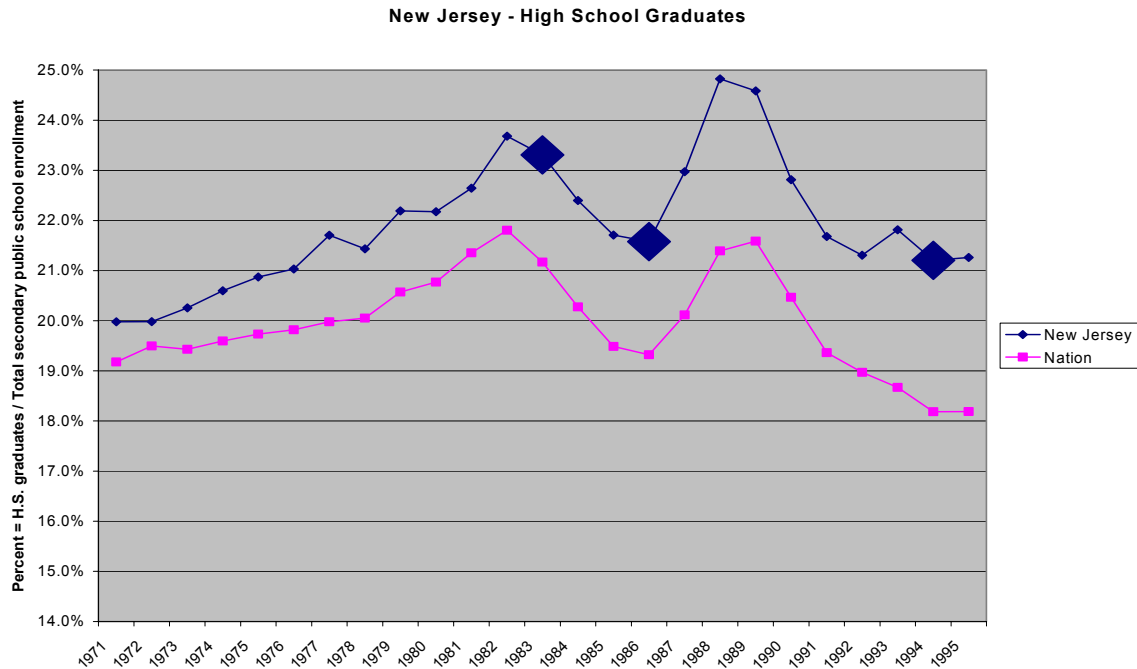
Dropout rate:



- From 1990-1994 New Jersey lost 1 percent, as did the nation.
- From 1994-1995 1 percent fewer students dropped out in New Jersey than in the nation.
- From 1994-1998 New Jersey maintained its average, as did the nation.

After New Jersey's high school graduation exams were implemented, New Jersey's dropout rate **decreased** as compared to the nation.

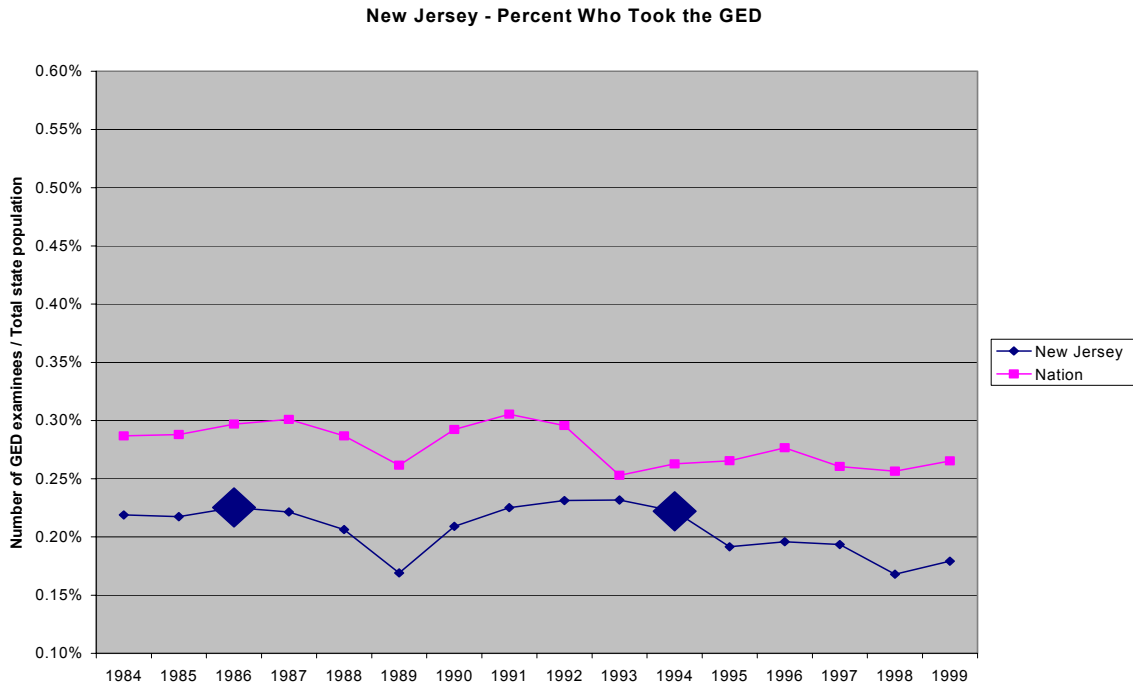
Graduation rate:



- From 1983-1984 .9 percent fewer students were graduated in New Jersey than in the nation.
- From 1983-1986 .2 percent more students were graduated in New Jersey than in the nation.
- From 1986-1987 .7 percent more students were graduated in New Jersey than in the nation.
- From 1986-1994 .7 percent more students were graduated in New Jersey than in the nation.
- From 1994-1995 .1 percent more students were graduated in New Jersey than in the nation.

After New Jersey's high school graduation exams were implemented, New Jersey's graduation rate **increased** as compared to the nation.

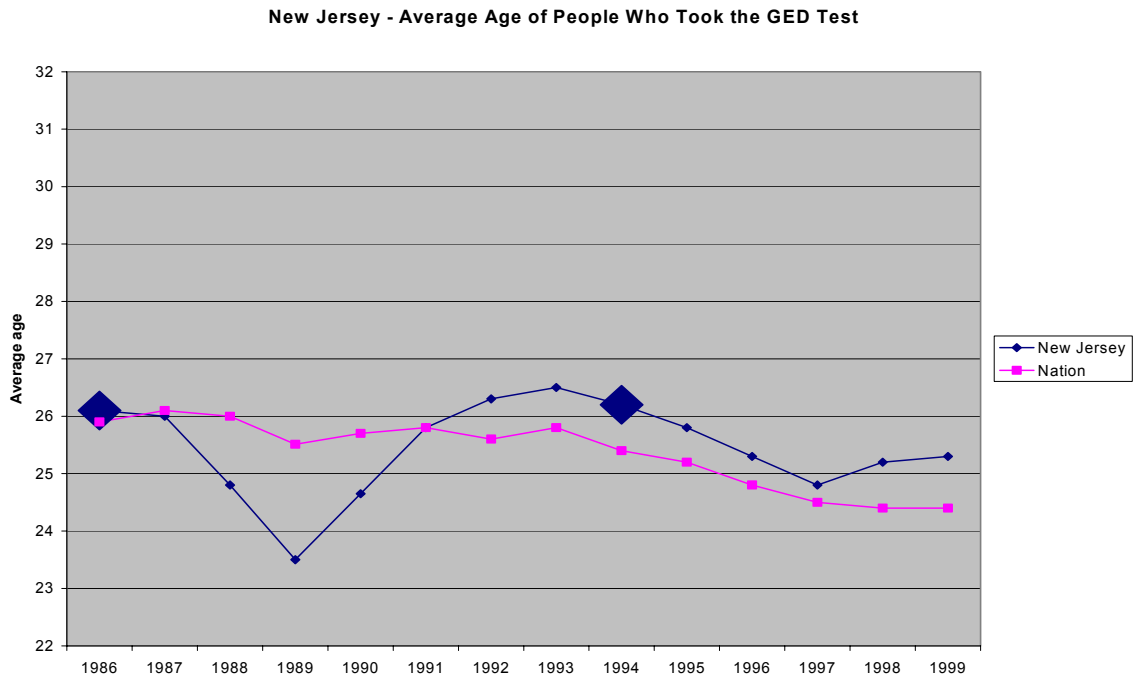
Rate by which people took the General Education Diploma (GED) Exam:



- From 1984-1986 New Jersey gained .01 percent, as did the nation.
- From 1986-1987 .01 percent fewer students took the GED in New Jersey than in the nation.
- From 1986-1994 .03 percent more students took the GED in New Jersey than in the nation.
- From 1994-1995 .04 percent fewer students took the GED in New Jersey than in the nation.
- From 1994-1999 .05 percent fewer students took the GED in New Jersey than in the nation.

After New Jersey's high school graduation exams were implemented, the rate by which people took the GED exam **decreased** as compared to the nation.

Average age of General Education Diploma (GED) Examinees:



- From 1986-1987 the average age of GED examinees decreased .3 more years in New Jersey than in the nation.
- From 1986-1994 the average age of GED examinees increased .6 more years in New Jersey than in the nation.
- From 1994-1995 the average age of GED examinees decreased .2 more years in New Jersey than in the nation.
- From 1994-1999 the average age of GED examinees increased .1 more years in New Jersey than in the nation.

After New Jersey's high school graduation exams were implemented, the average age of people who took the GED exam **increased** as compared to the nation.

OVERALL FINDINGS:

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** as compared to the nation.

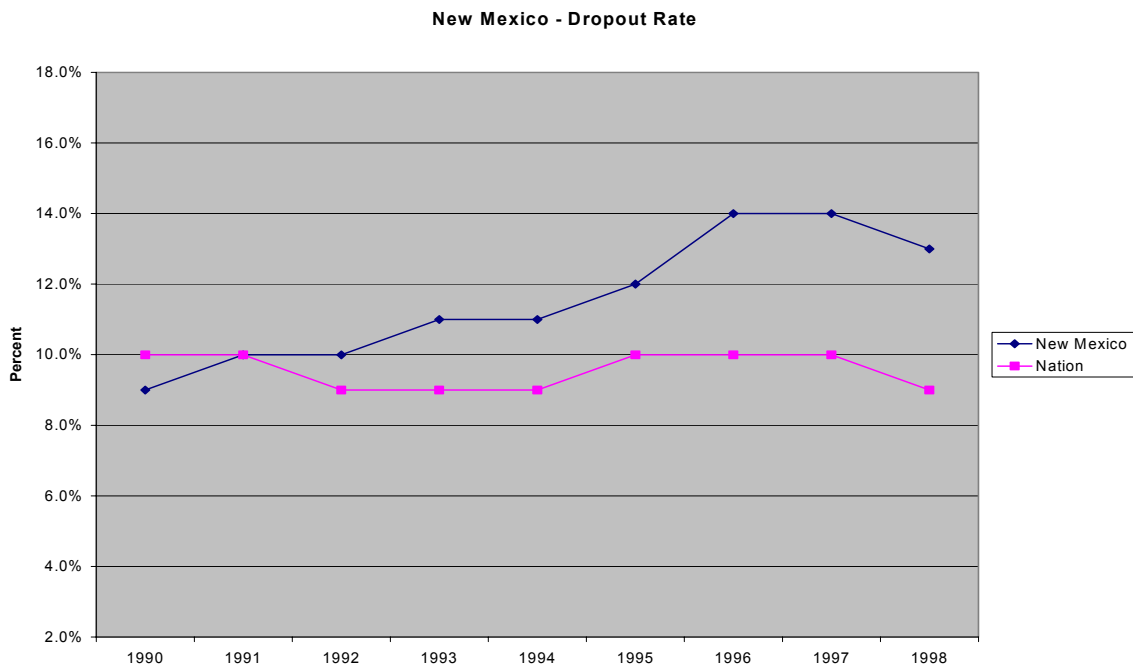
There is **strong** evidence to suggest that after the implementation of high school graduation exams in New Jersey, the rate by which students enrolled in the GED program **decreased** as compared to the nation.

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.

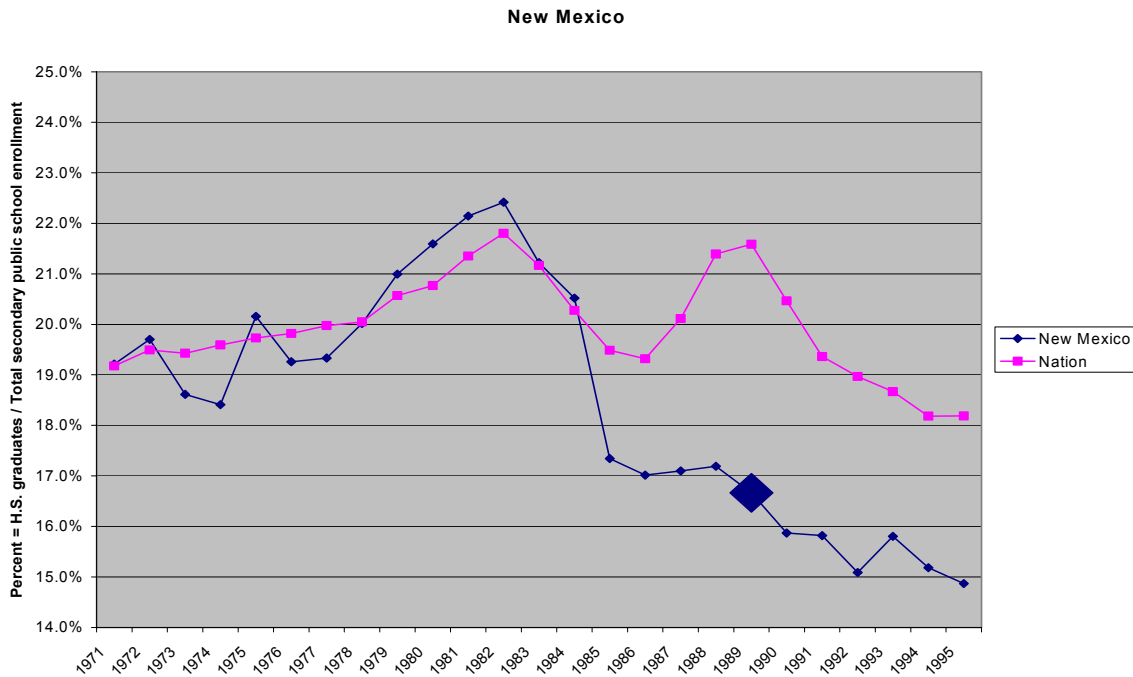
Dropout rate:



- From 1990-1998 5 percent more students dropped out in New Mexico than in the nation.

After New Mexico's high school graduation exam was implemented, New Mexico's dropout rate **increased** as compared to the nation.

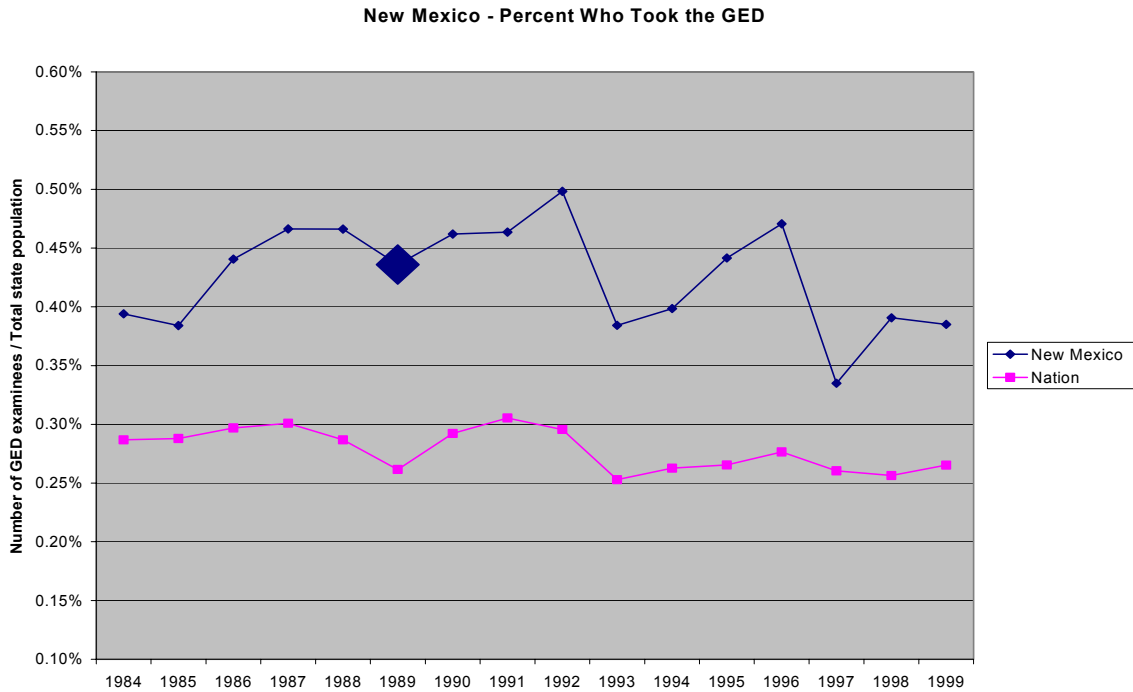
Graduation rate:



- From 1989-1990 .3 percent more students were graduated in New Mexico than in the nation.
- From 1989-1995 1.6 percent more students were graduated in New Mexico than in the nation.

After New Mexico's high school graduation exam was implemented, New Mexico's graduation rate **increased** as compared to the nation.

Rate by which people took the General Education Diploma (GED) Exam:



- From 1989-1990 .01 percent fewer students took the GED in New Mexico than in the nation.
- From 1989-1999 .06 percent fewer students took the GED in New Mexico than in the nation.

After New Mexico's high school graduation exam was implemented, the rate by which people took the GED exam **decreased** as compared to the nation.

Average age of General Education Diploma (GED) Examinees:



- From 1989-1990 the average age of GED examinees decreased .1 more years in New Mexico than in the nation.
- From 1989-1999 the average age of GED examinees decreased .1 more years in New Mexico than in the nation.

After New Mexico's high school graduation exam was implemented, the average age of people who took the GED exam **decreased** as compared to the nation.

OVERALL FINDINGS:

There is **unclear** evidence to suggest how after the implementation of the high school graduation exam in New Mexico, the rate by which students dropped out or were not graduated from high school changed as compared to the nation.

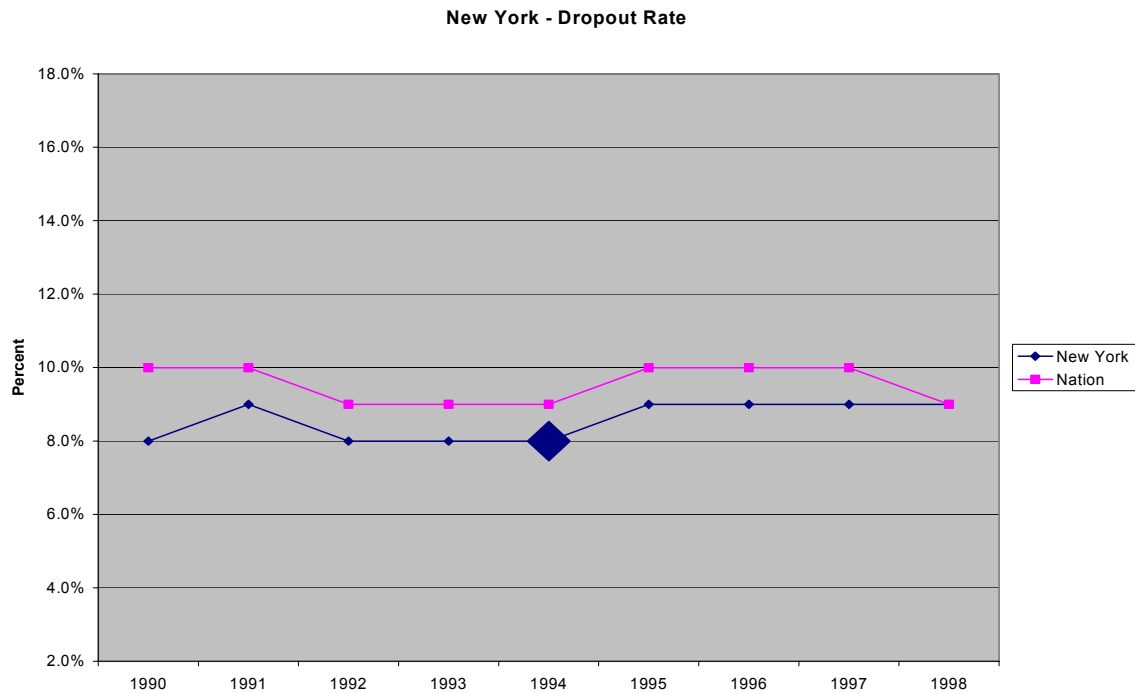
There is **unclear** evidence to suggest how after the implementation of the high school graduation exam in New Mexico, the rate by which students enrolled in the GED program changed as compared to the nation.

NEW YORK

HIGH SCHOOL GRADUATION EXAMS:

High school students in New York must pass New York's Regents Exams to receive a diploma. Since the 1960s student performance on New York's Regents Exams has determined the type of diploma students receive at graduation. Until 1985 passing the exams was not required of students seeking a local diploma, however. The class of 1985 was the first and the class of 1995 was the second class that had to pass New York's Regents Exams to graduate with a local diploma. New York is in the process of transitioning to end-of-course Regents Exams. The class of 2000 was required to pass the English Regents Exam, the class of 2001 was required to pass the Math Regents Exam, and other classes will be required to pass other subject area exams thereafter.

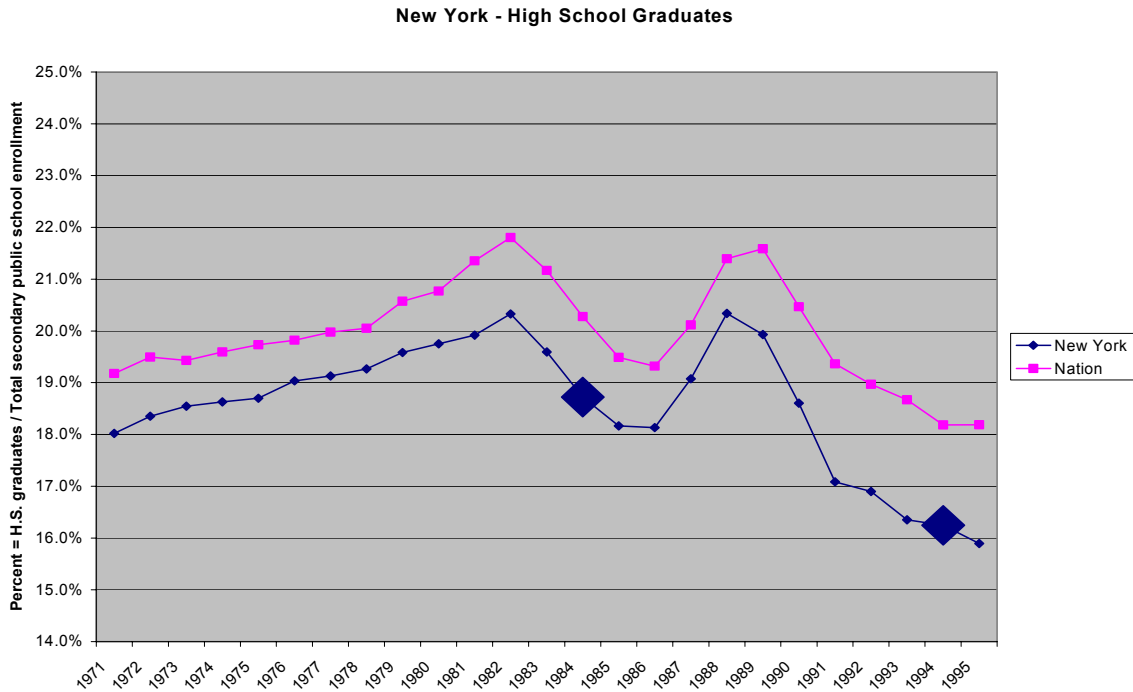
Dropout rate:



- From 1990-1994 1 percent more students dropped out in New York than in the nation.
- From 1994-1995 New York gained 1 percent, as did the nation.
- From 1994-1998 1 percent more students dropped out in New York than in the nation.

After New York's high school graduation exams were implemented, New York's dropout rate **increased** as compared to the nation.

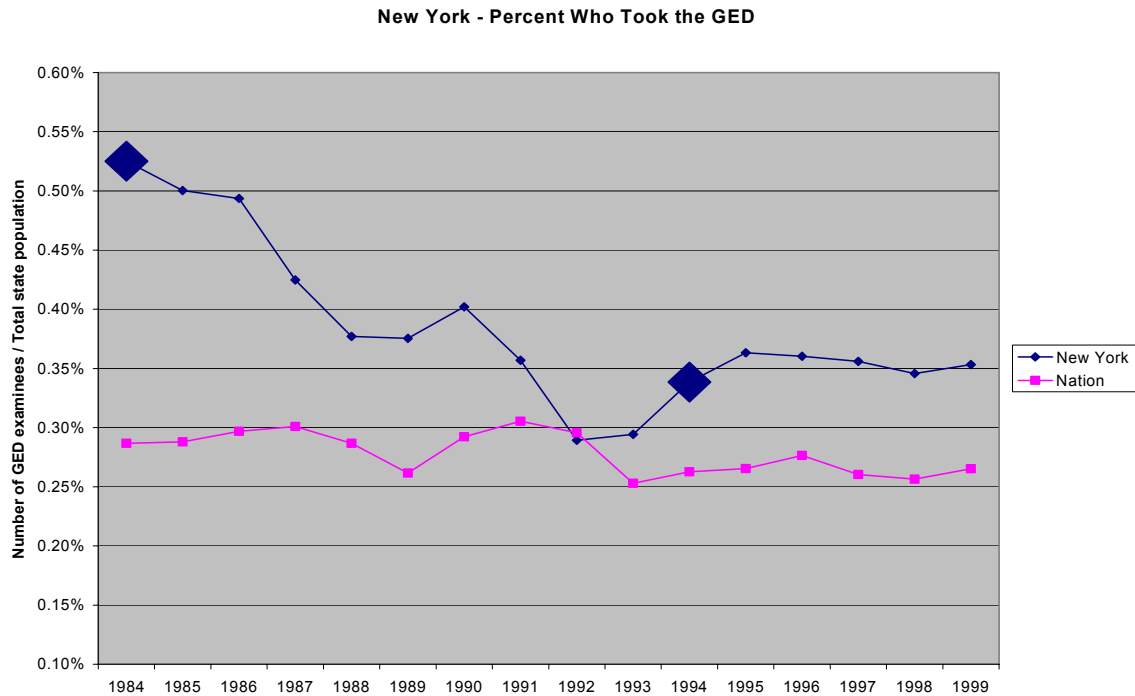
Graduation rate:



- From 1984-1985 .3 percent more students were graduated in New York than in the nation.
- From 1984-1994 .4 percent fewer students were graduated in New York than in the nation.
- From 1994-1995 .3 percent fewer students were graduated in New York than in the nation.

After New York's high school graduation exams were implemented, New York's graduation rate **decreased** as compared to the nation.

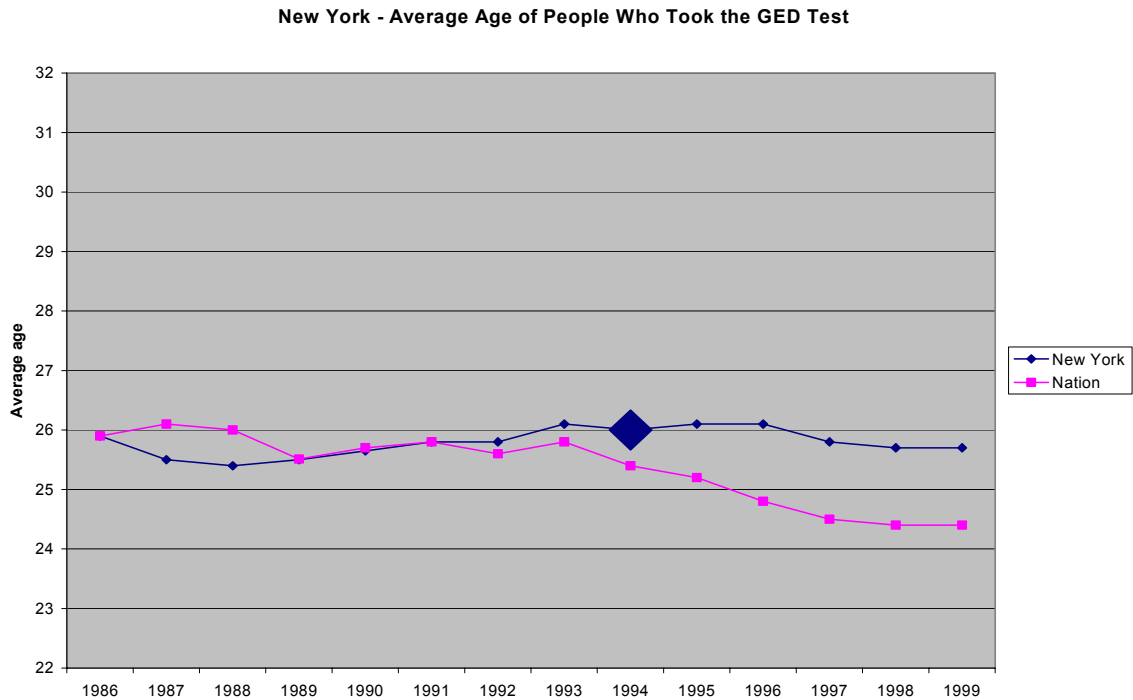
Rate by which people took the General Education Diploma (GED) Exam:



- From 1984-1985 .03 percent fewer students took the GED in New York than in the nation.
- From 1984-1994 .16 percent fewer students took the GED in New York than in the nation.
- From 1994-1995 .01 percent more students took the GED in New York than in the nation.
- From 1994-1999 .01 percent more students took the GED in New York than in the nation.

After New York's high school graduation exams were implemented, the rate by which people took the GED exam **decreased** as compared to the nation.

Average age of General Education Diploma (GED) Examinees:



- From 1986-1994 the average age of GED examinees increased .6 more years in New York than in the nation.
- From 1994-1995 the average age of GED examinees increased .3 more years in New York than in the nation.
- From 1994-1999 the average age of GED examinees increased .7 more years in New York than in the nation.

After New York's high school graduation exams were implemented, the average age of people who took the GED exam **increased** as compared to the nation.

OVERALL FINDINGS:

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** as compared to the nation.

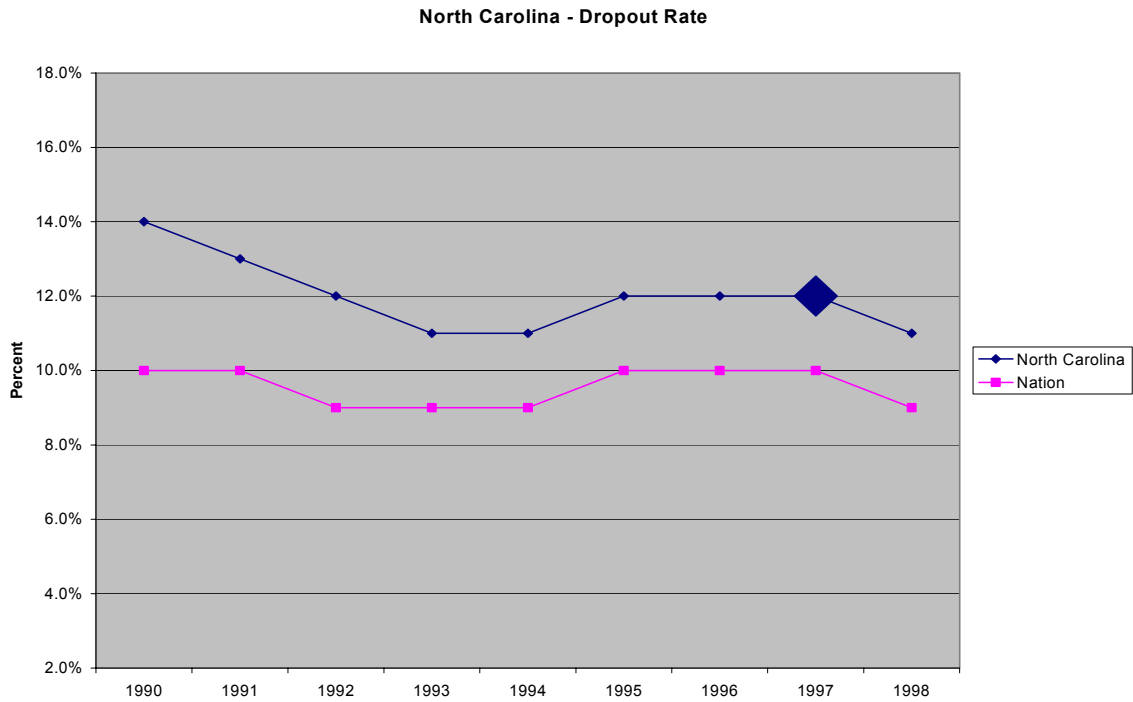
There is **strong** evidence to suggest that after the implementation of high school graduation exams in New York, the rate by which students enrolled in the GED program **decreased** as compared to the nation.

NORTH CAROLINA

HIGH SCHOOL GRADUATION EXAMS:

High school students in North Carolina must pass the North Carolina Competency Tests to receive a diploma. The class of 1980 was the first and the class of 1998 was the second graduating class required to pass the competency tests to receive a diploma. 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. A new graduation exam of essential skills called North Carolina's High School Exit Exam is being phased in. The class of 2005 will be required to pass it to receive a diploma.

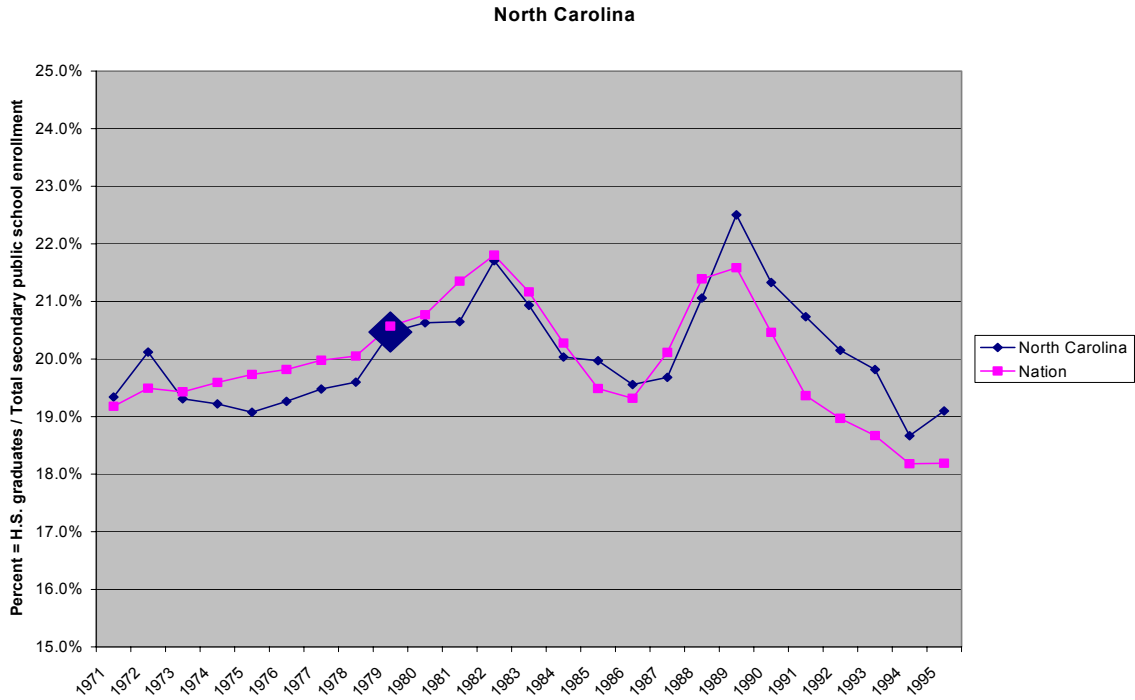
Dropout rate:



- From 1990-1997 2 percent fewer students dropped out in North Carolina than in the nation.
- From 1997-1998 North Carolina gained 1 percent, as did the nation.

After North Carolina's high school graduation exams were implemented, North Carolina's dropout rate **decreased** as compared to the nation.

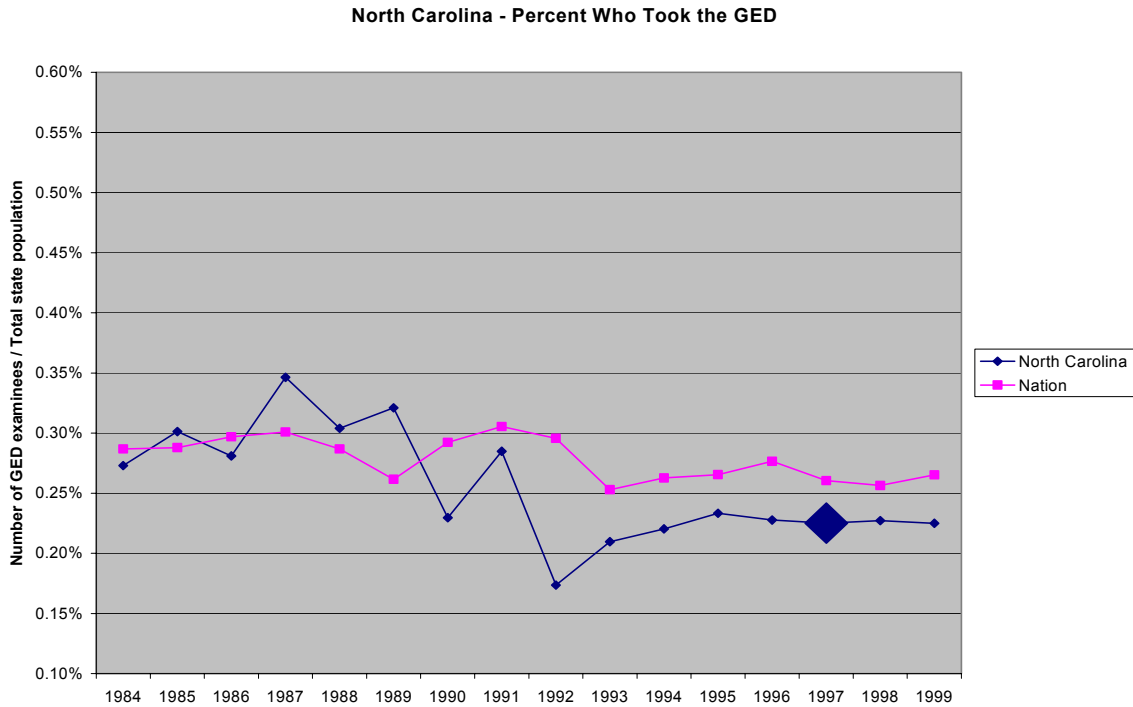
Graduation rate:



- From 1979-1980 .1 percent fewer students were graduated in North Carolina than in the nation.
- From 1979-1995 .1 percent more students were graduated in North Carolina than in the nation.

After North Carolina’s high school graduation exams were implemented, how North Carolina’s graduation rate changed as compared to the nation is **unclear**.

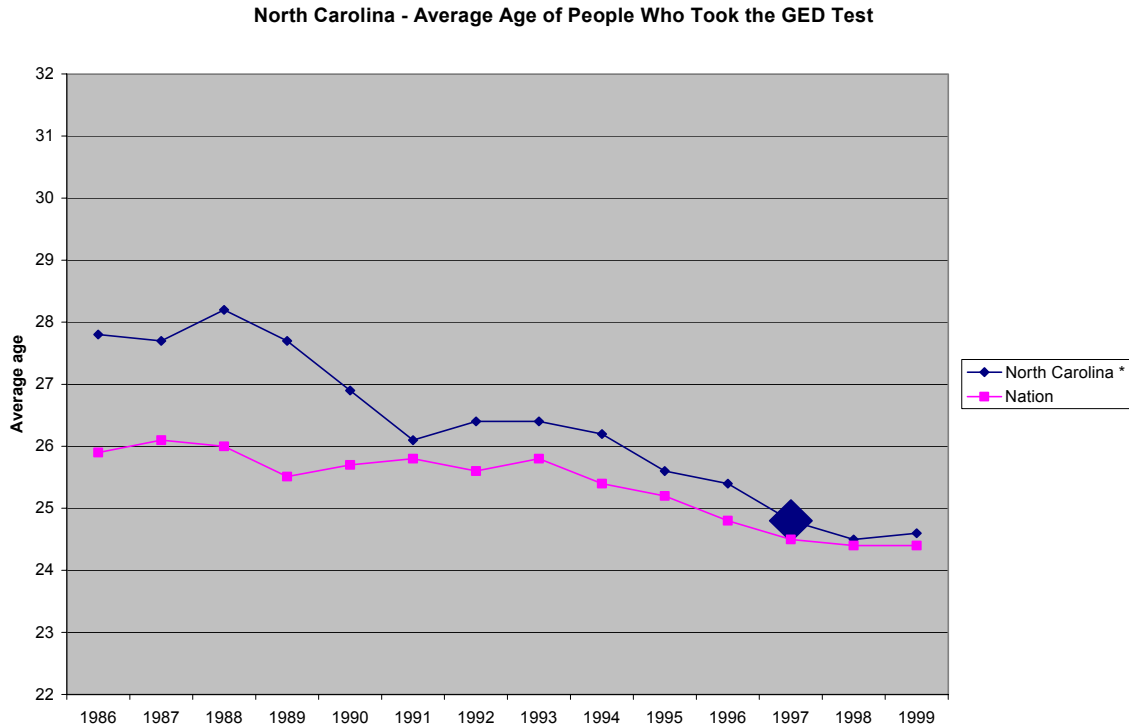
Rate by which people took the General Education Diploma (GED) Exam:



- From 1984-1997 .01 percent fewer students took the GED in North Carolina than in the nation.
- From 1997-1998 North Carolina maintained its percentage, as did the nation.
- From 1997-1999 .02 percent fewer students took the GED in North Carolina than in the nation.

After North Carolina's high school graduation exams were implemented, the rate by which people took the GED exam **decreased** as compared to the nation.

Average age of General Education Diploma (GED) Examinees:



- From 1986-1997 the average age of GED examinees decreased 1.6 more years in North Carolina than in the nation.
- From 1997-1998 the average age of GED examinees decreased .2 more years in North Carolina than in the nation.
- From 1997-1999 the average age of GED examinees decreased .1 more years in North Carolina than in the nation.

After North Carolina's high school graduation exams were implemented, the average age of people who took the GED exam **decreased** as compared to the nation.

OVERALL FINDINGS:

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** as compared to the nation.

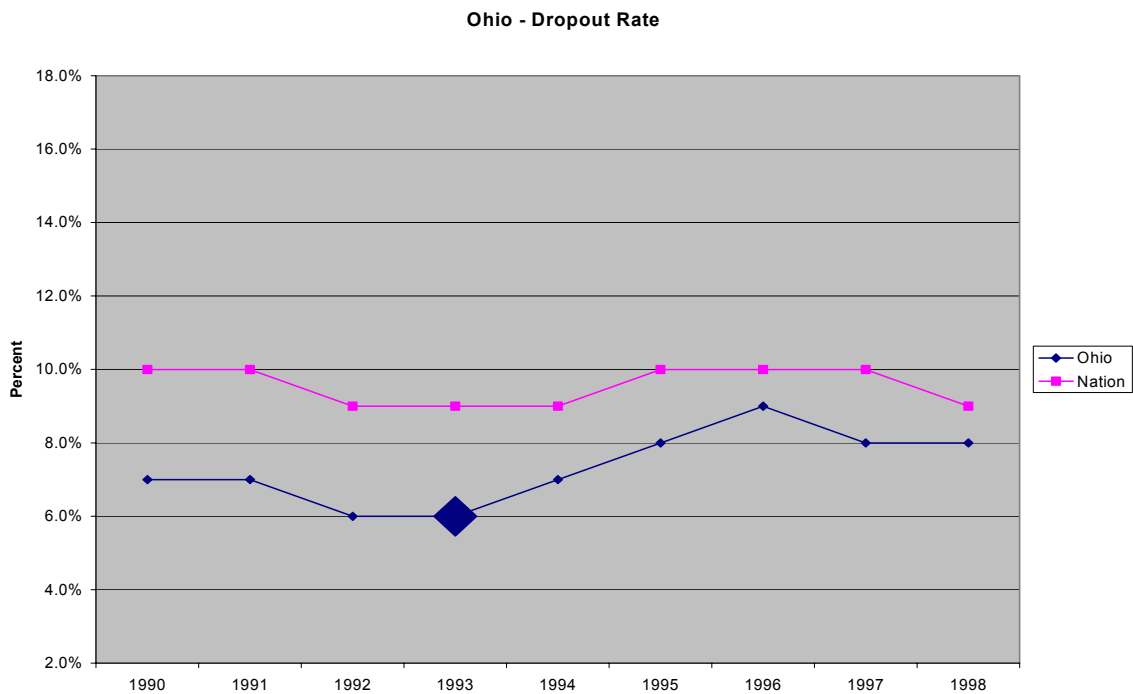
There is **unclear** evidence to suggest how after the implementation of high school graduation exams in North Carolina, the rate by which students enrolled in the GED program changed as compared to the nation.

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.

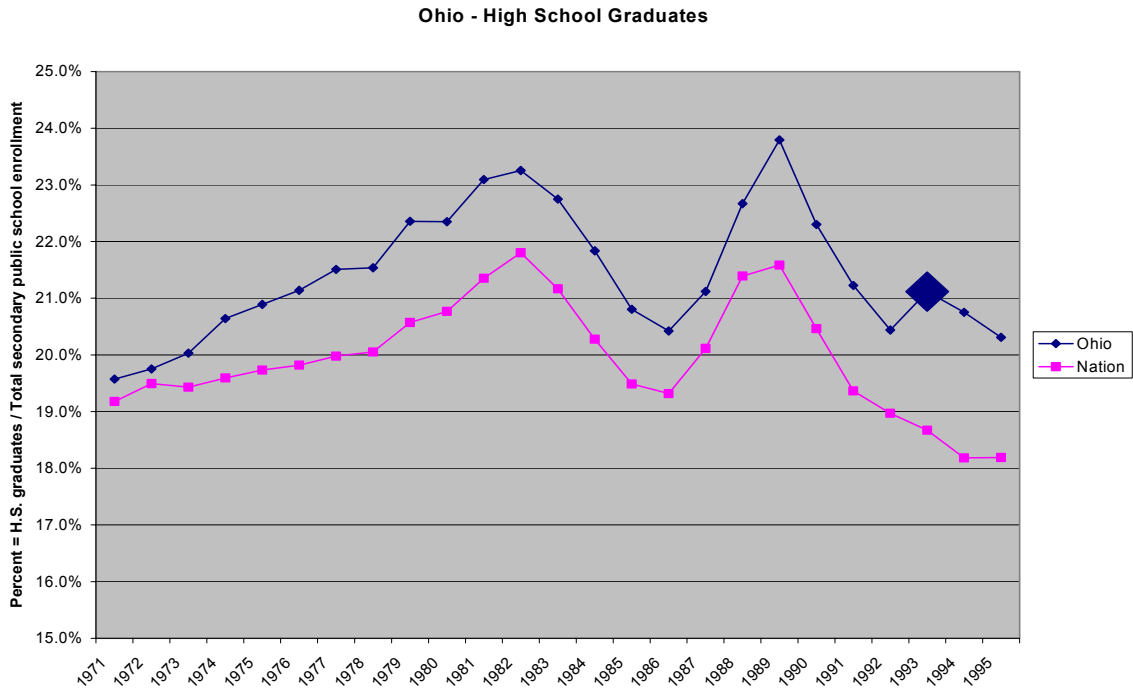
Dropout rate:



- From 1993-1994 2 percent more students dropped out in Ohio than in the nation.
- From 1993-1998 2 percent more students dropped out in Ohio than in the nation.

After Ohio's high school graduation exam was implemented, Ohio's dropout rate **increased** as compared to the nation.

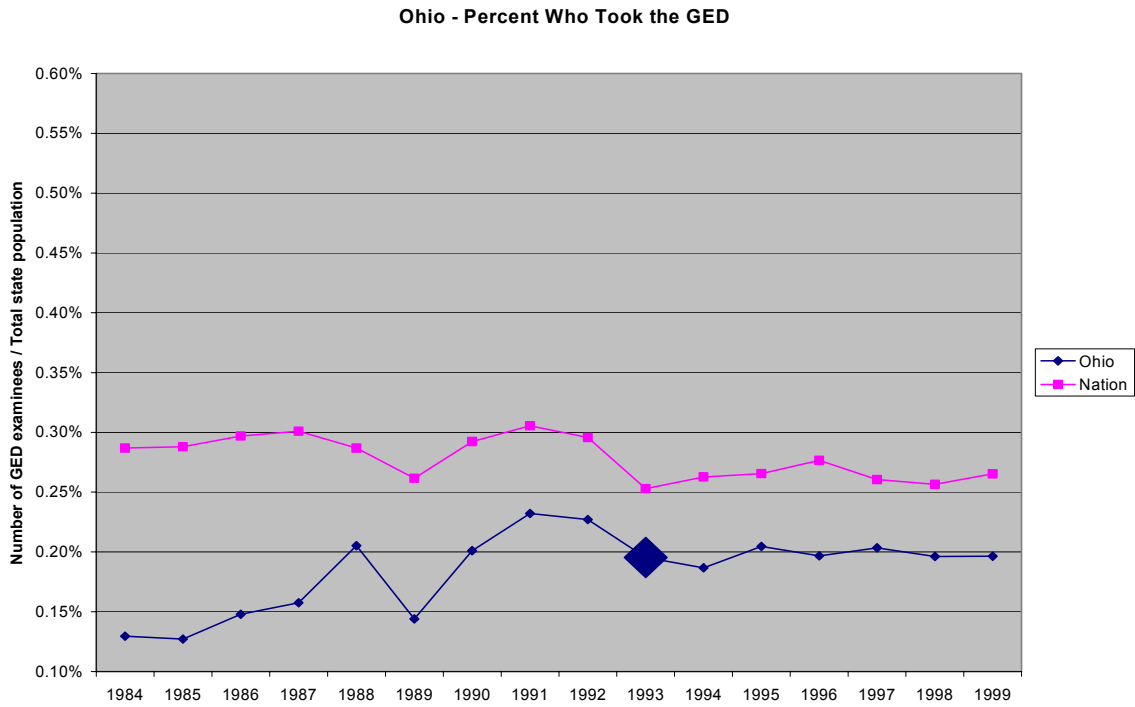
Graduation rate:



- From 1993-1994 .2 percent more students were graduated in Ohio than in the nation.
- From 1993-1995 .3 percent fewer students were graduated in Ohio than in the nation.

After Ohio's high school graduation exam was implemented, Ohio's graduation rate **decreased** as compared to the nation.

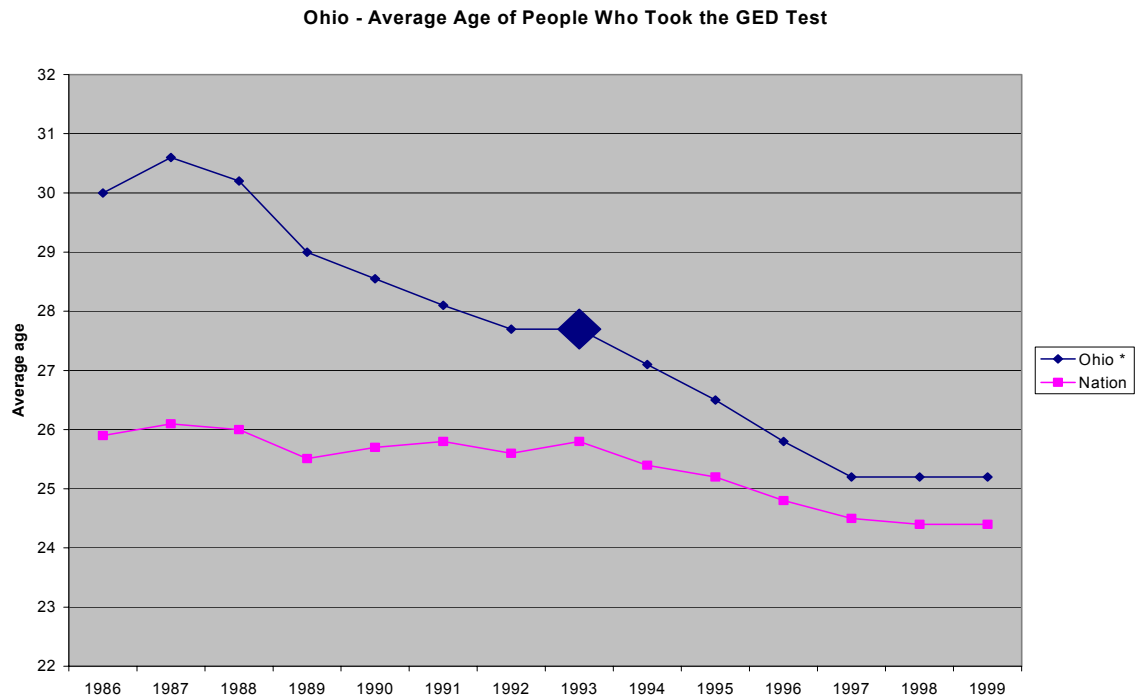
Rate by which people took the General Education Diploma (GED) Exam:



- From 1993-1994 .02 Percent fewer students took the GED in Ohio than in the nation.
- From 1993-1999 .02 percent fewer students took the GED in Ohio than in the nation.

After Ohio's high school graduation exam was implemented, the rate by which people took the GED exam **decreased** as compared to the nation.

Average age of General Education Diploma (GED) Examinees:



- From 1993-1994 the average age of GED examinees decreased .2 more years in Ohio than in the nation.
- From 1993-1999 the average age of GED examinees decreased 1.1 more years in Ohio than in the nation.

After Ohio's high school graduation exam was implemented, the average age of people who took the GED exam **decreased** as compared to the nation.

OVERALL FINDINGS:

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** as compared to the nation.

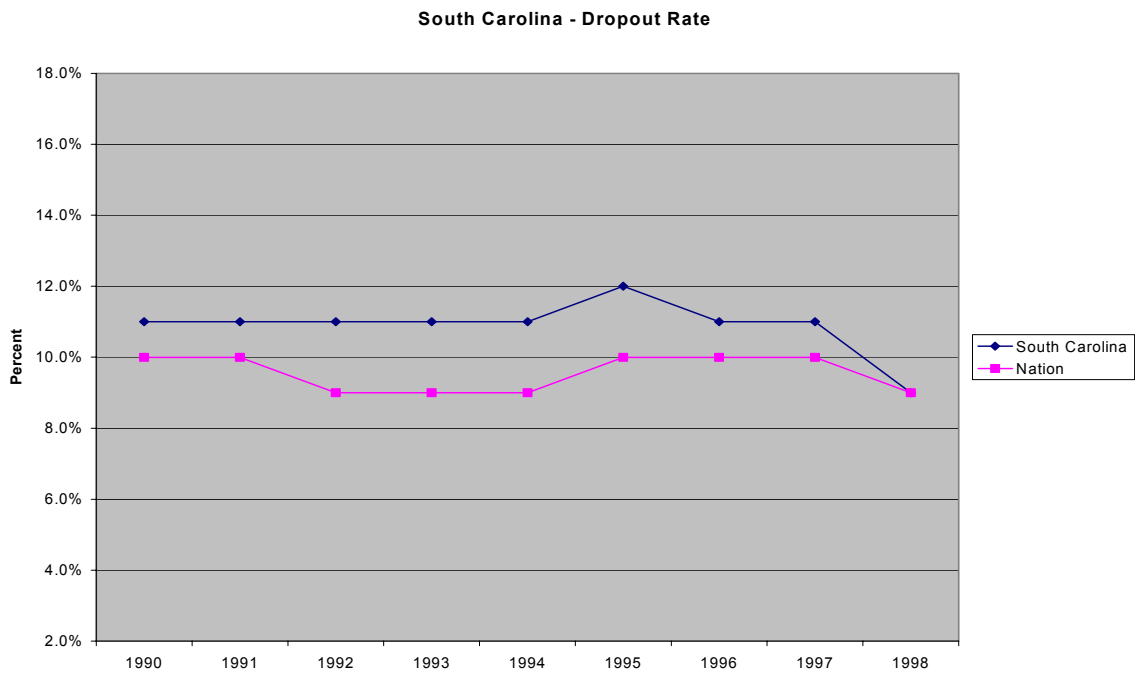
There is **unclear** evidence to suggest how, after the implementation of the high school graduation exam in Ohio, the rate by which students enrolled in the GED program changed as compared to the nation.

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. The class of 2005 will be required to pass a new test to receive a diploma.

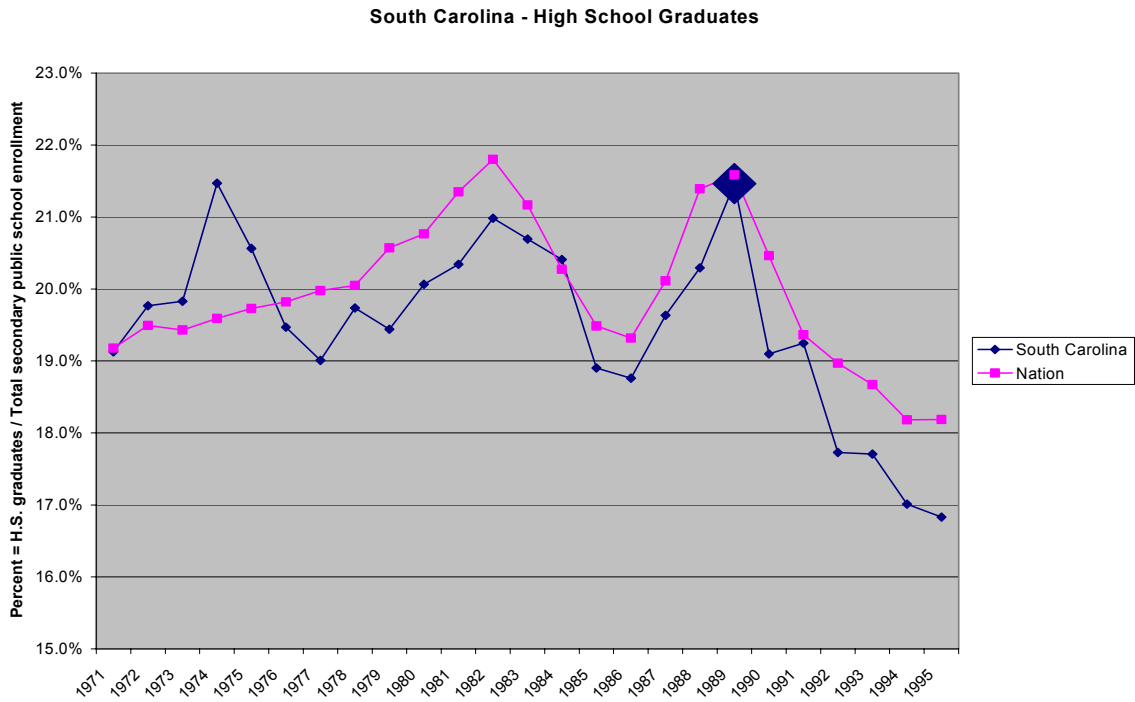
Dropout rate:



- From 1990-1998 1 percent fewer students dropped out in South Carolina than in the nation.

After South Carolina's high school graduation exam was implemented, South Carolina's dropout rate **decreased** as compared to the nation.

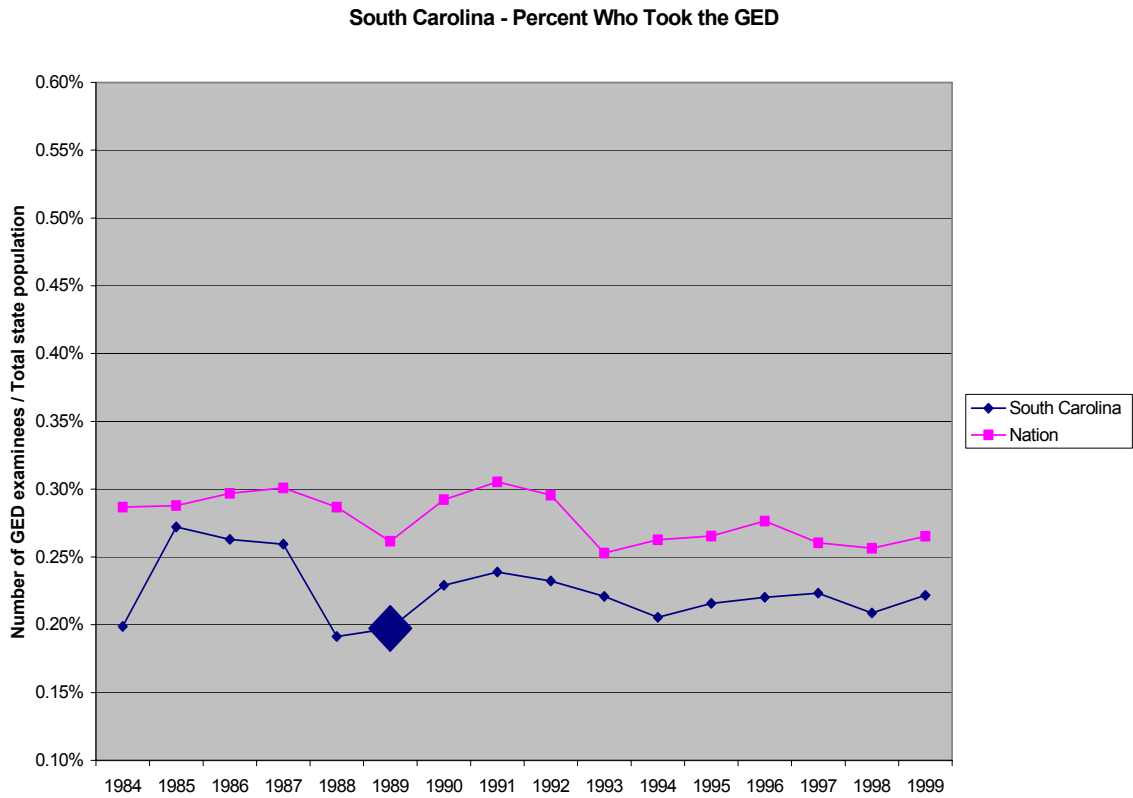
Graduation rate:



- From 1989-1990 1.3 percent fewer students were graduated in South Carolina than in the nation.
- From 1989-1995 1.3 percent fewer students were graduated in South Carolina than in the nation.

After South Carolina's high school graduation exam was implemented, South Carolina's graduation rate **decreased** as compared to the nation.

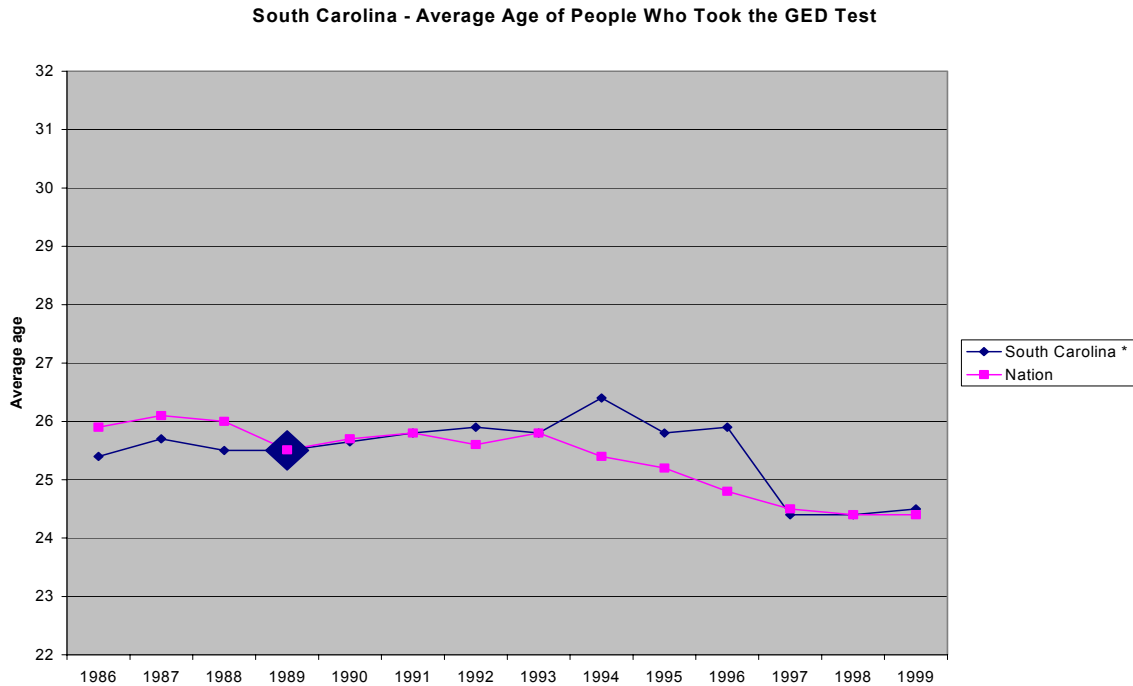
Rate by which people took the General Education Diploma (GED) Exam:



- From 1989-1990 South Carolina gained .03 percent, as did the nation.
- From 1989-1999 .01 percent more students took the GED in South Carolina than in the nation.

After South Carolina's high school graduation exam was implemented, the rate by which people took the GED exam **increased** as compared to the nation.

Average age of General Education Diploma (GED) Examinees:



- From 1989-1990 South Carolina gained .2 years, as did the nation.
- From 1989-1999 the average age of GED examinees increased .1 more years in South Carolina than in the nation.

After South Carolina's high school graduation exam was implemented, the average age of people who took the GED exam **increased** as compared to the nation.

OVERALL FINDINGS:

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 as compared to the nation.

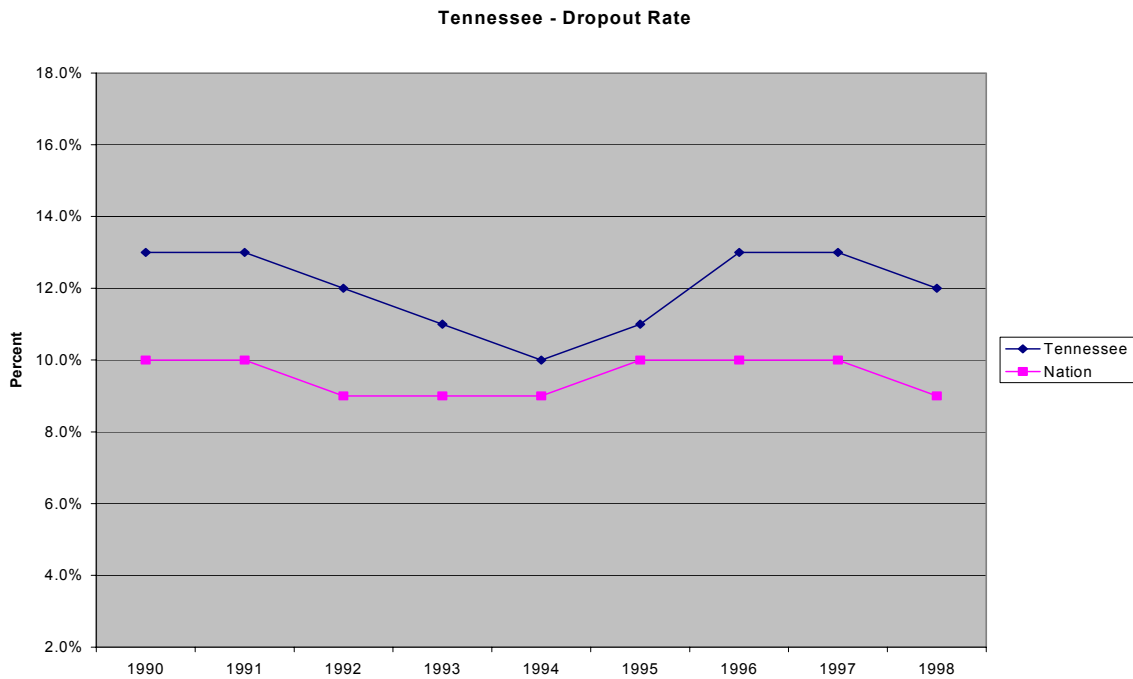
There is **unclear** evidence to suggest how, after the implementation of the high school graduation exam in South Carolina, the rate by which students enrolled in the GED program changed as compared to the nation.

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 the TCAP/CT to receive a diploma. End-of-course exams are being developed to replace the TCAP/CT.

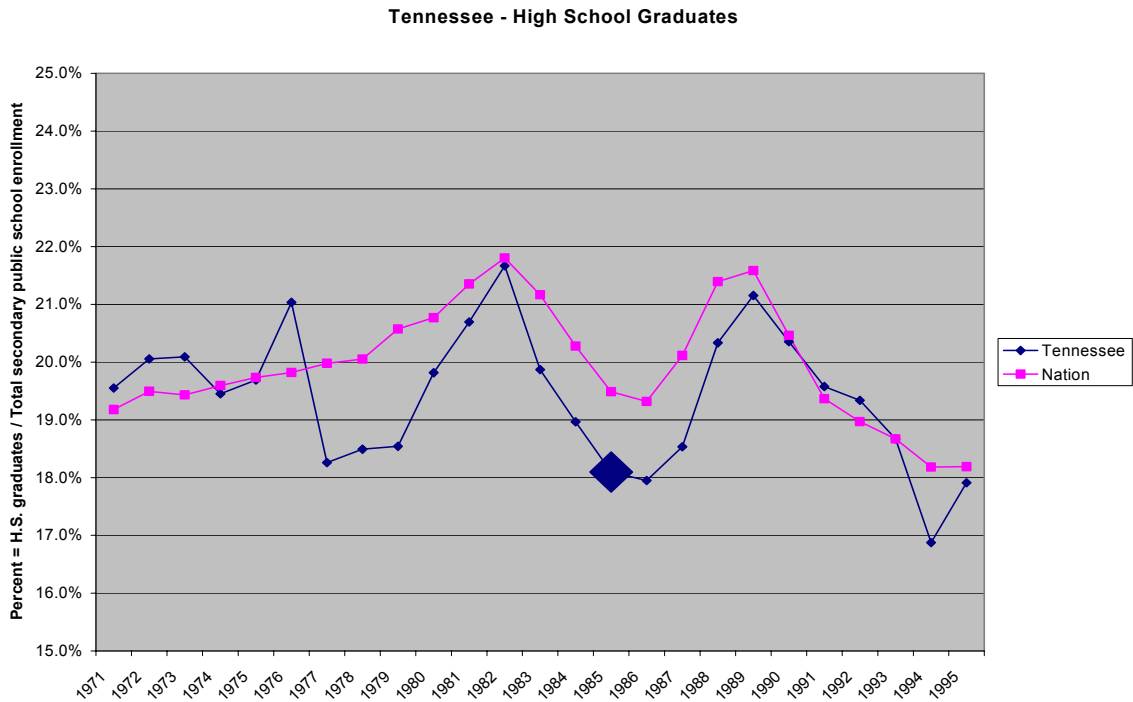
Dropout rate:



- From 1990-1998 Tennessee lost 1%, as did the nation.

After Tennessee's high school graduation exams were implemented, how Tennessee's dropout rate changed as compared to the nation is **unclear**.

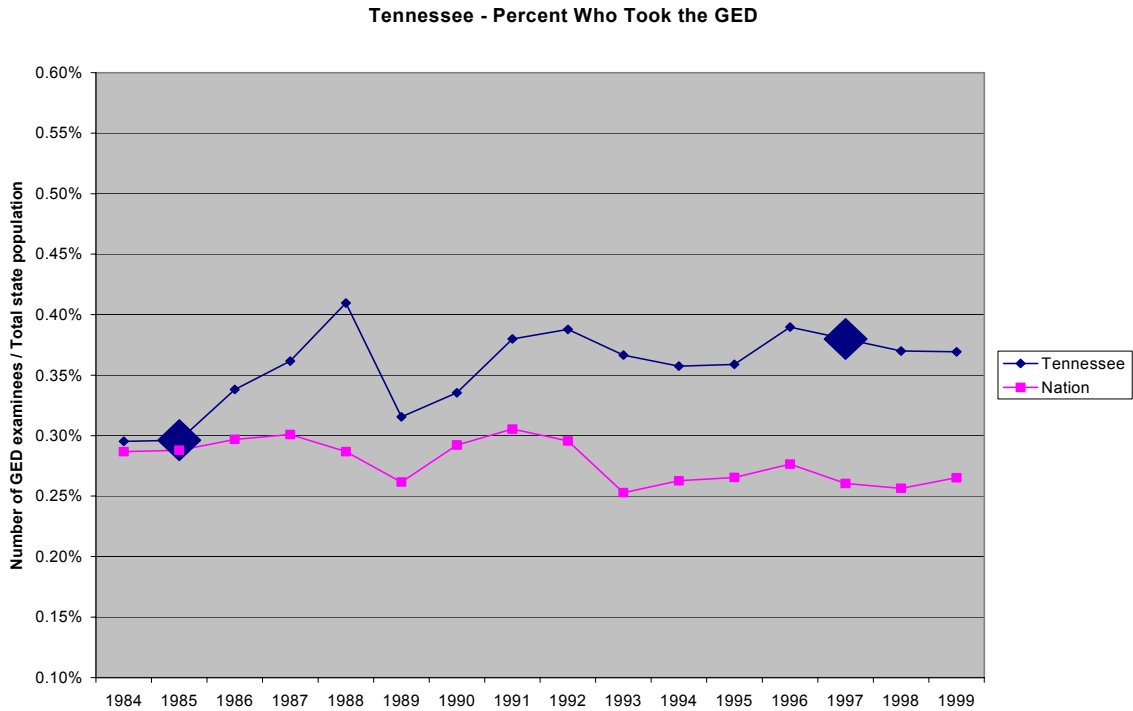
Graduation rate:



- From 1985-1986 Tennessee lost .2 percent, as did the nation.
- From 1985-1995 1.1 percent more students were graduated in Tennessee than in the nation.

After Tennessee's high school graduation exams were implemented, Tennessee's graduation rate **increased** as compared to the nation.

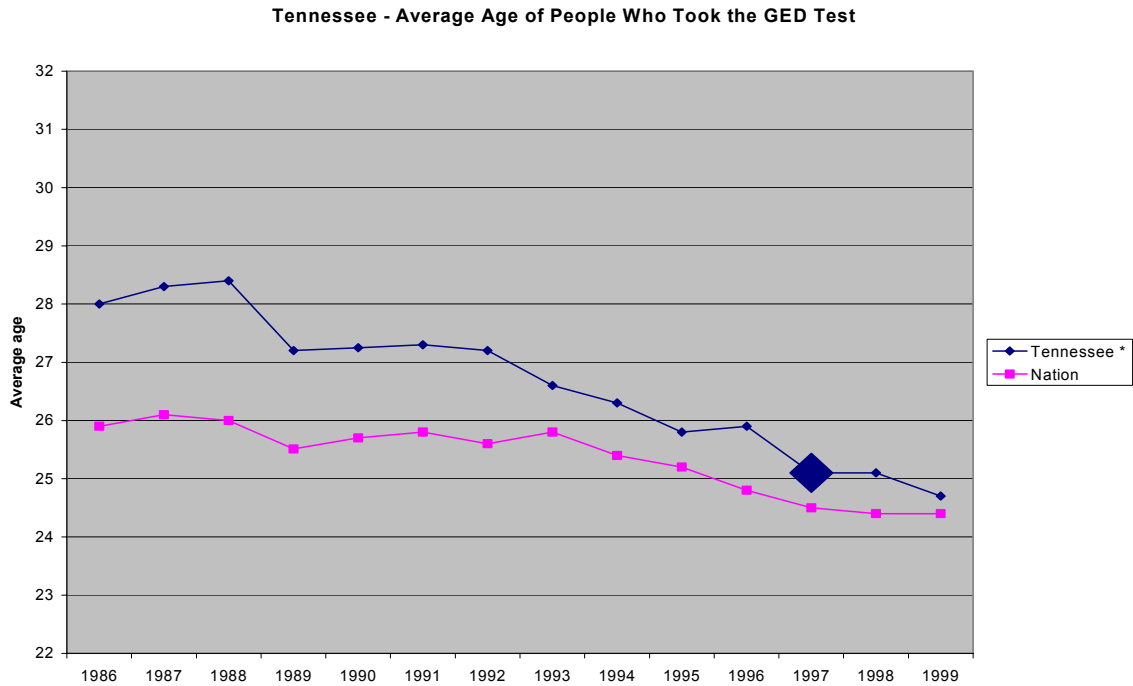
Rate by which people took the General Education Diploma (GED) Exam:



- From 1985-1986 .03 percent more students took the GED in Tennessee than in the nation.
- From 1985-1997 .11 percent more students took the GED in Tennessee than in the nation.
- From 1997-1998 .01 percent fewer students took the GED in Tennessee than in the nation.
- From 1997-1999 .02 percent fewer students took the GED in Tennessee than in the nation.

After Tennessee's high school graduation exams were implemented, the rate by which people took the GED exam **increased** as compared to the nation.

Average age of General Education Diploma (GED) Examinees:



- From 1986-1997 the average age of GED examinees decreased 1.5 more years in Tennessee than in the nation.
- From 1997-1998 the average age of GED examinees increased .1 more years in Tennessee than in the nation.
- From 1997-1999 the average age of GED examinees decreased .3 more years in Tennessee than in the nation.

After Tennessee's high school graduation exams were implemented, the average age of people who took the GED exam **decreased** as compared to the nation.

OVERALL FINDINGS:

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** as compared to the nation.

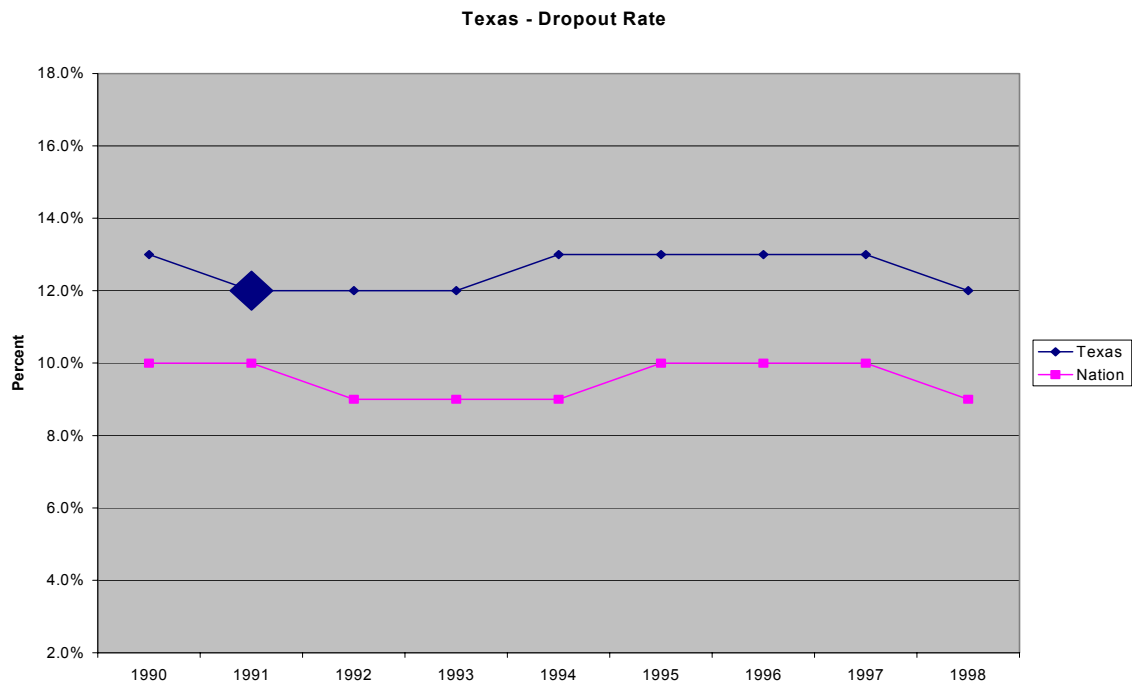
There is **strong** evidence to suggest that after the implementation of high school graduation exams in Tennessee, the rate by which students enrolled in the GED program **increased** as compared to the nation.

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 1983 was the first graduating class required to take a high school graduation exam but did not have to pass it to receive a high school diploma. The class of 1987 was the first graduating class and the class of 1992 was the second graduating class required to pass a high school graduation exam to graduate. The class of 2005 will be required to pass the TAAS II to graduate.

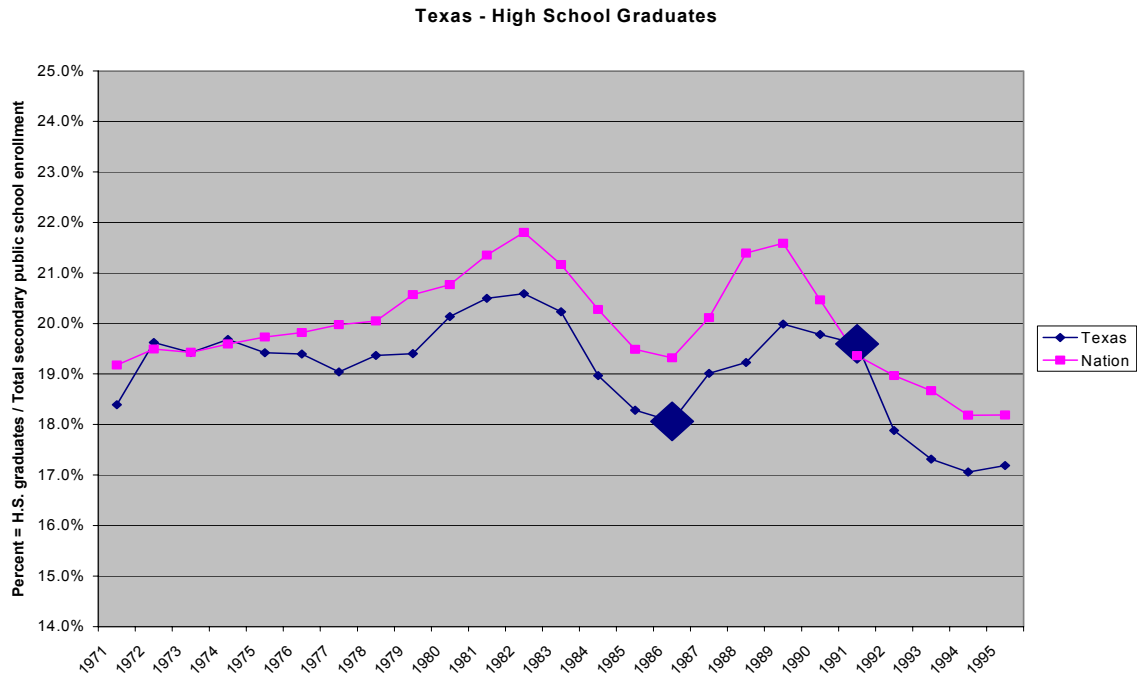
Dropout rate:



- From 1990-1991 1 percent fewer students dropped out in Texas than in the nation.
- From 1991-1992 1 percent more students dropped out in Texas than in the nation.
- From 1991-1998 1 percent more students dropped out in Texas than in the nation.

After Texas's high school graduation exams were implemented, Texas's dropout rate **increased** as compared to the nation.

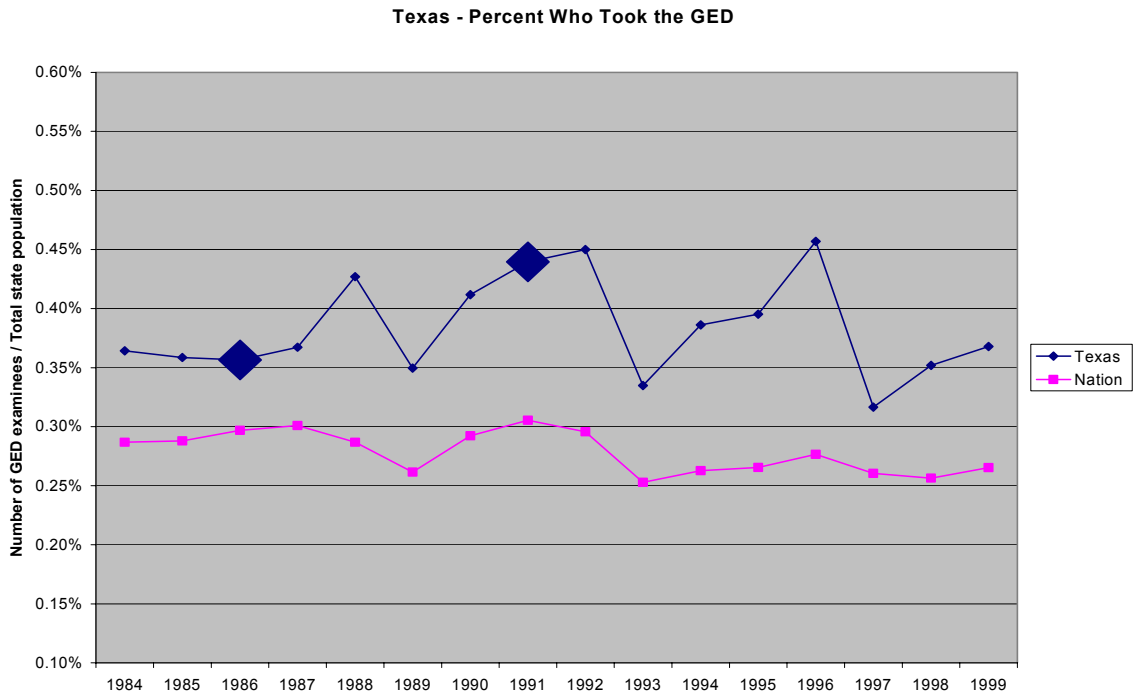
Graduation rate:



- From 1986-1987 .1 percent more students were graduated in Texas than in the nation.
- From 1986-1991 1.4 percent more students were graduated in Texas than in the nation.
- From 1991-1992 1.1 percent fewer students were graduated in Texas than in the nation.
- From 1991-1995 1.2 percent fewer students were graduated in Texas than in the nation.

After Texas's high school graduation exams were implemented, Texas's graduation rate **decreased** as compared to the nation.

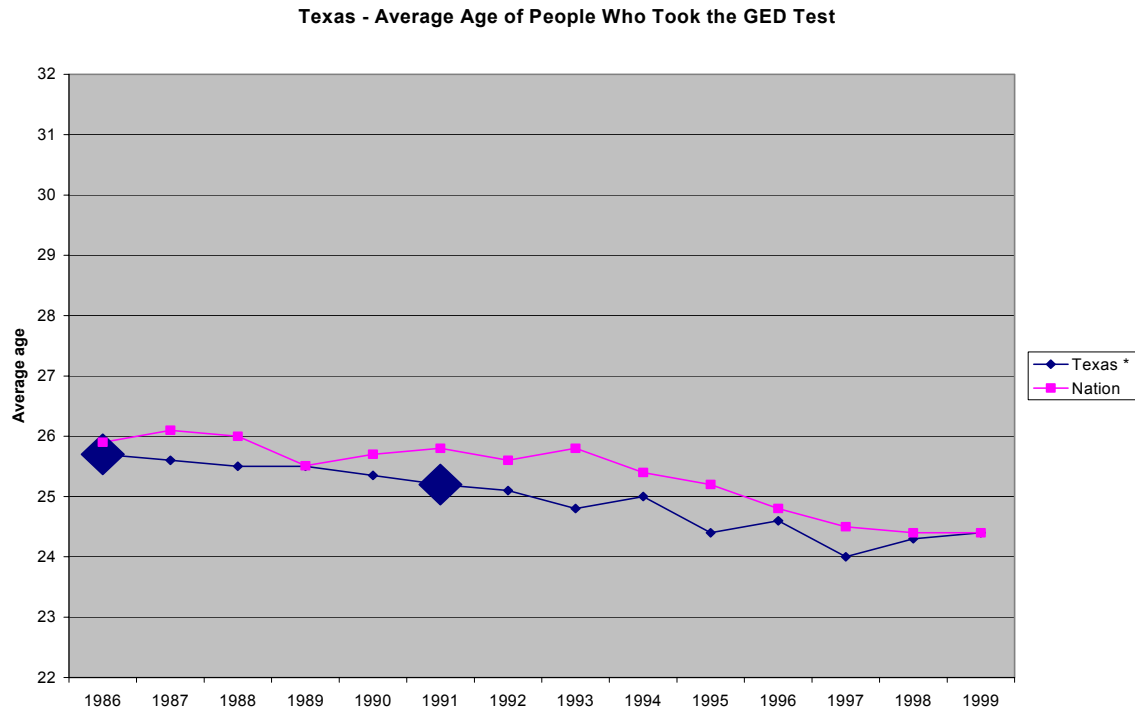
Rate by which people took the General Education Diploma (GED) Exam:



- From 1986-1987 .01 percent more students took the GED in Texas than in the nation.
- From 1986-1991 .07 percent more students took the GED in Texas than in the nation.
- From 1991-1992 .02 percent more students took the GED in Texas than in the nation.
- From 1991-1999 .03 percent fewer students took the GED in Texas than in the nation.

After Texas's high school graduation exams were implemented, the rate by which people took the GED exam **increased** as compared to the nation.

Average age of General Education Diploma (GED) Examinees:



- From 1986-1987 the average age of GED examinees decreased .5 more years in Texas than in the nation.
- From 1986-1991 the average age of GED examinees decreased .4 more years in Texas than in the nation.
- From 1991-1992 the average age of GED examinees increased .1 more years in Texas than in the nation.
- From 1991-1999 the average age of GED examinees increased .6 more years in Texas than in the nation.

After Texas's high school graduation exams were implemented, the average age of people who took the GED exam **decreased** as compared to the nation.

OVERALL FINDINGS:

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** as compared to the nation.

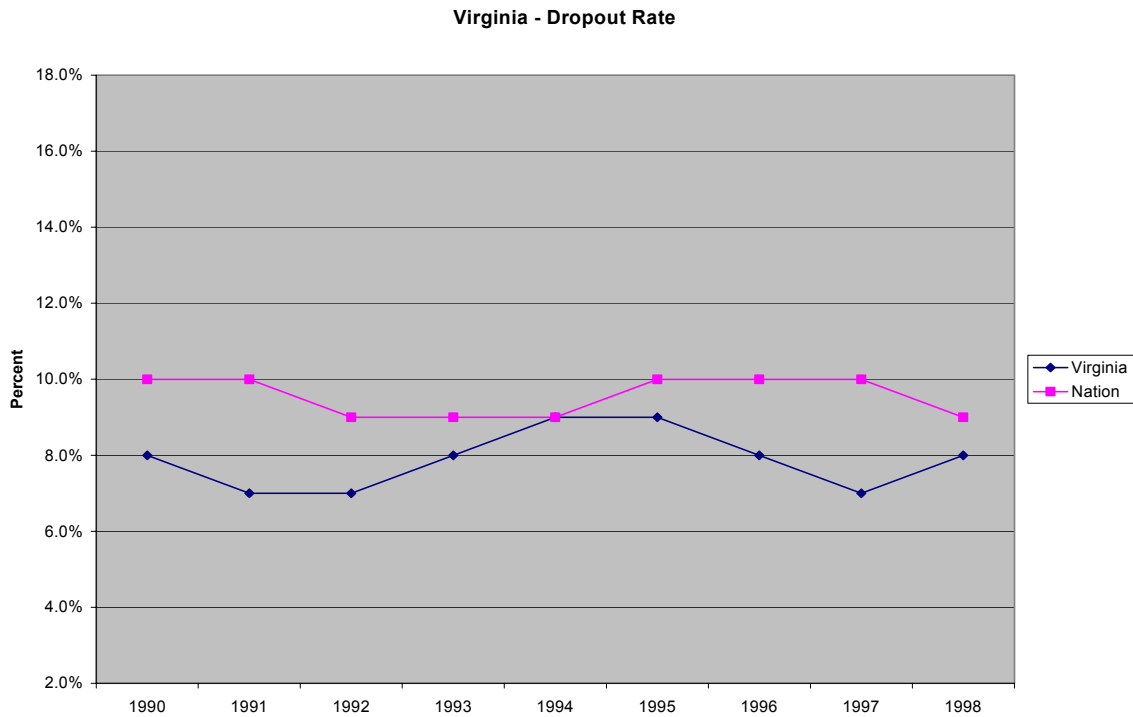
There is **strong** evidence to suggest that after the implementation of high school graduation exams in Texas, the rate by which students enrolled in the GED program **increased** as compared to the nation.

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. The LPT was last used for those students who were in the 6th grade in 1998 (the class of 2004). The LPT is being phased out and replaced by Virginia's Standards of Learning (SOL) tests. Since the spring of 1998, students in Virginia began taking Virginia's SOLs. The class of 2004 will be required to pass 6 of the 12 end of course exams in order to receive a diploma.

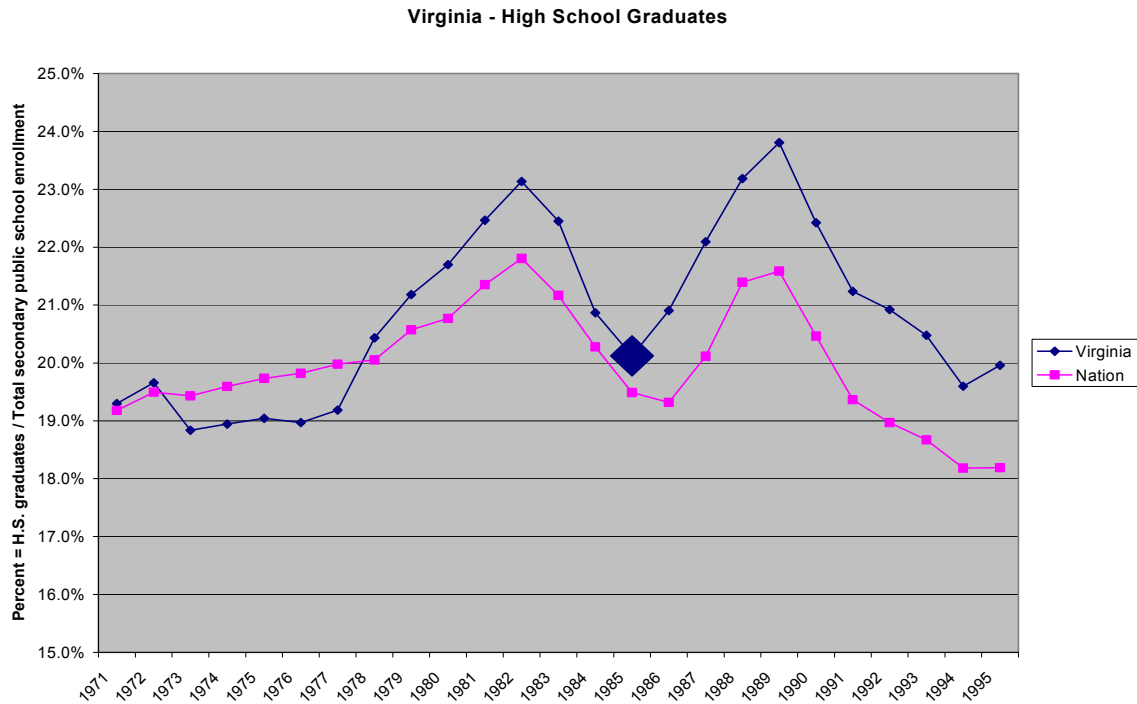
Dropout rate:



- From 1990-1998 1 percent fewer students dropped out in Virginia than in the nation.

After Virginia's high school graduation exam was implemented, Virginia's dropout rate **increased** as compared to the nation.

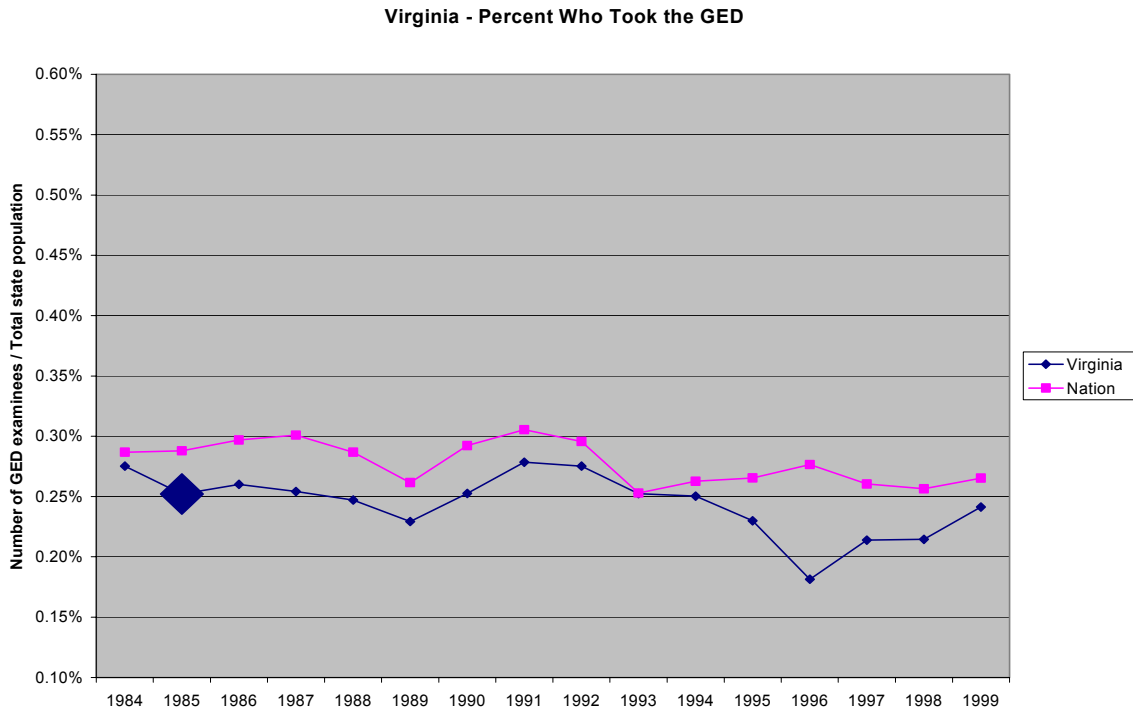
Graduation rate:



- From 1985-1986 1 percent more students were graduated in Virginia than in the nation.
- From 1985-1995 1.4 percent more students were graduated in Virginia than in the nation

After Virginia's high school graduation exam was implemented, Virginia's graduation rate **increased** as compared to the nation.

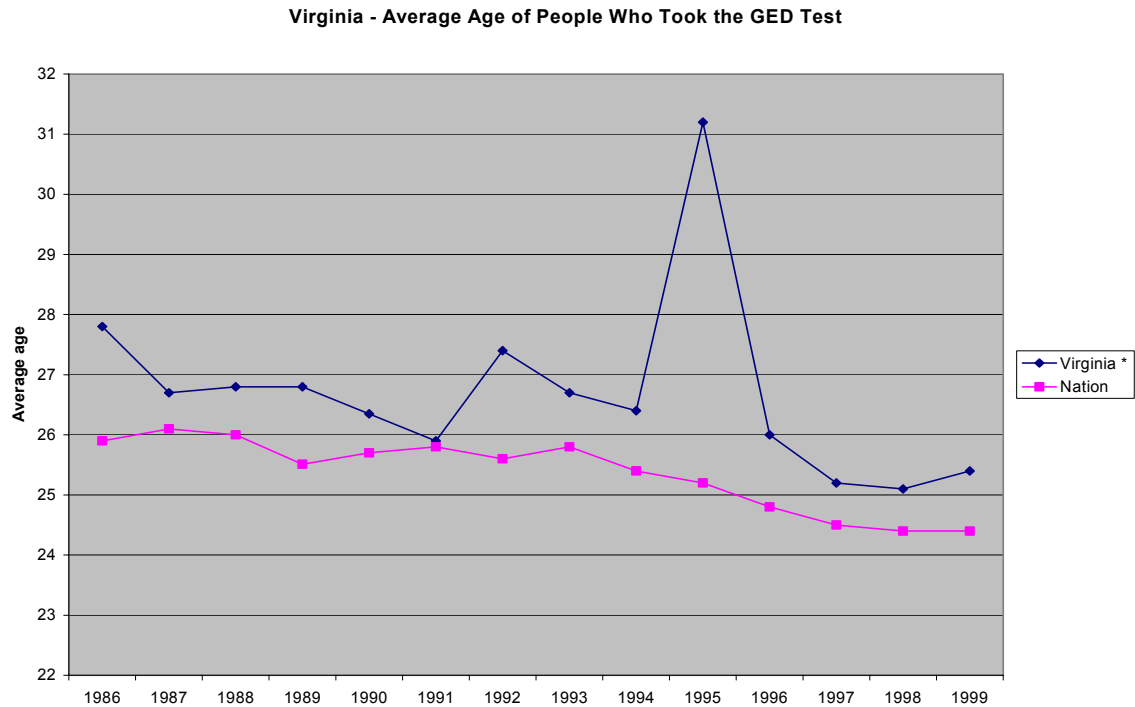
Rate by which people took the General Education Diploma (GED) Exam:



- From 1985-1986 Virginia gained .01 percent, as did the nation.
- From 1985-1999 .01 percent more students took the GED in Virginia than in the nation.

After Virginia's high school graduation exam was implemented, the rate by which people took the GED exam **increased** as compared to the nation.

Average age of General Education Diploma (GED) Examinees:



- From 1986-1999 the average age of GED examinees decreased .9 more years in Virginia than in the nation.

After Virginia's high school graduation exam was implemented, the average age of people who took the GED exam **decreased** as compared to the nation.

OVERALL FINDINGS:

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 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** as compared to the nation.

Notes and References

¹ See for example Judd, C. M., Smith, E. R., & Kidder, L. H. (1991). *Research methods in social relations* (6th ed.). Fort Worth, TX: Harcourt Brace Jovanovich College Publishers and Smith, M. L., & Glass, G.V (1987). *Research and evaluation in education and the social sciences*. Needham Heights, MA: Allyn and Bacon.

² See for example Fraenkel, J. R., & Wallen, N. E. (2000). *How to design and evaluate research in education* (4th ed.). Boston, MA: McGraw Hill, Inc.; Glass, G.V (1988). Quasi-experiments: The case of interrupted time series. In R. M. Jaeger (Ed.), *Complementary methods for research in education*. Washington, D.C.: American Educational Research Association; Smith, M. L., & Glass, G.V (1987). *Research and evaluation in education and the social sciences*. Needham Heights, MA: Allyn and Bacon.

³ Ibid.

⁴ Glass, G.V (1988). Quasi-experiments: The case of interrupted time series. In R. M. Jaeger (Ed.), *Complementary methods for research in education*. Washington, D.C.: American Educational Research Association.

⁵ Campbell, D. T., & Stanley, J. C. (1963). Experimental and quasi-experimental designs for research on teaching. In N. L. Gage (Ed.), *Handbook of research on teaching*. Chicago, IL: Rand McNally and Company.

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