Tennessee's Graduation Exams:
Past, Present, and Future

John G. Morgan
Comptroller of the Treasury
Office of Education Accountability
November 2004

STATE OF TENNESSEE

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November 15, 2004

The Honorable John S. Wilder
Speaker of the Senate
The Honorable Jimmy Naifeh
Speaker of the House of Representatives
and
Members of the General Assembly
State Capitol
Nashville, Tennessee 37243

Ladies and Gentlemen:

Transmitted herewith is a report by the Office of Education Accountability about high-stakes testing in Tennessee. In question and answer format, the report considers the state's history with exit exams, various education stakeholders' thoughts about the exams, student achievement on the tests, how some other states handle similar tests, legal concerns, and test alternatives. The report also provides alternatives for legislative and administrative consideration.

Sincerely,

John G. Morgan
Comptroller of the Treasury

Tennessee's Graduation Exams: Past, Present, and Future

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The Office of Education Accountability was created in the Office of the Comptroller of the Treasury by *Tennessee Code Annotated* 4-3-308 to monitor the performance of school boards, superintendents, school districts, schools, and school personnel in accordance with the performance standards set out in the Education Improvement Act or by regulations of the State Board of Education. The office is to conduct such studies, analyses, or audits as it may determine necessary to evaluate education performance and progress, or as may be assigned to it by the Governor or General Assembly.

Comptroller of the Treasury, Office of Education Accountability. Authorization Number 307323, 600 copies, November 2004. This public document was promulgated at a cost of $2.40 per copy.

Executive Summary

Beginning in 2005, all Tennessee high school students must pass the Gateway exams to graduate from high school with a regular diploma. Tennessee's Gateway exams are end-of-course exams, meaning students take them as part of the completion of three specific high school courses – Algebra I, English II, and Biology I.

For over 20 years, Tennessee has required high school students to pass an exam before graduating with a regular diploma. However, the standards level, format, and context of Tennessee's graduation exams have changed from the state's first exam in the early 1980s.

Graduation exams are controversial. Policymakers, educators, researchers, and the public share a common goal – increased student achievement and performance – but differ on whether graduation exams facilitate or hinder its realization. Proponents are sure the exams raise student achievement by setting clear goals and incentives for students and schools. Opponents are certain the exams narrow classroom instruction and raise dropout rates, particularly among poor and minority students.

Graduation exams are growing in popularity. As of July 2004, 20 states had mandatory graduation exams, with another five scheduled to phase in their respective versions by 2009.[1] State graduation exams are diverse, assessing a range of standards at different grade levels, although states are increasingly raising exam standards, shifting from exams assessing minimum levels of competency to higher levels of learning. Recently, several states, including Tennessee, have reexamined their graduation exam policies because of public opposition, concern over student failure rates, and/or legal challenges and questions.

In March 2002, the Office of Education Accountability released *Multiple Choices: Testing Students in Tennessee*, a comprehensive examination of Tennessee's K-12 testing program. The report recommended the State Board of Education consider whether the Gateway exams should be the primary instrument used to grant or withhold a high school diploma.

Based on the report's recommendation, the graduation exam experiences of other states, and the Gateway performance data of certain student subgroups, the State Board of Education appointed a committee to examine Tennessee's Gateway exam policies. After nearly a year of research, the committee released its *Official Report of Findings and Recommendations of the Advisory Committee on Accountability and Testing to the Tennessee State Board of Education* in January 2004. The report contained five recommendations addressing: 1) early intervention, 2) accommodations, 3) dropout prevention, 4) the two-track curriculum, and 5) a graduation matrix that would offer students who could not pass one or all of the Gateway exams alternate pathways to a high school diploma.

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[1] Keith Gayler, Naomi Chudowsky, Madlene Hamilton, Nancy Kober, and Margery Yeager, "State High School Exit Exams: A Maturing Reform," Center on Education Policy, August 2004.

Building on this office's 2002 testing report and the work of the State Board of Education's Advisory Committee on Accountability and Testing, the Office of Education Accountability further researched high-stakes testing at the high school level, resulting in this report.

The report concludes:

Regardless of the state's graduation exam (Gateway or Competency), Tennessee has a low graduation rate, indicating a deeper problem with student achievement. Tennessee already graduates too few students with regular high school diplomas under the Competency Test. A 2003 report showed that Tennessee's graduation rate for 2001, before implementation of the Gateways, was 60 percent, among the lowest in the nation.[2] The State Department of Education reported a graduation rate of 76 percent in 2003, also before implementation of the Gateway exams.[3] Tennessee has a high school graduation problem regardless of the assessment (Gateway or Competency) used to determine graduation eligibility. (See pages 11-18.)

Department of Education data show thousands of students were unsuccessful on Tennessee's previous graduation exam, the Competency Test. Data show that 19,674 students who were in 9th grade in the fall of 1999 had not passed the math portion of the Competency Test by the summer of 2003. (See pages 12-14.)

Defining the reasons for the state's low graduation rate would better focus solutions chosen to improve student achievement. Student achievement is a product of multiple factors (innate ability, family and community support, classroom instruction, school, district, and state policies). Evaluating why students fail the Gateways should include a thorough and comprehensive evaluation of the factors that influence student achievement. Problems may include the alignment among the assessment, curriculum, standards, and instruction. Leadership problems at the school and district level, and state investment necessary for students and schools to meet accountability expectations may also contribute. For example, if the primary problem is in the area of instruction or lack of LEA or school capacity to improve student achievement through professional development or intervention practices, focusing on the assessment may yield little improvement in student achievement. (See pages 26-29.)

Increased high school diploma attainment is important for Tennessee. An Economic Policy Institute study found individuals without a high school diploma have seen their hourly wages erode by 19 percent from 1973 to 2001. Furthermore, research documents a correlation between lack of educational attainment and increased social problems, such as crime and public assistance program participation. Because education is interwoven in larger social and economic systems, a high school diploma can lead to higher education attainment with higher wages and less dependence on social programs for individuals,

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[2] Jay Greene and Greg Forester, *Public High School Graduation and College Readiness Rates in the United States,* Manhattan Institute, Center for Civic Innovation, September 2003, p. 17.
[3] Office of Education Accountability, *The Education Improvement Act: a progress report,* Comptroller of the Treasury, April 2004, p. B-10.

and improved macroeconomic and social conditions for the state as a whole. (See pages 8-11.)

Changing the state's K-12 funding formula ratio for English Language Learner (ELL) positions would allow schools and districts with large ELL populations to provide better Gateway instruction to ELL students. The state's funding formula, the Basic Education Program (BEP), funds ELL instructional positions at a ratio of one teaching position for every 50 students. Department of Education officials and local education personnel indicate lowering this funding ratio would improve ELL instruction throughout the state and improve student Gateway performance. (See pages 30-32.)

Tennessee has required students to pass an examination before graduating from high school with a regular diploma for over 20 years; however, Tennessee's graduation exams have changed in both the level of standards assessed and in exam format. Every decade since the 1980s, Tennessee has raised its graduation exam standards – from roughly 6th grade (1981) to 8th grade (1995) to 10th grade (2005). While Tennessee's previous graduation exams were broad surveys of students' mathematics and language skills and knowledge, the Gateway exams are tied to specific high school courses and assess specific course material. The Southern Regional Education Board (SREB) emphasizes that end-of-course exams are more effective than comprehensive exams in promoting consistent instruction statewide because the state sets standards in the courses, enabling teachers to focus on course-specific skills and knowledge.[4] OEA interviews with some high school principals and administrators indicate some students may perform better on the Gateway exams than they did on the Competency Test. These education officials indicate that the end-of-course Gateways are more closely aligned to the standards and have helped focus instruction, validating the SREB's statements to an extent. (See pages 5-7 and Appendix B.)

In 2002-03, most Tennessee students passed the Gateway exams; however, certain student subgroups fail the Gateways at significantly higher rates than their peers. African American students had the lowest percentage passing rate of any minority group, scoring slightly below other ethnic groups on the Biology I exam and well below others on the Algebra I exam. Low-income, special education, and ELL students, among others, also had pass rates lower than the average. (See pages 14-16.)

Gateway pass rates for all student subgroups are lowest on the Algebra I exam. Gateway data from 2002-03 data show a pass rate of 76.4 percent for the Algebra I exam. Passing rates for the Biology I and English II exams were 95 percent and 87.3 percent, respectively. (See page 14.)

Unlike Tennessee's previous graduation exams, the Gateways comply with the No Child Left Behind Act, which counts only regular high school diplomas nationwide and certain test scores in Tennessee in its accountability provisions. The No Child Left Behind (NCLB) Act requires states to test high school students in Gateway-tested

[4] Southern Regional Education Board, "Getting High School Graduation Test Policies Right in SREB States," May 2004.

subjects at least once between the 10th and 12th grades. The NCLB law does *not* require graduation-contingent tests or exams, leaving this decision to individual states; the choice to link Gateway performance and receipt of a regular high school diploma is a Tennessee choice. In calculating the graduation rate for school accountability purposes, NCLB will not count common alternatives to a high school diploma, such as a special education diploma or GED, although students may still receive these alternative credentials. Further, Tennessee counts only a student's initial score on the Gateways in calculating the adequate yearly progress in raising test scores. Because NCLB counts only a student's initial Gateway score in Tennessee, high school officials report concerns over an inability to receive credit for their intervention efforts to improve adequate yearly progress and boost student success on the Gateways. (See pages 29-30.)

Research on the effects of high school graduation exams and high-stakes testing is mixed and lacks definitive answers on whether the exams are a net positive or negative. Some research has found increased student scores on high-stakes tests that do not translate to increases on other achievement measures, such as the ACT and the National Assessment of Educational Progress (NAEP). Research has also linked increased dropout rates with graduation exams, particularly for minority students. However, other research challenges these conclusions, arguing that states with high-stakes testing show improvement on other achievement measures when using a sound research methodology. Academic research on this issue is contentious, with researchers sometimes using the same data to reach opposing conclusions. Other researchers have criticized graduation exam studies for failing to control for numerous other variables that influence student performance, such as education reform initiatives separate from the graduation exam. More research on the impacts (both positive and negative) of graduation exams is needed, particularly Tennessee-specific research. (See pages 32-34.)

Unlike other states with graduation exam policies, lawsuits against the state have not been filed under the previous two graduation exams; Tennessee's legal experience with the Gateway exams could be different. Conditioning the receipt of a high school diploma upon passing an exam raises numerous legal considerations. A landmark federal court decision on Florida's graduation exam established the high school diploma as a property right subject to due process protections under the 14th amendment to the United States Constitution. Based on this ruling, subsequent lawsuits have examined whether states have afforded due process procedures to students before diploma denial.

Unlike the graduation exam policies in several other states, students have not challenged Tennessee's policy since implementation of the first exam in 1983. Some school officials think Tennessee's experience with the Gateway exams will be different. Officials from Memphis City Schools note that the increased attention and understanding of the Gateway exams compared to Tennessee's previous exit exam, the Competency test, makes student, family, and/or advocate challenges to the policy more likely.[5] (See pages 37-39.)

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[5] Carol R. Johnson, Memphis City Schools Superintendent, Memorandum to the Honorable Randy McNally, Chairman, Senate Education Committee, May 13, 2004.

The report presents legislative, administrative, and exam alternatives, listed below and in full on pages 40-51.

Legislative Alternatives

The General Assembly may wish to commission a study of the state's graduation exam policy. SREB encourages states to monitor the impact of graduation exams on school curriculum, dropout rates, enrollment in GED preparation programs, and student success after graduation.[6] Evaluation can identify the negative and unintended consequences associated with high-stakes testing so policymakers can implement changes to correct or mitigate them before the denial of a diploma. Evaluation can also identify the positive consequences associated with high-stakes testing and document best Gateway practices that struggling systems can use to improve educational programming and student performance on the Gateways.

National research on high-stakes testing suggests deliberative forums and/or an independent oversight body to monitor graduation exam policy, implementation, and any unintended consequences. The General Assembly might consider involving Colleges of Education from various universities around the state.

The General Assembly may wish to expand funding for remediation and early intervention programs to improve student achievement on the Gateway exams. National research emphasizes early intervention programs as a necessary component of a successful high-stakes testing program, recommending states implement programs of early intervention and effective remediation assistance when using tests to make graduation decisions.

Administrative Alternatives

The Department of Education may wish to identify districts, high schools, and teachers with best Gateway practices and successes for emulation by other districts, schools, and teachers. The successful school or district model would identify schools performing at a desired Gateway performance level and the resources employed to achieve these results, while also controlling for factors external to the school, such as the socioeconomic status of the students.

The Department of Education may wish to create a website to publish and disseminate best Gateway practices. Based on OEA interviews, high school principals indicate they need more information on the best professional development, intervention/remediation, and instructional practices and strategies. National research suggests external accountability measures, such as the Gateway, may have little impact on schools with little internal capacity or understanding of how to improve student achievement.

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[6] Southern Regional Education Board, "Getting High School Graduation Test Policies Right in SREB States," May 2004.

The Department of Education may wish to pilot a program or programs measuring the content of teachers' instructional practices. Numerous research studies identify the quality of instruction a student receives as one of the most important predictors of student achievement. Based on 25 years of study, a Vanderbilt University professor and other researchers have developed a template, or matrix, to analyze teachers' instructional practices. They have developed templates for the subjects of mathematics and science, both Gateway-tested subjects. Such a Gateway-specific instructional template could provide Tennessee teachers with support in examining the content of their Gateway instruction and its alignment with the Gateway assessments and standards.

The Department of Education may wish to evaluate local school systems to determine inclusion practices and capacity issues with regard to special education and ELL students. The Department of Education should determine how and to what degree school systems are providing accommodations to students on the Gateway exams. Research shows this is a weak area nationally. Some Department of Education officials also have concerns that local school systems are not providing eligible students with accommodations both daily and on regularly scheduled assessments. The lack of accommodations knowledge, training, and understanding among LEAs results in special education students receiving very different levels of accommodations across the state.

The State Board of Education may wish to formulate and standardize a uniform Gateway due process procedure for all students. Based on the 14th amendment to the U.S. Constitution, past graduation exam lawsuits have established and reaffirmed a student's property interest in a high school diploma, requiring due process before diploma denial. While generally deferring to state education agencies in examining the use of graduation exams to improve student achievement, courts examine procedural and substantive due process rights afforded students in considering graduation exam challenges. Although Tennessee already provides for due process through advance notice of the Gateway exams as a graduation-contingent exam, multiple opportunities to take the exam, and intervention/remediation opportunities, a more formal due process checklist or form would better assist schools in documenting that they have adequate due process procedures, as well as reinforce for parents and students the importance of Gateway exam performance.

Exam Alternatives

Based on the experiences of other states with graduation exams, OEA has identified and analyzed five alternatives for policymakers:

Alternative I: Differentiated Diplomas
Alternative II: Alternative Routes, Waivers, or Appeals
Alternative III: Lower the Pass Scores/Compensatory Scoring
Alternative IV: Defer Exam Consequences
Alternative V: Continue with the Policy Unchanged

See pages 44 through 51 for an analysis of the pros and cons of each of these alternatives.

Staff of both the State Board of Education and the Department of Education reviewed and responded to this report. See pages 58-59 for copies of their written responses.

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Introduction

Beginning in 2005, all Tennessee high school students must pass the Gateway exams to graduate from high school with a regular diploma. The Gateways assess students' knowledge and skills in mathematics, reading/language arts, and science. Tennessee's Gateways are end-of-course exams, meaning students take them as part of the completion of three specific high school courses – Algebra I, English II, and Biology I.

Graduation exams are not new in Tennessee. For over 20 years, Tennessee has required high school students to pass an exam before graduating with a regular diploma. However, the standards level, format, and context of Tennessee's graduation exams have changed since implementation of the state's first exam in the early 1980s. The Gateway exams serve many purposes by:

- Fulfilling a legislative mandate from the 1992 Education Improvement Act for high school end-of-course exams;
- Raising the value of a high school diploma, or "making a diploma count," as testified to by the State Board of Education in a 1998 presentation to the Education Oversight Committee;
- Complying with federal testing requirements under the No Child Left Behind (NCLB) Act;
- Providing the Department of Education with achievement information used for school accountability purposes; and
- Providing school district personnel with diagnostic information to improve teacher and student performance.

Tennessee's Gateway exam policy is representative of the national high-stakes testing movement. Known as high-stakes testing because of the rewards and sanctions attached to student test scores, this movement continues to grow nationally both in popularity and controversy. Signed into law in 2002, the NCLB Act represents the most significant expansion yet of high-stakes testing at the federal level, requiring annual testing every year in grades 3 through 8 and at least once between grades 10 and 12. The rewards and sanctions of NCLB primarily apply to schools and districts; many states also apply individual rewards and sanctions, such as requiring passage of an exam or exams before graduating. Listed below are examples of high-stakes testing at both levels.

- **Individual level** – tests that decide student promotion or graduation. *Use of the Gateway as a graduation requirement is an example of high-stakes testing on the individual level.*
- **School level** – tests used to reward high-performing schools or sanction low-performing schools – A high-performing school might receive increased financial support and/or flexibility. A low-performing school might face reconstitution with new leadership or state takeover. *State accountability systems, such as Tennessee's high priority school designation and NCLB are examples of high-stakes testing on the school level*.

High-stakes testing at the high school level differs from elementary and middle schools in location of consequences. The location of consequences in elementary and middle schools for inadequate test performance usually falls on the school/administrative level, although some states have individual level retention and social promotion policies; however, for high schools, students themselves are more likely to bear the consequences for inadequate test performance, such as the denial of a regular high school diploma.[1]

Tennessee is not alone in requiring graduation exams; other states have implemented or are in the process of implementing similar assessments. As of July 2004, 20 states had mandatory graduation exams, with another five scheduled to phase in their versions by 2009.[2] State graduation exams are diverse, assessing a range of standards at various grade levels, although states are increasingly raising exam standards, from minimum levels of competency to higher levels of learning. Recently, several states, including Tennessee, have reexamined and/or revised their graduation exam policies because of public opposition, concern over student failure rates, and/or legal challenges and questions.

Graduation exams are controversial, and policymakers have debated their impact since their inception in the late 1970s. Many of the same arguments and concerns expressed about the original graduation exams continue with today's assessments, leading one author to observe, "the academic and legal debate over graduation tests may well seem like déjà vu to those who remember implementation of minimum competency tests in the 1970s and early 1980s."[3] Similarities between the two testing eras include:

- proponents arguing the tests are needed for a high school diploma to have meaning;
- opponents arguing the tests raise dropout rates and have a disproportionate impact on the poor and minorities;
- researchers and policymakers encountering difficulty in using the available data to find definitive answers to questions about the tests' impact; and
- a major federal court case leaving the graduation test policy of a large state essentially intact (*Debra P. v. Turlington* (1983) and *G.I. Forum v. Texas Education Agency* (2000)).[4]

Policymakers, educators, researchers, and the public share a common goal – increased student achievement and performance – but differ on whether graduation exams facilitate or hinder its realization. Exhibit 1 illustrates both sides of the graduation exam debate.

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[1] *The New Accountability: High Schools and High-Stakes Testing*, edited by Martin Carnoy, Richard Elmore, and Leslie Santee Siskin, RoutledgeFalmer: New York, 2003.
[2] Keith Gayler, Naomi Chudowsky, Madeline Hamilton, Nancy Kober, and Margery Yeager, "State High School Exit Exams: A Maturing Reform," Center on Education Policy, August 2004.
[3] Sherman Dorn, "High-Stakes Testing and the History of Graduation," Education Policy Analysis Archives, Vol. 11, No. 1, January 1, 2003.
[4] Ibid.

Exhibit 1: Both Sides of the Graduation Exam Debate

Proponents Say They:	Critics Say They:
▪ provide accountability for students and schools	▪ lower graduation rates
▪ improve student focus and achievement	▪ increase dropout rates
▪ are needed for more public investment in education	▪ narrow instruction – "teaching to the test"
▪ require schools to focus on improving academic achievement for minorities, the poor, special education and ELL students	▪ have a negative impact on minorities, the poor, special education and ELL students through the denial of a regular diploma
▪ add value to the high school diploma by requiring students to pass an external standardized measure of their knowledge and skills	▪ result in students bearing the consequences even if not appropriately taught the tested material

Source: OEA analysis of graduation exam and high-stakes testing literature.

Student experiences with and opinions on Tennessee's Gateway exams also exemplify the complexity of this issue, as evidenced by two recent articles in two Tennessee newspapers.

Exhibit 2: Two Students Speak Out on the Gateway Exams

One Student Says:	One Student Says:
"I believe tests such as the Gateway exams should be a requirement to graduate from high school. The school board and school administrators are sometimes to blame for not assuring that the content of the tests is taught consistently. Teachers may not always do their job to help students prepare for the tests, and some parents don't support their children as they should. But when the students fail the tests, it's mostly their own fault for not pushing themselves to study." *This student passed the Algebra I Gateway in 9th grade and the Biology and English Gateways in the 10th grade.*	"I am a little frustrated, but I know I have a couple more chances. I know I have to pass." *This student has severe dyslexia and a learning disability. He has passed his Biology Gateway but is enrolled in a Gateway intervention class at his school and is working with an Algebra tutor. He has failed the Algebra and English Gateways more than once and continues to work toward passing them so he can qualify for a regular high school diploma.*

Source: Charlisse Brooks, "In my opinion: one student's view," The Commercial Appeal, September 20, 2003; Claudette Riley, "Thousands might fail tests, miss high school diploma," The Tennessean, January 31, 2004.

Academic research on the topic is also contentious; researchers with opposing education ideologies sometimes come to very different conclusions using similar data. Definitive conclusions on the net impact of graduation exams remain elusive. Many studies emphasize only one side of the debate, painting a graduation exam picture that is alternately rosy or bleak.

The purpose of this report is to build and inform a comprehensive discussion on Tennessee's Gateway exams before their full implementation in spring 2005, by providing legislators, policymakers, and the public with information on:

- Tennessee's graduation exams, past and present;
- The Gateway experiences of a random sample of high schools across the state;
- Public opinion on high-stakes testing and education interest group input on the Gateways;
- Other states' experiences with graduation exams and high-stakes testing;
- The interaction between NCLB and the Gateways;
- High-stakes testing research; and
- The legal implications of graduation exams.

Methodology

The information provided in this report is based on:

- Graduation exam data from the Department of Education;
- Interviews with Department of Education staff;
- Interviews with a random sample of 10 high school principals across the state;
- Interviews with state education interest group representatives;
- Contact with education researchers from academia and public policy research organizations;
- Review of audiotapes of past Education Oversight Committee meetings;
- Contact with United States Armed Forces recruitment centers;
- Attendance at meetings of the State Board of Education Committee on Accountability and Testing;
- Extensive literature review;
- Interview with a high school mathematics teacher; and
- Review of relevant state law and State Board of Education rules and regulations on Tennessee's graduation exams.

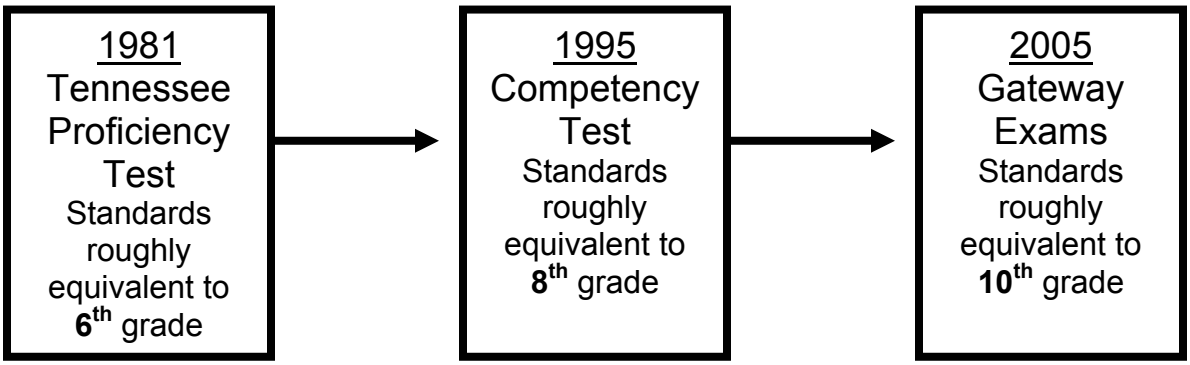
For ease of reference, OEA organized this report into a question and answer format:

1. Why does Tennessee have graduation exams?
2. How are students performing on Tennessee's graduation exams?
3. What do education stakeholders think about the Gateways?
4. What do tests tell us about student achievement?
5. Why do students fail the Gateways?
6. What is the interaction between the Gateways and federal law?
7. What does the research say about graduation exams and high-stakes testing?
8. What does the research say about graduation exams and dropouts?
9. How have other states handled graduation exams?
10. What are the legal concerns associated with graduation exams?

Why does Tennessee have graduation exams?

For over 20 years, Tennessee has required high school students to pass an exam before graduating with a regular diploma. Tennessee has gradually raised the graduation bar for high school students roughly every decade since the early 1980s.[5]

Exhibit 3: Tennessee High School Graduation Exam Timeline



Source: OEA analysis of Acts 1981 (Public Chapter 164), Acts 1992 (Public Chapter 535), Tennessee Department of Education, "Tennessee Gateway Assessments," and TCA § 49-6-6001.

The Tennessee Proficiency Test and the Minimum Competency Movement

In 1981, the General Assembly passed legislation establishing the first high school graduation exam in Tennessee, the Tennessee Proficiency Test. In the spring of 1983, the state began requiring students to pass the test before graduating with a regular diploma.[6] The Tennessee Proficiency Test assessed high school students' basic knowledge in two academic areas: mathematics and language arts/reading. The standards of the exam were analogous to those of the 6th grade.

In enacting its first graduation exam, Tennessee joined numerous other states in the minimum competency testing movement of the late 1970s and early 1980s. In the 1970s, higher education and business representatives began complaining that students were graduating from high schools with low skills and knowledge levels. These critics questioned the validity of grades and course completion as accurate measures of student achievement, arguing diplomas were based more on "seat time" than true academic achievement. Graduation exams provided an external assessment removed from school and classroom control that proponents believed would provide a more valid measure of student academic performance. As a result, some states refocused their school curriculum on the basics and set minimum course requirements for graduation, including minimum competency graduation exams.

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[5] Interview with Karen Jenkins, Director of Evaluation and Assessment, Department of Education, December 17, 2003.

[6] Tennessee State Board of Education, Clarification of the Assessment Requirements for Receipt of Regular High School Diploma, January 30, 2004.

The Competency Test

In response to 1992's Education Improvement Act (EIA), the State Board of Education raised the Tennessee Proficiency Test's mathematics and language arts standards to approximately those of the 8th grade. Renamed the Competency Test, schools began administering this exam in 1995. Students first take the Competency Test in 9th grade, with repeated opportunities to pass the exam throughout high school. At this time, students who entered 9th grade in the school year 2000-01 are the final class able to satisfy high school graduation requirements with the Competency Test.[7]

The Gateway Exams

The EIA also required the development of end-of-course tests for all high school subjects. TCA§ 49-6-6001 specifies that a student shall pass the TCAP tests as adopted by the state board of education to receive a full diploma upon graduation from high school. These end-of-course tests represented the accountability side of the EIA's balance between increased flexibility/funding and standards/accountability. Because meeting this requirement would have resulted in end-of-course tests for 40 to 65 high school subjects, the General Assembly allowed the State Board of Education to identify specific high school subjects for end-of-course testing in 1998.[8] (See Appendix A for a Gateway timeline.)

In October 1998, the General Assembly's Select Oversight Committee on Education approved the State Board of Education's policy identifying 10 end-of-course examinations for 10 high school subjects, three of which are Gateway exams to a high school diploma.

Exhibit 4: Tennessee's End-Of-Course Tests

End-of-Course Tests (7)	Gateway End-of-Course Tests (3) (Required for a Regular High School Diploma)
Math Foundations II	Algebra I
Algebra II	English II
Physical Science	Biology I
English I	
Geometry	
Chemistry	
U.S. History	

Source: Tennessee State Board of Education, "High School Examinations Policy," August 23, 2002.

The State Board of Education's *High School Examinations Policy* outlines the rationale for Gateway testing in Tennessee, including:

- improvement of school learning in core content areas;
- preparation for further learning;
- diagnostic information on student performance;

[7] State Board of Education website, "High School End-Of-Course Tests Policy," revised February 1, 2002, http://www.state.tn.us/sbe/highschooltests.html, accessed September 11, 2003.

[8] Tennessee Department of Education, "Gateway Tests – Questions and Answers", http://www.state.tn.us/education/ci/cigateendofcourse/cigatewqa.htm, accessed September 11, 2003.

- school and program improvement; and
- accountability for students, teachers, schools, and school systems.[9]

According to State Board and Department of Education testimony before the Education Oversight Committee in 1998, the Gateways would "raise the bar" for high school graduation, hold schools accountable for instruction, prepare students for the technology workforce of tomorrow, reduce the amount of remediation in higher education, and result in graduates leaving high school with higher proficiency levels.[10]

The State Board of Education chose Algebra I, English II, and Biology I as Gateway exams based on research showing that competency in these subjects is important for college and workplace success. Furthermore, most high school students take these classes early in their high school career, allowing multiple opportunities to retake the exams and participate in intervention assistance.

The National Context

Tennessee's Gateway exams are the assessment element of a larger national movement in education – the standards-based reform movement. Standards-based reform consists of three primary components:

1. State standards identifying what students should know and be able to do;
2. The alignment of teaching and instruction with those state standards; and
3. Assessments aligned with the state standards to measure student progress and provide accountability.[11]

Over the last decade, states and school districts have developed and implemented standards-based reform of the school curriculum, increasingly adding or raising the stakes for individual students, schools, and districts as performance incentives.

A Nation at Risk - 1983

The continued push in standards-based reform and testing for accountability stems from concerns about the quality of America's schools and students' motivation and achievement.[12] Concerns over U.S. education quality increased dramatically following the release of *A Nation at Risk* in 1983. With statements such as "the educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a people," the report heralded a renewed focus on education reform in the United States, particularly at the state level. The report also tied education reform with national economic productivity and competitiveness, explicitly linking education and economic development. A 1985 report from the Committee for Economic Development also explicitly linked education with economic

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[9] State Board of Education, "High School Examinations Policy," August 23, 2002.
[10] Minutes from Education Oversight Committee, August 13, 1998.
[11] Jay P. Heubert, "Disability, Race, and High-Stakes Testing of Students," National Center on Accessing the General Curriculum, 2002, http://www.cast.org/ncac/Disability,Race,andHigh-StakesTestingofStudents2681.cfm, accessed May 28, 2004.
[12] Association for Supervision and Curriculum Development, "High School Exit Assessments: Features, Effects, and Costs," Volume 1, Number 24, November 25, 2003.

development, stating that "[e]ducation has a direct impact on employment, productivity, and growth, and on the nation's ability to compete in the world economy."[13]

The Value of a High School Diploma

In the 21st century economy, a high school diploma is a basic and fundamental requirement for success in the workplace and higher education. Individuals without a high school diploma have seen their hourly wages erode significantly since the early 1970s.

Exhibit 5: Change in Real Hourly Wage for All by Educational Level, 1973-2001 (2001 dollars)

Year	Less than High School	High School	1 to 3 years College (Includes Associates Degree)	Four-Year College Degree	Advanced Degree (Post-Graduate)
1973	$11.66	$13.36	$14.39	$19.49	$23.56
1979	11.62	13.04	13.94	18.27	22.31
1989	9.99	12.17	13.67	19.16	24.71
1995	9.04	11.95	13.37	19.84	26.18
2000	9.40	12.65	14.36	22.10	27.94
2001	9.50	12.81	14.60	22.58	28.14
1973-2001 Change	**-19%**	**-4%**	**+1.5%**	**+16%**	**+19%**

Source: Lawrence Mishel, Jared Bernstein, and Heather Boushey, The State of Working America 2002/2003, An Economic Policy Institute Book, Ithaca, NY:ILR Press, 2003.

The Tennessee Higher Education Commission's Educational Needs Index identifies and documents the close correlation between educational attainment and increased earnings capacity. Examining data from the U.S. Census Bureau's Current Population Survey, the report examines median income by education attainment level, including a comparison between citizens with and without a high school diploma. Based on the Current Population Survey for 1998-2000, the median income for an individual *with* a high school diploma was $25,900. By contrast, the median income for an individual *without* a high school diploma was $18,900, or 27 percent less. Further, the report also documents the correlation between lack of education and increased social problems, such as crime and public assistance program participation.[14]

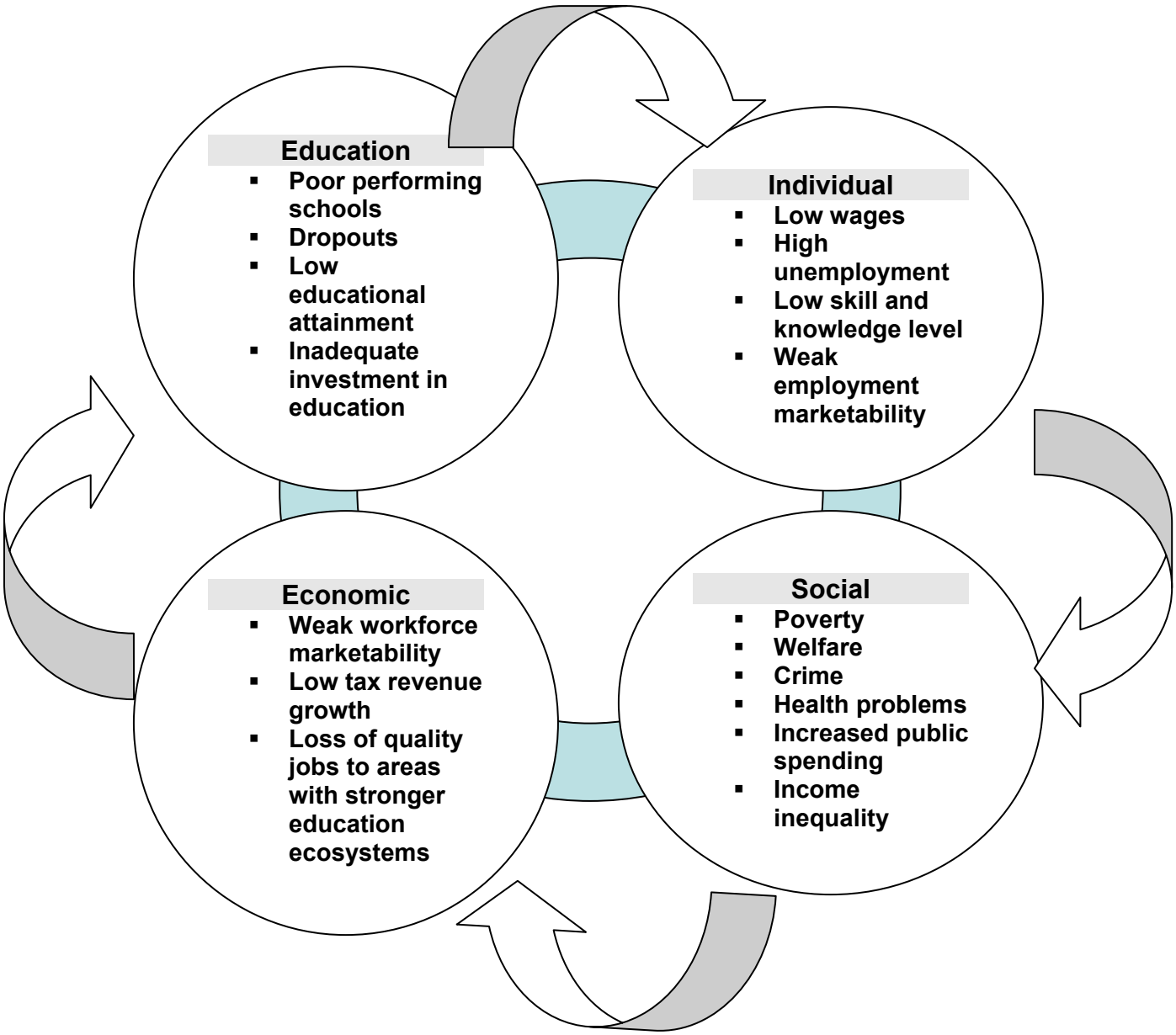
The economic impact of dropouts and individuals with low levels of educational attainment is confined not only to the personal level in the form of stagnant or declining wages and high unemployment; low education levels ripple out into economic and social systems, limiting Tennessee's ability to attract new economy jobs that require high levels of problem solving and analytical skills and the associated high wages and strong tax

[13] Frontline, "Are we there yet? Business, politics, and the long (unfinished) road to national standards," *Testing our Schools*, http://www.pbs.org/wgbh/pages/frontline/shows/schools/standards/bp.html, accessed May 28, 2004.

[14] Houston P. Davis and Brian E. Noland, "Aligning Resources to Meet State Needs: The Educational Needs Index," Tennessee Higher Education Commission, http://www.state.tn.us/thec/2004web/division_pages/ppr_pages/research/pprresearcheni.htm.

bases. Education is interwoven in a larger social and economic ecosystem – strengths or weaknesses in one area inevitably impact other areas.

Exhibit 6: The Education Ecosystem



Source: OEA analysis of education and economic development research.

The education ecosystem cycle can be positive or negative; for example, a high school diploma can lead to higher education and better pay for the individual, less dependence on social programs, and improved economic and social conditions for the state and nation, a positive cycle in contrast to the negative cycle in Exhibit 6.

Policymakers and interest groups have identified the need for change in the public schools. In the Seventh Annual State of American Education Address in 2000, former U.S. Secretary of Education Richard Riley remarked on the broad structural changes in our economy that require broad structural changes in our expectations of students, teachers, and schools:

> To set new expectations, we need to know where we are and where we are going. The educational paradigm of the factory age is no longer appropriate. That was a world where one-third of our young people were prepared for college, one-third got enough of an education to do simple work in a factory or on a farm, and a third of the students got no education at all. People never talked about failing schools and, unfortunately, not enough people cared about who the students were in those schools.
>
> Well those days are over. We are in the 21st century. Today, we are attempting to do something that we have never tried before as a nation. We are seeking to give all of our young people – not just the top third – a first-class education. We are trying to lift up that middle third and that forgotten bottom third even as we help the top one-third reach for the sky. We must look at the stark reality that a continuing achievement gap persists between the rich and the poor, and between whites and minority students. This gap is a gaping hole in our commitment to fulfilling the American promise…[15]

Although the link between education reform and economic development has become more publicly recognized over the past 30 years, some experts note it is not an entirely new development. Former Massachusetts Commissioner of Education Horace Mann, generally described as the father of American public education, recognized this relationship as early as 1848. In annual reports on the condition of education in Massachusetts, Mann clarified the "win-win" possibilities of improving education and economic development, realizing the business community would recognize that public education was "good for economic development in the then-underdeveloped state of Massachusetts."[16]

This link continues 156 years later in the American South. A 2002 report from the Southern Growth Policies Board examines job growth in the South over the past decade, stating "the new jobs grown in the South tended to be in the lower-paying retail and service sectors. While the demands of the knowledge-economy for educated, skilled, flexible workers have grown exponentially, the South has made only incremental progress in improving its workforce."[17] Improving Tennessee's supply of educated,

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[15] Remarks as prepared for delivery by U.S. Secretary of Education Richard W. Riley, "Setting New Expectations," Seventh Annual State of American Education Address, Southern High School, Durham, North Carolina, February 22, 2000.

[16] Nicholas Lemann, "The 'Business Model'," *Testing our Schools,* http://www.pbs.org/wgbh/pages/frontline/shows/schools/standards/business.html, accessed May 28, 2004.

[17] Houston P. Davis and Brian E. Noland, "Aligning Resources to Meet State Needs: The Educational Needs Index," Tennessee Higher Education Commission, http://www.state.tn.us/thec/2004web/division_pages/ppr_pages/research/pprresearcheni.htm.

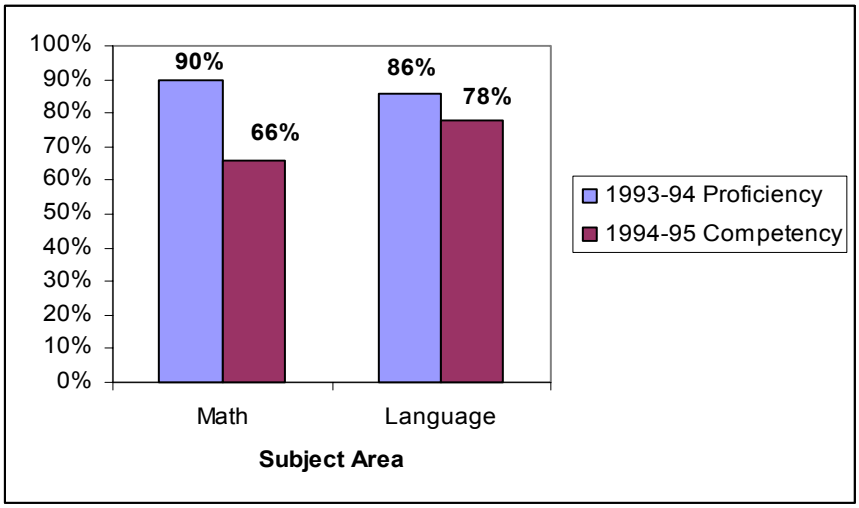
skilled, and flexible workers is critical to the state's individual, educational, social, and economic future. Improving Tennessee's graduation rate is instrumental in this process.

How are students performing on Tennessee's graduation exams?

The Proficiency Test Comparison

Data for the final year of the Proficiency Test show high initial pass rates on both portions of the exam. First administered in 1994-95, the Competency Test's 8th grade standards resulted in lower initial passing rates compared to the Proficiency Test's 6th grade standards, particularly for math.

Exhibit 7: Proficiency and Competency Test Comparison



Source: Tennessee Department of Education, 21st Century Schools Report Card, October 1995.

The Proficiency and Competency tests were broader surveys of student mastery of academic material and objectives learned before high school. In contrast, the Gateways are aligned to specific courses, meaning students are assessed on their mastery of the standards for a particular course, such as Algebra I. The Southern Regional Education Board (SREB) emphasizes end-of-course exams are more effective than tests like the Competency Test for promoting consistent instruction statewide because the state has set standards in the courses that enable teachers to focus on course-specific skills and knowledge.[18] OEA interviews with some high school principals and administrators indicate some students appear to perform better on the Gateway exams than they did on the Competency Test. These education officials indicate that the end-of-course Gateways are more closely aligned to the standards and have helped focus instruction, validating the SREB's statements to an extent.

Based on this qualitative information from LEAs, OEA obtained statewide data from the Department of Education for the fall 1999 and 2000 high school student cohorts. These

[18] Southern Regional Education Board, "Getting High School Graduation Test Policies Right in SREB States," May 2004.

cohort data follow students who were 9th graders in either the fall of 1999 or 2000 through their following three years of high school. These data show a relatively solid picture of the number of students unable to obtain a regular high school diploma because of failure on one or both portions of the Competency Test.

Exhibit 8: 1999 and 2000 Fall Competency Cohorts

	Fall 2000 Cohort		Fall 1999 Cohort	
Portion of Competency Test	Pass Number (% of cohort)	Fail Number (% of cohort)	Pass Number (% of cohort)	Fail Number (% of cohort)
Math	51,750 (75%)	17,008 (25%)	47,794 (70%)	19,674 (28.8%)
Language	54,455 (80%)	13,933 (20%)	50,503 (74%)	16,651 (24%)

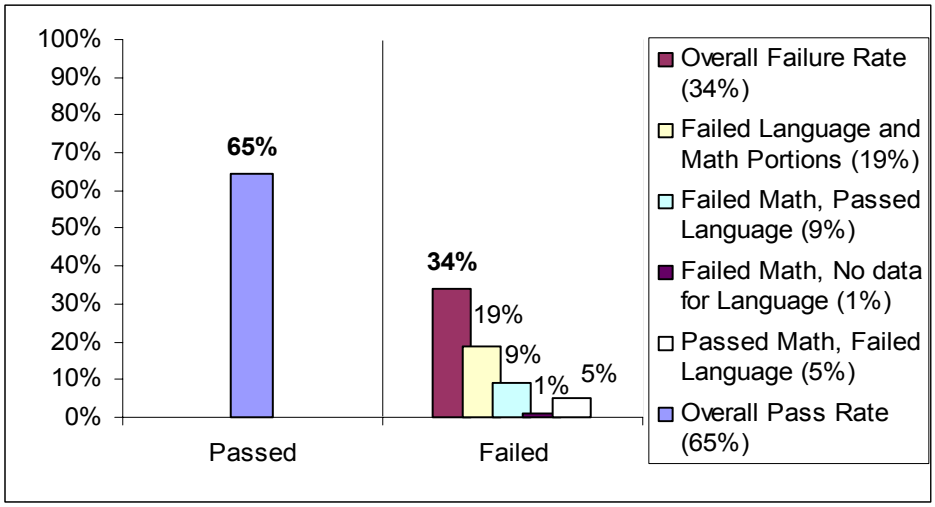
Source: Data analysis provided by East Tennessee Field Service Center, Tennessee Department of Education, May 2004. Select percentages do not equal 100 because data was not available or students did not attempt certain portions of the Competency Test.

Fall 1999 Cohort

These data show that 19,674 students who were in 9th grade in the fall of 1999 had not passed the math portion of the Competency Test by the summer of 2003. These 19,674 students may have dropped out of school, obtained a special education diploma, certificate of attendance, or GED, or moved to another state; however, these students would have been ineligible for a regular high school diploma in Tennessee because of graduation exam failure. Students who passed both exams also may not have qualified for a regular high school diploma because they did not meet the credit requirements or dropped out of school; thus, Tennessee's dropout rate is higher than the Competency Test failure rate shown in Exhibit 8.

The Competency Test is a conjunctive assessment - students must pass both the math and language portions to qualify for a regular diploma. Some students may pass one portion of the exam and fail the other, or vice versa. The following exhibit combines both portions of the test to determine the total pass/fail rates.

Exhibit 9: Total Competency Pass/Fail Breakdown for 1999 Fall Cohort



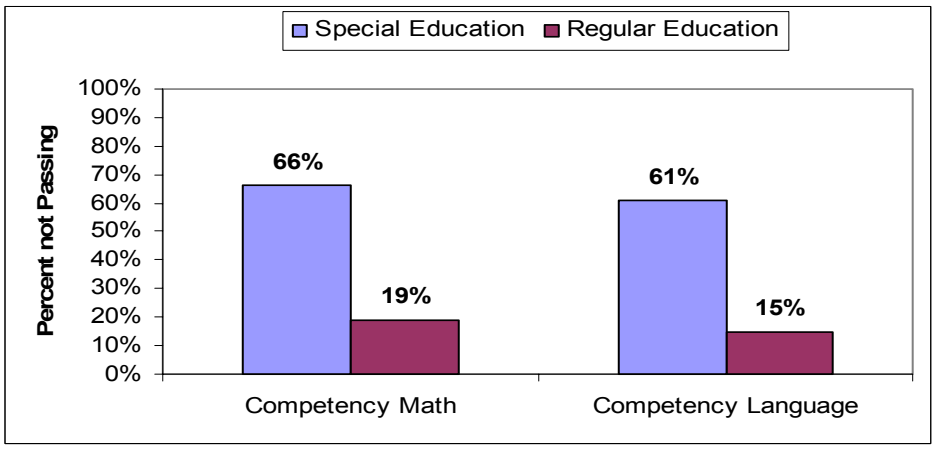
Source: Data analysis provided by East Tennessee Field Service Center, Tennessee Department of Education, May 2004. Percentages do not equal 100 because data was not available or students did not attempt certain portions of the Competency Test.

Exhibit 9 shows 65 percent of students who were in 9th grade in the Fall of 1999 had passed both portions of the Competency Test by the summer of 2003.

Fall 2000 Cohort

Competency Test data for the 2000 cohort do not include results for the spring 2004 exam administration, but show 17,008 of 68,758 students attempting the math portion unable to pass it. Competency Test results for this cohort also show an achievement gap among specific subgroups, such as special education and minority students.

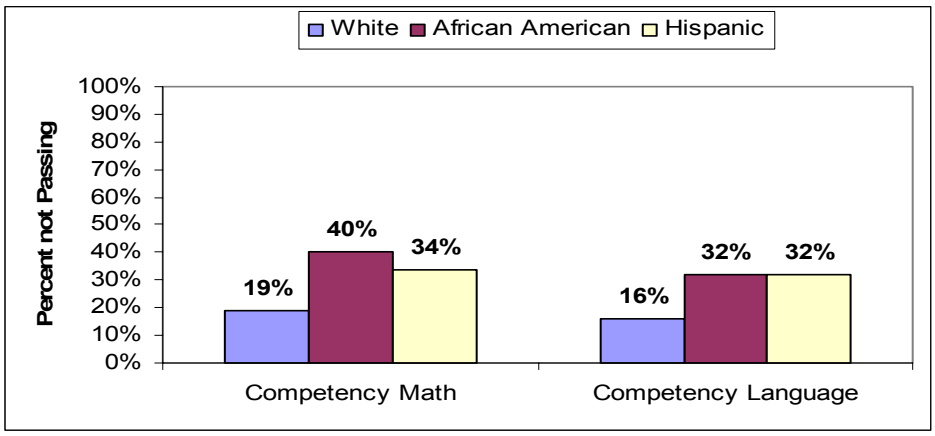
Exhibit 10: Competency Results – 2000 Cohort (Special Education)



Source: Data analysis provided by East Tennessee Field Service Center, Tennessee Department of Education, March 2004.

As Exhibit 10 illustrates, 61 percent of special education students were unable to pass the language portion of the Competency Test, with 66 percent unable to pass the math portion.

Exhibit 11: Competency Results – 2000 Cohort (Ethnicity)



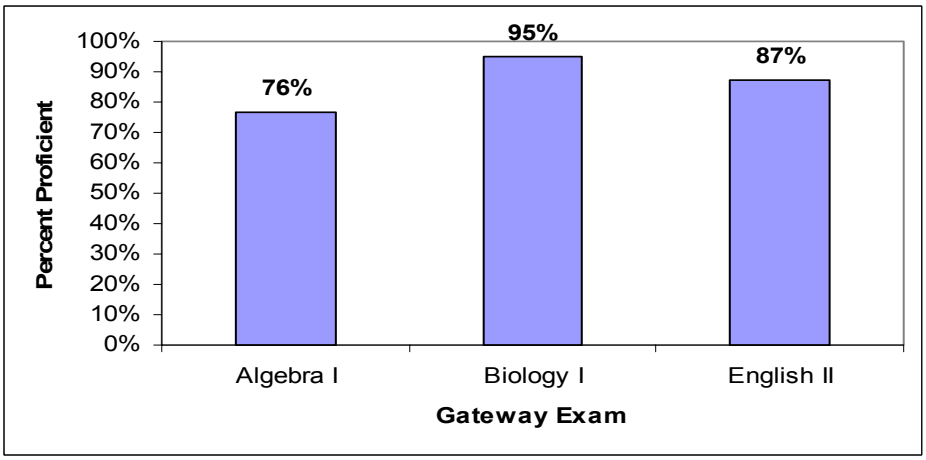
Source: Data analysis provided by East Tennessee Field Service Center, Tennessee Department of Education, March 2004.

Competency Test results also show an achievement gap by ethnicity, with 32 percent of African American and Hispanic students unable to pass the language portion compared to 16 percent of white students. African American and Hispanic failure rates on the math portion were 40 and 34 percent, respectively.

Gateway Data

Statewide 2002-03 Gateway data from the Department of Education show passing scores for all students are relatively high on all three exams.

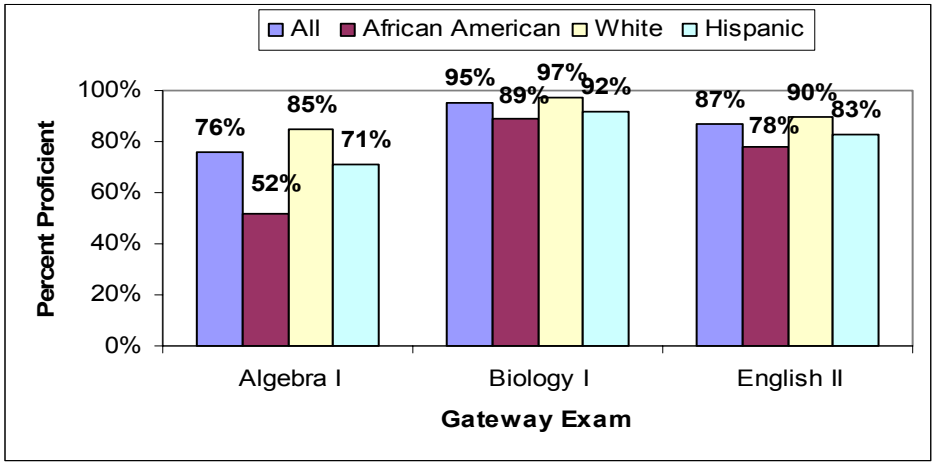
Exhibit 12: 2002-03 Statewide Gateway Scores (All students)



Source: Gateway Test Results: SY 2002-2003, Tennessee Department of Education.

Students were most successful on the Biology I exam (95 percent passing) and the least successful on the Algebra I exam (76.4 percent). However, the statewide pass rate for all students does not show the performance of specific student subgroups. Disaggregating the data by ethnicity shows relatively similar scores for the English II and Biology I exams but divergent scores for the Algebra I exam.

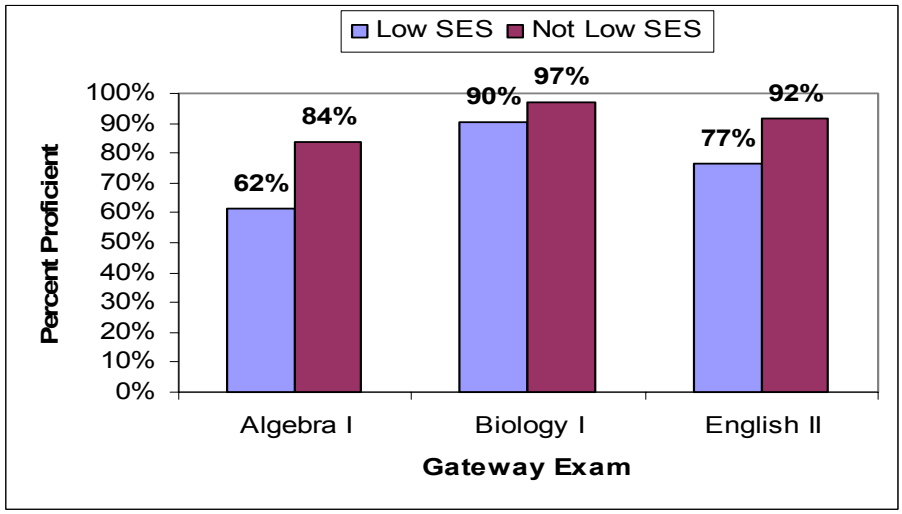
Exhibit 13: 2002-03 Statewide Gateway Scores (Ethnicity)



Source: Gateway Test Results: SY 2002-2003, Tennessee Department of Education.

Algebra I results show African American and Hispanic students score below average, particularly African American students, who had a passing rate of just over 50 percent. Disaggregating the data by socioeconomic status shows an achievement gap between low-income students and their middle- and high-income peers. Again, the most significant difference in test scores is on the Algebra I exam.

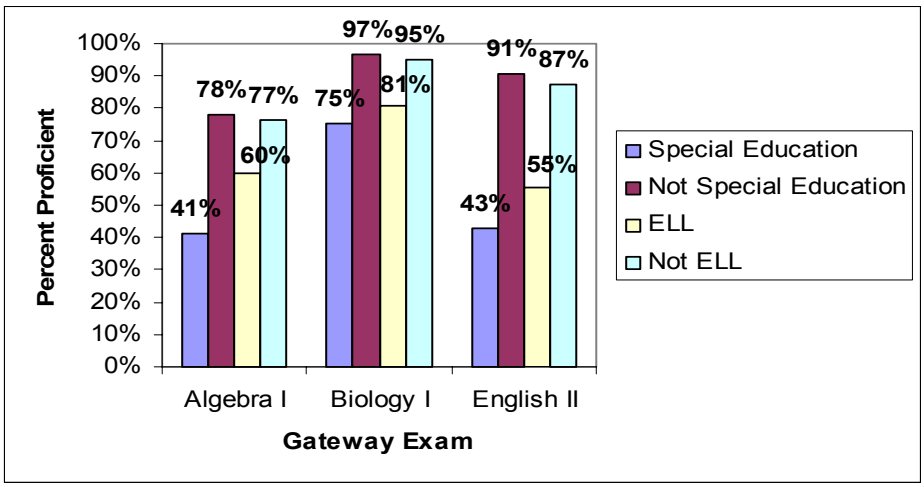
Exhibit 14: 2002-03 Statewide Gateway Scores (Socioeconomic status)



Source: Gateway Test Results: SY 2002-2003, Tennessee Department of Education.

Special education and English Language Learner students also score lower than their peers.

Exhibit 15: 2002-03 Statewide Gateway Scores (Special Education and ELL)



Source: Gateway Test Results: SY 2002-2003, Tennessee Department of Education.

These Gateway test score differences among student subgroups are not limited to Tennessee; the differences are a nationwide phenomenon commonly referred to as "the achievement gap." Like other indicators of school performance and success, graduation exams also show this achievement gap. Across the nation, minority students, students with disabilities, and English Language Learners fail graduation exams at higher rates than other students.[19] Disparities in test results may be a student performance problem assessed by the testing instrument or a problematic test that does not accurately capture student performance. According to the National Research Council, "it is important to note that group differences in test performance do not necessarily indicate problems in a test, because test scores may reflect real differences in achievement. These, in turn, may be due to a lack of access to a high quality curriculum and instruction. Thus, a finding of group differences calls for a careful effort to determine their cause."[20]

Interpreting the Data

Because the Gateways are end-of-course tests, students do not take them until the completion of the Gateway course.[21] Thus, struggling students who are behind in school may not take particular Gateway classes, and therefore will not take the Gateway exams until late in their junior year. Other students, such as accelerated students who are ahead in school, may take certain Gateway exams, such as the Algebra I Gateway, in 8th grade before entering high school. Because students take the Gateways at different times in their academic careers, examining data for one year provides only a snapshot of Gateway performance across a variety of student classifications and subgroups. The release of

[19] Jay P. Heubert, "Disability, Race, and High-Stakes Testing of Students," National Center on Accessing the General Curriculum, 2002, http://www.cast.org/ncac/Disability,Race,andHigh-StakesTestingofStudents2681.cfm, May 28, 2004.

[20] National Research Council. *High Stakes: Testing for Tracking, Promotion, and Graduation*. Jay P. Heubert and R. Hauser (Eds.), Committee on Appropriate Test Use, Washington, D.C.: National Academy Press, 1999, p. 5.

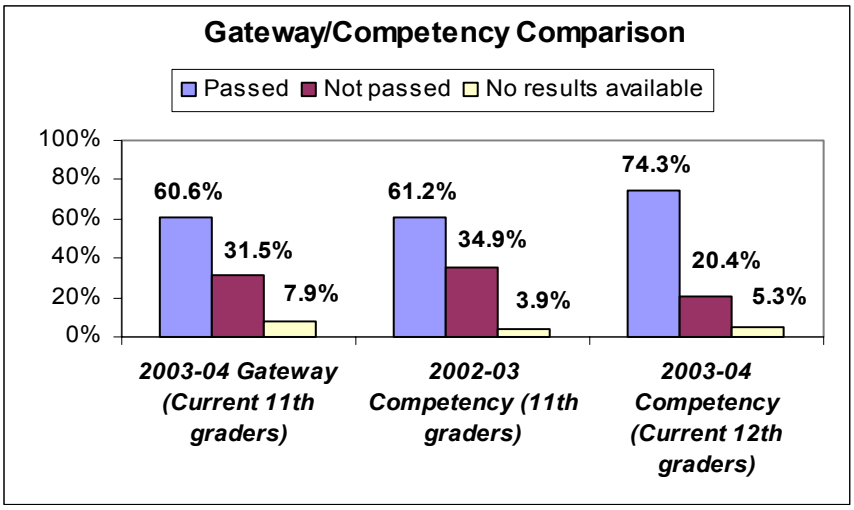
[21] Note: This is different from the Competency Test, which most students take in their 9th grade year. Unlike the Gateways, students taking the Competency Test do not have to enroll in any one specific class.

2003-04 Gateway data by the Department of Education in 2004 will provide more data on Gateway performance at the state level.

Memphis City Schools

On the local level, Memphis City Schools has gathered comparative data on the Gateway exams and the Competency Test for two classes of students.

Exhibit 16: Memphis City Schools Gateway and Competency Data



Source: Carol R. Johnson, Memorandum to The Honorable Randy McNally, Chairman, Senate Education Committee, May 13, 2004.

Exhibit 16 shows similar pass/fail rates between the system's current 11th graders, required to pass the Gateway exams for a regular diploma, and last year's 11th grade class, required to pass the Competency Test for a diploma.

However, district officials caution this data does not provide a complete picture of the broader context of high school graduation rates because students may drop out prior to taking the exams or because of frustration after repeated failure. Thus, examining only pass/fail rates underestimates the magnitude of the graduation problem in Memphis City Schools and Tennessee as a whole. Examining the fall 2000 cohort of students in Memphis City Schools and other districts would show lower cumulative pass rates because poorer performing students would have dropped out over the following three years.

As a hypothetical example, if 100 students begin 9th grade and by 11th grade 35 students have dropped out, examining the pass/fail percentage of the remaining 65 students yields a different result than calculating a graduation rate for the original 100 member student cohort, as Exhibit 17 illustrates.

Exhibit 17: Composite Comparison of Cohort and Event Pass Rates

Pass Rates	Student Population				
	100 students (9th grade)	9th to 10th grade transition	80 students (10th grade)	10th to 11th grade transition	65 students (11th grade)
Exit Exam Pass Rate by Grade	60 passed 40 failed	*20 students drop out* - 18 failed exam - 2 passed exam	58 have passed 22 have failed	*15 students drop out* - 12 failed exam - 3 passed exam - 2 previous failures passed the exam	57 have passed 8 have failed
Percentage Pass Rate	60%		72.5%		87.6%
Ultimate Graduation Rate by Cohort	100%	80%	80%	65%	57%

Source: Office of Education Accountability. Note: This example does not account for students transferring into or out of a school system

Tennessee graduates too few students regardless of the exit examination. Data show that even before full implementation of the Gateway exams, Tennessee already had approximately 35 percent of students in the 1999 cohort unable to obtain a regular high school diploma because of Competency Test failure, indicating a deeper problem with student achievement. Tennessee has a high school graduation problem regardless of the assessment (Gateway or Competency) used to identify it.

What do education stakeholders think about the Gateways?

National Groups[22]

A recent RAND study examined testing accountability through a political lens, identifying and explaining the high-stakes testing policy positions of various national interest groups. The two national teachers' unions, the National Education Association (NEA) and the American Federation of Teachers (AFT), both have argued against using only a single test score in making high-stakes decisions, such as graduation, about individual students. In general, the NEA is more strongly opposed to graduation exams. Other civil and legal rights organizations have also taken positions on this issue. The NAACP and the Mexican American Legal Defense Fund (MALDEF) oppose high-stakes testing, particularly when test performance decides graduation.

Other education interest groups support high-stakes testing. The Education Trust favors increased testing, believing it necessary to reduce the achievement gap between rich/poor and white/minority students. Business groups, such as the Business Roundtable, support

[22] Laura S. Hamilton, Brian M. Stecher, and Stephen P. Klein, (eds.), *Making Sense of Test-Based Accountability in Education,* RAND, 2002.

high-stakes testing that ensures students exit high school with at least a minimum knowledge and skill set.

Tennessee School Boards Association[23]
The Tennessee School Boards Association (TSBA) does not believe performance on three exams should determine a student's success in obtaining a high school diploma. A TSBA official stated the Gateway exam requirements do not account for students who excel in one or two Gateway subjects, such as science and math, but struggle with English. TSBA favors the concept of a graduation matrix developed by the State Board of Education's Accountability and Testing Committee and believes its strength is offering students other options to demonstrate competence; however, TSBA officials indicated any performance assessment alternative should be of equal rigor to the Gateway exams.

TSBA reported that LEAs express a mixture of opinions about the Gateway exams. Some LEAs think the Gateways' stakes are too high and students would benefit from alternate routes to a high school diploma. Others think the requirements should continue without alteration to fully assess their impact, both negative and positive. TSBA also indicates school boards are generally more concerned with the requirements of the No Child Left Behind Act than the Gateway exams.

Tennessee Education Association[24]
The Tennessee Education Association (TEA) recently conducted a member survey with questions about the Gateway exams. TEA does not support a student's performance on three tests determining high school graduation. TEA supports alternatives to the Gateway exams that are supportive and meaningful; however, TEA indicated the multiple opportunities a student has to pass the exam make the graduation requirement more defensible and has softened criticism of the policy.

TEA officials indicated Tennessee needs to fund rigorous professional development programs, with specific attention devoted to teaching specific student subgroups (special education, English Language Learners, and minority students). TEA also reported teachers would benefit from further professional development on Gateway exam score interpretation and use of results to diagnose student performance and better focus classroom and individual instruction. TEA strongly supports early intervention programs, such as those recommended by the State Board of Education's Advisory Committee. Similar to TSBA, TEA stated teachers have expressed more concern about the graduation requirements of the No Child Left Behind Act than the Gateway exams at this time.

Tennessee Organization of School Superintendents[25]
The Tennessee Organization of School Superintendents (TOSS) does not have a formal position or statement on the Gateways or high-stakes testing in general, but the executive

[23] Interview with Stephen Smith, Director of Government Relations, Tennessee School Boards Association, December 19, 2003.
[24] Interview with Susan Dalton, Coordinator of Instruction and Professional Development, Tennessee Education Association, December 19, 2003.
[25] Interview with Tony Lancaster, Executive Director, Tennessee Organization of School Superintendents, December 15, 2003.

director of the organization supports giving students alternative methods to demonstrate proficiency.[26] TOSS officials stated the proposed graduation matrix would open up alternatives for students who do well on class work but not tests. TOSS also notes that alternative ways for students to demonstrate proficiency may help avoid litigation. Organization officials expressed concern about students who have invested 12 years in school but cannot obtain a regular high school diploma because of one test.

TOSS reports many superintendents were more concerned about the impact of the Gateways before they saw the initial test results; the pass rates were higher than initially expected. Like other stakeholders, TOSS reports educators are more concerned with No Child Left Behind at present.

Local Education Agencies

To better understand local implementation of the Gateway exams, OEA surveyed a small systematic random sample of 10 high schools across the state. The results provide evidence of the Gateway exams' positives and problems, as well as general comments and suggestions about high-stakes testing. Although this sample is not representative of the entire state, the information from the interviews illuminates the Gateway experiences and thoughts of some principals and administrative staff. OEA has arranged this data into three exhibits located in Appendix B.

Public Opinion

Based on two decades of testing and academic achievement polls, the public seems to support high-stakes testing more than education interest groups in general. However, public support should be qualified by public understanding. Polling data show the public is not always well-informed on education issues, which could include the consequences associated with high-stakes testing.[27]

In general, surveys indicate the public supports:

1. higher academic standards and the use of testing to determine student readiness for promotion and graduation;
2. making decisions about a child's future on more than a single test; and
3. grades and other achievement indicators as better measures than tests in deciding whether to promote or graduate students.

The first two responses demonstrate the complex nature of public opinion on high-stakes testing: the public supports higher standards and the use of testing in making graduation decisions but does not support making decisions about a child's future on a single test.[28]

Public opinion polls also show more parents favor graduation exams that measure basic skills as opposed to higher level learning. A Public Agenda poll surveying parents about

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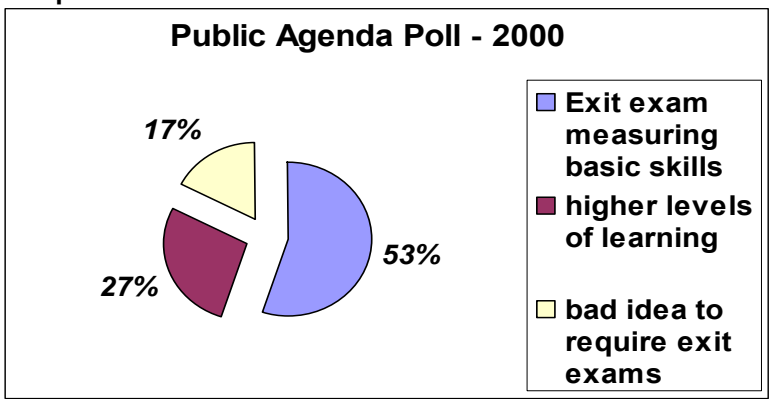
[26] Joetta L. Sack, "Tenn. Board Hopes to Help More Students Earn Diplomas," *Education Week*, February 25, 2004.

[27] Laura S. Hamilton, Brian M. Stecher, and Stephen P. Klein, (eds.), *Making Sense of Test-Based Accountability in Education,* RAND, 2002, pp. 109-111.

[28] National Surveys about High-Stakes Testing, Education Commission of the States website, http://www.ecs.org/clearinghouse/16/21/1621.htm, accessed March 10, 2004.

their graduation exit exam preference found 53 percent of parents preferred an exit exam measuring basic skills, 27 percent supported exams assessing higher levels of learning, and 17 percent thought it was a bad idea to require students to pass a high school exit exam. In addition, 78 percent thought it was wrong to "use the results of just one test to decide whether a student gets promoted or graduates."[29]

Exhibit 18: Public Opinion on Graduation Exams



Source: National Surveys about High-Stakes Testing, Education Commission of the States website, http://www.ecs.org/clearinghouse/16/21/1621.htm, March 10, 2004. Note: Select percentages do not equal 100 because data was not available for three percent of survey respondents.

A Business Roundtable public poll conducted in 2000 found 68 percent agreed and 21 percent disagreed with requiring students to pass an exam before graduating from high school. Poll results also showed graduation exam support increased to 79 percent when pollsters explained that students could take the exams multiple times.[30] The poll indicated the public is aware of the limitations of statewide tests and sees value in using other measures, such as grades and teacher evaluations, to make graduation decisions. Ninety percent of respondents thought grades were a better measure of achievement than state tests.

In Tennessee, there is some evidence that parents are unaware of Gateway policy. In March 2004, the executive director of the State Board of Education testified in the House Education Committee that in presentations across the state he found most parents do not know and are not aware of the high-stakes nature of the Gateway assessments.[31]

[29] Ibid.
[30] Ibid.
[31] Remarks of Douglas E. Wood, Executive Director, Tennessee State Board of Education, before the House Education Committee, March 17, 2004.

What do tests tell us about student achievement?

Research on testing clearly states that tests are not perfect, nor are they an exact measure of a student's knowledge or skills.[32] Tests contain a sample of questions about a particular topic or subject area. Test scores have a margin of error based on test reliability. However, testing research also states that "[l]arge-scale assessments, used properly, can improve teaching, learning, and equality of educational opportunity."[33]

Tests do not improve student achievement by themselves; tests are a measurement device. One education expert colorfully explains that "tests don't improve learning, anymore than a thermometer reduces a fever."[34] However, when used properly, tests can improve education by diagnosing a student's strengths and weaknesses, channeling instruction and remedial efforts to better target a student's problem areas, and providing accountability. Tests can also be used to identify learning differences among student subgroups and tailor instruction and supportive services accordingly.

Evaluating testing programs can provide policymakers with an assessment of the assessments. Several researchers and research organizations have outlined principles and standards for evaluating testing programs. The National Research Council's Board on Testing and Assessment identifies three principle criteria for test evaluation:

- **Measurement Validity:** Is a test valid for a particular purpose, and does it accurately measure the test taker's knowledge in the content area being studied?
- **Attribution of Cause:** Does a student's performance on a test reflect knowledge and skills based on appropriate instruction, or is it attributable to poor instruction or to such factors as language barriers unrelated to the skills being tested?
- **Effectiveness of Treatment:** Do test scores lead to placements and other consequences that are educationally beneficial?[35]

The effectiveness and success of an assessment program also depends on how well the assessment is aligned with other elements of the education system, such as the curriculum teachers use to teach, the instruction students receive, and the standards the assessment is supposed to measure. Close alignment among these areas is essential for a quality assessment program that is both effective and fair. An article on assessments from the National Conference of State Legislatures states: "Creating such a system will ensure that the material students are being tested on (assessments) is the same material they are being

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[32] National Research Council, *High Stakes: Testing for Tracking, Promotion, and Graduation*. Jay P. Heubert and R. Hauser (Eds.), Committee on Appropriate Test Use, Washington, D.C.: National Academy Press, 1999, p. 3.

[33] Ibid, p. 9.

[34] Jay P. Heubert, "Disability, Race, and High-Stakes Testing of Students," National Center on Accessing the General Curriculum, 2002, http://www.cast.org/ncac/Disability,Race,andHigh-StakesTestingofStudents2681.cfm, accessed May 28, 2004.

[35] United States Department of Education, "The Use of Tests as Part of High-Stakes Decision-Making for Students: A Resource Guide for Educators and Policy-Makers," December 2000.

taught in the classroom (curriculum/instruction) and will allow students to reach the expectations set by the state (standards)."[36]

In 1999, the American Educational Research Association, the American Psychological Association, and the National Council on Measurement in Education released *The Standards for Educational and Psychological Testing*. These standards, along with a 1999 congressionally mandated National Research Council study, outline appropriate and sound testing policy:

- graduation tests should cover only the content and skills that students have had an opportunity to learn;
- tests should be used for high-stakes decisions only after schools have implemented changes in teaching and curriculum; and
- in elementary or secondary education, a decision or characterization that will have a major impact on a test taker should not automatically be made on the basis of a single test score. Other relevant information should be taken into account if it will enhance the overall validity of the decision.[37]

Andrew Porter, a Vanderbilt University professor, and other researchers have also identified three criteria that any effective assessment and accountability program should meet:

1) **The assessment and accountability program should provide a good target for student and school effort** – the program should focus effort in constructive and coherent directions and on valued outcomes for educators and students
2) **The assessment and accountability program should be symmetrical –** The program should include stakes that schools and students share so that both have incentives to improve the same outcomes
3) **The assessment and accountability program should be fair –**
   - → Fairness for students - schools that provide an adequate opportunity to learn
   - → Fairness for schools - access to the resources needed to be successful
   - → Fair tests – reliability and validity for their purposes[38]

In considering challenges against testing programs, the courts have considered elements addressed by these standards and principles, specifically whether students have had an adequate opportunity to learn and be taught the material covered by the test. Unfortunately, research has revealed that graduation testing may occur before curriculum and instruction alignment with state standards. The *Standards for Educational and*

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[36] National Conference of State Legislatures, "State Assessments," Education Policy Issues Page, http://www.ncsl.org/programs/educ/Astateassessments.htm, accessed May 10, 2004.
[37] Jay P. Heubert, "Disability, Race, and High-Stakes Testing of Students," National Center on Accessing the General Curriculum, 2002, http://www.cast.org/ncac/Disability,Race,andHigh-StakesTestingofStudents2681.cfm, accessed May 28, 2004.
[38] Andrew C. Porter, Mitchell D. Chester, and Michael D. Schlesinger, "Framework for an Effective Assessment and Accountability Program," *Teachers College Record,* Vol. 106, No.6, pp. 1358-1400.

Psychological Testing and the National Research Council are clear: a state or school district should not enforce the consequences of high-stakes tests until schools are actually teaching students the appropriate skills and knowledge. In 2000, the United States Department of Education's Office for Civil Rights developed a resource guide for the use of tests as part of high-stakes decision-making for students. The guide explains that research indicates states should have information indicating alignment among curriculum, instruction, and the graduation-contingent assessment.[39]

Researchers also caution that improper use of high-stakes tests can reinforce the low academic achievement and graduation rates of poor, racial and ethnic minority students.[40] In essence, the authors argue there are broad societal factors, such as poverty, community violence, and parental disengagement, outside of the school that result in lower academic achievement among these students. The improper use of test scores among these students may reinforce these inequalities through the denial of a diploma and/or increased dropout rates.

Tennessee has taken steps to ensure the validity of the Gateway exams. Tennessee teachers and professional test developers research and write the Gateway test items. Professional editors and content specialists review items and test directions for content and accuracy and review student responses on tryout tests for content, suitability, and accuracy.[41]

"Teaching to the Test" vs. "A Test Worth Teaching To"

While the intention of high-stakes testing is to provide teachers with incentives to focus and improve their instruction, some believe the pressure of high-stakes testing leads to an excessive focus by teachers on tested material, or "teaching to the test." Predictably, proponents and opponents of high-stakes testing come to different conclusions on this issue. Opponents argue the pressure of high-stakes testing causes teachers to devote inappropriate amounts of classroom time and resources to test preparation. Proponents argue the test measures what students need to know and the heightened focus on tested material is positive, assuming the test and curriculum are closely aligned.

A 2002 study lists seven categories of teacher responses to high-stakes testing, illustrated in Exhibit 19.

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[39] United States Department of Education, "The Use of Tests as Part of High-Stakes Decision-Making for Students: A Resource Guide for Educators and Policy-Makers," December 2000.

[40] National Research Council, *High Stakes: Testing for Tracking, Promotion, and Graduation*, 1999, p. 4.

[41] Gateway Mathematics Sampler, Tennessee Department of Education, 2002.

Exhibit 19: Seven Categories of Teacher Responses to High-Stakes Testing

Positive Teacher Responses	▪ Providing more instructional time ▪ Working harder to cover more material ▪ Working more effectively
Ambiguous Teacher Responses	▪ Reallocating classroom instructional time ▪ Aligning instruction with standards ▪ Coaching students to do better by focusing on incidental aspects of the test
Negative Teacher Response	▪ Cheating

Source: Laura S. Hamilton, Brian M. Stecher, and Stephen P. Klein, (eds.), Making Sense of Test-Based Accountability in Education, RAND, 2002, p.88.

Some research shows high-stakes testing has led to teachers working more effectively. The RAND report identifies case studies that document a positive change in education, including teachers who changed their instructional practices, and schools and districts which rededicated themselves to quality instruction, professional development and support services.[42] Other research on high-stakes testing in Maine, Maryland, and North Carolina finds little or mixed effects on instructional practices. A good deal of high-stakes testing research also documents the negative effects of high-stakes testing on instructional practices, such as a decline in instruction time devoted to non-tested subjects and excessive forms of test preparation.

Furthermore, teacher responses to high-stakes testing may differ by school or district demographics, with some studies indicating teachers in high poverty schools are more likely to spend greater amounts of class time on test preparation. For example, an Arizona study found the amount of time spent on test preparation and administration was greater in urban, low-income, high-minority districts.[43] Finding the right balance between constructive and excessive focus on tests is difficult. A recent article in the Harvard Education Letter notes the complexity of the "teaching to the test" debate. Lauren Resnick, director of the Center on Education at the University of Pittsburgh suggests that testing can provide some teachers, especially in poorly funded schools, with needed structure and coherence. Resnick comments, "There are certainly some places where the curriculum is being dramatically narrowed to whatever types of items are on the tests. There are also places that five years ago were hardly teaching kids at all, especially poor kids. So now at least they're teaching them something, and it appears this is coming in the wake of high-stakes testing."[44]

In sum, the RAND report concludes, "the net effect of high-stakes testing on policy and practice is uncertain. Researchers have not documented the desirable consequences of testing – providing more instruction, working harder, and working more effectively – as clearly as the undesirable ones – such as negative reallocation, negative alignment of

[42] Laura S. Hamilton, Brian M. Stecher, and Stephen P. Klein, (eds.), *Making Sense of Test-Based Accountability in Education,* RAND, 2002.
[43] Ibid.
[44] Michael Sadowski, "Are High-Stakes Tests Worth the Wager," Harvard Education Letter, Sept./Oct. 2000.

classroom time to emphasize topics covered by a test, excessive coaching, and cheating."[45]

Why do students fail the Gateways?

Disagreement exists over why students fail graduation exams. Student test scores reflect multiple factors and influences both inside and outside of school, leading researchers and statisticians to refer to student achievement as "nested data" because achievement is nested within and impacted by numerous systems, including innate student ability, family characteristics, the classroom teacher, the grade level, and school, district, and state policies.[46] Because student achievement is a product of these influences, evaluating why students are not successful should focus on multiple levels of the educational enterprise, including examining the alignment among the assessment, the curriculum, the standards, the instruction received by the student, school and district leadership, and state investment in students and schools to meet accountability expectations.

Answering why students fail the exams determines both the problem and the appropriate target for solution efforts. One focus in dealing with poor student performance on graduation exams is to focus on the assessment itself – to examine the reliability and validity of the exam. Another option is to examine the standards: Are we expecting too much from students and are the standards clear enough to construct a quality assessment? Another option would focus on academic engagement/instruction of students: How could instruction be improved and could data be used better?

Policymakers could also focus on the adequacy of supplemental services – remediation, early intervention, dropout prevention. A 2001 article on high-stakes testing examines the need for remediation investment in Oregon so students and schools can meet accountability requirements. The article notes that remediation efforts and funding can differ dramatically from district to district, with high fiscal capacity districts able to provide the most remediation support to students. Educators fear that schools will be held accountable for poor performance that reflects poor resources and not poor effort.[47] Researchers worry about using high-stakes tests to make decisions about individual students while inequality among students remains in:

- the quality of instruction and support services;
- adequate funding; and
- effective leadership at the state, district, school, and classroom level.

Closer attention to the process of Gateway exam implementation at the local and classroom level could provide information on school effort, organization, and capacity. Recent research suggests student achievement problems in poor-performing schools are

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[45] Laura S. Hamilton, Brian M. Stecher, and Stephen P. Klein, (eds.), *Making Sense of Test-Based Accountability in Education,* RAND, 2002, pp. 109-111.
[46] Mid-continent Research for Education and Learning and the Education Commission of the States, "A Policymaker's Primer on Education Research," http://www.ecs.org/html/educationIssues/Research/primer/understandingtutorial.asp," February 2004.
[47] Maya Muir, "When the Stakes are High," Northwest Education Magazine, Fall 2001.

more related to capacity, organization, and understanding than effort. According to a 2003 article from the Consortium for Policy Research in Education, "this primary reliance on incentives to motivate teachers and schools to do something the schools have never done before – to succeed with essentially all students – suggests that these systems make an important . . assumption . . i.e., that teachers already know how to succeed with all students but choose not to, or don't expect to, with some, or that at least somebody knows how to succeed so that, if motivated, others can learn how to do it, too."[48] Thus, increased effort on the part of administrators, teachers, and students in response to the high-stakes of the Gateway exams may have only a marginal impact on student improvement. Only when properly channeled will more effort result in maximum student and school improvement.

Mid-continent Research for Education and Learning (McREL) has developed three models that illustrate accountability components and the relationships among the components. One of these models, the input-process-output accountability system, could be used to evaluate the Gateway exams in Tennessee. This model could be used to assist teachers, schools, districts, and state leaders in identifying strengths and weakness Gateway inputs, process, and outputs.[49] This accountability system focuses on the school and classroom level, as shown in Exhibit 20.

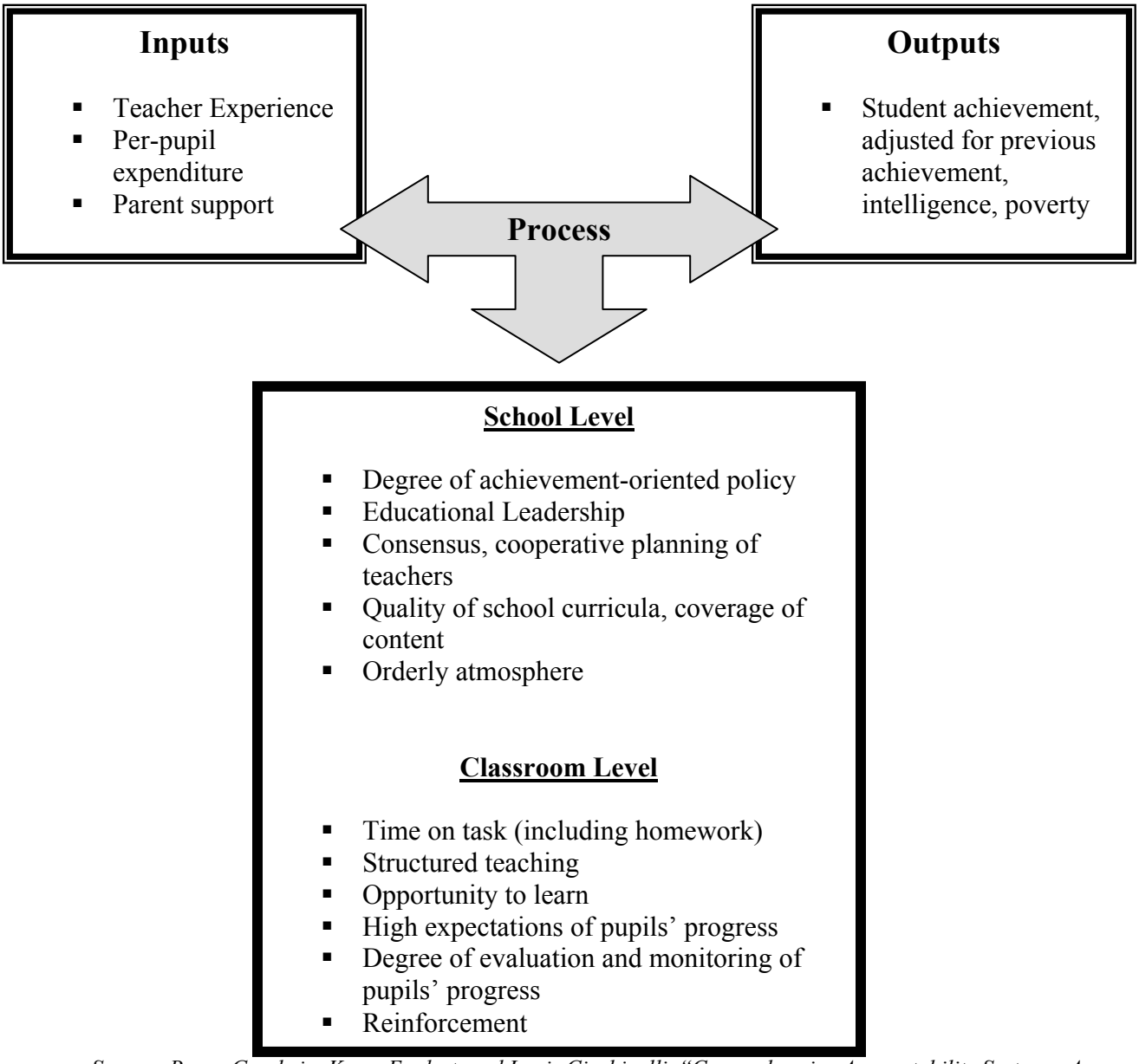
Just as policymakers and researchers now look at education finance through the outcomes of the education process, or student achievement, and not just the inputs, such as number of library books or desks, so can the effectiveness of accountability systems be judged on the opportunity to learn and effectiveness of instructional programming, such as the amount of time spent on a certain topic. Researchers note: "Simply put, instead of asking how many books are in the library or how many children are coming to school, educators should pay more attention to the following kinds of questions:

- Do all students have opportunities to learn?
- What should students know and be able to do?
- What is being taught?
- How are teachers teaching?
- Are our instructional programs effective?"[50]

Examining why student Gateway exam performance differs in similarly situated schools can offer insights into best practices on the system and school level. Identifying successful schools as models would provide other schools and districts with the blueprints for improved student performance. Variables like school leadership, teaching

[48] Susan Fuhrman, "Redesigning Accountability Systems for Education," Center for Policy Research in Education Policy Briefs, September 2003.
[49] Bryan Goodwin, Kerry Englert, and Louis Cicchinelli, "Comprehensive Accountability Systems: A Framework for Evaluation," Mid-continent Research for Education and Learning, February 2003.
[50] Ibid.

Exhibit 20: Input-Process-Output Accountability System



Source: Bryan Goodwin, Kerry Englert, and Louis Cicchinelli, "Comprehensive Accountability Systems: A Framework for Evaluation," Mid-continent Research for Education and Learning, February 2003.

strategies and instructional practices, and the quality of supplemental programs, such as Gateway interventions for struggling students, could be identified and examined in high-performing school systems. These schools could become Gateway "lighthouse" schools, beaming best Gateway practices across the state. This concept could take the form of identifying schools and districts around the state, controlling for non-school related factors such as the number of students receiving free and reduced price lunches, with high Gateway proficiency scores and examining the practices of administrators and teachers. In a more formal fashion, schools and districts could pair up, similar to a sister

city program, and identify and learn best professional development, intervention, and data-based decision making practices.

Some schools and districts may use Gateway results to drive instruction in positive and creative ways, using the exam to inform and improve instruction in addition to using the exam as a policy measure. Or, on the classroom level, some teachers may employ unique and successful approaches to teaching Gateway level classes that could serve as best practices for other teachers across the state. For example, one Algebra I teacher in the Metropolitan Nashville Public Schools has written a book filled with strategies to improve student success on the Gateway Algebra I exam, including a video for students to learn at their own pace.[51]

What is the interaction between the Gateways and federal law?

Enacted in January 2002, the No Child Left Behind (NCLB) Act requires states to test all high school students at least once between grades 10 and 12, mandating high school reading and math testing by 2005-06, and science testing no later than 2007-08. Having formulated the end-of-course policy in 1998, Tennessee enacted Gateway testing and accountability policy before NCLB. However, Tennessee will meet NCLB's high school testing requirements through the Gateway exams: Algebra I for the math requirement, English II for the reading requirement, and Biology I for the science requirement. The NCLB law does *not* require graduation-contingent tests or exams, leaving this decision to individual states. The choice to link Gateway performance and receipt of a regular high school diploma is a Tennessee choice.[52]

Because some states passed their high school testing and standards-based accountability reform before NCLB, state accountability programs may conflict with NCLB requirements. For example, North Carolina and Georgia have both encountered difficulty in synchronizing their high school exams with NCLB testing requirements.[53] Tennessee has had to expand the subject coverage of the Gateways to conform with NCLB but has avoided the difficulties experienced by North Carolina and Georgia.

In OEA interviews, one Department of Education official noted that Tennessee may eventually raise the Gateway mathematics standard to more closely meet NCLB requirements. NCLB requires testing in math between grades 10 and 12. Tennessee's Algebra I Gateway is not as clearly aligned with these grade levels as the reading and science requirements. For example, some LEAs offer Algebra I to students in 7th or 8th grade before entering high school and many students take Algebra I their first year of high school.[54]

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[51] Interview with Taft Davis, Algebra I teacher in Metropolitan Nashville Public Schools, May 25, 2004.
[52] Keith Gayler, Naomi Chudowsky, Nancy Kober, and Madlene Hamilton, "State High School Exit Exams: Put to the Test," Center on Education Policy, August 2003.
[53] Ibid.
[54] Interview with Karen Jenkins, Director of Evaluation and Assessment, Department of Education, December 17, 2003.

NCLB requires schools to continually improve the proficiency rate for all students based on state assessments in an adequate yearly progress calculation, eventually requiring 100 percent proficiency for all students by 2013-14. Tennessee will use student scores on the Gateways to calculate this proficiency rate for high schools and districts.

NCLB also includes graduation rates in its adequate yearly progress calculations, but the law does not allow common alternatives to a high school diploma, such as the GED or special education diploma, to count toward school and district graduation rates. NCLB does not require the elimination of special education diplomas or the GED; instead, the law does not include either document in calculating a school's graduation rate. School administrators voiced concerns about this policy during OEA interviews, noting they will not receive graduation rate credit for students who obtain a GED or special education diploma as they had under previous accountability systems.

Furthermore, NCLB only counts the *first* time a student takes the Gateway to calculate adequate yearly progress. While students who fail the Gateways may retake the exam, only the student's initial score, pass or fail, on the exam will count. At least two states, New York and Alabama, use later administrations of their graduation exams for NCLB accountability purposes.[55]

Special Education and English Language Learners

Special education and ELL students' participation in assessment programs has changed dramatically over the past decade. These two populations were often exempt or had waivers from assessment participation in the past, but federal law now requires the inclusion of these students in state and local testing programs with appropriate accommodations and alternative assessments.[56] Some special education students in Tennessee may qualify to take the TCAP-Alt, a portfolio-based alternative assessment for students with the most severe and profound disabilities.

Many educators worry that special education students may not be able to demonstrate their full potential on tests designed for general education students and are concerned that many special education students will be disproportionately denied high school diplomas with a graduation exam. High school principals expressed concern over the Gateway pass rate for special education students in OEA interviews.

Federal law also requires school districts to identify limited English proficient students and ensure they have a meaningful opportunity to acquire the academic knowledge and skills assessed by exit exams.[57] Researchers document lower levels of test reliability and validity for ELL students because the tests are constructed and normed for native English

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[55] Keith Gayler, Naomi Chudowsky, Nancy Kober, and Madlene Hamilton, "State High School Exit Exams: Put to the Test," Center on Education Policy, August 2003.

[56] Jay P. Heubert, "Disability, Race, and High-Stakes Testing of Students," National Center on Accessing the General Curriculum, 2002, http://www.cast.org/ncac/Disability,Race,andHigh-StakesTestingofStudents2681.cfm, accessed May 28, 2004.

[57] United States Department of Education, "The Use of Tests as Part of High-Stakes Decision-Making for Students: A Resource Guide for Educators and Policy-Makers," December 2000.

speakers.[58] Research identifies three important components necessary for an effective ELL educational program: assessment, instruction, and classification. A recent article states: "A problem in any one of these components may affect the other two…a student misclassified as an LEP student may be assigned a different curriculum and thus receive inappropriate instruction. Alternately, inappropriate instruction may result in low performance, which may in turn result in misclassification . . . Complex linguistic structure of instruction may negatively affect LEP students' ability to understand classroom instruction, and invalid assessment of students' level of English proficiency may result in misclassification."[59]

English Language Learners are diverse – some may enter the United States early in the K-12 pipeline, while others may enter the United States in the 9th grade, sometimes after receiving very little formal education in their native countries. Some states allow ELL students exemption from graduation test requirements depending upon their length of enrollment in English-speaking schools. Minnesota exempts ELL students from the state's graduation test requirements if enrolled in a school where English is the primary language of instruction for fewer than three years.[60]

Accommodations for English Language Learners

Because many ELL students are new to Tennessee and the education accountability system, evaluation and research on ELL accommodations remains limited. The increase in the number of English Language Learners over the past decade coupled with the inclusion of these students in large-scale assessment programs like the Gateways poses new accommodation questions and challenges. A 2004 American Educational Research Association article explains that states and school districts have adopted accommodations for ELL students in advance of research and conclusions on their effects. According to the authors, "[m]any accommodation strategies have been proposed, and many used, with little knowledge of their actual effect. To date, only a handful of research studies exist."[61] In examining this issue, the authors offer four major considerations concerning accommodations for ELL students:[62]

> **Effectiveness** – Do the accommodations minimize the effects of a student's language proficiency on his/her test score (with the exclusion of tests of English proficiency)?[63]

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[58] Jamal Abedi, "The No Child Left Behind Act and English Language Learners: Assessment and Accountability Issues," *Educational Researcher*, Vol. 33, No. 1, pp. 4-14.
[59] Ibid.
[60] Keith Gayler, Naomi Chudowsky, Nancy Kober, and Madlene Hamilton, "State High School Exit Exams: Put to the Test," Center on Education Policy, August 2003.
[61] Jamal Abedi, Carolyn Huie Hofstetter, and Carol Lord, "Assessment Accommodations for English Language Learners: Implications for Policy-Based Empirical Research," Review of Educational Research, Spring 2004, Vol. 74, No. 1, p. 8.
[62] Ibid, p. 16.
[63] An effective and valid accommodation should "level the playing field" for ELL students. For example, an ELL student's score on the Gateway Algebra I test should reflect the student's Algebra I skills and knowledge and not the student's understanding of the test's instructions.

Validity – Do accommodations reduce the language barrier between ELLs and non-ELLs? Do they affect the test content (i.e., affecting scores for both ELL and non-ELL students) altering what the test measures?
Differential Impact – Do students' background variables affect the accommodated test results? Are some accommodations more effective with certain groups of students than with others?
Feasibility – Are the accommodations practical and affordable?

Some Department of Education officials also have concerns that local school systems are not providing eligible students with accommodations both daily and on regularly scheduled assessments. The lack of accommodations knowledge, training and understanding among LEAs results in special education students receiving very different levels of accommodation quality across the state. In discussing ways to improve accommodations, some members of the State Board Advisory Committee on Testing and Accountability noted that some general education teachers do not know accommodations are available. Furthermore, the BEP funding ratio for ELL positions makes quality instruction and proper use of accommodations more difficult, according to Department of Education officials and local education personnel interviewed for this report.

What does the research say about graduation exams and high-stakes testing?

Academic research on the effects and impacts of graduation exams is contentious, with researchers sometimes using the same data to arrive at different conclusions. In a December 2002 study, researchers from Arizona State University analyzed states that have implemented high-stakes high school graduation exams. Although they found improvement on state graduation exams, they found performance on other tests, such as the ACT, SAT, Advanced Placement tests, and test scores on the National Assessment of Educational Progress (NAEP), declined in most of the high-stakes states compared to the national average.[64] According to the study, most states with a mandatory graduation exam had falling graduation rates, fewer students obtaining a high school diploma, increased dropout rates, and increased enrollment in general equivalency diploma classes.[65] The study also suggests administrators may pressure low-performing students to drop out of school because of accountability sanctions.

However, the study's results have not been without criticism. Stanford University researchers criticized the study's research methodology and, using the same data, found

[64] Audrey L. Amrein and David C. Berliner, "The Impact of High-Stakes Tests on Student Academic Performance: An Analysis of NAEP Results in States with High-Stakes Tests and ACT, SAT, and AP Test Results in States with High School Graduation Exams," Arizona State University's Education Policy Studies Laboratory, December 2002.
[65] Audrey L. Amrein and David C. Berliner, "An Analysis of Some Unintended and Negative Consequences of High-Stakes Testing," Arizona State University's Education Policy Studies Laboratory, December 2002.

that when states with little or no accountability were compared to states with high-stakes tests, states with high-stakes tests saw an increase in math scores on the NAEP test.[66]

A January 2004 article in Arizona State University's Education Policy Analysis Archives reanalyzed the data and methodology used in the Amrein and Berliner study for NAEP mathematics scores. Examining the relative gains of states over both the 4th and the 8th grade period, the comparisons strongly favored states with high-stakes tests. However, the author qualified this finding by conducting a pseudo-longitudinal analysis of the data, finding the results slightly favored the low-stakes testing states. This study cautions that the data used in graduation exam studies is highly aggregated, observational, and, as such, conclusions drawn from them are tentative for both the Arizona State and Stanford University studies.

Other research on high-stakes tests also reveals the complexity of the issue. For example, research examining accountability in Texas high schools has found the state's previous exit examination, the Texas Assessment of Academic Skills (TAAS), might have had a positive impact on high school attainment. Researchers found no evidence of increased dropout rates linked to the exit test among minority groups, even finding graduation rates among minority groups seem to have improved in Texas during the 1990s.[67] Conversely, researchers from the Harvard Civil Rights Project found a strong correlation between high-stakes testing and high dropout rates, noting that high-stakes tests, intended to motivate students, often have the opposite effect.[68]

What does the research say about graduation exams and dropouts?

Demonstrating a causal link between dropping out of high school and exit exams is difficult. One reason is the variety of methodologies that can be used to calculate dropouts. Further, it is also difficult to control for simultaneous reforms and other policies in education and isolate an exit exam's influence on dropout rates separate from other current or past policies. In a recent graduation exam lawsuit, the plaintiffs showed an increase in the dropout rate during the time the graduation exam policy existed; however, the judge ruled the plaintiffs did not prove the exam caused this increase. One group opposed to high-stakes testing indicates interviews with high school dropouts could better establish a direct causal relationship between graduation exams and dropping out of school.[69]

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[66] Margaret E. Raymond and Eric A. Hanushek, "High-Stakes Research," Education Next, Summer 2003.
[67] *The New Accountability: High Schools and High-Stakes Testing*, edited by Martin Carnoy, Richard Elmore, and Leslie Santee Siskin, RoutledgeFalmer: New York, 2003. See Martin Carnoy, Susanna Loeb, and Tiffany L. Smith, "The Impact of Accountability Policies in Texas High Schools."
[68] Civil Rights Project, Harvard University. *"The Impact of High Stakes Testing Policies on Minority and Disadvantaged Students: Legal and Policy Implications of New Research, Executive Summary"* Washington, D.C., 7 January, 2000.
[69] Fair Test Examiner, "Court Rules for High-Stakes Testing," Winter 1999-2000.

Even with these limitations, some researchers have found that exit exams increase high school dropout rates while others have not.[70] In March 2003, the Center on Education Policy convened an expert panel to examine the research on exit exams and dropout rates. The panel concluded recent studies offer only a moderate degree of evidence linking dropout rates and exit exams. One test expert has remarked on the complexity of the issue: "On one hand, it appears that many low-achievers start to disengage from school well before graduation tests loom. On the other hand, there are reputable scholars who argue credibly, the fear of failing a graduation test increases the likelihood that low achievers will leave school."[71]

University of Minnesota researchers examined graduation and dropout rates in Minnesota following the implementation of that state's new exit exam. The study found that graduation rates prior to implementation of the exit exam were within one percent of the graduation rate for the first class that had to pass the exam. The study also found dropout rates did not change after test implementation, although the graduation rates for ELL students decreased in the test's first year. The study also found over half of the dropouts had passed the state's exit exams, leading researchers to conclude multiple factors influence student dropout rates.

Notwithstanding its limitations, dropout research does document more solid conclusions. Dropout rates are higher for minorities, poor children, and students with disabilities. Research also shows multiple factors influence a student's decision to drop out of school, from home and community life to academic achievement.

In general, research is clearer on the link between retaining a student in grade and dropping out than high-stakes testing policies and dropout rates.[72] Because high-stakes testing appears to be correlated with dropout rates, Tennessee should closely monitor the dropout rate as the Gateways go into full implementation.

How have other states handled graduation exams?

States with graduation exams test students at different grade levels and with different levels of test alignment. Several other states have aligned the difficulty of their exams at the 10th grade level like Tennessee, including Alaska, Florida, Massachusetts, Ohio, and Washington.[73] Test alignment with grade level standards differs in other states, with some aligning their exams at the 11th grade or 8th grade level.

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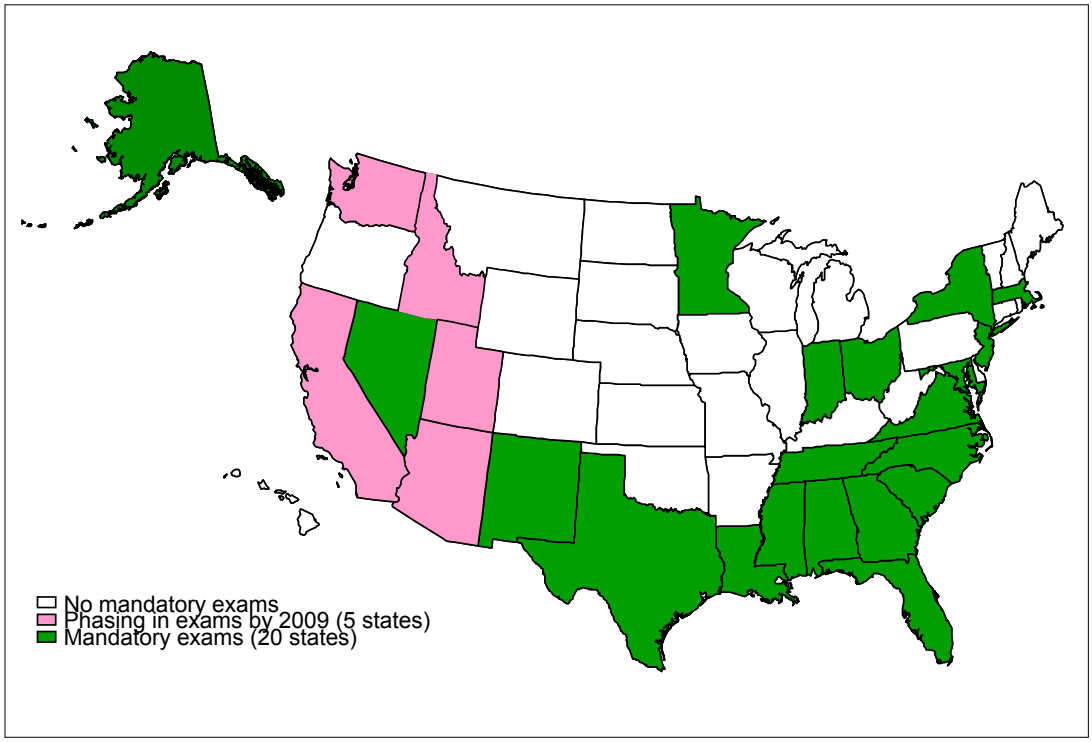
[70] Keith Gayler, Naomi Chudowsky, Nancy Kober, and Madlene Hamilton, "State High School Exit Exams: Put to the Test," Center on Education Policy, August 2003.
[71] Jay P. Heubert, "Disability, Race, and High-Stakes Testing of Students," National Center on Accessing the General Curriculum, 2002, http://www.cast.org/ncac/Disability,Race,andHigh-StakesTestingofStudents2681.cfm.
[72] Ibid.
[73] Keith Gayler, Naomi Chudowsky, Nancy Kober, and Madlene Hamilton, "State High School Exit Exams: Put to the Test," Center on Education Policy, August 2003.

Exhibit 21: Graduation Exit Exams across the United States



Source: Keith Gayler, Naomi Chudowsky, Madlene Hamilton, Nancy Kober, and Margery Yeager, "State High School Exit Exams: A Maturing Reform," Center on Education Policy, August 2004.

Because each state develops its own exams based on state curriculum standards, the difficulty of the tests and student performance varies by state. A recent SREB brief notes that variations in pass rates may also be attributed to the standards and pass/fail cut scores adopted by states. Most states require students to answer about half of the questions correctly to pass the exams.[74]

SREB Focus

Most SREB states have implemented graduation exams with the intention of raising the merits of a high school diploma and signifying high school graduates have passed an external measure of proficiency beyond the completion of a series of courses.[75] A majority of SREB states require students to pass some or all graduation assessments before graduating with a regular high school diploma. Some states are examining other diploma options.

[74] Southern Regional Education Board, "Getting High School Graduation Test Policies Right in SREB States," May 2004.
[75] Ibid.

Exhibit 22: SREB State End-of-Course Exams

End-Of-Course Exam Percentage Passing Rates								
State	Student Impact	Algebra I	Geometry	English I (Lit)	English II (Writing)	History	Govt.	Biology
Arkansas	None	79	73	78				
Maryland	Student Transcript	53		40			60	54
Mississippi	Required for Graduation	82		78	94	94		87
North Carolina	Student Transcript	79	70	21		55	69	61
Oklahoma	Student Transcript	22		62	73	68		45
Tennessee	**Required for Graduation**	**76**		**87**				**95**
Virginia	Required for Graduation	78	79	93	91	75		82

Source: Southern Regional Education Board, "Getting High School Graduation Test Policies Right in SREB States," May 2004. Note: Tennessee and North Carolina also factor end-of-course exam scores into course grades. Virginia requires students to pass both English end-of-course exams and at least four of the remaining end-of-course exams.

Delaware's Differentiated Diploma

Delaware does not require students to pass a graduation exam to receive a diploma but is formulating a policy to qualify a student's diploma through a tiered system. The tiered diploma process would include an end-of-course exam diploma index that would weigh a student's scores on the state's exams and then award students different diplomas based on the result – students in the lowest tier would receive a "basic" diploma, the middle tier a "standard" diploma, and the top tier a "distinguished" diploma.

Test Scores on Student Transcripts

Maryland, North Carolina, and Oklahoma include end-of-course exam scores on student transcripts so college admissions officers and employers have more specific information on student high school performance.[76]

State Policy Options

Several states have altered their original test policies through:

- Waivers, exemptions, and alternative routes to a regular diploma;
- Delaying the full implementation of exam consequences;
- Lowering the scores required to pass the exit exams; and
- Deferring exit exams because of compliance concerns with No Child Left Behind.[77]

[76] Ibid. Note: West Virginia plans to include students' exam scores on their transcripts.

Educators, policymakers, and researchers hold different opinions about altering graduation exam policy. Authors of a recent Education Week article argue against assessment alteration as a solution, noting that "doing away with the tests or the consequences is the easy way out. It allows us to avoid the hard work of improving instruction and restructuring the use of time and resources so that all students are given the time and support needed to meet the standards."[78] Other researchers argue altering graduation exam policy is necessary to ensure fairness for all students.

What are the legal concerns associated with graduation exams?

Numerous constitutional, statutory, and regulatory principles are applicable to graduation exams, including the 14th amendment to the United States Constitution.[79] Some researchers forecast future legal challenges based on the rapid expansion and increased standards and stakes of assessments used for accountability purposes, noting "the school accountability climate in the United States consists of proliferating systems, increasingly salient stakes and rapid implementation of rewards and sanctions. These elements form ideal conditions for legal challenge."[80]

In past cases, federal courts have considered several areas of graduation exam policy in rendering a decision, including:

- The use of an educational test for a purpose for which it was not designed or validated;
- The use of a test score as the sole criterion for the educational decision;
- The nature and quality of the opportunity provided to students to master required content, including whether classroom instruction included the material covered by a test administered to determine student achievement;
- The significance of any fairness problems identified, including evidence of a predicted disproportionate impact on certain student subgroups;
- Possible cultural biases in the test or in test items; and
- The educational basis for establishing passing or cutoff scores.[81]

Federal courts usually defer to the authority of educators to formulate appropriate educational goals, such as improving the quality of education, ensuring students can compete on a national and international level, and encouraging educational achievement

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[77] Keith Gayler, Naomi Chudowsky, Nancy Kober, and Madlene Hamilton, "State High School Exit Exams: Put to the Test," Center on Education Policy, August 2003.
[78] As quoted by Sherry Freeland Walker, "Assessment, High-Stakes Testing/Competency," State Education Leader, Education Commission of the States, Vol. 18, No.1, Winter 2000.
[79] In the Debra P. v. Turlington case, the court found a high school diploma is a liberty or property interest and, thus, subject to due process protection under the 14th amendment. The due process clause of the 14th amendment states, "nor shall any state deprive any person of life, liberty, or property, without due process of law."
[80] Jay Parkes and Joseph Stevens, "Could School Accountability Systems be Challenged in Court?," *Education Assessment Insider*, Vol. 1, No. 1, April 2002.
[81] United States Department of Education, "The Use of Tests as Part of High-Stakes Decision-Making for Students: A Resource Guide for Educators and Policy-Makers," December 2000.

through the establishment of academic standards.[82] Courts have generally ruled for the state when the state can show the educational justification for the exam and when the state has:

- given adequate advance notice of the graduation test;
- afforded multiple opportunities to take the test;
- taught the tested content; and
- provided opportunities for remediation.[83]

Debra P. v. Turlington

Graduation exam litigation research often cites the *Debra P. v. Turlington* case as a landmark in establishing precedents for high-stakes testing lawsuits. The Florida legislature established the state's first graduation exam in 1976. Two years later, 10 students who failed the exam sued the state over the use of the exam as a diploma requirement. The plaintiffs charged that the use of a graduation exam unfairly penalized African American students adversely impacted by the vestiges of Florida's previously segregated school system. The appeals court ruled Florida could not deny a student a diploma until the state demonstrated the test was a fair test of what students were taught in the classroom.

In response to the court's request for evidence of instructional content/validity, the Florida Department of Education examined every school district throughout the state using the following process:

- An analysis of instructional materials used in each district;
- A description of district plans and procedures for teaching the required graduation exam skills;
- A survey of classroom teachers concerning instruction of the graduation exam skills; and
- On-site visitations to each district by a team of educational specialists and, as part of the on-site visit, a survey of students in a sample of 11th grade classes.

Ultimately, the court delayed implementing the graduation requirement until 1983. While the courts upheld the use of the state's graduation exam, the case set a landmark precedent for future education litigation by holding that students have liberty and property rights in a diploma protected by the 14th amendment to the United States Constitution. As such, government entities must afford students due process procedures before denying them a high school diploma.[84]

Today's Legal Environment

Just as the content and standard level of graduation exams have changed over time, the legal environment has changed as well. While past legal challenges to graduation exams,

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[82] Ibid.
[83] WestEd Policy Brief, "Graduation Tests: Making Sure Exit Exams get a Passing Grade," June 2003.
[84] Florida Department of Education, History of Statewide Assessment Program, http://www.firn.edu/doe/sas/hsap9000.htm, accessed May 7, 2004.

such as *Debra P. v. Turlington,* provide the foundation of today's case law, the legal environment surrounding high-stakes testing today includes the standards-based accountability movement. The author of a recent research article on the legal implications of high-stakes testing notes today's environment differs because:

- federal law has changed in ways that weaken important civil-rights protections, including situations where minorities, ELLs, and students with disabilities fail high-stakes tests at high rates; and
- the legal standards of older cases, although useful, do not account for today's standards movement, which seeks to educate all students to high standards.[85]

G.I. Forum v. Texas Education Agency

A 2000 court case in U.S District Court challenged the Texas Education Agency's use of a 10th grade graduation exam. The plaintiffs in this case – several students who did not pass the TAAS and were unable to obtain a high school diploma – argued Texas' graduation exit exam discriminated against minority students in violation of Title VI of the 1964 Civil Rights Act and denied them 14th amendment due process and equal protection rights.

In this case, the court ruled:

- passage of the TAAS to gain a high school diploma *did* have a "disparate impact" on Texas minority students, although the court said this does not mean the test was unfair;
- the TAAS can be considered an educational necessity, meaning the court defers to the rights of the state to implement educational policies it believes are in the best interest of all Texas students; and
- the plaintiff's due process rights were not violated.[86]

The court also held that the plaintiffs had not shown less discriminatory alternatives to the test that would motivate students. The Mexican American Legal Defense Fund (MALDEF), which provided legal counsel for the plaintiffs, decided not to appeal because of concerns over setting a negative precedent in appellate court.[87] Since the decision, however, some researchers have raised doubts about the evidence that the achievement gap narrowed between white and non-white students in Texas, as well as the participation rate of students with disabilities.[88]

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[85] Jay P. Heubert, "High-Stakes Testing in a Changing Environment, Disparate Impact, Opportunity to Learn, and Current Legal Protections," from Fuhrman, S. and Elmore, R., *Redesigning Accountability Systems*, New York: Teachers College Press, 2004.

[86] Katy Anthes, "Competency Testing for High School Graduation – Notes on the Texas Lawsuit," Education Commission of the States, accessed May 2, 2000.

[87] Paul T. O'Neill, "High Stakes Testing Law and Litigation," *BYU Education and Law Journal*, Issue 2, Volume 2003, p. 653.

[88] Jay P. Heubert, "Disability, Race, and High-Stakes Testing of Students," National Center on Accessing the General Curriculum, 2002, http://www.cast.org/ncac/Disability,Race,andHigh-StakesTestingofStudents2681.cfm, accessed May 28, 2004.

Alternatives

Legislative Alternatives

The General Assembly may wish to commission a study of the state's graduation exam policy. The study could assess alignment among multiple components: standards, assessment, curriculum, professional development, remediation/intervention programming and attendance, early intervention, due process procedures in place, the use of Gateway data as a diagnostic tool by teachers and administrators, and the link between the Gateways and dropout rates, for example. In essence, this process would hold Tennessee's high school accountability test policy accountable.[89] SREB also encourages states to monitor the impact of graduation exams on school curriculum, dropout rates, enrollment in GED preparation programs, and student success after graduation.[90] California commissioned a study of the state's graduation exam and decided, based on the results, to postpone full implementation of the policy for two years.

Because high-stakes testing appears to be correlated with dropout rates, Tennessee should closely monitor the dropout rate as the Gateways go into full implementation. The study should also identify ways to improve the tracking of dropouts in Tennessee. Evaluation can identify the negative and unintended consequences associated with high-stakes testing so policymakers can implement changes to correct or mitigate them before the denial of a diploma. Evaluation can also identify the positive consequences associated with high-stakes testing and document best Gateway practices that struggling systems can use to improve educational programming and student performance on the Gateways.

Although this report provides background, data analysis, and research on the salient issues surrounding Tennessee's Gateway exams, further research would refine and clarify the issue. Research also suggests high-stakes testing programs should routinely include "a well-designed evaluation study component. Policymakers should monitor both the intended and unintended consequences of high stakes assessments on all students and on significant subgroups of students, including minorities, English-language learners, and students with disabilities."[91]

If policymakers decide to form deliberative forums, an oversight body, or commission a study of Tennessee's Gateway exams, the focus could include:

- Instruction – How well are teachers aligning their instruction with the assessment and the standards? What professional development programs are/would improve instruction and student performance? What instructional support do teachers need to improve student success on the exams?

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[89] Bryan Goodwin, Kerry Englert, and Louis Cicchinelli, "Comprehensive Accountability Systems: A Framework for Evaluation," Mid-continent Research for Education and Learning, revised February 2003.
[90] Southern Regional Education Board, "Getting High School Graduation Test Policies Right in SREB States," May 2004.
[91] Jay P. Heubert, "High-Stakes Testing: Opportunities and Risks for Students of Color, English-Language Learners, and Students with Disabilities," National Center on Accessing the General Curriculum, 2000.

- Remediation – What remediation practices are the most successful? How can we get students who need remediation the most to attend it? Does Tennessee fund remediation at appropriate levels?
- Dropouts/Retention – What impact do the Gateways have on a student's decision to dropout? What are the other reasons students drop out of school in Tennessee? What processes do schools use to decide when a student may enroll in a Gateway class? How well do students who are retained in early high school grades perform on the Gateways?
- Accommodations and Staffing – To what extent are special education and ELL students provided with accommodations, both on the Gateway exams and in daily instruction? What are the staffing needs associated with proper instruction for special education and ELL students?
- Evaluation of best practices – Which schools have the most success on the Gateway exams? How can other schools learn from these models (school leadership, instruction, student incentive programs, remediation, and professional development practices)?
- The Gateway pipeline – How can we build a strong academic foundation for students before they take the Gateway exams? How can we strengthen early intervention efforts and focus our efforts on Gateway-tested competencies at the elementary and middle school level?

The General Assembly may wish to expand funding for remediation and early intervention programs to improve student achievement on the Gateway exams. National research emphasizes early intervention programs as a necessary component of a successful high-stakes testing program, recommending states implement programs of early intervention and effective remediation assistance when using tests to make graduation decisions. Early Gateway intervention programs could identify students struggling with foundational concepts necessary for Gateway exam success far before a student actually takes the exam. An early intervention program would provide an early warning to teachers, administrators, parents, and students, focusing resources on preventing Gateway failure before instead of after a student takes the exams. Other states with exit exams have instituted early warning exams to diagnose and correct student weaknesses earlier and before the student falls too far behind. Because the Gateways are graduation-contingent exams and represent the "credential cap" of a student's experience in Tennessee's K-12 education system, the K-12 pipeline should be more explicitly aligned toward student success on the Gateways. Early intervention programs are one method to achieve this, enlisting the elementary and middle schools in student preparation years before students answer their first Gateway exam question.

The State Board of Education recommends the early Gateway intervention program proposed by the Accountability Committee, requiring research-based interventions for students scoring below proficient on the TCAP in 3rd, 5th, and 8th grade. OEA interviews found high school principals expressing strong support for early intervention programs, with one principal noting this recommendation "hits the nail on the head."

Changing student demographics and the high expectations of the NCLB Act will also require more investment for and research into improving student achievement for special education and ELL students. Gateway data clearly show these subgroups score lower on all three exams. More early intervention and remediation programs would ensure these students have an equal opportunity to be successful on the exams.

Administrative Alternatives

The Department of Education may wish to identify districts, high schools, and teachers with best Gateway practices and successes for emulation by other districts, schools, and teachers. OEA's 2003 report, *Funding Public Schools: Is the BEP Adequate?,* outlined options to determine the resources necessary to achieve adequacy in successful schools or districts. The successful school or district model would identify schools performing at a desired Gateway performance level and the resources employed to achieve these results, while also controlling for factors external to the school, such as the socioeconomic status of the students. This model assumes that districts/schools with similar resources and student and community demographics can perform at levels similar to the model school or district. The successful school or district model can also incorporate other variables, such as school leadership, teaching strategies and instructional practices, use of data to drive school and classroom changes, and the quality of supplemental programs, such as Gateway interventions for struggling students.

A more formal system might encourage or require schools with high percentages of struggling students to partner with more successful schools to support best practices throughout the state and build their internal capacity.

The Department of Education may wish to create a website to publish and disseminate best Gateway practices. Based on OEA interviews, high school principals indicate they need more information on the best professional development, intervention/remediation, and instructional practices and strategies. National research suggests external accountability measures, such as the Gateway, may have little impact on schools with little internal capacity or understanding of how to improve student achievement. By including best practices on its website, the department could provide schools and districts searching for different ways to approach the Gateways with successful examples from around the state.

The Department of Education may wish to pilot a program or programs measuring the content of teachers' instructional practices. Numerous research studies identify the quality of instruction a student receives as one of the most important predictors of student achievement. Based on 25 years of study, Vanderbilt University professor Andrew Porter and other researchers have developed a template, or matrix, to analyze teachers' instructional practices. This template helps teachers analyze how much time and emphasis they give to certain subject topics (i.e., computation, data analysis and probability, and algebra) and the level of cognitive demand they require of their students (i.e., memorize, solve routine problems, communicate understanding, and conjecture or prove). Porter and another colleague have developed templates for the subjects of mathematics and science, both Gateway-tested subjects. A Gateway-specific instructional

template could provide Tennessee teachers with support in examining the content of their Gateway instruction and its alignment with the Gateway assessments and standards.

A number of other states and school districts, including Winston-Salem and Charlotte-Mecklenburg, North Carolina, are using instructional content research designs to analyze classroom instruction and its alignment with state and district standards and assessments. State officials in Ohio have also piloted a similar program in Cleveland. Officials in Ohio hope the data will allow the state to better analyze how teachers spend their time in the classroom, what teachers do and do not emphasize in terms of curriculum, as well as supporting teachers in reflecting on and improving their instructional content, thereby improving student achievement.[92] Another instructional measurement option might involve taking a sample of Gateway-subject lesson plans from across the state to examine for instructional content, similar to a process recently used in South Carolina.

The Department of Education may wish to evaluate local school systems to determine inclusion practices and capacity issues with regard to special education and ELL students. The Department of Education could research how and to what degree school systems are providing accommodations to students on the Gateway exams. Research shows this is a weak area nationally. Because special education students must pass the Gateways to receive a high school diploma, the alignment among a student's IEP, the general education curricular instruction received by the student, and the Gateway standards is very important. Some Department of Education officials also have concerns that local school systems are not providing eligible students with accommodations both daily and on regularly scheduled assessments. The lack of accommodations knowledge, training, and understanding among LEAs results in special education students receiving very different levels of accommodations across the state. In discussing ways to improve accommodations, some members of the State Board Advisory Committee on Accountability and Testing noted that some general education teachers do not know accommodations are available.

The State Board of Education may wish to formulate and standardize a uniform Gateway due process procedure for all students. Based on the 14th amendment to the U.S. Constitution, past graduation exam lawsuits have established and reaffirmed a student's property interest in a high school diploma, requiring due process before diploma denial. While generally deferring to state education agencies in examining the use of graduation exams to improve student achievement, courts examine procedural and substantive due process rights afforded students in considering graduation exam challenges. Although Tennessee already provides for due process through advance notice of the Gateway exams as a graduation-contingent exam, multiple opportunities to take the exam, and intervention/remediation opportunities, a more formal due process checklist or form would better assist schools in documenting that they have adequate due process procedures, as well as reinforce for parents and students the importance of Gateway exam performance.

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[92] Kathleen Kennedy Manzo, "Teachers Picking up Tools to Map Instructional Practices," *Education Week*, October 8, 2003.

Exam Alternatives

In considering any potential changes to Tennessee's graduation examinations, policymakers should weigh intended and unintended consequences. A discussion of possible alternatives, and the pros and cons of each, follows.

In May 2004, the Tennessee House of Representatives passed legislation requiring the State Board of Education to adopt formal due process procedures for the Gateway exams. The legislation also would have required the Board to develop alternative means by which students can qualify for a regular diploma.[93] The legislation would postpone full implementation of the Gateways as a graduation requirement, extending the Competency graduation exam policy for at least one year. [94] The legislation failed to pass the Senate Education Committee, as did an amendment applying the due process and alternative means of proficiency changes to Shelby County and Memphis City Schools only, exempting the rest of the state.[95]

In reexamining its graduation exam policies as their full implementation draws closer, Tennessee is not alone. Other states have struggled with preserving their original policy, often the assessment component of a larger education reform package, and accommodating the concerns over student failure rates. The Center on Education Policy cautions policymakers and administrators about exit exam opposition, noting that "[s]tate leaders cannot afford to ignore criticisms of exit exams, because mounting resistance could eventually undermine broader public support for the tests and because opponents raise some legitimate issues that need to be addressed."[96] Other organizations note this can be a positive development as extra attention can inform the public of the complexity and commitment needed to successfully implement a high school exit exam.[97]

Based on the experiences of other states with graduation exams, OEA has identified and analyzed five alternatives for policymakers:

Alternative I: Differentiated Diplomas
Alternative II: Alternative Routes, Waivers, or Appeals
Alternative III: Lower the Pass Scores/Compensatory Scoring
Alternative IV: Defer Exam Consequences
Alternative V: Continue with the Policy Unchanged

Alternative I: Differentiated Diplomas

Delaware is considering offering students differentiated diplomas based on student graduation exam performance. Delaware would offer a variety of diploma options – distinguished, regular, and basic – depending on a student's qualifications. In 2000, Alabama began offering students who failed the state's graduation exam an Adult

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[93] Amendment No. 1184 to House Bill 2819, 103rd General Assembly.
[94] Students could also satisfy the Competency Test's math and language requirements by passing the corresponding Gateway end-of-course tests, Algebra I and English II.
[95] Minutes of Senate Education Committee, May 12, 2004.
[96] Keith Gayler, Naomi Chudowsky, Nancy Kober, and Madlene Hamilton, "State High School Exit Exams: Put to the Test," Center on Education Policy, August 2003.
[97] Stanley Rabinowitz, Joy Zimmerman, and Kerry Sherman, "Do High Stakes Tests Drive Up Student Dropout Rates, Myth versus Reality," WestEd Knowledge Brief, 2001.

Alternative High School Diploma. Students qualify for this diploma option by completing the Alabama high school curriculum and passing the General Educational Development (GED) test. Tennessee could adopt a similar diploma program with the Gateway exams, allowing all students to qualify for a diploma regardless of their performance on the exams but differentiating or qualifying the diploma based on academic achievement.

Exhibit 23: Differentiated Diplomas

Pros:	Cons:
▪ recognizes efforts of high-performing students	▪ community opposition from civil rights groups – seen as a tracking system
▪ recognizes that lower performing students attended classes and fulfilled requirements	▪ local school superintendents may also be opposed
▪ may encourage some students to try harder	▪ confusion about what the exact value of each diploma may be

Source: Keith Gayler, Naomi Chudowsky, Madlene Hamilton, Nancy Kober, and Margery Yeager, "State High School Exit Exams: A Maturing Reform," Center on Education Policy, August 2004.

Alternative II: Alternative Routes, Waivers, or Appeals

An August 2004 report notes that states vary greatly in how many alternative paths they offer students. Alternative pathways may also differ greatly among states, with some states pursuing more stringent alternative paths and others more lenient paths.[98]

In its January 2004 report, the State Board of Education's Accountability Committee recommended a graduation matrix that would allow students to qualify for a diploma by demonstrating proficiency in the Gateway subject areas through alternative means.[99]

One alternative means of demonstrating student proficiency in the Gateway-tested subjects is a performance assessment. As opposed to a multiple choice test, in which students select a correct response from other incorrect responses, performance assessments require students to correctly respond to the test question by "showing their work," allowing students to document the problem-solving process used to arrive at the correct response.

Although performance assessments allow some students to better document their knowledge, thinking, and analytical skills, research shows the low-income and minority achievement gap is greater on performance assessments than multiple choice exams. Some researchers speculate that the wider achievement gap on performance assessments is attributable to the curriculum that poor and minority students receive, which is less likely to prepare them to perform the applications and apply the reasoning skills captured

[98] Source: Keith Gayler, Naomi Chudowsky, Madlene Hamilton, Nancy Kober, and Margery Yeager, "State High School Exit Exams: A Maturing Reform," Center on Education Policy, August 2004.

[99] For example, a student who fails the Algebra I Gateway could still achieve proficiency in the Gateway mathematics area by either achieving an ACT score of 19 or above, exceeding the core curriculum requirements in mathematics, passing a higher level end-of-course exam (Geometry), or attaining a passing score on a mathematics performance assessment.

by performance assessments. In addition, low-achieving students may not put forth the effort required to complete performance assessment problems.[100] Furthermore, developing, administering, and scoring a performance assessment is more expensive than a standard multiple choice test. The reliability of performance assessments is also lower than multiple choice tests, calling the accuracy of student scores into question.

If Tennessee implements a performance assessment alternative to the Gateway, policymakers should be mindful of New Jersey's experience. In 2003, the New Jersey Department of Education released a white paper recommending the state eliminate its performance assessment, the Special Review Assessment, because of auditing, reliability, and security problems. The paper noted the performance assessment, originally intended for "test phobic" students, now was being taken primarily by regular education students who had failed the state graduation exam. New Jersey has not eliminated its performance assessment option, instead opting to reform and preserve it. Policymakers should consider these aspects of performance assessments before including this alternative route to a regular high school diploma.

Florida

Florida added alternative paths to a high school diploma in response to vocal protests of the state's graduation exam. In June 2003, Florida passed legislation allowing scores on other high school tests (such as, the ACT and SAT) to substitute for its graduation exam, the FCAT. This legislation authorizes this exam substitution for one year, subject to further extension. According to the Center on Education Policy, this legislation would allow about 400 seniors who failed Florida's exit exam to use scores from the allowed substitute tests to obtain a regular high school diploma. In April 2003, legislation passed allowing some students with disabilities to use methods other than the exit exam to fulfill graduation requirements. [101]

Researchers caution states considering allowing assessments like the SAT or ACT to substitute for a graduation exam because of several issues:

- although multiple measures are desirable, many testing experts argue a test like the SAT or ACT is designed to predict success in college, not to determine whether a student has earned a high school diploma;
- SAT/ACT are not aligned with the content taught in high school and assessed by the graduation exam;
- states may struggle with setting a cut score on substitute assessments that is equivalent to passing the graduation exam; and
- widespread use of substitute exams may undermine support for the graduation exam, as parents or the media may ask why the state is

[100] Interview with Andrew C. Porter, Professor, Vanderbilt University, and Andrew C. Porter, "Prospects for School Reform and Closing the Achievement Gap," Paper presented at Educational Testing Service's Invitational Conference, "Measurement and Research Issues in a New Accountability Era," October 3-4, 2003, New York City.

[101] Keith Gayler, Naomi Chudowsky, Nancy Kober, and Madlene Hamilton, "State High School Exit Exams: Put to the Test," Center on Education Policy, August 2003.

spending money on the graduation exam when students qualify for a diploma through an alternate route.[102]

Alabama

In March 2004, the Alabama State Board of Education voted to allow an alternative route to a regular high school diploma for students with disabilities. Students would qualify for this alternative route by failing no more than one section of the state graduation exam, passing all required courses with a cumulative "C" average, and presenting documentation proving their disability prevented them from passing a specific part of the exam.[103]

Exhibit 24: Alternative Assessment

Pros:	Cons:
▪ addresses needs of students who have performed adequately in high school yet cannot pass regular exit exams	▪ extra costs
▪ allows students to demonstrate competence in another way	▪ extra effort at local/state level to administer
▪ satisfies calls to use multiple measures for making high-stakes decisions	▪ alternative assessment can be perceived as easier than regular exam and an easy way to get a diploma
▪ perceived as fair if content is as rigorous as regular exam	▪ can be perceived as unfair and "water down" the value of a diploma

Source: Keith Gayler, Naomi Chudowsky, Madlene Hamilton, Nancy Kober, and Margery Yeager, "State High School Exit Exams: A Maturing Reform," Center on Education Policy, August 2004.

Other states have implemented a waiver or appeals process for students who meet all the other requirements for a regular diploma but cannot pass the graduation exam or exams. These options generally require students to demonstrate a commitment to graduation with a regular diploma through a high attendance rate for both regular classes and remediation options, partial success on the state's graduation exam(s), a minimum grade point average, and recommendations from school officials.

One research organization states the key to a successful waiver policy is, "to be able to separate adequate students who have performed well in high school but cannot pass the exit exam from students who cannot pass the exam because they have not made an effort to learn – for example, because they have not been attending classes."[104]

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[102] Source: Keith Gayler, Naomi Chudowsky, Madlene Hamilton, Nancy Kober, and Margery Yeager, "State High School Exit Exams: A Maturing Reform," Center on Education Policy, August 2004.
[103] *Birmingham News*, "Alabama Board Makes Change Allowing More Disabled Students to Qualify for Graduation," March 26, 2004.
[104] Source: Keith Gayler, Naomi Chudowsky, Madlene Hamilton, Nancy Kober, and Margery Yeager, "State High School Exit Exams: A Maturing Reform," Center on Education Policy, August 2004, p. 104.

Exhibit 25: Waiver or Appeals Process

Pros:	Cons:
▪ perceived as fair for students who have difficulty taking tests	▪ some teachers and administrators may urge waivers for lower-achieving students – Officials may have incentives to grant many waivers to increase graduation rates
▪ waivers that require students to meet certain academic criteria eliminates unqualified students who may be better served by remediation or other interventions	▪ administrative burden of collecting various pieces of student data
▪ more students may receive a diploma	▪ process may be seen as less fair if criteria are not clear and detailed

Source: Keith Gayler, Naomi Chudowsky, Madlene Hamilton, Nancy Kober, and Margery Yeager, "State High School Exit Exams: A Maturing Reform," Center on Education Policy, August 2004.

Ohio[105]

Ohio allows students an alternative pathway to a diploma if they do not pass all five of the state's graduation exams. To qualify for this alternative pathway to a diploma, students must have met the following requirements:

- Passed four of the five tests and missed passing the fifth test by no more than 10 points;
- Have had a 97 percent attendance rate through all four years of high school and must not have had an expulsion in high school;
- Have a grade point average of 2.5 out of 4.0 and completed the curriculum requirement in the subject area missed;
- Have participated in any intervention programs offered by the school and must have had a 97 percent attendance rate in any program offered outside the normal school day; and
- Obtained letters of recommendation from each teacher in the subject area not yet passed.

Indiana[106]

Indiana also provides an alternative pathway to a high school diploma if a student has:

- Taken the exit exam in the subject area or subject areas for which they did not achieve a passing score at least one time every school year during the sophomore, junior, and senior years;
- Completed remediation opportunities provided by the school;
- Maintained a high school attendance rate of 95 percent with excused absences not counted against the student's attendance;

[105] Ohio Department of Education, "Ohio Graduation Tests – Frequently Asked Questions," http://www.ode.state.oh.us/proficiency/OGT/default.asp?pfv=True, accessed April 24, 2004.
[106] Indiana Department of Education, "Class of 2007: Students and Parents," ISTEP+ InfoCenter, http://ideanet.doe.state.in.us/istep/welcome.html, May 24, 2004.

- Maintained a "C" average in the courses that make up the 24 credits specifically required for graduation; and
- Obtained a written recommendation supporting the request for the appeal from the student's teacher in the subject area in which the student has not achieved a passing score.

Alternative III: Lower the Pass Score/Compensatory Scoring

Another option would be to lower the score required to pass the Gateways indefinitely or phase-in higher pass scores over a period of years. Virginia has lowered the passing scores on its social science and history exams.

Tennessee could also change Gateway policy by allowing students to substitute weak performance on one exam(s) with strong performance on other exams. This compensatory option might require students to achieve a minimum performance level on the three Gateway exams but would not require students to pass all three Gateway exams. For example, a student could meet the minimum Gateway performance level by passing the English II and Biology I Gateways with an advanced score even if the student did not pass the Algebra I Gateway; thus, state policy would require students to obtain an average, or composite, score computed from the student's score on all three Gateways. In June 2004, the Maryland State Board of Education approved a regulatory change requiring students to achieve a minimum consolidated score across the state's four end-of-course exams, allowing students with poor performance on one exam to compensate with stronger performance on the remaining exams.[107]

Exhibit 26: Lower the Pass Score/Compensatory Scoring

Pros:	Cons:
▪ if passing score is too high, large numbers of high school students will fail to graduate	▪ schools graduate too many students who are ill-prepared for work or additional schooling – concerns from the business and higher education communities
▪ allows students who excel in some subjects but struggle with others to obtain a high school diploma	▪ graduation exams lose strength as reform tool – weakening of accountability

Source: Keith Gayler, Naomi Chudowsky, Madlene Hamilton, Nancy Kober, and Margery Yeager, "State High School Exit Exams: A Maturing Reform," Center on Education Policy, August 2004.

Alternative IV: Defer exam consequences

Tennessee might also defer the graduation component of the Gateway exams, requiring students to take but not pass them to qualify for a regular diploma for a period of time. Under this option, Tennessee would continue to administer the exams to calculate school and district annual yearly progress but temporarily remove passage of the Gateways as a requirement for graduation. However, the Competency Test data compiled by OEA show many students already fail the Competency Test and are unable to get a diploma, indicating a deeper problem with student achievement indicated or diagnosed by the tests.

[107] Maryland State Department of Education, "State Board Approves Strengthened High School Graduation Requirements," June 15, 2004.

Exhibit 27: Defer Exam Consequences

Pros:	Cons:
▪ offers opportunity to assess exam system and identify areas for improvement before withholding diplomas	▪ Tennessee's high school graduation problem remains unsolved
▪ may be able to better withstand legal challenges – adequate notification of exam consequences	▪ seen as weakening accountability - Delay may be seen as weakening the credibility of the policy

Source: Keith Gayler, Naomi Chudowsky, Madlene Hamilton, Nancy Kober, and Margery Yeager, "State High School Exit Exams: A Maturing Reform," Center on Education Policy, August 2004.

California

The California State Board of Education unanimously voted in July 2003 to delay the state's graduation exam for two years, from 2004 to 2006. The Board cited the need to give school reforms more time to take effect before enforcing the state's exit exam consequences. The President of the California State Board of Education also favored delaying the exam for two years to place the state in a better position to withstand legal challenges.[108] Also influencing the decision for postponement, a 2002 study found students with the highest passing rates on the state's exit exam were more than twice as likely to have had fully credentialed teachers as those with the lowest, with heavily minority schools more likely to employ teachers without credentials.

Alternative V: Continue with the Policy Unchanged

Tennessee could also continue with full implementation of the Gateways as scheduled in 2005. Louisiana allows students multiple opportunities to take the state graduation exam but has not altered its original exam policy. However, the State Board of Education Accountability and Testing Committee, the Memphis City School System, and education interest groups outline concerns about leaving the Gateway policy unchanged, anticipating high cumulative failure rates for certain student subgroups, particularly in large urban school systems.

Exhibit 28: Continue With Policy Unchanged

Pros:	Cons:
▪ lends credibility to original exam policy	▪ concerns about fallout from exam failure rates
▪ enforcing accountability can better motivate some teachers, schools, and districts	▪ no alternative options for students may undermine support for the exam policy among public

Source: Keith Gayler, Naomi Chudowsky, Madlene Hamilton, Nancy Kober, and Margery Yeager, "State High School Exit Exams: A Maturing Reform," Center on Education Policy, August 2004.

Concern also exists over armed forces eligibility for students without a high school diploma. Students without a regular high school diploma have difficulty meeting Armed

[108] Joelle Tessler and Jessica Portner, "State expects to hold off exit exam," *Knight Ridder Newspapers*, July 8, 2003.

Forces eligibility requirements.[109] All the major branches (Army, Navy, Air Force, and Marines) prefer applicants with a high school diploma, and an overwhelming majority of new recruits enter the armed services with a regular high school diploma.[110]

All major branches provide alternative pathways to eligibility, allowing applicants to meet eligibility if they have earned a GED, completed 15 hours of college credit above the remedial level, or clocked 675 hours with the Job Corps. Although individuals without a high school diploma may enter the services by meeting one of these criteria, the branches place a percentage cap on the number of recruits allowed to enter the services with a GED– both the Army and the Air Force limit GED spaces to one percent of all new recruits, while the Navy and Marines have a slightly higher alternative entrance cap at five percent.

All branches require applicants to achieve a qualifying, or proficient score, on the Armed Services Vocational Aptitude Battery (ASVAB), the Armed Services entrance examination, regardless of educational attainment level. Recruits entering the services through the GED pathway generally have to compensate for their lack of diploma by obtaining an above average score on the ASVAB.

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[109] Information based on interviews with M. Smathers, Guidance Counselor, U.S. Army; Glen Stagman, Education Officer, Nashville Recruiting District, U.S. Navy; Sergeant Pierce, Staff Sergeant, U.S. Air Force; and Sergeant Rodriguez, Operations Clerk, U.S. Marine Corps, May 13, 2004.

[110] The Navy allows some students to enlist who have failed the high school exit exam but passed all of their high school coursework. However, the Navy considers only these individuals enlistment eligible for a short period of time, approximately one year, and this occurs very rarely as most individuals who cannot pass the high school exit exam cannot achieve the necessary score on the Armed Services Vocational Aptitude Battery (ASVAB). Telephone interview with Glen Stagman, Education Officer, Nashville Recruiting District, U.S. Navy, May 13, 2004.

Appendix A: Gateway Timeline

1992	General Assembly requires end-of-course exams for all high school subjects in the Education Improvement Act
1998	Education Oversight Committee approves State Board of Education Policy for 10 end-of-course exams, students required to pass 3 "Gatekeeper" or Gateway exams for regular diploma
1998- 99	Performance measures developed for Gateways
1999-00	Development continues –field-testing
2000-01	Gateways administered statewide on no-fault basis
2001-02	Algebra I and Biology I exams begin
2002-03	English II exam begins
2004	State Board of Education Accountability Committee releases report with recommendations for improving Gateway exam policy State Board of Education approves four of the five recommendations in the report but does not approve Graduation Matrix recommendation.
2005	First high school graduation class required to pass the Gateways to obtain a regular diploma.

Sources: Tennessee State Board of Education, "High School End-Of-Course Tests Policy," Revised February 1, 2002; Tennessee Department of Education, "Gateway Tests – Questions and Answers"; Knox County Schools, "Timeline for Implementing Gateway and End-of-course Tests,"; "Official Report of Findings and Recommendations of the Advisory Committee on Accountability and Testing to the Tennessee State Board of Education", Douglas E. Wood, Executive Director, Tennessee State Board of Education, January 30, 2004.

Appendix B: Interview responses from OEA sample of high school principals

Gateway Positives

The Gateways help focus instruction
"The Gateways make teachers more aware of state standards and help them align their instruction with those standards."
Some principals use Gateway test reports to determine teacher assignments
"In the past, teacher seniority led to advanced class assignments. I use Gateway data when placing teachers so strong teachers are assigned to the Gateway classes." *"The exams provide data on which teachers are best suited for Gateway classes, preparation, and remediation."* *"The Gateways expose teachers who are not teaching the things that they should be teaching."*
The Gateways are a good overall evaluation tool
"The Gateways have led us to analyze and use data more, using results to make changes so the test results change." *"We incorporate the test results in our School Improvement Planning process and to formulate individual plans for improvement."* *"In the past, we directed resources toward what we thought would be best for student remediation and teacher professional development. We now focus our resources on what the data show as areas of student weakness."*
The Gateways are an improvement over the previous graduation exam, the Competency Test
"The Competency Test seemed to be more intimidating for some students. With the Gateways there seems to be more focus, with students trying harder, and this may be related to the fact they are end-of-course tests." *"The Gateways are more specific and not as general as the Competency Test."*
The stakes (accountability) of the Gateways have freed up resources (investment) in some cases
"The bulk of testing in the past was at the elementary and middle school level. The Gateways have focused attention and the money that allows improvements to be made at the high school level." *"Remediation and preparation materials for the exam have been funded. The heightened awareness of students who may not be able to pass the test have freed resources that otherwise might not have been available to us."*

Gateway Problems

Investment is needed to improve student success and meet accountability requirements
"We need to invest resources in teacher training on how to remediate students, particularly ELL students." *"Special tutoring and lower class sizes for students struggling with the Gateways would be good. Basic reading skills are also a problem resulting in lower scores on all three exams for some students."* *"The state should invest in technology, such as upgrading computers and researching software that can help us on Gateway instruction."* *"More investment is needed in teacher training and professional development, particularly for training on special education students."* *"Early intervention programs 'hit the nail on the head.' This would be the single best thing to do. There should be a Gateway focus from elementary to middle to high school."*
Information on best practices would provide high schools with successful models
"The state could help locals by developing a clearinghouse through the website to disseminate and rate the best remediation practices, teaching techniques for ELL students, student rewards for Gateway success, etc." *"We would like to see more small group collaboration that would support teachers and provide them with fresh ideas for teaching material to students with different learning styles."* *"Teachers and principals both need to be versed on how to interpret and use Gateway scores."* *"We need professional development models for regular teachers on the inclusion of special education students. There is a problem with continuity of special education accommodations."*
Students who need remediation and instruction the most attend school and support programs the least
"The most difficult thing about intervention/remediation is getting students to attend. Students who most need the intervention are those that do not attend because the home support is lacking." *"The biggest Gateway issue at my school is attendance. There is a big correlation with those students who don't attend school and those students who fail to pass the Gateways."*

"A big problem with intervention programs is we can't require the student to attend by law. We strongly encourage the students to attend with notes and calls to the parents about the importance of the Gateways but we still have problems."
Some students have difficulty passing the exams
"We are really challenged by students who always have trouble passing tests – Special Education and ELL students." *"ELL students are not ready for the classroom in some cases and really need more of a transition program before they begin instruction and even attempt to pass a test."* *"Two student types are going to have real trouble passing the exams – Special Education students and poor students with an inattentive home life and attendance and discipline problems."*
Difficulty in attracting and retaining highly qualified/certified teachers
"We have had difficulty in finding ELL certified teachers. We don't have one." *"Getting, attracting, and keeping qualified and certified teachers is a problem, particularly in Math, Special Education, and Science."* *"It would be helpful if teachers coming out of college were trained more in the Gateways or had a Gateway qualification or certification option in higher education."* *"There are too many teachers who are not qualified/certified and that is not a good thing for student success on the Gateways."*

Comments and Suggestions

Teaching and the test – Finding the right balance
"Focusing on the test can sometimes become teaching to it. But the Gateways are good standards and cover what students need to know. This can keep teachers from teaching their favorite subjects and not teaching the full content for as long or as thoroughly as they do their favorites. The standards of success were created by teachers so they have their input." *"With NCLB, I do have some worries about the test cutting out some worthwhile activities that aren't assessed. On the other hand, the Gateway has been used to cut the fluff out of the curriculum and the balance of using the test to focus instruction versus limiting it is hard to find."* *"Teachers are aligning their instruction with the curriculum and the standards but a concern I have is the degree to which this retards critical and creative thinking, where teachers are teaching the standards and that is it."*

No Child Left Behind's interaction with the Gateways is a concern
"An incentive on the school level could exist with the remediation we provide to students. Under NCLB, only the first time a student takes the test counts for ayp. I wish we could tie in the remediation we provide to these students as well as their repeated attempts to pass the test." *"Only counting the first Gateway attempt is a problem and is really a Catch-22 situation. While holding a student back from taking the test to improve scores under NCLB may limit the number of test retakes, allowing the student to take the test early, get the diagnosis and remediate is good for the student but can penalize the school with NCLB."* *"In the past, if a child could not pass the Competency Test then the GED was there as a safety net. With NCLB, special education diplomas and GEDs don't count toward the graduation rate. So the GED option helps kids who don't get the regular diploma but doesn't count for the school."*
Student performance differs on the Gateways and the Competency Test
"Students seem to have been more successful with the Gateways than the Competency Test because they are end-of-course tests and the student can become familiar with the specific information they are tested on and then test right after they are taught it. Also, the material on the test is more pertinent and the teachers are better able to review it." *"There will be a higher number of students who will not get a regular diploma with the Gateways, and this will not just be special education students but also low ses students with attendance and discipline problems."* *"Alternative means for students to demonstrate proficiency might relieve student stress, but our pass rates will be similar to the Competency Test regardless."*
Alternatives to the Gateways
"Alternatives might decrease the dropout rate somewhat – more options gives more hope – but the high-stakes testing environment of the Gateways focuses teachers and students on the task at hand." *"A performance assessment could be good, particularly for special education students who learn and demonstrate their skills and knowledge differently."* *"Alternative requirements can be seen as weakening the graduation requirement. The performance assessment can be seen as weakening the standardization and objectivity of the Gateways and can create some ambiguity."*

Source: OEA conducted interviews with a random sample of high school principals across the state in January 2004.

Appendix C: List of Individuals Interviewed

Ben Brown, Executive Director of Evaluation and Assessment, Tennessee Department of Education

Judith Castleberry, Principal, Clarksville High School, Montgomery County Schools

Pam Clark, Principal, Lenoir City High School, Lenoir City Schools

Susan Dalton, Coordinator of Instruction and Professional Development, Tennessee Education Association

Taft Davis, Algebra I Teacher, Metropolitan Nashville Public Schools

Keith Gayler, Associate Director, Center on Education Policy

Chris Guynn, Principal, Stewart County High School, Stewart County Schools

Dr. Lonnie Harris, Jr., Principal, Germantown High School, Shelby County Schools

Eddie Hickman, Principal, Columbia Central High School, Maury County Schools

Carol Irwin, ESL Consultant, Tennessee Department of Education

Clint Jackson, Principal, Fairley High School, Memphis City Schools

Karen Jenkins, Director of Evaluation and Assessment, Tennessee Department of Education

Tony Lancaster, Executive Director, Tennessee Organization of School Superintendents

Michael Martin, Principal, Van Buren County High School, Van Buren County Schools

Andrew C. Porter, Professor of Educational Leadership and Policy, Vanderbilt University

Don Roberts, Principal, Meigs County High School, Meigs County Schools

Ann Sanders, Director of Assessment, Information, and Research, Tennessee Department of Education

Mary Laurens M. Seely, Alternative Assessments Coordinator, Tennessee Department of Education

Stephen Smith, Director of Government Relations/Communications, Tennessee School Boards Association

Barbara Summers, Principal, Central High School, Morgan County Schools

Charles West, Principal, Dresden High School, Weakley County Schools

Deborah Williams, Division of Curriculum and Instruction, Tennessee Department of Education

Appendix D: Responses from State Board of Education and Department of Education

DR. GARY L. NIXON
EXECUTIVE DIRECTOR

PHIL BREDESEN
GOVERNOR

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STATE BOARD OF EDUCATION
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October 27, 2004

Ms. Ethel Detch
Comptroller of the Treasury
Office of Education Accountability
505 Deaderick Street, Suite 1700
Nashville, TN 37243-0268

Dear Ms. Detch;

We have reviewed the report on Tennessee's Gateway exams. The report thoroughly presents the background and rationale for the creation of Gateway exams. The State Board of Education believes that all students must be prepared to enter post secondary education and work-related training. The expectations of the workforce have increased through the years and we have modified our graduation standards accordingly. The State Board of Education is continually concerned with students who are unable to graduate. As noted in your report, we have supported early intervention with students who are struggling in school. The challenge before us is to provide all students with the skills needed to be as successful as possible in adulthood.

We will consider your recommendation to formulate and standardize a uniform Gateway due process procedure for all students. Thank you for your efforts.

Sincerely,

Gary Nixon

Dr. Gary Nixon, Ed.D.
Executive Director

GLN/pc

STATE OF TENNESSEE
DEPARTMENT OF EDUCATION
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PHIL BREDESEN
GOVERNOR

LANA C. SEIVERS, Ed.D.
COMMISSIONER

October 28, 2004

Ms. Ethel R. Detch, Director
Offices of Research and Education Accountability
Comptroller of the Treasury
Suite 1700, James K. Polk Building
Nashville, TN 37243-0268

Dear Ms. Detch:

Thank you for the opportunity to review the report your office compiled on Tennessee's Gateway exams. You and your staff are to be commended for a comprehensive and informative analysis of this complex, and on occasion controversial, issue.

As your report indicates, many states continue to seek the appropriate balance between high standards for graduation and a necessity to address the diverse needs of high school students. The Gateway exams are an essential component of Tennessee's efforts to provide **all students** with the academic preparation necessary for higher education, successful careers, and lifelong learning.

We in the Department take very seriously the significant consequences of students not passing the Gateway exams. For this reason, we have committed considerable time, expertise and resources over the last several years in preparation for this school year, the first that students' graduation could be impacted. Central to our efforts of helping teachers teach and students learn has been extensive professional development, including improving instruction to students with specific needs and focusing instructional content on state standards.

The Department has been facilitating multi-day Gateway institutes for high school and middle school teachers for several years. These institutes have provided intensive training on the state's content standards in mathematics, language arts, and science. In addition, we provide training to teachers and instructional leaders on the use of classroom accommodations for special education and ELL students. We also provide teachers with research-based, in-depth, and ongoing professional development on effective instruction for ELL students.

Again, we appreciate the opportunity to review and respond to this report, and we look forward to collaborating with you as we identify the best strategies for improving high school students' academic achievement.

Sincerely,

Keith Brewer, Ed.D.
Deputy Commissioner

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