MINNESOTA HIGH STAKES HIGH SCHOOL GRADUATION TEST AND COMPLETION STATUS FOR THE CLASS OF 2000

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Office of Educational Accountability
Department of Educational Psychology
College of Education and Human Development

Office of Educational Accountability Staff:
Mark L. Davison, Ph.D., *Director*
Ernest C. Davenport, Ph.D., *Associate Professor*
Nohoon Kwak, Ph.D., *Statistician*
Kristin Peterson, *Research Associate*
Margaret L. Irish, *Editor/Graphic Design*

Chi-Keung Chan, *Graduate Assistant*
Jiyoung Choi, *Graduate Assistant*
Jeffrey Harring, *Graduate Assistant*
Yun Jung Kang, *Graduate Assistant*
Young Seok Seo, *Graduate Assistant*
Yi-Chen Wu, *Graduate Assistant*

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TABLE OF CONTENTS

EXECUTIVE SUMMARY

With the rise in popularity of high school exit tests, concerns about graduation have arisen. Advocates for raising graduation standards via the use of high stakes tests argue that higher standards motivate schools and students to increase their academic performance, which in turn lowers the dropout rate (Hamilton, 1986). Others are concerned that exit tests may be seen as such a large barrier (especially for those who initially fail the tests) that the academic aspirations of such students are lowered. Thus, the tests may become a contributing factor in the dropout problem (Catterall, 1989).

Minnesota has two parts to its graduation rule. The first is the Basic Standards, representing the minimum skills required of all students for high school graduation. The Minnesota *Basic Skills Tests (BSTs)* in reading, mathematics, and writing were developed to assess these minimum standards. The second component contains Preparatory Standards for grades K–8, and High Standards for grades 9–12. The first *BSTs* in reading and math were given in February 1996. The Class of 2000 was the first cohort required to meet the Basic Standards in order to graduate from high school. For these students, the passing score was 70% correct on both the mathematics and reading tests, and students were given multiple chances to pass the tests. This study tracks the Class of 2000, examining the relationship between students' scores on the math and reading *BSTs* and their high school completion status, taking into consideration several student and school characteristics.

Analyzing data from the Class of 2000 is especially timely, given later developments in the state's accountability system. First, the passing score on both the math and reading tests has been raised for all student cohorts since the Class of 2000 (Class of 2001 and subsequent classes). Also, while the Class of 2000 only had to pass tests in math and reading, a writing test was added for the Class of 2002. Finally, the Class of 2000 only had to pass tests for the first part of Minnesota's Graduation Rule, the minimum (basic) standards. Later classes may have to pass High Standards performance tasks as well. If high stakes testing has unintended negative consequences for students obtaining their high school diplomas, these negative effects are likely to be exacerbated with the increase in passing score, the increase in the number of tests, and the addition of high standards performance tasks for subsequent classes. It is therefore important to track the effects of these tests for the Class of 2000, both to provide a baseline for future analysis and to address any changes in completion rates that occurred in the first year the Basic Standards affected students' school completion.

SUMMARY OF RESULTS

1. The four-year graduation rate for Minnesota's Class of 2000 was 78.5%; more than three-fourths of the students who started in grade 9 in the fall of 1996 graduated in the spring of 2000.

2. Females had slightly higher graduation rates than males (81.8% versus 75.4%). Four-year graduation rates by ethnicity placed Whites first (82.8%), followed by Asians (67.9%), Hispanics (47.2%),

Native Americans (42.6%), and Blacks (37.0%). Also, students with Limited English Proficiency (LEP) or Special Education (IEP) status graduated at rates substantially lower than students not so classified. Finally, students who qualified for free or reduced-price lunch and/or were older than their classmates had markedly lower graduation rates than students in general.

3. For the school characteristics LEP concentration, IEP concentration, and mobility, results were as expected. Schools with higher values on these variables had lower graduation rates. The results for attendance were also as expected. As more students attended class regularly, more of them graduated. The results for school poverty concentration were not totally as expected. Only when the percentage of students eligible for free or reduced price lunch reached the highest levels was there a decrease in graduation rates. Finally, the graduation rate for the metro area was lower than for rural outstate areas. This is because the graduation rate for schools located in the Twin Cities was almost 30 percentage points lower than for the suburbs.

4. There was little change in Minnesota's graduation, dropout, and continuing rates the first year after implementation of the *BST* requirement. The rates for the four years prior to implementation of the graduation tests were within one percent of the graduation rate in 2000, 78–79%. The dropout rate for the same period was constant at 11% for each of the five years. Finally, the percentage of students continuing their education beyond their graduation year was within one percent, from 10–11%, for each year from 1996 to 2000.

5. Although the statewide graduation, dropout, and continuing rates did not change much the year after the *BSTs* went into effect, this is not true for all students and schools. The graduation rate for students with Limited English Proficiency fell in 2000. A drop also occurred for the Twin Cities suburbs. Finally, charter schools continued their dramatic rise in the percentage of students graduating.

6. There is a strong relationship between passing the *BSTs* and completion status. Ninety-two percent of graduating students passed both tests. This value was 70% for students continuing into a 5th year of high school, and further dropped to 52% for students who dropped out. While this result suggests that the tests could be part of the barrier to high school graduation, over half of the students who dropped out passed both tests. Thus, for a substantial number of dropouts, passing the tests was not the primary determiner in their decision to leave school.

7. Relatively more minorities appeared to be exempt from the *BST* requirement, possibly because relatively more minority students are in special education. In the time period studied, there were two legitimate ways for students to be exempted from the *BST* requirement. One was to pass an alternative assessment, an option

available in 1996 and 1997. The other was to have an IEP that permitted the district to modify or waive the *BST* requirement (possible in all years). Of the 4,154 students graduating without passing both state tests (math and reading), only 68 did not have an IEP and took the *BSTs* in a year other than 1996 or 1997.

8. The math test was easier initially than the reading test. On their first attempt, 85.9% of all students passed the math test. The corresponding value for reading was 73.5%.

9. One anomaly is that for some student groups, the percentage of students passing either or both tests on the first try was higher for students who later dropped out or continued in high school past their graduation year than for students who graduated.

The main findings of this study are that students in at-risk categories (minorities, students with limited English proficiency, students with individual learning plans, less affluent students, and students older than their peers) had more difficulty passing the *BSTs* and more difficulty graduating within four years. Finally, the *Basic Skills Tests* did not seem to have an additional negative impact on overall graduation rates.

INTRODUCTION

Background

The increased use of high school exit tests is accompanied by concerns about their relationship to graduation. Several studies have examined the link between high stakes graduation requirements and high school completion (Hamilton, 1986; Catterall, 1989; Marguerite, Walter, & George, 2000). Advocates for raising graduation standards via the use of high-stakes tests argue that higher standards motivate schools and students to increase their academic performance, which in turn, lowers the dropout rate (Hamilton, 1986). On the other hand, these tests may seem to be such a large barrier (especially for those who initially fail) that the academic aspirations of such students are lowered, and the tests then become a contributing factor to the dropout problem (Catterall, 1989). Marguerite et al. (2000) corroborated this view with evidence that high stakes testing reduces high school completion and increases dropout rates.

In 1992, the Minnesota State Legislature passed a law requiring the State Board of Education and the Department of Children, Families & Learning (CFL) to develop a results-oriented Graduation Rule. Implementation of this rule led to the development of two distinct components. The first is the Basic Standards, representing the minimum skills required of all students for high school graduation. The Minnesota *Basic Skills Tests (BSTs)* in reading, mathematics, and writing were developed to assess these minimum standards. A passing score on each test is needed for graduation (with some exceptions, e.g., some special education students with IEPs [individual education plans]). The second component contains Preparatory Standards for grades K–8 and High Standards for grades 9–12. This second set of requirements has been incorporated into a set of tasks that have become collectively known as the Profile of Learning (cited in Davison, M., Erickson, R., Davenport, E., Kwak, N., Irish, M., Bielinski, J., Danielson, H., Kim, S., Seo, Y., Smith, M., and Wick, S., 1999; Schleisman, Peterson, & Davison, 2000, p.3). In contrast to the measures of the Basic Standards, the tasks defined in the Profile of Learning were designed to measure each student's attainment of the Preparatory and High Standards. Initially, this second set of tasks was also to be a statewide high school graduation requirement; however, at present its use is at the discretion of each district.

The first *Basic Skills Tests* were given in February 1996. They consisted of a test in reading and another in mathematics. The Class of 2000 was the first cohort required to meet the Basic Standards as part of their graduation requirements. The passing score was set at 70% correct for both math and reading. Students were given multiple chances to pass the test, with an annual test each year after 1996, a summer test beginning in 1998, and a special test in April 2000 for seniors that had yet to pass both tests.

Purpose

This study examines the relationship between students' scores on the *BSTs* in math and reading, and high school completion status for the Class of 2000. Students were classified as Passers or Non-Passers, according to their status on each test. There were three high school completion status groups used in this study: (a)

those who graduated with their class (Graduated), (b) those who dropped out of school (Dropped Out), or (c) those who continued in the Minnesota Public School system for at least one year past their expected graduation date (Continued). We examined the relationship of test status to completion status by student and school factors. The study also examines the relationship between completion status and passing either one or both tests on the first attempt. Finally, the study examines the number of times students took each test. The intent of this study is to provide information to assist policymakers as they consider the ramifications of Minnesota's graduation rule.

Analyzing data from the Class of 2000 is especially timely, given subsequent developments in the state's accountability system. The passing score for that cohort was 70% correct for both math and reading. The passing score was increased beginning with the Class of 2001 (complicating comparisons between the Class of 2000 and future classes). In addition, the Class of 2000 only had to pass tests in math and reading. Beginning with the Class of 2002, a writing test was added. Finally, the Class of 2000 only had to pass tests for the first part of Minnesota's graduation rule—the minimum (basic) standards. Later classes may have to complete the High Standards as well. Thus, if high stakes testing has unintended negative consequences for students obtaining their high school diplomas, these negative effects are likely to be exacerbated with the increase in passing score, the number of required tests, and the addition of High Standards performance tasks for subsequent classes. (Note that the state has moved from percentage correct to scale scores in order to provide more continuity between scores from year to year. The passing standard is now given as scale scores and the cut point is equivalent to approximately 75% correct.)

Unfortunately, the data are not designed to definitively answer the question of whether the *BSTs* contribute to the dropout problem. They do not contain information on the reason(s) for a student's decision to drop out. We also have no course-taking data that would allow us to determine whether passing the *BSTs* was the student's only missing graduation requirement. Although we have access to district data that gives information on whether the student passed the standard or met some other criteria, it is very difficult to follow a student over time using that data. Our main data source only contained the ending status for the pupil. Still, the data provide a great deal of useful information about the relationships between students' high school completion status and their performance on the Minnesota *BSTs*.

METHODOLOGY

Data

Four datasets were used in this study. The first, the Minnesota Automated Reporting Student System (MARSS), is from Minnesota's Department of Children, Families & Learning. This dataset provided detailed individual demographic information on students in the Class of 2000 who were served by schools in Minnesota. The second dataset was the same as the one used in CFL's completion report for 2000; this report will refer to it as "Completion data." This dataset contains the four-year graduation status of each member of the Class of 2000. The third dataset was also drawn from MARSS, and contained year-end information for all students in all grades in all Minnesota schools in 2000—the entire school population. We generated school characteristics by aggregating student data within each school (for example, the proportion of a school's students having special education status (IEP) in 2000). This permitted analyses of the data according to school characteristics. The final set of data came from the testing companies and contained all of the test results for students in the Class of 2000 in both mathematics and reading from 1996 (the first test administration) until Summer 2000 (the summer test in 2000 provided the final chance for students to graduate in the same year as their peers). These datasets were then merged to generate a file with test information, demographic information, completion information, and school characteristics for all members of the Class of 2000.

Students in the Class of 2000 had up to nine opportunities to pass each test before graduation. These opportunities consisted of annual tests in 1996, 1997, 1998, 1999, and 2000; summer tests in 1998, 1999, and 2000; and an April test in 2000. Some students took the tests again after meeting the state's minimum passing score. In most such cases, this happened because some districts initially required a higher passing score than the state's standard. To our knowledge, all districts subsequently adopted the state's passing score. Our count of "number of attempts" stopped after the student met the state's passing requirement the first time.

Class of 2000

The Class of 2000 includes 71,683 students who were served by Minnesota public schools in 9th grade during the 1996/97 school year. These students were tracked through the 1999–00 school year, and each student's completion status (Graduated/Dropped Out/Continued [i.e., the student continued within the Minnesota public school system]/Transferred [the student left the Minnesota public school system]/Stopped education/Unknown) was drawn from data from the last Minnesota school district serving the student. Using the CFL completion study[1] (2000) as our guide, we analyzed data for students in the first three completion categories only (Graduated, Dropped Out, and Continued).

After omitting students in the other completion categories and merging the four datasets, we had 65,525 students, a slight discrepancy from the 65,492 used in CFL's

[1] The CFL study looked at the same student data used in this study.

study (2000). Our data contained a small number of duplicate cases that we kept because we did not have the necessary information to resolve the discrepancies. CFL also acknowledged the difficulty of doing longitudinal analysis with this data: "The data summarized in this report are based on the Minnesota Automated Reporting Student System (MARSS). Inconsistencies in reporting by different districts throughout the school year and the ability to track individual students over time need to be taken into account when reviewing results of the study." CFL's completion studies can be found on the web.[2]

Outline of Results

This report examines the relationship between the *BSTs* and the completion status of members of the Class of 2000. Our first result reports the passing status of students on the math and reading tests of the *BST* within each category of high school completion. There are four categories of passing status: (1) Passed Neither, (2) Passed Math Only, (3) Passed Reading Only, and (4) Passed Both. Our report examines students who graduated without passing both tests in some detail in an attempt to determine how students can have a completion status of graduated without also having test score records that show that they passed both *BSTs*. We also report the number of times that students took each test, the percentages of students passing the test on their first attempt, and the test administration (regular, summer, April) on which the student passed the test.

Our results are given for the Class of 2000 in total and by certain subsets defined by student and school characteristics. Student factors include gender, ethnicity, limited English proficiency (LEP) status, special education (IEP) status (defined as students on individual education plans), students' eligibility for free or reduced-price lunch (surrogate for SES), and age (those born in 1980 or earlier [Over-age] versus younger pupils). School characteristics were taken as of 2000. They included region (metro versus outstate), strata (Minneapolis/St. Paul districts, suburban districts, outstate districts with at least 2000 students (Outstate 2000+), and outstate districts with fewer than 2000 students (Outstate 2000-), LEP concentration (percentage of LEP students in the school), IEP concentration (percentage of special education students in the school), school poverty concentration (percentage of students in the school who are eligible for free or reduced-price lunch), school mobility rate (an index of student movement between schools), and the average attendance rate for the school.

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[2] CFL's completion studies are available online at: http://cfl.state.mn.us/datactr/compstu

RESULTS

Completion Outcomes

Table 1 (p. 6) summarizes the completion status for the Class of 2000 in total, and by subsets based on student and school characteristics. The overall four-year graduation rate was 78.5%; 10.7% dropped out between Fall 1996 and Spring 2000, and 10.8% continued to study within the Minnesota public school system past their anticipated graduation date. A higher percentage of females graduated than males (81.8% versus 75.4%). Not only do males have a higher dropout rate (12.5% versus 8.8%), but they also have a higher continuation rate (12.1% versus 9.4%). The higher continuation rate for males suggests that the final dropout rate for males and females may not be as discrepant, since relatively more males are still in the process of obtaining their high school diploma.

As for ethnicity, White students had the highest graduation rate, at 82.8%. The next highest rate was for Asian students (67.9%). Hispanic and Native American students had similar rates (47.2% and 42.6% respectively). Black students had the lowest rate (37.0%). In fact, Black students were the only ethnic group with a dropout rate (37.4%) that exceeded their 4-year graduation rate. The continuation rate for Blacks is fairly high, suggesting that their final graduation rate may improve. The dropout rate for Whites was less than the state average and it was about half the dropout rate for Asian students. For each of the other minority groups (Native Americans, Hispanics, and Blacks), the dropout rates exceeded three times the state average. For students with a completion status of "Continued," Blacks had the highest percentage (25.6%), then Native Americans (23.0%), Hispanics (19.9%), Asians (16.3%), and Whites (9.2%).

Students in LEP programs had a substantially lower graduation rate than non-LEP students. Less than half of the LEP students graduated. Students in special education programs also had lower graduation rates than students not so classified, just over 50% (slightly higher than for students designated LEP). Students eligible for free or reduced-price lunch had substantially lower graduation rates than ineligible students, 60.7% versus 84.3%. Finally, older students had a lower graduation rate than their younger peers, 35.0% versus 80.6%. Older students—those who started school late or who were retained in grade at some point—had the lowest graduation rate of any student category in Table 1.

From the school characteristics portion of Table 1, we see that students in the two large urban districts (Minneapolis and St. Paul) had lower four-year graduation rates than students in the other categories, their rate being less than half—48.9%. The rates for each of the other strata were above 79%. There was a strict relationship between the school's concentration of LEP, IEP, and mobile students and graduation rate. As the percentage of students increased for these categories, the percentage of students graduating decreased. For attendance, the relationship is in the other direction. As attendance increased, the graduation rate also increased. In contrast, there was little relationship between the percentages of students in a school who were eligible for free or reduced-price lunch and the percentage of students graduating—until the concentration of eligible students reached 50%. For schools with fewer than 50% of their students eligible for free or reduced-

Table 1. Completion Status for the Class of 2000

		Completion Status						
		Graduated		Dropped Out		Continued		Total
		N	%	N	%	N	%	N
Total		51,451	78.5	7,020	10.7	7,054	10.8	65,525
Student Characteristics								
Gender	Female	26,138	81.8	2,812	8.8	2,996	9.4	31,946
	Male	25,313	75.4	4,208	12.5	4,058	12.1	33,579
Ethnicity	Native Am.	529	42.6	428	34.4	286	23.0	1,243
	Asian	1,754	67.9	406	15.7	422	16.3	2,582
	Hispanic	568	47.2	397	33.0	239	19.9	1,204
	Black	1,215	37.0	1,229	37.4	841	25.6	3,285
	White	47,385	82.8	4,560	8.0	5,266	9.2	57,211
LEP Status	LEP	964	48.4	584	29.3	442	22.2	1,990
	Not LEP	50,487	79.5	6,436	10.1	6,612	10.4	63,535
Special Ed Status	Special Ed	4,746	55.4	1,815	21.2	2,003	23.4	8,564
	No Special Ed	46,705	82.0	5,205	9.1	5,051	8.9	56,961
Lunch Status	F/R Lunch	9,708	60.7	3,148	19.7	3,144	19.7	16,000
	No F/R Lunch	41,743	84.3	3,872	7.8	3,910	7.9	49,525
Age	Overage	1,028	35.0	1,480	50.4	428	14.6	2,936
	Normal Age	50,423	80.6	5,540	8.9	6,626	10.6	62,589
School Characteristics								
Region	Metro Area	22,909	73.2	4,029	12.9	4,348	13.9	31,286
	Outstate	28,469	83.6	2,944	8.6	2,638	7.7	34,051
Strata	Mpls/St.Paul	3,167	48.9	2,009	31.0	1,303	20.1	6,479
	TC Suburbs	19,742	79.6	2,020	8.1	3,045	12.3	24,807
	Outstate 2000+	12,966	80.1	1,707	10.5	1,516	9.4	16,189
	Outstate 2000-	15,503	86.8	1,237	6.9	1,122	6.3	17,862
LEP Concentration	0%	8,454	87.7	622	6.5	561	5.8	9,637
	0-10%	37,322	84.5	3,173	7.2	3,667	8.3	44,162
	11-100%	5,135	57.3	2,325	25.9	1,504	16.8	8,964
IEP Concentration	0-10%	18,128	87.4	1,148	5.5	1,472	7.1	20,748
	11-20%	32,542	78.1	4,927	11.8	4,207	10.1	41,676
	21-100%	241	71.1	45	13.3	53	15.6	339
F/R Lunch Concentration	0-20%	24,675	84.4	1,934	6.6	2,614	8.9	29,223
	21-30%	12,378	86.5	1,002	7.0	937	6.5	14,317
	31-50%	9,500	84.2	1,023	9.1	761	6.7	11,284
	51-100%	4,358	54.9	2,161	27.2	1,420	17.9	7,939
Mobility Concentration	0-10%	29,418	89.1	1,640	5.0	1,977	6.0	33,035
	11-20%	16,097	80.4	1,973	9.8	1,961	9.8	20,031
	21-100%	5,396	55.6	2,507	25.9	1,794	18.5	9,697
Attendance Rate	0.00 - 0.90	625	67.8	159	17.2	138	15.0	922
	0.91 - 0.95	30,527	78.0	4,764	12.2	3,866	9.9	39,157
	0.96 - 1.00	19,759	87.1	1,197	5.3	1,728	7.6	22,684

price lunch, the graduation rate remains almost constant at approximately 85%. For schools with more than half of their students on free or reduced-price lunch, the picture looked vastly different: only 54.9% of them graduated.

Trend Comparisons of Completion Outcomes

The Class of 2000 was the first that had to pass the *BSTs* to graduate. This raises the question of whether the requirement affected the state's graduation rate. Figure 1 shows the state's graduation, dropout, and continuation rates for the four years prior to implementation of the *BSTs* and the rates for the Class of 2000. There is little change in the rates the first year after implementation of the new graduation requirement. Over the five years shown in the figure, the state's graduation rate was always within one percentage point (78–79%). The dropout rate for the same period was constant at 11% for each of the years. Finally, the percent of students continuing their education beyond their graduation year was within one percentage point, 10–11%, for each year from 1996 to 2000.

Figure 1
Trends in Minnesota 4-year Graduation, Dropout, and Continuation Rates: 1996-00

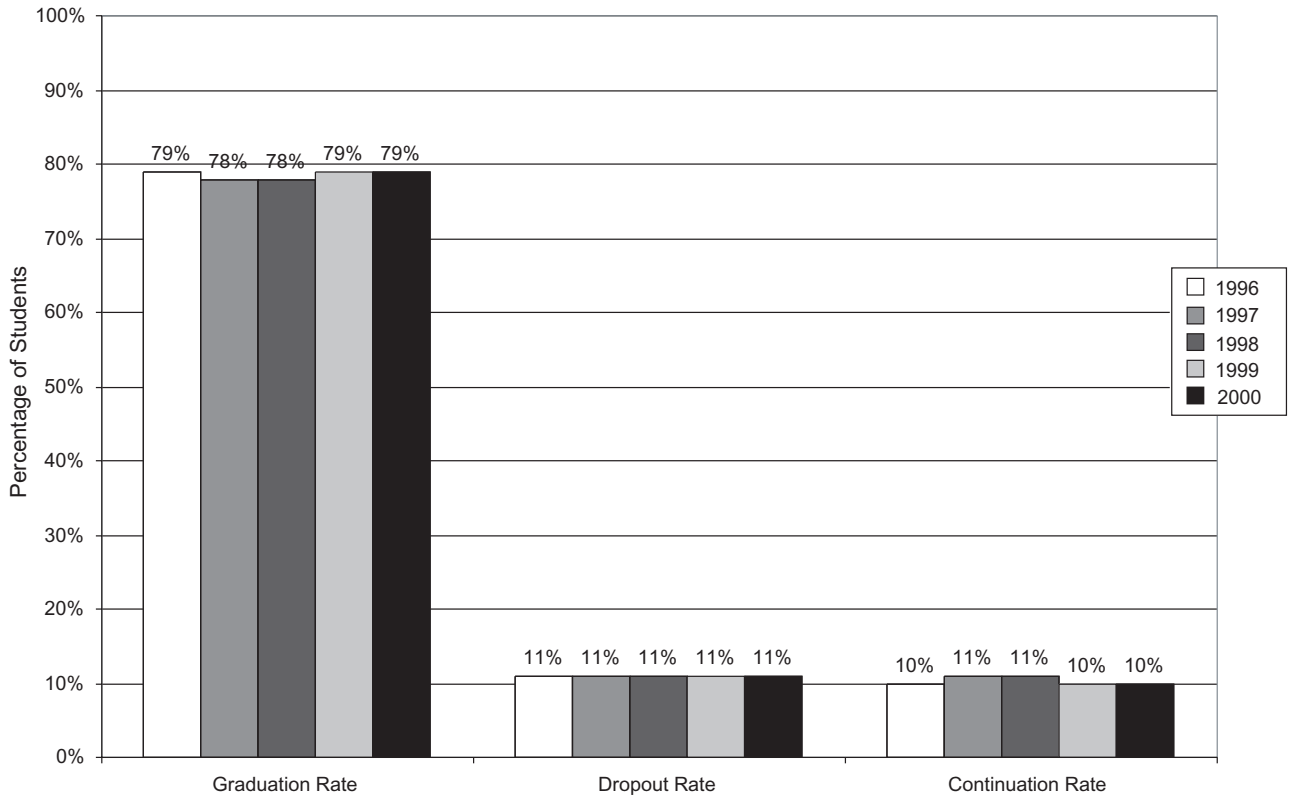

Table 2 (p. 8) compares the four-year graduation, dropout, and continuing rates of the classes for the previous three years (1997–99) and for the Class of 2000. Most of the trends show little change; however, there are several that draw our attention. First, for students with an LEP designation, the four-year graduation rate dropped by 7% and the dropout rate increased by 6% after implementation of the graduation rule. Another change is the graduation rate for the Twin Cities suburbs. After the implementation of the graduation rule, the graduation rates for the suburbs went down by 6%, and more students in this group continued into their fifth year in high school. Another finding is the change in rates for students in

Table 2. Trend of 4-Year Graduation, Dropout, & Continuation Rates: 1997-00

		4-Year Graduation Rate				Dropout Rate				Continuing Rate			
		Class of*				Class of*				Class of*			
		1997	1998	1999	2000	1997	1998	1999	2000	1997	1998	1999	2000
Total		78	78	79	79	11	11	11	11	11	11	10	11
Student Characteristics													
Gender	Female	81	81	82	82	10	9	9	9	9	9	9	9
	Male	75	75	76	75	13	13	13	13	12	12	12	12
Ethnicity	Native Am.	41	43	42	43	38	35	35	34	21	21	23	23
	Asian	68	68	69	68	18	17	15	16	14	16	16	16
	Hispanic	44	49	48	47	38	33	31	33	18	18	21	20
	Black	36	36	39	37	40	38	36	37	24	26	25	26
	White	82	82	83	83	9	8	8	8	9	10	9	9
LEP Status	LEP	50	58	58	51	34	22	22	28	16	20	20	21
	Not LEP	—	78	81	79	—	11	10	10	—	11	9	11
Special Ed Status	Special Ed	58	57	57	59	20	21	20	20	22	22	22	21
	No Special Ed	—	80	81	81	—	10	10	10	—	10	9	10
Strata	Mpls/St.Paul	47	46	49	49	36	33	30	31	17	20	20	20
	TC Suburbs	84	84	86	80	8	8	7	8	8	8	7	12
	Outstate 2000+	79	79	80	80	10	10	10	11	11	11	10	9
	Outstate 2000-	91	91	90	87	5	5	5	7	4	4	4	6
Public School	Non-Charter	78	78	79	79	11	11	11	11	11	11	10	11
	Charter	25	28	42	41	36	26	22	24	39	46	36	35

*1997 data are from the *1998 Minnesota Education Yearbook,* p.26; 1998 data are from the *1999 Minnesota Education Yearbook,* p.41; 1999 data are from the *2000 Minnesota Education Yearbook,* p.43; 2000 data are from the *2001 Minnesota Education Yearbook,* p.48. See References section for full citations.

charter schools. Charter school students' graduation rates increased by 17% from the Class of 1997 to the Class of 1999.

Completion Outcomes and *BST* Passing Status

Table 3 (p. 9) shows the percentages of students passing various combinations of the math and/or reading *Basic Skills Tests*, by completion status, for the Class of 2000. Note that some students appear to have graduated without passing both tests. We further explore this phenomenon after presentation of the results from Table 3.

About 92% of the students who graduated passed both the reading and math tests. This value was substantially higher than the passing rates for students who continued their study into a fifth year of high school (70%), or who dropped out (52%). These figures imply a strong relationship between difficulty in passing the *BSTs* and completion status. One should note, however, that just over half of the dropouts passed both tests and thus dropped out for reasons other than the *BSTs.* While passing the tests is related to completion status, it is not the only factor.

Among graduates, pass rates for male and female students on both exams were around 92%. For dropouts and those who continued into a fifth year in high school, higher percentages of male students than female students passed both tests. Table 3 also shows that a slightly higher percentage of female dropouts than male dropouts passed neither test (29% versus 26%).

Looking at the results in light of students' ethnicity reveals that, of the White students who graduated, 92% passed both tests. This value was 88% for Asians,

Table 3. *Basic Skills Tests* Passing Status for the Class of 2000, by Completion Status

		COMPLETION STATUS											
		Graduated				Dropped Out				Continued			
		Neither	Reading	Math	Both	Neither	Reading	Math	Both	Neither	Reading	Math	Both
Total		1.8	2.4	4.0	91.8	27.1	10.8	10.6	51.5	13.1	9.7	7.6	69.7
Student Characteristics													
Gender	Female	1.7	2.7	3.7	91.9	29.3	14.5	7.3	48.9	13.0	12.9	6.4	67.7
	Male	1.8	2.1	4.3	91.7	25.7	8.5	12.7	53.1	13.1	7.3	8.5	71.2
Ethnicity	Native Am.	5.9	4.4	4.0	85.7	37.4	12.1	11.4	39.2	26.1	15.8	7.1	51.0
	Asian	2.0	5.2	4.5	88.3	38.4	11.9	12.2	37.5	18.6	11.5	10.7	59.3
	Hispanic	6.2	4.2	5.1	84.5	47.2	12.2	8.7	31.9	25.5	13.0	8.2	53.4
	Black	8.0	8.9	5.2	77.9	57.7	16.9	5.5	19.9	32.8	18.0	6.4	42.8
	White	1.5	2.1	4.0	92.4	18.4	9.4	11.5	60.6	8.5	7.8	7.5	76.2
LEP Status	LEP	7.2	10.3	5.9	76.7	53.9	11.4	9.7	25.0	32.5	15.1	12.7	39.7
	Not LEP	1.7	2.3	4.0	92.1	24.8	10.8	10.7	53.7	11.8	9.3	7.2	71.7
Special Ed Status	Special Ed	15.1	11.1	5.2	68.6	42.2	12.7	9.8	35.3	29.3	13.7	8.3	48.7
	No Special Ed	0.5	1.6	3.9	94.1	21.6	10.2	10.9	57.3	7.6	8.3	7.3	76.7
Lunch Status	F/R Lunch	4.8	4.8	4.0	86.4	34.5	12.9	9.5	43.1	20.8	12.2	8.7	58.4
	No F/R Lunch	1.1	1.9	4.1	93.0	20.3	8.9	11.6	59.2	7.1	7.7	6.7	78.4
Age	Overage	19.0	9.2	5.4	66.5	52.9	12.5	11.5	23.1	37.8	17.4	10.0	34.8
	Normal	1.5	2.3	4.0	92.2	24.6	10.7	10.5	54.2	12.1	9.4	7.5	71.0
School Characteristics													
Total		1.8	2.4	4.0	91.8	27.1	10.8	10.6	51.5	13.1	9.7	7.6	69.7
Region	Metro Area	1.8	2.7	5.1	90.4	31.9	11.6	10.0	46.5	15.2	9.7	7.6	67.4
	Outstate	1.7	2.2	3.1	92.9	20.8	9.7	11.5	57.9	9.6	9.5	7.4	73.6
Strata	Mpls/St.Paul	4.5	7.0	2.9	85.6	48.4	13.0	7.2	31.3	28.8	14.2	7.8	49.3
	TC Suburbs	1.3	2.0	5.5	91.2	19.6	10.6	12.0	57.8	9.7	7.9	7.5	74.9
	Outstate 2000+	1.9	2.2	4.3	91.6	20.7	8.9	11.1	59.2	10.7	10.5	7.7	71.7
	Outstate 2000-	1.6	2.1	2.2	94.1	20.9	10.9	12.2	56.0	8.1	8.2	6.8	76.9
LEP	0%	1.6	2.3	2.3	93.9	21.3	12.4	12.7	53.6	11.0	9.8	7.6	71.7
	0-10%	1.5	2.1	4.6	91.8	19.5	9.8	11.9	58.8	9.0	8.4	6.1	76.5
	11-100%	3.2	4.7	2.2	89.8	44.6	12.2	7.1	36.1	26.3	13.3	7.9	52.5
IEP	0-10%	1.3	2.0	6.4	90.3	20.7	9.2	13.3	56.8	8.0	6.9	6.6	78.5
	11-20%	1.9	2.6	2.6	92.9	29.7	11.3	9.6	49.4	15.6	10.8	6.7	66.9
	21-100%	3.0	0.9	1.7	94.5	26.1	8.7	13.0	52.2	14.9	17.0	8.5	59.6
F/R Lunch	0-20%	1.2	1.8	2.6	94.4	19.2	9.8	10.7	60.3	8.8	8.1	5.2	77.9
	21-30%	1.9	2.5	9.0	86.8	20.1	10.6	15.1	54.2	9.5	9.2	9.3	72.0
	31-50%	1.9	2.1	1.6	94.5	19.1	10.5	10.7	59.7	11.2	8.9	7.1	72.7
	51-100%	3.8	6.0	2.7	87.5	47.7	12.5	7.2	32.5	26.9	13.9	7.6	51.6
Mobility	0-10%	1.4	2.1	2.1	94.4	16.1	10.3	11.2	62.4	7.4	8.0	5.5	79.1
	11-20%	1.6	2.0	8.0	88.4	23.0	10.0	12.0	55.0	9.9	8.8	7.0	74.3
	21-100%	3.5	4.9	2.5	89.1	42.2	12.2	8.2	37.3	24.7	12.9	7.7	54.7
Attendance	0.00 - 0.90	2.3	2.3	1.8	93.7	38.9	10.2	8.3	42.6	14.9	15.7	6.6	62.8
	0.91 - 0.95	1.9	2.6	5.3	90.3	30.2	11.0	10.0	48.9	15.9	10.9	7.8	65.5
	0.96 - 1.00	1.3	2.1	2.0	94.5	18.4	10.5	12.1	59.0	8.7	7.0	4.4	79.9

86% for Native Americans, 85% for Hispanics, and 78% for Blacks. The differing pass rates may be the result of districts disproportionately placing minorities in special education, since districts have some discretion in the degree to which such students are held to the graduation rule. As stated above, students who continued their education into a fifth year had substantially reduced passing rates for both of the tests than students who graduated. Of these continuing students, 76% of White students passed both tests, followed by 59% of Asians, 53% of Hispanics, 51% of Native Americans, and 43% of Blacks. The percentages of students passing

Table 4. Percentage of Students who Graduated Without Passing Both *BSTs*

		% Graduating w/o Standard
Total		8.2
Student Characteristics		
Gender	Female	8.1
	Male	8.3
Ethnicity	Native Am.	14.3
	Asian	11.7
	Hispanic	15.5
	Black	22.1
	White	7.6
LEP Status	LEP	23.3
	Not LEP	7.9
Special Ed Status	Special Ed	31.4
	No Special Ed	5.9
Lunch Status	F/R Lunch	13.6
	No F/R Lunch	7.0
Age	Over-age	33.5
	Normal Age	7.8
School Characteristics		
Region	Metro Area	9.6
	Outstate	7.1
Strata	Mpls/St.Paul	14.4
	TC Suburbs	8.8
	Outstate 2000+	8.4
	Outstate 2000-	5.9
LEP	0%	6.1
	0-10%	8.2
	11-100%	10.2
IEP	0-10%	9.7
	11-20%	7.1
	21-100%	5.5
F/R Lunch	0-20%	5.6
	21-30%	13.2
	31-50%	5.5
	51-100%	12.5
Mobility	0-10%	5.6
	11-20%	11.6
	21-100%	10.9
Attendance	0.00 - 0.90	6.3
	0.91 - 0.95	9.7
	0.96 - 1.00	5.5

both tests were even smaller for students who dropped out, ranging from 60% for White students to less than 20% for Blacks.

There were also differences in the pass rates for students in various demographic categories. Pass rates for LEP-ineligible students were closer to the state average than percentages for LEP-eligible students. LEP students had lower passing rates. Similarly, students in special education (IEP) were less likely to pass both tests than students not so classified. In fact, of the students with IEPs, only about two-thirds of those who graduated had passed both sections of the *BST.* A lower percentage of over-age students passed both tests than did their normal-aged peers, and a higher percentage of over-age students passed neither test for each of the completion status categories. The differences between the pass rates for students with lower SES versus students with higher SES were much smaller, suggesting that income was less related to pass rates than other factors (ethnicity, LEP, IEP, and age). The age of the student and the student's special education status appear to be the two factors most strongly associated with graduating without passing both of the tests.

Students who Graduated Without Meeting the Standard

Here, we further explore factors affecting students who graduated without passing both *BSTs.* Table 4 shows the percentages of students who graduated without passing both tests, by student and school characteristics. Of the students who eventually graduated, 8.2% did not meet the standard (i.e., they did not pass both *BSTs)*; this number includes students who either passed one of the two tests, as well as students who passed neither. There are three legitimate reasons why students from the Class of 2000 might have graduated without having passed the *BSTs*. First, some students who received special education services were exempt from the tests or received modifications to the standard. We have data about the IEP status of each student, but we cannot be sure *which* students were exempted for that reason. Second, students who had been in the United States for less than three years and who have limited English proficiency could graduate without passing both tests at the state passing score level. This factor should not affect our results, since these students were tracked from 1996 to 2000

over four years. (At this writing, both of the above types of exceptions continue to be allowed.) Third, during 1996 and 1997, students could show mastery of the basic skills by passing alternative, norm-referenced tests. (We do not have good information on which students passed alternative tests in the first two years.) A fourth reason for our results could be the limitations of the data itself. Minnesota's system of longitudinal data collection and tracking is not perfect.

Males and females were almost equally likely to graduate without reaching the standard (8.1% for females versus 8.3% for males). Blacks had the largest percentage of students who graduated without passing both *BSTs* (22.1%), followed by Hispanics (15.5%), Native Americans (14.3%), and finally Asians (11.7%). The percentage of White students graduating without passing both *BSTs* was slightly lower than the state average (7.6%). Students with LEP status were almost three times as likely to graduate without passing both of the *BSTs* as students without this designation (23.3% versus 7.9%). Students with an IEP were more than 5 times as likely to graduate without passing both *BSTs* as students without IEPs (31.4% versus 5.9%). Students with lower socioeconomic status (SES), indicated by eligibility for free or reduced-price lunch, were almost twice as likely as more affluent students to graduate without passing both state tests (13.6% versus 7.0%). Finally, older students were four times as likely to graduate without passing both tests as their younger peers (33.5% versus 7.8%).

More students in the metro area graduated without passing both *BSTs* than did students from outstate areas (9.6% versus 7.1%). The strata results also show students from the Twin Cities graduating at higher rates without passing both tests (14.4%) than students from outstate areas. More populous areas, the Twin Cities suburbs and larger outstate districts, were next at just over 8%. Smaller outstate districts (fewer than 2000 students) were last (5.9%). As the percentage of LEP students in a school increased, students were more apt to graduate without passing both tests. Schools with a higher percentage of students with IEPs were less likely to graduate students who had not passed both tests. This is surprising since certain IEP students were exempted from the testing requirement. The results for SES, mobility, and attendance were inconsistent; there was no relationship between these school characteristics and students graduating without passing both *BSTs*. For example, as the percentage of students receiving free or reduced-price lunch rose, the percentage of students graduating without meeting the standard first increased (from 5.6% to 13.2%), and then decreased (13.2% to 5.5%) before increasing again (5.5% to 12.5%).

Table 5 (p. 12) gives additional information on students who graduated without passing both tests. Results are shown by year, test sequence, and whether the student had IEP status. In 1996 and 1997, there was only one test administration. In 1998 and 1999 there were two, the regular administration (sequence 1) and the summer test (sequence 2). In 2000 there was a regular administration (1), a special test in April for seniors (2), and a summer test (3). Students who did not pass the *BSTs* in 1996 or 1997 could demonstrate competency on alternative norm-referenced assessments. Also, some students with IEPs took the *BSTs* but were not required to meet the state's passing score. In both cases (alternative test/IEP), the district made the final decision of whether the student had to meet the *BST* passing standard to graduate. The numbers in Table 5 must be interpreted with care. The values in the shaded areas represent students with IEPs and/or students

Table 5. Students in the Class of 2000 who Graduated without Meeting the Basic Standard, and Their Test-taking Combinations

Math	Reading	IEP	No IEP
M961	—	42	788
—	R961	3	20
M961	R961	998	1474
M961	R971	32	35
M961	R981	27	10
M961	R991	3	1
M971	—	10	77
—	R971	14	96
M971	R961	19	15
M971	R971	146	142
M971	R981	13	11
M971	R991	7	—
M971	R992	1	—
M981	—	2	4
—	R981	5	22
M981	R961	7	2
M981	R971	4	2
M981	R981	48	20
M981	R991	2	—
—	R982	2	1
M982	R981	1	—
M982	R982	—	2
M991	—	3	2
—	R991	3	4
M991	R961	1	1
M991	R981	1	—
M991	R991	10	3
M991	R001	1	—
M992	—	1	—
M992	R991	1	—
M992	R992	1	—
M001	—	—	4
—	R001	1	3
M001	R971	1	—
M001	R991	—	1
M001	R001	1	2
—	R002	1	—
Total		1412	2742
Cases in non-shaded area			68

Test combinations that did not occur for this group of students were omitted. Non-shaded results are for Non-IEP students taking tests in years other than 1996 or 1997. The first letter indicates which test (M/Math; R/Reading); the next two digits show the test year; the final digit shows the test administration.

tested in 1996 or 1997. These students may have had exceptions to the graduation rule. Note that most students graduating without passing both tests did take the tests in 1996 or 1997. This is especially true for students graduating without IEP status. In fact, only 68 of the 4,154 (1.6%) students who graduated without meeting the test standards were classified as non-IEP and took both tests in years other than 1996 or 1997.

Given the intent of the graduation rule, the pattern of results in Tables 3 and 4

are notable. It may be that low income and minority students more commonly demonstrated mastery on non-state tests than did economically advantaged and majority students. Only time will tell whether the same patterns persist in future classes—the Class of 2002 and beyond—whose students can only demonstrate mastery through their performance on the *BSTs*. Also of interest is the differential placement of minorities in special education programs where their graduation requirements are more at the discretion of the district.

By administering the same test content and applying the same passing standard, high school graduation tests were designed to make graduation standards more consistent across the state. Given that high standards are considered essential to a quality education, the intent was to ensure that at-risk students would benefit from the same education standards as students from the majority culture. The data in Tables 3 (p. 9) and 4 (p. 10) indicate that, as compared to economically advantaged students and students from the majority culture, low income and minority students more commonly graduated without having passed both state tests. Because of the permissible exemptions and modifications, uniform tests with uniform passing scores do not ensure uniform application of education expectations for all students. Note, too, that part of the results could be due to an interaction between the process of data collection and these at-risk groups. Following students is more difficult when those students transfer often (high mobility rates), and at-risk students tend to show higher rates of mobility. Thus, some of these students may have passed the *BSTs* without being recorded properly in our data.

Completion Outcomes and Number of Times Students Attempted the *BST*

Table 6 (p. 14) gives information on the number of times students took each test, their passing status, and their completion status. For example, 56 students who dropped out took the math test four times before they passed it. Similarly, one of the subsequent graduates took the reading test nine times and never passed it. Initially, the math test was easier for students than the reading test, and this is true for every completion status. Whereas 85.9% of the students who graduated passed math on their first try, the figure was 73.5% for reading. Of the students who both dropped out and passed the math test, 74.2% passed the math test on the first try. The value for reading was 55.4%. For continuing seniors, 70.4% passed the math test on their first attempt. The corresponding value for reading was 53.1%. Moreover, students who graduated had higher first-time pass rates for both math (85.9%) and reading (73.5%) as compared to students who dropped out (74.2% and 55.4%) or were continuing (70.4% and 53.1%). A curious finding here is that the rate of students passing either the math or reading test on their first attempt was higher for eventual dropouts than for students who continued in high school past their graduation year. Of the dropouts who passed the mathematics test, 74.2% did so on their first attempt. The corresponding value for continuing students was 70.4%. For reading, the values were 55.4% for dropouts and 53.1% for continuing students.

Of the 62,066 students who took the math test, 49,302 took the test only once (79.4%) and 1,651 of these students did not pass the test. For reading, the number of test takers was 61,149. Of this number 41,866 (68.5%) took the test only once, and 2,259 of them did not pass. Table 6 also shows that even though these tests measure basic skills, a substantial number of students had great difficulty passing,

Table 6. Number of Times Students Attempted the Math and Reading *BSTs*, by Completion Status and Passing Status

		COMPLETION STATUS											
		Graduated				Dropped Out				Continued			
		Passed		Did Not Pass		Passed		Did Not Pass		Passed		Did Not Pass	
		N	%	N	%	N	%	N	%	N	%	N	%
Number of Attempts													
Math	1	41,669	85.9	541	27.9	2,471	74.2	757	39.4	3,511	70.4	353	25.1
	2	3,687	7.6	290	15.0	522	15.7	620	32.3	714	14.3	332	23.6
	3	1,707	3.5	379	19.6	256	7.7	364	19.0	409	8.2	291	20.7
	4	697	1.4	311	16.1	56	1.7	129	6.7	170	3.4	205	14.6
	5	419	0.9	244	12.6	20	0.6	33	1.7	106	2.1	112	8.0
	6	203	0.4	108	5.6	4	0.1	14	0.7	50	1.0	73	5.2
	7	87	0.2	56	2.9	1	0.0	1	0.1	18	0.4	27	1.9
	8	18	0.0	6	0.3			1	0.1	6	0.1	12	0.9
	9			2	0.1					3	0.1	1	0.1
Reading	1	35,039	73.5	1,027	51.4	1,850	55.4	835	45.2	2,718	53.1	397	33.9
	2	7,139	15.0	309	15.5	835	25.0	603	32.6	1,101	21.5	313	26.7
	3	3,893	8.2	251	12.6	519	15.5	283	15.3	861	16.8	224	19.1
	4	1,034	2.2	223	11.2	116	3.5	102	5.5	300	5.9	130	11.1
	5	384	0.8	125	6.3	20	0.6	14	0.8	100	2.0	65	5.6
	6	136	0.3	40	2.0	2	0.1	8	0.4	29	0.6	21	1.8
	7	40	0.1	17	0.9			1	0.1	10	0.2	16	1.4
	8	2	0.0	6	0.3			1	0.1	4	0.1	4	0.3
	9			1	0.1							1	0.1

as evidenced by the fact that several thousand students took the tests more than once. In fact, the number of test takers was still in the thousands for the fourth try in both math and reading. Moreover, more than one student attempted both tests the maximum times possible (nine). Clearly, some students do not initially pass the tests. Thus, it is legitimate to question whether students see the tests as such a large barrier that their academic aspirations are decreased.

The pattern of testing for students who drop out is fundamentally different than for the other two groups. While the test proved difficult even for some of those who graduated, the graduates and the continuing students persisted in taking the tests. On the other hand, the dropouts simply stopped taking the tests. None of the dropouts made nine attempts on the math or the reading test. In fact, of the 1,919 dropouts who did not pass the mathematics test, 90% took the test three or fewer times. The corresponding value is five attempts for both the graduating and continuing students. Thus, students who graduated or continued in school after their initial graduation year were more persistent and even though they failed the test, they kept taking it. Also for reading, 90% of the dropouts who did not pass were reached by the third administration. The corresponding value for the graduates and continuing students was the fourth test administration. Based on the numbers in the table, dropouts are simply not taking that many administrations of the test. This could be a function of the fact that they have dropped out. These results are consistent with the view that they were discouraged by their failure to pass the test and thus dropped out.

Completion Outcomes and the Year in which Students Passed the *BSTs*

For those passing each test, Table 7 identifies the test session for which the pass occurred. Note that most of the Class of 2000 who passed the test did so in 1996,

while they were in 8th grade. Overall, 74.1% of the students who passed the math test did so the first year, and 60.2% of the students passing the reading test did so in the first year. Again, the math test appears to have been easier. As expected, graduating students had the highest percentages of students who met the standard in 1996 (76.7% for math and 63.7% for reading). The rates for continuing students and dropouts were comparable to one another, almost 60% for math and about 40% for reading. Here, we see that the continuing students are taking advantage of the later test sessions at a higher rate than the other two groups. While the percentage of continuing students who passed the mathematics test at the first offering was low (only 58.3%), the relative percentage passing is higher for the other test administrations when compared to the students who graduated. For example, 20.1% of the continuing students who passed the math test did so in 1997. This compares to 14.9% for the graduates. In every instance after 1996, continuing students are represented at a higher proportion than the students who graduated. Continuing students start lower, but are making up some of the difference. In contrast, the rate of test taking for students who dropped out is virtually nil after the annual test of 1999. Of the 3,330 dropouts who passed the math test only 47, 1.4% took the test during the last four possible administrations. Again, we can speculate that this is because many dropouts have already left school and are not there to take the tests. The corresponding values for those who graduated are 909 students out of 48,487, or 1.9%. Finally, relatively more continuing students are still taking the tests in the latter four administrations (340 students out of 4,987 or

Table 7. Test Administration in which Students Passed the *Basic Standards Tests,** by Completion Status

		COMPLETION STATUS						
		Graduated		Dropped Out		Continued		Total
		N	%	N	%	N	%	N
Year Passed**								
Math	**1996**	37,205	76.7	1,996	59.9	2,906	58.3	42,107
	1997	7,233	14.9	733	22.0	1,004	20.1	8,970
	1998 (1)	2,186	4.5	418	12.6	492	9.9	3,096
	1998 (2)	245	0.5	27	0.8	40	0.8	312
	1999 (1)	709	1.5	109	3.3	205	4.1	1,023
	1999 (2)	246	0.5	9	0.3	55	1.1	310
	2000 (1)	470	1.0	33	1.0	185	3.7	688
	2000 (2)	177	0.4	5	0.2	71	1.4	253
	2000 (3)	16	0.0	—	—	29	0.6	45
Reading	**1996**	30,373	63.7	1,327	39.7	2,066	40.3	33,766
	1997	9,914	20.8	925	27.7	1,204	23.5	12,043
	1998 (1)	4,997	10.5	726	21.7	1,009	19.7	6,732
	1998 (2)	312	0.7	42	1.3	58	1.1	412
	1999 (1)	1,304	2.7	234	7.0	439	8.6	1,977
	1999 (2)	173	0.4	9	0.3	60	1.2	242
	2000 (1)	516	1.1	70	2.1	223	4.4	809
	2000 (2)	76	0.2	8	0.2	53	1.0	137
	2000 (3)	2	0.0	1	0.0	11	0.2	14

*Before 2002, the *Basic Skills Tests* were called the *Basic Standards Tests.*

**The number in parentheses after the year is the test sequence for years when more than one test was given: (1) = the annual test; (2) = the summer test in 1998 and 1999, and the April test in 2000; (3) = the summer test in 2000.

6.8%). Again, we see the persistence of the continuing students.

Completion Outcomes and Percentage of Students Passing the *BST* on the First Attempt, by Student Characteristics

Table 8 (p. 17) gives a summary for students that passed the math, the reading, or both *BSTs* on the first try, by student characteristics, school characteristics, and completion status. Below, when we speak of the math test we mean all those who passed only the math test. Similarly, when we speak of the reading test we mean all those who passed only the reading test. The results for "Both" are for students passing both tests. For all student groups, a higher percentage passed the math test than the reading test. Over all completion categories, higher percentages of males passed the math test on their first attempt than females. The opposite was true for reading, where more females passed on their first attempt. The male advantage in math was generally greater than the female advantage in reading. This was especially true for students whose completion status was "Dropped Out" (the male advantage for math is 76.6, versus 69.8 for females; the female advantage for reading is 55.9, versus 55 for males). For students who continued, the male advantage for math is 72.2 versus 67.7; the female advantage for reading is 53.2 versus 52.9. Of students who graduated, females were slightly more likely to pass both tests on the first try. Males were slightly more likely to pass both tests in the other two completion categories (dropped out and continued).

Given the general trends, the percentage of students passing either or both tests the first time was highest for Whites, and then for Native Americans, Asians, Hispanics, and Blacks. In general, these results held true across all three completion categories. Within the above categories, first-time passers were most common among students who graduated; dropouts and continuing students had similar rates. One anomaly is that the highest percentage of students passing either the reading or math test (but not both) on the first attempt for Blacks was the eventual Dropouts, not the subsequent high school graduates. In contrast, Black graduates passed both exams on the first try at a higher rate than Black dropouts or Black continuing students.

Students classified as "LEP" had the worst passing rates on the *BSTs* of students in any of the defined categories. As expected, their passing rates were better in math than reading. LEP students' pass rates on both tests for the first attempt were abysmal, around 20%. As with Black students, students with LEP status who later dropped out had higher passing rates on their first try than students who graduated or continued their education into a fifth year of high school. The difference is that, for students designated as LEP, this was true for passing each test individually and for passing both tests simultaneously.

As with the other groups, students with IEPs had more difficulty passing the reading test on their first attempt than the math test. Also, the anomaly for Black and LEP-designated students was also true for students with IEPs—with one caveat. For students with an IEP, *both* dropouts and continuing students had higher initial pass rates for each test individually, and both tests collectively, than did IEP students who eventually graduated. This result could be related to the exemption policy. IEP students who were not exempted, but who only passed one test, may have been more likely to drop out; exempted IEP students probably did not pass any more tests but were graduated anyway.

As expected, students who were eligible for free or reduced-price lunch had lower

Table 8. Percentage of Students Passing the *BSTs* on the First Attempt, by Completion Status

		COMPLETION STATUS								
		Graduated			Dropped Out			Continued		
		Math	Reading	Both	Math	Reading	Both	Math	Reading	Both
Total		85.9	73.5	67.8	74.2	55.4	43.4	70.4	53.1	45.3
Student Characteristics										
Gender	Female	84.3	75.2	68.7	69.8	55.9	43.0	67.7	53.2	45.3
	Male	87.6	71.7	66.9	76.6	55.0	43.7	72.2	52.9	45.4
Ethnicity	Native Am.	72.0	59.3	51.9	65.2	53.6	38.7	65.7	49.7	40.0
	Asian	71.6	58.2	53.0	63.8	45.1	29.0	52.0	36.3	31.6
	Hispanic	68.2	57.2	48.8	64.1	42.9	32.7	46.9	42.0	32.3
	Black	47.7	40.2	31.8	56.5	44.0	28.2	35.8	30.3	23.3
	White	87.6	75.2	69.5	76.8	57.7	46.0	75.6	57.2	48.6
LEP Status	LEP	41.4	25.9	19.9	54.5	32.7	20.6	34.6	20.8	16.7
	Not LEP	86.7	74.3	68.6	75.1	56.4	44.4	72.0	54.5	46.4
Special Ed Status	Special Ed	54.6	32.2	27.6	61.5	42.2	29.6	56.4	38.8	29.8
	No Special Ed	88.2	76.9	70.7	77.2	58.7	46.7	73.6	56.6	48.9
Lunch Status	F/R Lunch	74.0	58.7	53.0	69.9	51.1	39.4	61.0	42.4	35.2
	No F/R Lunch	88.5	76.8	71.0	77.2	58.6	46.2	76.1	59.8	51.3
Age	Overage	51.2	37.1	28.0	69.9	48.8	28.1	40.0	50.5	31.3
	Normal Age	86.3	74.0	68.3	74.4	55.7	44.3	53.4	70.8	45.6
School Characteristics										
Region	Metro Area	84.5	73.6	67.1	73.0	55.1	42.9	68.4	52.6	45.1
	Outstate	87.1	73.5	68.5	75.4	55.4	43.7	73.7	54.0	46.0
Strata	Mpls/St.Paul	67.0	58.1	52.8	68.1	54.2	41.8	49.9	39.0	33.3
	TC Suburbs	87.0	76.0	69.1	75.1	55.5	43.4	73.6	56.9	48.3
	Outstate 2000+	88.3	76.7	70.6	78.6	59.2	47.7	75.2	56.9	48.7
	Outstate 2000-	86.2	70.9	66.7	70.8	50.0	37.8	71.8	50.3	42.6
LEP	0%	86.4	72.1	67.3	77.4	55.9	42.1	74.6	57.7	49.1
	0-10%	87.4	75.3	69.2	75.2	55.4	44.2	73.7	55.6	48.7
	11-100%	74.9	65.0	60.4	70.1	53.7	42.2	52.7	42.5	35.6
IEP	0-10%	87.2	74.7	67.3	73.8	51.7	39.4	72.7	56.5	49.7
	11-20%	85.5	73.2	68.5	74.6	56.1	44.9	68.2	51.7	44.6
	21-100%	77.4	63.4	56.4	60.0	57.1	31.3	78.1	50.0	55.2
F/R Lunch	0-20%	88.0	76.4	71.9	77.9	56.0	45.3	74.2	56.7	49.9
	21-30%	87.1	74.0	64.5	74.1	56.0	42.1	72.9	54.9	46.2
	31-50%	86.0	72.6	68.2	72.1	54.4	42.6	70.3	54.5	46.6
	51-100%	71.2	59.6	54.7	69.0	53.1	41.8	53.5	41.3	35.6
Mobility	0-10%	88.6	75.4	71.4	75.6	55.0	43.4	77.1	59.5	52.2
	11-20%	84.9	73.2	64.2	75.7	55.2	43.4	70.1	52.5	44.9
	21-100%	75.0	65.3	60.3	70.6	55.0	43.6	57.2	44.3	38.4
Attendance	0.00 - 0.90	79.6	60.7	57.1	65.5	61.4	39.3	71.4	50.5	51.2
	0.91 - 0.95	84.7	72.5	65.8	73.9	55.9	44.1	66.4	50.7	43.1
	0.96 - 1.00	88.4	75.9	71.8	76.1	52.0	42.1	75.4	57.6	51.6

first-time pass rates than students not so designated. Also, for this group, the students who eventually graduated had higher initial pass rates. Finally, older students had lower first-time pass rates than their normal aged peers. However, they too showed the anomaly in which those who graduated had lower initial pass rates than those who dropped out or continued (except for the continuing student rate in mathematics).

Table 8 also shows the percentage of students passing the math and/or reading test(s) on their first try, reported by school characteristics. Although there were few differences between regions (metro versus outstate), students from Minneapolis

and St. Paul had markedly lower first-time pass rates on the *BSTs* than students from other strata (Twin Cities suburbs, Outstate 2000+, and Outstate 2000-). Moreover, of the students from Minneapolis and St. Paul, the percentage who passed only the math test on their first attempt was similar to the percentage of those who graduated and those who dropped out (67% for graduates versus 68.1% for dropouts). For school LEP concentration, IEP concentration, poverty concentration, and mobility, the relationship is as expected. However, the decrease in pass rates only occurs at the highest levels of concentration for these variables. For instance, schools with the lower levels of LEP concentration (0% and 0–10%) have essentially the same pass rates. The pass rates do not decrease until the school's LEP concentration rises to 11% or above. The same holds for IEP concentration. The percentage of students passing the *BSTs* on the first attempt is almost the same for the first two categories (0–10% and 11–20%). It drops about 10% when the IEP concentration rises to the 21–100% range. The same was true for poverty concentration (percentage of students on free or reduced price lunch). The values for 0–50% were similar for those who graduated. Schools with a poverty concentration of 51–100%, however, had a passing rate that was 17% lower.

Finally, it is instructive to note the number of times students took each test by student and school characteristics. Table 9 (p. 19) gives results for math and Table 10 (p. 20) gives results for reading. (Note that Tables 9 and 10 only show data for students who eventually passed the tests.)

Over 90% (87.6% + 7% = 94.6%) of the Whites who passed the test needed only two times to do so (see Table 9, p. 19). For Asians, Hispanics, and Native Americans, it took three tries to reach 90% of those groups who passed. For Blacks, the 90% pass rate was not reached until the fifth time. It also took five tests for students with LEP status to reach the 90% value. Students with IEPs and older students needed four attempts for their groups to reach the 90% rate. Finally, students who were eligible for free or reduced-price lunch needed three attempts to bring the group to the 90% pass rate.

The only strata requiring more than two test administrations to reach the 90% pass rate for the math test (Table 9) was Minneapolis/St. Paul (three attempts). Only at the highest levels of school LEP concentration (11–100%), IEP concentration (21–100%), poverty concentration (51–100%), and mobility (21–100%) was there a need for more than two test attempts to reach 90% of students passing; three attempts were needed for each of these.

Reading was more difficult and tended to require more test attempts before 90% of the students passed. Whereas students in most of the categories for student and school characteristics required at most two attempts at the math test before reaching 90% passing, the corresponding number for reading was three. For math, we highlighted only the categories for which the number of attempts was larger than two; here we will list only the categories for which the number of necessary attempts is larger than three.

The results for ethnicity show that Blacks and Asians needed four tries before 90% of the group passed. For students with LEP status, five attempts were required to reach the 90% pass rate; those with IEPs and those who were older than their peers needed four attempts. Note that students with LEP status had the most difficult time passing the reading test of any group of students who eventually passed the test. None of the groups categorized by school characteristics required more than three attempts to reach the 90% pass rate (Table 10, p. 20).

Table 9. Percentage of Graduating Students Taking the *BST* in Mathematics, by Number of Attempts

		Number of Attempts Before Passing									
		1	2	3	4	5	6	7	8	9	N
Total		85.9	7.6	3.5	1.4	0.9	0.4	0.2	0.1	—	48,487
Student Characteristics											
Gender	Female	84.3	8.1	4.1	1.7	1.0	0.5	0.2	0.1	—	24,625
	Male	87.6	7.1	3.0	1.1	0.7	0.3	0.1	0.1	—	23,862
Ethnicity	Native Am.	72.0	15.0	4.9	5.1	1.8	0.7	0.4	0.2	—	453
	Asian	71.6	13.4	7.6	3.3	2.4	1.1	0.4	0.3	—	1,600
	Hispanic	68.2	17.4	7.5	4.1	1.8	0.6	0.2	0.2	—	493
	Black	47.7	17.0	15.7	7.9	5.8	3.4	1.8	0.7	—	964
	White	87.6	7.0	3.1	1.2	0.7	0.3	0.1	0.1	—	44,977
LEP Status	LEP	41.4	22.0	16.9	8.2	6.3	3.5	1.0	0.6	—	773
	Not LEP	86.7	7.4	3.3	1.3	0.8	0.4	0.2	0.1	—	47,714
Special Ed Status	Special Ed	54.6	19.0	13.0	6.9	4.6	1.4	0.5	0.1	—	3,318
	No Special Ed	88.2	6.8	2.8	1.0	0.6	0.3	0.2	0.1	—	45,169
Lunch Status	F/R Lunch	74.0	12.0	7.0	3.3	2.0	1.1	0.4	0.1	—	8,519
	No F/R Lunch	88.5	6.7	2.8	1.0	0.6	0.3	0.1	0.1	—	39,968
Age	Overage	51.2	19.4	11.8	7.8	5.7	3.2	0.7	0.2	—	561
	Normal	86.3	7.5	3.4	1.4	0.8	0.4	0.2	0.0	—	47,926
School Characteristics											
Region	Metro Area	84.5	8.2	3.9	1.6	1.0	0.5	0.3	0.1	—	21,516
	Outstate	87.1	7.1	3.2	1.3	0.7	0.4	0.1	0.1	—	26,911
Strata	Mpls/St.Paul	67.0	12.4	10.6	3.6	3.3	1.8	0.9	0.4	—	2,721
	TC Suburbs	87.0	7.6	2.9	1.3	0.7	0.3	0.2	0.1	—	18,795
	Outstate 2000+	88.3	6.7	2.9	1.1	0.6	0.3	0.1	—	—	12,215
	Outstate 2000-	86.2	7.4	3.5	1.4	0.8	0.5	0.2	0.1	—	14,696
LEP	0%	86.4	7.5	3.5	1.3	0.7	0.5	0.1	0.1	—	7,991
	0-10%	87.4	7.2	3.0	1.3	0.7	0.3	0.1	0.1	—	35,476
	11-100%	74.9	10.6	7.3	2.8	2.2	1.3	0.6	0.2	—	4,604
IEP	0-10%	87.2	7.4	3.1	1.2	0.7	0.3	0.2	0.1	—	17,292
	11-20%	85.5	7.6	3.7	1.5	0.9	0.5	0.2	0.1	—	30,553
	21-100%	77.4	11.1	4.9	3.1	1.8	0.9	0.9	—	—	226
F/R Lunch	0-20%	88.0	6.9	2.9	1.2	0.6	0.2	0.1	0.1	—	23,622
	21-30%	87.1	7.2	3.3	1.2	0.8	0.4	0.2	0.1	—	11,657
	31-50%	86.0	8.0	3.1	1.5	0.8	0.4	0.2	—	—	8,974
	51-100%	71.2	11.6	8.7	3.2	2.8	1.5	0.7	0.3	—	3,818
Mobility	0-10%	88.6	6.4	2.8	1.2	0.7	0.2	0.1	0.1	—	27,988
	11-20%	84.9	8.8	3.4	1.4	0.7	0.4	0.2	0.1	—	15,279
	21-100%	75.0	10.6	7.4	2.8	2.2	1.2	0.5	0.2	—	4,804
Attendance	0.00 - 0.90	79.6	10.9	3.7	2.9	1.4	1.0	0.3	0.2	—	588
	0.91 - 0.95	84.7	8.1	3.9	1.6	1.0	0.5	0.2	0.1	—	28,650
	0.96 - 1.00	88.4	6.6	2.9	1.2	0.6	0.2	0.1	0.1	—	18,833

Table 10. Percentage of Graduating Students Taking the *BST* in Reading, by Number of Attempts

		Number of Times Taken									
		1	2	3	4	5	6	7	8	9	**N**
Total		73.5	15.0	8.2	2.2	0.8	0.3	0.1	0.0	—	47,667
Student Characteristics											
Gender	Female	75.2	14.8	6.9	2.0	0.7	0.3	0.1	0.0	—	24,355
	Male	71.7	15.2	9.4	2.4	0.9	0.3	0.1	0.0	—	23,312
Ethnicity	Native Am.	59.3	20.2	12.7	4.8	1.8	0.9	0.2	—	—	455
	Asian	58.2	16.0	15.7	5.3	2.2	1.5	1.1	—	—	1,613
	Hispanic	57.2	17.8	17.6	3.7	3.1	0.6	—	—	—	488
	Black	40.2	24.5	21.8	6.9	3.7	2.3	0.5	0.1	—	1,007
	White	75.2	14.6	7.4	1.9	0.7	0.2	0.0	0.0	—	44,104
LEP Status	LEP	25.9	22.5	26.8	12.4	6.0	4.2	2.2	—	—	814
	Not LEP	74.3	14.8	7.8	2.0	0.7	0.2	0.0	0.0	—	46,853
Special Ed Status	Special Ed	32.2	23.6	25.9	12.0	4.6	1.5	0.2	0.1	—	3,581
	No Special Ed	76.9	14.3	6.7	1.4	0.5	0.2	0.1	—	—	44,086
Lunch Status	F/R Lunch	58.7	18.9	14.5	4.7	2.0	0.9	0.3	0.0	—	8,600
	No F/R Lunch	76.8	14.1	6.8	1.6	0.6	0.1	0.0	0.0	—	39,067
Age	Overage	37.1	20.3	24.5	10.2	5.1	2.4	0.5	—	—	591
	Normal	74.0	14.9	8.0	2.1	0.8	0.3	0.1	0.0	—	47,076
School Characteristics											
Region	Metro Area	73.6	15.0	7.9	2.2	0.8	0.4	0.1	0.0	—	20,971
	Outstate	73.5	14.9	8.4	2.2	0.8	0.2	0.1	0.0	—	26,640
Strata	Mpls/St.Paul	58.1	17.2	15.0	4.7	2.5	1.8	0.7	0.0	—	2,847
	TC Suburbs	76.0	14.7	6.8	1.8	0.6	0.1	0.0	—	—	18,124
	Outstate 2000+	76.7	13.2	7.3	2.0	0.6	0.1	0.0	—	—	11,958
	Outstate 2000-	70.9	16.3	9.2	2.3	0.9	0.3	0.1	0.0	—	14,682
LEP	0%	72.1	15.9	8.8	2.1	0.8	0.3	0.1	0.0	—	7,990
	1-10%	75.3	14.6	7.4	1.9	0.6	0.2	0.0	—	—	34,548
	11-100%	65.0	15.7	12.2	3.5	1.9	1.2	0.4	0.0	—	4,728
IEP	0-10%	74.7	14.8	7.6	2.0	0.7	0.2	0.0	—	—	16,496
	11-20%	73.2	15.0	8.3	2.2	0.8	0.4	0.1	0.0	—	30,546
	21-100%	63.4	21.0	10.7	3.6	1.3	—	—	—	—	224
F/R Lunch	0-20%	76.4	14.2	6.9	1.8	0.7	0.1	0.0	—	—	23,420
	21-30%	74.0	14.8	8.2	2.1	0.6	0.3	0.1	0.0	—	10,866
	31-50%	72.6	15.7	8.7	2.0	0.8	0.2	0.0	—	—	9,023
	51-100%	59.6	18.0	13.9	4.4	2.1	1.4	0.5	0.0	—	3,957
Mobility	0-10%	75.4	14.3	7.6	1.8	0.6	0.2	0.0	—	—	27,993
	11-20%	73.2	15.8	7.8	2.2	0.8	0.2	0.0	0.0	—	14,339
	21-100%	65.3	16.0	11.7	3.7	1.7	1.2	0.4	0.0	—	4,934
Attendance	0.00 - 0.90	60.7	21.7	11.3	4.4	1.4	0.5	—	—	—	591
	0.91 - 0.95	72.5	15.1	8.8	2.3	0.9	0.4	0.1	0.0	—	27,833
	0.96 - 1.00	75.9	14.5	7.0	1.8	0.6	0.2	0.0	—	—	18,842

CONCLUSIONS AND RECOMMENDATIONS

The high school graduating Class of 2000 was the first class in Minnesota that was required to demonstrate attainment of the Basic Standards by passing a high school exit exam. This report examined the relationship between performance on the high school graduation tests and high school completion. Overall, the graduation rate for the Class of 2000 was the same as for the four years prior to imposition of the high school graduation tests. The percentage of students dropping out, and the percentage of students continuing beyond their fourth year of high school, also remained unchanged. There was little or no change in graduation or dropout rate for any of the four ethnic minority groups or for special education students. The graduation rates for Minnesota's four ethnic groups remained disappointingly low, but they did not decline with the institution of the new high school graduation tests. The largest declines in graduation rate occurred among students from suburban schools and among students with limited English proficiency.

Recommendation 1: The Department of Children, Families & Learning needs to periodically, if not annually, monitor the relationship between the *BSTs* and high school graduation rates.

Beginning in 2001, the required passing level on the *BSTs* is a scale score (600) approximately equivalent to 75% correct, and students must pass a writing test in addition to the reading and math tests. These changes may adversely impact graduation rates. In the first few years of the *BSTs*, schools made extraordinary efforts to provide developmental work for students who initially failed one or more exams. Schools may not be able to continue these efforts, and any relaxation may adversely affect graduation rates. Also, since students can no longer meet the requirement through satisfactory performance on district-selected norm-referenced tests, some of the ambiguities in the current data will no longer exist.

In our data, approximately 8% of the students who graduated did not have a record showing successful completion of both state examinations. Some of these students would have passed alternative examinations in 1996 or 1997. Others were special education students exempted from the requirement by their Individual Education Plan. Others were special education students who met a modified standard. Finally, some of these students actually did past the tests, but that fact was not included with their data.

Because students can graduate under an exemption or modification if they have limited English proficiency and have not been in an English-speaking school for at least three years, it may at first seem reasonable that some students in our study would have graduated under an LEP modification. However, this is a longitudinal study that follows the Class of 2000 from grade 9 through 12. All of the students in this study were enrolled in a Minnesota school during the 1996–97 school year. If we assume that all Minnesota public schools use English as the primary language of instruction, these students would have been in English speaking schools for at least three years, and would be ineligible for an LEP exemption or modification under Minnesota statute. This fact makes certain patterns in the data difficult to

explain. Limited English proficiency students were almost three times as likely as other students to have graduated without a record of having passed both *BSTs.* If LEP students were more likely to have met the standard through performance on a district norm-referenced test, it would provide a possible explanation. However, this pattern may also have occurred because of confusion at the district or school site level as to the use of exemptions and modifications with LEP students.

Another pattern in the data also points to possible confusion concerning the use of exemptions and modifications with LEP students. Asian students were about 1.5 times as likely as Whites to have graduated without a record of having passed both state tests. This is difficult to explain on the basis of special education placements, since Asian students are less likely than Whites to be placed in special education. All of the students in this study were enrolled in a Minnesota school in 1996–97, and would therefore be ineligible for an LEP exemption/modification because they were in Minnesota (presumably English-speaking) schools for at least three years.

Recommendation 2: The Department of Children, Families & Learning, and Minnesota's schools and districts, need to clearly communicate the conditions under which students can be graduated without having passed all required *BSTs* to ensure that there is no confusion as to the conditions under which students with limited English proficiency can graduate without having passed the required *BSTs*.

There is a relationship between passing the state high school graduation tests and graduation. In the Class of 2000, students who graduated had passed the *BSTs* at higher rates than students who dropped out or continued their education beyond four years. But the relationship between test performance and high school completion was imperfect. Among those who eventually dropped out, slightly over half had successfully passed both *BSTs* before dropping out. It follows that at least half of the dropouts seem to have left school for reasons other than not having met the new high school graduation requirement. For the remaining half of the dropouts, it is unclear as to whether they left school because of the graduation tests or for other reasons. When there are other reasons, the most likely ones seemingly concern meeting coursework graduation requirements.

Some anomalies also point to rather weak relations between the tests and high school graduation, particularly among some groups with low graduation rates. For instance, among three groups with high dropout rates (Blacks, LEP students, and older students), students who eventually dropped out had initial pass rates almost as high as their peers who graduated. For instance, 20% of LEP students who eventually graduated and 20% of LEP students who eventually dropped out passed both tests on their first try. Among Blacks, 32% of those who graduated and 28% of those who dropped out had passed both tests on their initial tries. Among over-age students, 28% of those who dropped out and 28% of those who graduated passed both tests on their initial attempts. All of these pass rates are lower than the percentage of students statewide passing both tests on the initial attempts (68% among graduates and 43% among dropouts), but they indicate that graduates and dropouts in these groups differed little, if at all, in their initial success on the high school graduation tests. Thus, for these subgroups of students the notion of an initial failure providing decreased academic aspirations is dubious.

Recommendation 3: When students contemplate leaving school even though they have passed one or more of the *BSTs,* schools should use the student's success on these required exams as a reason for staying in school.

Much of the discussion about state high school exams focuses on the discouragement that can result from failing. We can also use passing exams to encourage students. Most dropouts passed at least one exam. Fifty percent passed both exams. Schools and parents can remind students of their successes, help students find encouragement in those successes, and actively use that success to further encourage students to stay in school.

The *BSTs* do not represent a level of attainment sufficient to prepare students for higher education. They represent minimum competencies expected of all, including those who will not go on for further education. Nevertheless, some students who have graduated from high school, but not evidenced attainment of basic standards through successful *BST* performance, can and will enter higher education, particularly at open enrollment schools. There has been considerable concern about students who graduate from Minnesota high schools and require remedial or developmental coursework to make up deficiencies in their high school preparation (Minnesota State Colleges and Universities and the University of Minnesota, 2001). Students who enter higher education without basic skills will need such developmental or remedial coursework.

Recommendation 4: Parents and students need to be aware that attainment of the minimum basic skills necessary for high school graduation does not necessarily mean adequate preparation for higher education, even in open enrollment colleges. Also, there needs to be discussion about the responsibilities of high schools and districts who, at their discretion, grant diplomas to students who have not evidenced attainment of basic skills and who then enter higher education needing remedial/developmental work. These discussions must take into account special circumstances, such as disabilities.

Given the link between high expectations and high achievement, one goal of the *BSTs* is to increase the comparability of minimum standards for all students in the state. Our data suggest that such tests are only partly successful. The state can standardize test content and the passing score. However, to the extent that exemptions, modifications, and alternative assessments are allowed at district discretion, they may not be used equally in all regions of the state or in all student subgroups. Graduates from demographic groups with the lowest graduation rates tended to be the most likely to have graduated without a record of passing both *BSTs*. This may simply mean that students from those subgroups more often demonstrated attainment of basic standards on the district norm-referenced assessments allowed during the first two years. However, it might mean that the high school graduation rates of some subgroups were maintained at past levels only through a more extensive application of modifications and accommodations for those groups.

Recommendation 5: The differential use of modifications, exemptions, and alternative assessments among various subgroups needs to be

monitored to ensure that the alternatives do not become a subtle means of setting lower expectations for at-risk students. Since these alternatives are used at the discretion of districts, the major responsibility for monitoring must fall to districts. However, the Department of Children, Families & Learning should also provide information to districts on the use of such alternatives within and across districts, as well as information on the extent to which those alternatives are used at differential rates for various subgroups.

Graduation rates among Minnesota's ethnic minorities, LEP students, and low SES students remain disappointingly low. This was true even before the *BSTs* were implemented as a requirement for graduation. Older students (both those who entered kindergarten at an older age or who were retained in grade) also have very low graduation rates. These students deserve special attention in Minnesota's efforts to improve graduation rates and to ensure that all students graduate with essential basic skills.

Our data show that the initial implementation of the *BSTs* had little impact on the state's graduation rate. This may, in part, be due to the way Minnesota implements the Basic Standards in its Graduation Rule. Students first take the *BSTs* in 8th grade. If they initially fail the exam, they have four more years to remedy any deficiencies. The lack of change in the graduation rate may also be due to the extraordinary efforts taken by schools and districts to provide remedial opportunities for students needing them (Schleisman et al., 2000). From the start, Minnesota's Basic Standards were designed, not to prevent students from graduating, but to ensure that all students had essential basic skills before reaching graduation. It is our hope that this will be the reality.

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