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AUTHOR Erickson, Ron N.
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This report analyzes education in Minnesota. After a brief introduction in chapter 1 , chapter 2 reviews educational accountability at the national and state levels and the development of minnesota's own assessment and accountability system. This review not only leads to recommended next steps in that assessment and accountability system, it also offers insights on the federal perspective and on new directions in policy and practices. Chapter 3 describes the students in Minnesota's K-12 system and the resources, such as funding and staffing, through which educational results are obtained. By describing the resources through which educational results are obtained, chapter 3 sets the stage for the description of those results in chapters 4 and 5. Chapter 4 discusses attendance rates, high school coursework, and high school graduation rates among Minnesota's K-12 students. Chapter 5 covers student achievement as reflected in statewide tests. It also compares the achievement of Minnesota students to that of students from other states and other countries in selected subject areas and grades. The last chapter presents major conclusions and recommendations on achievement, course work, attendance, graduation rates, and equity. Four appendices contain a glossary of terms, information on content and performance standards, and other information. Fifty tables provide statewide statistics on education. (Contains 23 references.) (RJM)

ce of Educational Research and Improvement EDUCATIONAL RESOURCES INFORMATION


- Points of view or opinions stated in this
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## OEA Staff:

Mark Davison, Ph.D., Director
Ernest C. Davenport, Ph.D., Associate Professor
Nohoon Kwak, Ph.D., Statistician
Margaret L. Irish, Editor/Grapbic Designer
Kristin A. Peterson, Research Associate

Donna Butterbaugh, Graduate Assistant
Jiyoung Choi, Graduate Assistant Leah Delorme, Graduate Assistant
Jane Schleisman, Graduate Assistant
Young Seok Seo, Graduate Assistant

Editorial Review Board:

Jim Angermeyer, Bloomington Public Schools Rolf Blank, Council of Cbief State School Officers Judy Farmer, Minnesota School Boards Association Dick Guevremont, Financial Management Division, Minnesota Department of Cbildren, Families Learning Carol Hokenson, Data Management Division, Minnesota Department of Cbildren, Families Learning
Van Mueller, University of Minnesota
Ed Roeber, Advanced Systems

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## EXECUTIVE SUMMARY

$T$he mission of the Office of Educational Accountability (OEA) is to analyze and periodically report on the needs of students and the condition of K-12 education in Minnesota as these are reflected in a comprehensive set of indicators. Reports are designed to inform and facilitate the improvement of elementary and secondary education statewide.

The 1997 Omnibus Education Bill, which authorized the OEA, charged the office with advising the education committees of the Minnesota Legislature and the Commissioner of the Department of Children, Families \& Learning, at least on a biennial basis, as to whether the statewide educational accountability and reporting system includes a comprehensive assessment framework that measures school accountability for students achieving the goals described in the state's results oriented Graduation Rule. Therefore, in addition to data on the schools and students of Minnesota, this report also covers progress to date in the development of a statewide accountability system and steps needed to further that system.

This report is only one piece of the Minnesota educational accountability reporting system. In order to monitor improvements in education statewide, one must track information statewide. Therefore, the focus of this report is on the state as a whole; or on portions of the state that cut across districts (e.g., suburban schools and students). Information about individual schools and districts can be accessed through the Department of Children Families \& Learning Web site (http://cfl.state.mn.us) or the OEA Web site (http://edpsy.coled.umn.edu/oea).

## Organization of this Report

After a brief introduction to the report in Chapter 1, Chapter 2 reviews Aeducational accountability at the national and state levels and the development of Minnesota's own assessment and accountability system. This review leads to recommended next steps in that assessment and accountability system. Chapter 3, entitled "Educational Inputs and Processes," describes the students in Minnesota's K-12 system and the resources through which educational results are obtained. These resources include the funding of our schools and the teaching staff in our classrooms. By describing the resources through which educational results are
obtained, Chapter 3 sets the stage for the description of those results in Chapters 4 and 5.

Chapter 4 discusses attendance rates, high school coursework, and high school graduation rates among Minnesota's K-12 students. Chapter 5 covers student achievement as reflected in statewide tests. It also compares the achievement of Minnesota students to that of students from other states and other countries in selected subject areas and grades. Chapter 6 contains our major conclusions and recommendations.

## Accountability and Reporting

A$t$ this point in the development of Minnesota's accountability system, -the legislature has approved the Graduation Rule, comprised of (1) the Basic Standards, representing the minimum skills required of all students for high school graduation; and (2) a sequence of Preparatory Standards for grades K-8 and Higb Standards for grades 9-12 that students are expected to achieve before leaving school. Assessments tied to the preparatory standards have been developed for grade 3 (the Minnesota Comprehensive Assessments in reading and mathematics), and for grade 5 (the Minnesota Comprehensive Assessments in reading, writing, and mathematics). Basic Standards Tests in reading, mathematics, and writing are in place at grades 8 and 10 . The assessments provide accountability for schools and chart student progress toward graduation.

Both the 1999 Graduation Standards Advisory Panel Recommendation and the Minnesota Educational Accountability Reporting System feasibility study recommended a statewide assessment in the high school grades 10 12. Federal Title I accountability standards require such an assessment tied to the state's high standards in at least two subject areas, language arts and mathematics. Therefore, we are recommending continued development of such an assessment in no more than six subject areas, an assessment that largely relies on a selected response format in order to minimize testing time. Such an assessment can provide accountability for the achievement of students nearing the end of high schools.

Federal Title I accountability also requires that states develop performance standards for Title I (high poverty) schools. Unless there is some change in these federal requirements, Minnesota must develop such standards. Developing the standards for all schools, not just 'Title I schools, would be consistent with efforts to provide a uniformly high quality of education throughout the state.

In this and other reports, educational data are publicly reported on a statewide basis. Data about individual schools and districts can be accessed by the public through CFL and OEA Web sites (http://cfl.state.mn.us and http://edpsy.coled.umn.edu/oea). This public reporting of data needs to be further refined as new indicators are added and old indicators are refined.

## Educational Inputs and Processes

There are two notable trends in student enrollment data. First, the percentage of minority students has increased from $6 \%$ in 1986-87 to $15 \%$ in 1998-99. Minnesota schools must be prepared to educate an increasingly diverse student body. Second, the Minnesota State Demographic Center has projected that, statewide, enrollments will peak in 19992000 and begin a gradual decline thereafter. For some schools and districts, the decline will mean a loss of enrollment based funding. Such a decline may decrease the heightened demand for new teachers created by the large number of anticipated retirements. Despite the peak in enrollments, expected increases in teacher retirements will make it difficult to recruit sufficient numbers of qualified teachers over the next several years, particularly in some teaching fields.

In the latest year for which data from other states are available, Minnesota's per pupil funding remained within $1 \%$ of the national average, placing Minnesota $17^{\text {th }}$ in per pupil funding as compared to other states. To its credit, Minnesota's efforts to equalize school resources for students irrespective of their economic background seems to have produced some success; schools with high concentrations of low-income students have funding levels and student-teacher ratios which are competitive with those in other schools around the state. In the most recent figures, Minnesota was spending $\$ 6,333$ per pupil, up $4 \%$ from the previous year, and had an average student/teacher ratio of about 17 students per teacher.

## COURSEWORK ATtendance, and Graduation

Two trends in student high school coursework warrant attention. Among Minnesota students taking the $A C T$ college admissions test, fewer students this year than last had the recommended high school coursework. This small decline in coursework preparation was accompanied by a small decline in college admissions test scores; we hope that these declines will not continue. Results from the Third International Mathematics and Science Study (TIMSS) suggest that Minnesota students in their last year of high school take mathematics and science courses less frequently than their counterparts from other countries.

Average attendance rates vary from $95 \%$ in the elementary grades to approximately $90 \%$ by the end of high school. In Chapter 5, poor attendance is linked to low achievement on the statewide tests.

For the state as a whole, $78 \%$ of the 1995 ninth graders in the study graduated from a Minnesota high school four years later. Eleven percent left high school, and another $11 \%$ were still enrolled in high school but had not yet completed work for their diplomas. These figures are virtually the same as last year's. Completion rates fell below $50 \%$ in the urban schools
and among some minority groups. This statewide $78 \%$ completion rate will be difficult to maintain in future years as graduation requirements increase. In addition to meeting their districts' course credit requirements, future graduating classes must pass the Basic Standards Tests, and when the Graduation Rule is fully implemented, they must also meet the Profile of Learning requirements.

In a sample from the graduating class of $1998,53 \%$ of seniors stated plans to attend a four-year college the following fall. Only $15 \%$ stated no plans to attend any college at all immediately after high school. More girls than boys ( $60 \mathrm{vs} .46 \%$ ) stated plans to attend a four-year college. White and nonwhite seniors were almost equally likely to have four-year college plans. Parental education was highly associated with student post-secondary educational plans.

## Achievement

In the Third International Mathematics and Science Study, the perfor$\mathbb{L}_{\text {mance }}$ of Minnesota fourth, eighth, and twelfth grade students in mathematics was mediocre, falling short of the high expectations we have for our children. Twelfth grade science results were equally mediocre.

In the National Assessment of Educational Progress (NAEP), Minnesota was one of only six states in which the percentage of fourth grade students reading at or above the Proficient Level increased significantly between 1992 and 1998.

Of the areas in which the National Assessment of Educational Progress has conducted state-by-state achievement comparisons, the 1998 eighth grade writing assessment was the only subject area where the Minnesota average failed to significantly exceed the U.S. average. If Minnesota's average achievement level is among the top states in reading and mathematics, there would seem no reason why the state's writing achievement levels shouldn't also be above average.

With the exception of eighth grade mathematics, scores on statewide tests improved at every grade and in every subject area. More attention must be given to mathematics. Our students do poorly when compared to students from other countries; pass rates on the eighth grade mathematics test have remained essentially the same for the past three years; and of the tests which students must pass in order to receive a high school diploma, the Basic Standard in mathematics is the most difficult for students to meet.

As stated above, the decade-long increase in Minnesota $A C T$ college admissions scores came to an end this year. This may be linked to the fact that fewer of the test-takers had the recommended coursework in English, social studies, mathematics, and science. Nevertheless, of the states with a substantial proportion of students taking the $A C T$, only one state had an
overall average composite score higher than Minnesota in the 1999 administration.

## CONCLUSIONS AND RECOMMENDATIONS

Of the numerous conclusions and recommendations in this report, five stand out:

- Minnesota needs a statemide assessment in the bigh school years as recommended in earlier reports and as required by federal Title I legislation. Without such an assessment, the state lacks accountability for high school achievement. Testing time should be kept within reasonable limits.
- Unless there is some change in federal regulations for Title I schools, Minnesota must adopt performance standards for Title I (bigh poverty) schools. The standards should extend beyond achievement to encompass at least attendance and high school graduation rates. Extending the standards to all schools, not just Title I schools, would be consistent with efforts to maintain a high quality of education throughout the state.
- The high school completion rates of the past fen years will be difficult to maintain as bigh school graduation requirements increase. Members of next year's class must not only meet their high school's course credit requirement, they must also pass the Basic Standards Tests. When the Graduation Rule is fully implemented, graduating classes must also meet the Profile of Learning standards. High schools must pay close attention to student progress toward graduation, progress in meeting course credit requirements, progress in passing the Basic Standards Tests, and progress in meeting the Profile of Learning requirements.
- More attention should be paid to mathematics. The achievement of Minnesota students is mediocre when compared to that of students from other countries. Of the three tests students must pass in order to receive a high school diploma, pass rates are lowest in mathematics.
- Writing also deserves our attention. Of the areas in which the National Assessment of Educational Progress has conducted state-by-state achievement comparisons, the 1998 eighth grade writing assessment was the only subject area where the Minnesota average failed to significantly exceed the U.S. average. If Minnesota's average achievement level is among the top states in reading and mathematics, there would seem to be no reason why the state's writing achievement levels shouldn't also be above average.

Minnesota's goal is to have one of the finest education systems in the world. Based on both national and international studies, reading levels in the state are near the top, both nationally and internationally. There are still too many Minnesota children struggling to read, but the same can be said of other states and other countries. Mathematics achievement levels are high compared to those in other states, but not when benchmarked against international standards, particularly at the high school level. Pass rates on the Basic Standards Test in mathematics are now lower than those in reading and writing, and if for no other reason, mathematics will warrant increased attention. The recent eighth grade study of writing was the only comparison of U.S. states where Minnesota students performed at about the national average, rather than significantly above it. It is to be hoped that increased attention to writing, resulting from implementation of the Graduation Standards, will raise the writing performance of Minnesota students.


## Chapter 1:

INTRODUCTION

$\mathbb{E}$ducational improvement is an ongoing process. Since the mid1980s, Minnesota has instituted a number of educational reforms, including open enrollment, charter schools, post-secondary enrollment options, statewide testing, and, most recently, the Graduation Standards. Each educational reform began as a response to some circumstance or problem within the State's education system; they were all implemented with the goal of improving education in Minnesota.

Improvement of any process or program should include analysis, planning, implementation, and evaluation. Furthermore, the cycle should be continuous: we should never expect to arrive at "perfection." In the case of our education system, we need to keep evaluating what we do, making adjustments and changes as necessary in order to take advantage of new information, and avoid stagnation. The world does not stand still; neither should our knowledge about education.

Monitoring educational improvements statemide means keeping track of educational results in the whole education system in Minnesota. That is, we need to know whether all of Minnesota's schools are improving-not just whether this or that district, or this or that school, is improving. If results improve in some districts, but decline in others, then education statewide has not improved; it has merely stayed the same. (This is not to say that we are not interested in seeing district-by-district, or school-by-school improvement. However, to address statewide improvement, we must look at all schools and districts, rather than at sections of the $\mathrm{K}-12$ system.)

Educational accountability has been defined as "a systematic method to assure those inside and outside the education system [of whether] schools and students are moving toward desired goals" (Center for Policy Options, 1994, p. 2). In other words, educational accountability is part of the evaluation phase of the cycle of improvement. The goal of statewide educational accountability is to answer the question, "Is education improving statewide?"

The Minnesota Education Yearbook is one piece of Minnesota's educational accountability and reporting system. It reports on education statemide, rather than district by district or school by school. The Yearbook focuses on the state as a whole, or on particular segments of the educational system that cut across several districts (for example, the metro area). The purpose of the Yearbook is to describe recent developments at the

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state and national levels that may affect Minnesota education; to describe trends in educational results statewide; and to describe the educational inputs and processes being used to attain those results. Information about individual schools and districts may be found on the Department of Children, Families \& Learning Web site (http://cfl.state.mn.us) or through a link to that site from the Office of Educational Accountability Web site (http://edpsy.coled.umn.edu/oea). Additional data about schools and districts are provided by the schools and districts themselves.

Chapter 2 focuses on changes or proposed changes at the national and state levels that have the potential to influence the reporting and use of educational data in Minnesota. It begins with national developments: the call for accountability in the President's 1999 State of the Union address, and the federal regulations on assessment and accountability that are associated with the Title I program and the Individuals with Disabilities Education Act (IDEA). The chapter then addresses various developments relating to issues such as educational funding, the Profile of Learning, and statewide testing.

Chapter 3 covers school funding, teacher characteristics, and student characteristics. School funding and the teaching staff are the major resources through which educational results are obtained. This description of the resources and student characteristics associated with the educational process sets the stage for the presentation of educational results in Chapters 4 and 5.

Attendance, course work, and completion of the high school diploma are major indicators of students' success in obtaining the education they seek. Chapter 4 discusses students' participation in various types of courses; their attendance levels; their high school completion rates; and post-high school educational plans of graduates. Chapter 5 addresses student achievement, including recently released data from national and international studies comparing Minnesota students to those in other states and other countries. These results became available after the publication of the 1998 Minnesota Education Yearbook. Chapter 5 then updates information on college admissions test data, and reviews last year's statewide assessment results.

Chapter 6 reports our major conclusions and recommendations.

This is the second Minnesota Education Yearbook. It differs in three respects from the 1998 Yearbook. First, it contains some new educational indicators, most notably data on post-high school educational plans of graduates. Secondly, the 1999 Yearbook. more heavily emphasizes the school as the reporting unit, as opposed to last year's use of students as the reporting unit. For example, we report the funding levels and studentteacher ratios for various types of schools in Minnesota. Third, the 1999 Yearbook emphasizes improvement. That is, we discuss both the improvement in schools' performance and the improvement in students' performance as compared to the $1998-99$ school year.
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Minnesota's educational accountability and reporting system is evolving. The changes in the Yearbook represent the next step in this evolution, addressing statewide issues of educational quality and improvement. Because educational improvement is a continuous process, the monitoring of educational results must also be an ongoing effort, designed to tell us whether our educational reforms are succeeding and how they can be further improved.


## Chapter 2:

## PROPOSALS AND PROGRESS IN ACCOUNTABILITY AND REPORTING

Any accountability system must take into account the wider context within which that system must operate. This context includes the regulatory and policy decisions made at both the federal and state levels, and educational trends and developments within and outside the state.

Like those of other states, Minnesota's educational accountability and reporting system is influenced by federal requirements and, at times, by trends in other states. In order to evaluate the effectiveness of Minnesota's accountability system, we must acquaint ourselves with the context within which the system developed. This chapter reviews existing federal requirements and recommendations, as well as proposals for additional ones. It then describes the trends in other states. Finally, it reviews last year's developments in Minnesota. The concluding section summarizes developments in Minnesota up to the present, as well as steps not yet taken.

## Accountability: The Federal Perspective

With the passage of the Improving America's Schools Act (IASA) in 1994, schools and districts were expected to establish challenging content standards in the language arts and mathematics for students receiving Title I services. The IASA also called upon states to develop assessment programs aligned to these standards, and to develop definitions of adequate yearly progress for Title I students and school-wide programs. Amendments to the Individuals with Disabilities Education Act (IDEA) of 1997 mandated the inclusion of students with disabilities in statewide assessment programs, and the reporting of their performance in a manner consistent with that used to report information on non-disabled students.

Minnesota has completed some of the steps specified in the IASA. First, the Minnesota Graduation Standards and the requirements surrounding the Profile of Learning specify challenging content standards in several areas, including the language arts and mathematics. Further, Minnesota has developed statewide assessments aligned to those standards, the Minnesota Comprehensive Assessments ( $M C A s$ ), at the elementary level. However, there are no such assessments at the high school level. Furthermore, at the junior high and middle school levels, the Basic Standards Tests are tied to more basic standards, not the challenging content envisioned in the IASA. And in response to the IASA requirement for adequate yearly progress
standards applicable to Title I students-expectations for schools concerning such things as achievement, attendance, and graduation rates-Minnesota does not have such adequate yearly progress standards in place. In short, Minnesota has met the federal requirements for challenging content standards, and has partially met the requirement for assessments aligned with those content standards, but has not established the adequate yearly progress goals specified for Title I programs.

In his 1999 State of the Union address, President Clinton laid out the administration's vision for furthering the expectations of states receiving federal funding for public education. The bill is entitled the Educational Excellence for All Children Act (EEACA). The proposals articulated under the EEACA may or may not be passed into legislation. Among them:

- States mould be required to develop a single accountability system that bolds all schools (including those designated as Titte I schools) accountable for making continuous and substantial gains in student academic performance. States would be given the flexibility to adopt the model outlined in the statute, or an alternative that is at least as rigorous and effective. Those states without a single, system-wide accountability system would be required to develop one for their Title I schools.
- All states and districts receiving EEACA funding would be required to produce and distribute annual "report cards" for each school, school district, and the state as a whole. These report cards would include several indicators of educational inputs and outcomes, including teacher qualifications, class size, academic achievement, attendance and graduation rates. Wherever appropriate, the report cards would break achievement data into demographic groups, to identify any gaps in performance between disadvantaged youth and their peers.
- States would be required to end social promotion by offering an array of educational options to students who need additional belp in meeting challenging state academic standards. These options would be offered at three key transition points (fourth grade, eighth grade, and high school graduation). State policies would need to use multiple measures, including assessment data, to determine whether each student has met the standards and is ready to be promoted.
- Scbool districts would be required to identify and provide tecbnical assistance to their lowest-performing schools. If no improvement in student performance were found at these schools after three years of being identified and assisted, the sites would face corrective action, which could include total staff changes or reconstitution.

How would these proposals affect Minnesota if they were enacted? Grade promotion policy is currently a matter addressed at the local district level in Minnesota. If schools were required to end social promotion, Minnesota would need to adopt a uniform policy for doing so, or delegate to local districts the responsibility for complying with the requirement. With regard to the "report card," Minnesota is already moving toward electronic publication (via Web site) of class size, attendance rates, achievement data, and graduation rates for all schools and districts; however, the phrase "report card" in federal legislation may imply a more condensed report than that contained on the current Department of Children, Families \& Learning Web site. Other requirements could be met through Minnesota's Continuous Improvement Program, possibly with some modification, and by adopting adequate yearly progress standards.

## State Level Accountability: New Directions in Policy and Practice

$B$esides the existing federal requirements, Minnesota has paid attention to trends in other states. During 1999, efforts continued in almost every state and in thousands of individual school districts to establish and expand systems of accountability in K-12 public education. According to Fuhrman (1999) these state and local efforts differ from traditional systems of public education in one or more of the following seven ways:

1. A focus on performance ratber than on regulatory compliance. States continue to direct their attention to measures of student performance by certifying or accrediting schools and districts on the basis of performance, rather than emphasizing compliance with rules and regulations as they did in the past. The result is that policymakers continue to seek ways to reduce the number of regulatory restrictions on schools, freeing them to focus more attention on resources and student performance results.
2. A shift in accountability from districts to individual schools. Traditionally, local school districts were held accountable for student outcomes by state educational policies and were evaluated on their ability to carry out legislative or state agency directives. Today, the focus of accountability is much more likely to be placed on individual schools, with districts assuming a more supportive role in making sure the desired results are being pursued and achieved. In most cases, information on student performance is communicated to public and policymaking audiences using the school site as the unit of analysis.
3. Local continuous improvement strategies. Although most of the current state accountability models include standards of school performance established at the legislative or state agency level,
many schools are being encouraged to develop planning processes in order to identify and pursue additional locally-determined targets for student performance. Data from statewide assessment programs are typically used by local planning teams when establishing these targets.
4. Inspections. Increasingly (and in direct contrast to the practice of reviewing submitted materials and visiting central district offices), school inspections are focusing on teaching and learning. On -site interviews with both staff and administration, coupled with classroom observation, are intended to provide local educators with more opportunities to reflect on their practice and the achievement of their students.
5. More accountability categories. Typically, school performance standards have been framed in terms of student performance on state-developed, standards-based assessments, as well as other possible indicators, such as attendance and graduation rate. The development of school performance standards has been accompanied by an emphasis on defining multiple levels of performance for individual students and their schools. These levels of performance are then used to classify individual schools, and provide the basis for assigning performance "labels" to schools. These labels discriminate high-performing schools that have met or exceeded state expectations from those that fail to meet standards or show progress over time.
6. Public reporting. Most states currently report state-level information on student performance, and many provide results for individual schools. Providing these data to the general public can lead to significant consequences for the reputation of schools and, especially when parents have a choice in deciding which schools their children will attend, for enrollment.
7. Consequences attached to performance levels. A growing number of states have attached consequences to established levels of school performance. These consequences range from awards for meeting target goals to placing schools under probationary status if they fail to show adequate progress or performance, with the further possibility of closure or reconstitution if the lack of performance is not corrected.

Some but not all of these trends are visible in Minnesota. In Minnesota's accountability and reporting systems, there is a heavy emphasis on performance, but regulatory compliance is still a major component of the system. There is more emphasis on the accountability of both schools and districts, and there are programs to encourage local districts' continuous improvement strategies. Public reporting of data has increased in both electronic (e.g., http://children.state.mn.us or http://edpsy.coled.umn.edu/oea) and hard-copy form.

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## A Year of Debate and Decision for Minnesota's K-12 Educational System

Efforts in pre-K-12 educational reform captured the attention of legislative, educational and public audiences during this last year in Minnesota. In the areas of assessment and accountability, significant changes were proposed and in some cases adopted for various aspects of our state's system of elementary and secondary education.

- Scbool Performance Standards. In the Fall of 1998, a task force of representatives from the Department of Children, Families \& Learning (CFL), educational organizations, school districts, and higher education were commissioned to assist CFL in making recommendations to the Legislature concerning school performance standards. These standards would be used to measure "adequate yearly progress" in Minnesota schools serving Title I students, and to satisfy a legislative request to establish definitions for low- and high-performing schools. Based on committee deliberations, a final report of recommendations, entitled Student Acbievement Levels, was prepared by CFL and forwarded to the Legislature for consideration. The CFL report recommended the use of $M C A$ achievement scores in a "weighted index" as a mechanism for identifying schools that are not showing continuous and substantial gains in student achievement (schools that are not making adequate yearly progress). Although legislation was introduced during the 1999 session calling for the identification of low-performing schools, using an array of educational indicators that included MCA performance data, the bill was withdrawn from consideration by its authors. It is important to keep in mind that failure to adopt performance standards will keep Minnesota from full compliance with federal (IASA) accountability requirements.
- Public Reporting of Educational Indicators. The past year (1999) witnessed the launch of CFL's Continuous Improvement Web site, a repository of data on numerous indicators of educational inputs, processes and outcomes at both the district and school building level. The site provides information on school finance, student characteristics, teacher characteristics, and measures of student participation, along with student performance data from both the Minnesota Comprehensive Assessments and the Basic Standards Tests. Visitors to the site are able to break down aggregated achievement information according to a number of different factors, including socioeconomic status, gender, limited English proficiency (LEP) status, disability status, and mobility. However, some indicators are available at the district, but not the school level (for example, financial data) while other indicators, such as class size, are as yet unavailable at either level.
- Continuous Improvement Initiative. The Department of Children, Families \& Learning introduced a new initiative aimed at assisting building-level leadership teams with data analysis, planning, implementation, and evaluation through a process called "continuous improvement." Various work teams contributed to the construction of a resource manual used by 14 pilot sites identified by MEEP Regional Coordinators statewide. A cadre of 50 "Critical Friends" were also identified; these individuals provided a network of assistance and support to the site teams. Department staff are exploring ways to expand the Continuous Improvement process statewide.
- Profile of Learning. No aspect of Minnesota's efforts in educational reform received more attention and debate than the Profile of Learning, a taxonomy of high academic standards organized within ten general areas of learning for students at the elementary, intermediate, middle and high school levels. The 1998 Legislature charged the Commissioner of the Department of Children, Families \& Learning with appointing an 11-member panel to provide recommendations on the further implementation of the Profile of Learning and its accompanying high standards.

In January 1999, the Graduation Standards Advisory Panel issued its final recommendations. These included the retention of the standards identified in the Profile of Learning but eliminating references to the requirement for teachers to use "performance packages" to assess student mastery of the standards; and reduction of the number of required learning areas from ten to five, leaving the remaining areas to local district discretion. The five mandated areas address the core academic areas of reading, writing, mathematics, science, and people and cultures (social studies).

The panel's recommendations also required each student to "successfully complete locally approved performance assessments in at least ten standards, with at least one from each required learning area at any grade level." The recommendations required schools to implement a statewide eleventh grade test tied to the required learning areas to allow for national and international comparisons of student achievement. Finally, the panel recommended that the legislature set a minimum score for student performance on the test, and that students be required to achieve that score in order to receive a high school diploma. The high school assessments currently in progress do not readily provide a national benchmark, and to our knowledge, no statewide test currently provides an international benchmark. This particular legislative recommendation may not be feasible.
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The Graduation Standards Advisory Panel recommendations marked the beginning of lengthy legislative deliberations during the 1999 session over the future of the Profile of Learning. Although the state House of Representatives passed a bill that repealed the Profile of Learning and its requirements, the Senate version of the bill offered major revisions without eliminating the Profile's basic requirements. Conference committee members were unsuccessful in finding common ground between their two proposals, and the current rule was left unchanged at the conclusion of the legislative session. If allowed to stand, the Profile of Learning will require graduates of 2002 to successfully master 24 high school standards before receiving a diploma.

- Developments in the Minnesota Comprehensive Assessment Program. This year marked the second statewide administration of the Minnesota Comprehensive Assessments for Grades 3 and 5 in reading, mathematics, and writing (student results are discussed in Chapter 5). Legislation overseeing Minnesota's statewide testing program (Minn. Stat. §120B.30, Subd. 1b) also calls for assessment "in all required learning areas and selected required standards within each area of the Profile of Learning." In response to this requirement, a high school level $M C A$ in writing is being developed and will be administered to sophomores statewide in January 2000. This assessment will include questions from the Basic Standards Test in Written Composition, but will provide an additional three levels of scoring information within the Level IV group. Students will still need to score at least a 3 on the test to pass, but if they reach Level 4, they will be able to tell whether their scores are in the top, middle, or lower third of the highest-scoring group. Reading and Math MCAs for high school students are scheduled to be administered during the 2000-01 school year.
- Developments in Statewide Assessment of Students with Limited English Proficiency (LEP). The current plan of testing officials at the Department of Children, Families \& Learning is to establish the Minnesota Test of Emerging Academic English, designed specifically for students with limited English proficiency. This test would provide information regarding all LEP students in Minnesota's accountability system. Test results would be used to evaluate the progress students are making in English as a Second Language (ESL) instructional programs. The information from this test could also be used in making decisions about when individual students should be moved out of ESL programming and into regular, Englishonly classes.

Although current policy only allows for a one-year, optional exemption
from participation in the Minnesota Comprehensive Assessments, a proposed policy change would require every student receiving ESL services in grades three through eight to take the Minnesota Test of Emerging Academic English on an annual basis. For the first three years a student is in the United States, this policy change would also give districts the option of using either the Minnesota Test of Emerging Academic English or other state tests to assess ESL students' performance, based on the district's decision as to which test is most appropriate for the student. Students would receive scores in reading and writing each year in order to measure growth in academic English language skills.

## Where Does Minnesota Stand?

A this point, Minnesota has challenging content standards in place, Acontained in the Graduation Standards. There are statewide assessments aligned with its High Standards in third and fifth grades, but not high school. The assessments administered in eighth grade (for reading and math) are aligned with the state's basic standards rather than its high standards. However, federal legislation requires assessment of student performance against the state's high standards. Arguably, the Basic Standards Test may not satisfy the federal requirement for a test aligned to "challenging standards" in grades 6 through 9 .

While new and inevitably subject to some revision, reporting systems are developing. The Department of Children, Families \& Learning's Web site contains data on schools and districts (link through http://cfl.state.mn.us/ DISTINFO.HTM ), including data on outcomes (such as achievement and high school completion rates), as well as data on the characteristics of students and resources (for example, per pupil expenditures). This Yearbook, and other reports referred to in this report, contain statewide data. As these information systems become more and more widely used, parents and educational decision makers need to become aware of them, so they can utilize the information in decision making.

To date, Minnesota does not have adequate yearly progress standards for schools. Such standards would consist of school performance goals (for example, schools might aim for a $94 \%$ attendance rate). For schools which have not yet met the performance goal, yearly progress standards would specify an expected yearly level of progress toward the goal (for example, a school with less than a $94 \%$ attendance rate would be expected to show a specific percentage rate of improvement each year).

In other states, adequate yearly progress standards have been accompanied by technical assistance programs for schools that have not reached the target programs designed to help such schools meet their progress targets. Such performance standards for schools are not easy to set. Schools vary widely in resources and student backgrounds. Setting common expectations for all schools means that we must answer questions like "How good is
good enough?" not just for an urban school, but for an outstate district and a suburban school as well. Is a $94 \%$ attendance rate good enough? Is it too high? The answer to the question must take into account not only our desire to provide a common level of education for all students, but also our knowledge of the effect of poverty on student performance, and the rates at which we can reasonably expect performance to improve in schools that do not meet the standards. Universal expectations for performance tend to have "one size fits all" problems; policymakers must not only set standards carefully, but also plan how to bring all schools into compliance at reasonable rates.

And yet, if standards are carefully set, they can provide extremely useful information within a constructive framework for schools. Standards can clarify the expectations for schools and provide an incentive to improve, not only by clearly articulating performance goals, but also by helping schools to plan the steps they will take to reach those goals, and by providing a framework within which each step can be prioritized, given district and site constraints and challenges. Standards can provide a basis for recognizing high-performing schools and a trigger for initiating technical assistance to under-performing schools. And common performance goals can help ensure a uniformly high quality of education throughout the state.

If current federal mandates remain in place, Minnesota may be required to adopt such adequate yearly progress standards, at least for Title I schools (schools with $50 \%$ or more of students eligible for free or reduced priced lunch) and for Title I students in the remaining schools. It therefore seems wise to consider carefully the context within which our schools operate, so that if Minnesota does need to develop a set of standards to meet federal requirements, they will be constructive, useful, and helpful to our schools, rather than merely another set of rules imposed by the "system." Such standards must be accompanied by a program of continuous improvement for schools yet to meet the standards, to ensure that all students across the state have adequate and equitable learning opportunities. Chapter 3 discusses the intra-school and intra-district context of those factors which, in contrast to federal or state regulatory and policy considerations, most affect school performance: enrollment and attendance patterns, the monetary resources available to schools, and the demographics of both teachers and student populations.

## Chapter 3: EdUCATIONAL InPuTS and Processes

Because of its inherent value Table 3.1 1998-99 School Year: Number of Students for Each Ethnic Group and Gender to our country's democracy and economic vitality, public education is one of the most important and costly enterprises of any state. In this chapter, we report on several of the characteristics of our schools and students that are brought together in the educational enterprise: enrollments, finance, and teaching staff.

## Enrollment

TTable 3.1 shows the enrollment in Minnesota schools broken down by gender and ethnicity. Totals are given by region of the state-metro area (Mpls/St. Paul and Twin Cities suburbs) vs. outstate; and by several other school characteristics associated with student outcomes: poverty concentration, limited English proficiency concentration, special education concentration, and mobility.

In various reports, two trends in Minnesota school enrollments have been noted. First, as shown in Figure 3.1 (page 22), the percentage of minority students continues to increase. ${ }^{1}$ Between academic year 1986-87 and 1997-98, the proportion of minority students in our schools rose from $6 \%$ to $15 \%$. Minnesota's schools must be prepared to educate an increasingly diverse student body.

Second, the Minnesota State Demographic Center ${ }^{2}$ has projected that statewide, enrollments will peak in 1999-2000 and begin a gradual decline

## NOTES

1 School District Profiles 1997-98. Roseville, MN: Minnesota Department of Children, Families \& Learning
${ }^{2}$ Minnesota School Enrollment Trends. St. Paul, MN: Minnesota State Demographic Center, 1999.

Figure 3.1
Percentage of Minority Students, by School Year

thereafter. The data in Table 3.2 (below) and Figure 3.2 (p. 23), showing enrollment by grade, tend to confirm the conclusion of the Minnesota State Demographic Center. Looking at the statewide data in the first column, the enrollments are larger in the upper grades largely unaffected by droppingout (i.e., Grades 7,8 , and 9 ) than in the lower grades (i.e. Grades 1,2 , and

Table 3.2
Number of Students in Each Grade, by School Strata

|  |  | Number of Students in School | Mpls/St. Paul | TC Suburbs | Outstate: 2000+ | Outstate: 2000 - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| GRADE | K | 61,044 | 8,544 | 24,772 | 13,342 | 13,556 |
|  | 1 | 61,980 | 8,211 | 25,337 | 13,906 | 13,770 |
|  | 2 | 62,358 | 8,115 | 25,478 | 14,093 | 13,895 |
|  | 3 | 64,678 | 8,062 | 26,616 | 14,597 | 14,645 |
|  | 4 | 64,101 | 7,773 | 26,097 | 14,654 | 14,808 |
|  | 5 | 64,024 | 7,453 | 25,769 | 15,027 | 15,029 |
|  | 6 | 64,031 | 6,933 | 25,811 | 15,113 | 15,504 |
|  | 7 | 67,451 | 6,753 | 26,861 | 16,457 | 16,784 |
|  | 8 | 67,901 | 6,703 | 26,374 | 16,758 | 17,394 |
|  | 9 | 69,813 | 7,319 | 26,417 | 17,492 | 17,648 |
|  | 10 | 68,381 | 6,658 | 25,698 | 17,228 | 17,569 |
|  | 11 | 66,089 | 5,537 | 25,014 | 16,391 | 17,599 |
|  | 12 | 65,454 | 5,554 | 24,420 | 16,023 | 16,696 |


3). As the larger cohorts in the upper grades leave school and are replaced by smaller cohorts in the lower grades, overall enrollments across the state can be expected to decline. Such projected declines need to be considered in planning at the state, district, and school level, including planning concerning the supply and demand for new teachers. While an increased demand for new teachers has been predicted based on the aging of the teaching force and increased numbers of retirements, ${ }^{3}$ it can be expected that the impact of increased retirement on the demand for new teachers may be partially offset by declines in enrollment.

Based on the data, however, not all areas of the state can be expected to experience enrollment declines of comparable magnitude. The decline in enrollment from upper to lower grades is most marked in outstate Minnesota. This would suggest that the enrollment decline will be more substantial in outstate districts and that increased retirements may not affect this region as adversely. Indeed, increased retirements permit districts with declining enrollments to more readily adjust through staff attrition.

## Financing

In 1997-98, the average per pupil expenditure in Minnesota was $\$ 6,333$, a $4 \%$ increase ${ }^{4}$ over the $\$ 6,081$ reported for the previous year. In the most recent year for which data were available from other states, 1996-97, the Minnesota per pupil expenditure is reported as $\$ 5,993$, which is $1 \%$ above the national average of $\$ 5,906$. In that year, Minnesota ranked $17^{\text {th }}$ in per pupil expenditure among the fifty states. Adjusted for regional cost of living differences, Minnesota's per pupil expenditure ranked $21 \mathrm{st} .{ }^{5}$ This continues the trend of previous years in which Minnesota's per pupil expenditures are rising and are closely tracking the average expenditure nationally. ${ }^{6}$

Figure 3.2
Number of Students Enrolled in 1998-99 by Grade

## NOTES

3 Asking the Right Questions: Minnesota Teacher Supply and Demand. Minneapolis, MN: Center for School Change, in Teachers for Our Schools. Minneapolis, MN: College of Education and Human Development, University of Minnesota, 1999.

4 School District Profiles 1997-98 and School District Profiles 1996-97. Roseville, MN: Minnesota Department of Children, Families \& Learning.

5 Quality Counts 99. (1999). Bethesda, MD: Education Week.

6 Minnesota Education Yearbook: The
Status of Pre-K - 12 Education in Minnesota 1998. Minneapolis, MN: Office of Educational Accountability, University of Minnesota.

Table 3.3 1997-98 Per Pupil Expenditure, by District Category

|  |  | Total Operating Expenditures | Admin/ <br> Support <br> Service | Regular Instruction | Vocational Instruction | Exceptional Instruction | Instruction \& Pupil Support | Operations \& Maintenance | Other |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| STATE TOTAL |  | \$6,333 | \$535 | \$3,031 | \$129 | \$935 | \$504 | \$539 | \$660 |
| REGION | Metro Area | \$6,635 | \$561 | \$3,123 | \$123 | \$1,017 | \$590 | \$558 | \$663 |
|  | Outstate | \$6,017 | \$508 | \$2,935 | \$135 | \$849 | \$415 | \$519 | \$657 |
| STRATA | Mpls/St. Paul | \$8,158 | \$641 | \$3,751 | \$108 | \$1,364 | \$805 | \$642 | \$848 |
|  | TC Suburbs | \$6,192 | \$538 | \$2,941 | \$127 | \$916 | \$527 | \$534 | \$609 |
|  | Outstate: 2000+ | \$5,996 | \$454 | \$2,861 | \$134 | \$944 | \$462 | \$506 | \$633 |
|  | Outstate: 2000- | \$6,038 | \$560 | \$3,006 | \$136 | \$757 | \$369 | \$531 | \$680 |
| DISTRICT CATEGORY: POVERTY | 0-19\% | \$6,008 | \$519 | \$2,900 | \$121 | \$859 | \$488 | \$511 | \$611 |
|  | 20-29\% | \$6,098 | \$501 | \$2,913 | \$123 | \$928 | \$459 | \$542 | \$633 |
|  | 30-49\% | \$6,215 | \$536 | \$3,006 | \$165 | \$871 | \$423 | \$531 | \$682 |
|  | 50-100\% | \$7,938 | \$646 | \$3,691 | \$121 | \$1,270 | \$736 | \$633 | \$841 |
| DISTRICT CATEGORY: LEP | 0\% | \$6,086 | \$551 | \$3,009 | \$131 | \$798 | \$387 | \$535 | \$676 |
|  | 1-9\% | \$6,095 | \$508 | \$2,909 | \$130 | \$908 | \$496 | \$524 | \$619 |
|  | 10-100\% | \$7,986 | \$637 | \$3,679 | \$117 | \$1,331 | \$769 | \$622 | \$831 |
| DISTRICT CATEGORY: SPECIAL ED | 0-9\% | \$5,940 | \$508 | \$2,899 | \$141 | \$802 | \$471 | \$501 | \$619 |
|  | 10-19\% | \$6,565 | \$550 | \$3,108 | \$122 | \$1,014 | \$526 | \$561 | \$684 |
|  | 20-100\% | \$8,333 | \$970 | \$3,966 | \$177 | \$1,290 | \$277 | \$753 | \$899 |
| DISTRICT CATEGORY: MOBILITY | 0-9\% | \$5,917 | \$559 | \$3,021 | \$132 | \$689 | \$338 | \$507 | \$671 |
|  | 10-19\% | \$5,906 | \$502 | \$2,877 | \$124 | \$815 | \$454 | \$504 | \$629 |
|  | 20-100\% | \$6,835 | \$567 | \$3,196 | \$133 | \$1,091 | \$577 | \$580 | \$691 |

Each district category refers to the percentage of students who: (a) are eligible for free or reduced-price lunch (poverty); (b) have limited English proficiency (LEP); (c) are in special education; or (d) are new to the district since 1/1/98 (mobility).

## NOTES

[^0]Table 3.3 shows per pupil operating expenditures for the state as a whole and per pupil expenditure for districts of various categories. These figures exclude capital expenses. They include not only costs of regular instruction, but also costs of special programs (e.g. special education, limited English proficiency instruction) and non-instructional services (e.g. transportation, food service). Historically in the United States, there has been a concern that schools and districts with high concentrations of economically disadvantaged students may be less well funded than other schools and districts, a charge asserted most forcefully by Kozol in his book entitled Savage Inequalities. ${ }^{7}$ Figure 3.3 shows the per pupil expenditure for high and low poverty districts, where district poverty is measured by the proportion of students eligible for free or reduced price lunch. Clearly, this data shows no

tendency for the higher poverty schools to receive less funding than other schools, which suggests that Minnesota's efforts to provide for its economically disadvantaged students have achieved a measure of success. Schools with high concentrations of economically disadvantaged students are as well funded as other schools throughout the state. In part, this reflects the greater needs of low-income students for services, such as limited English proficiency and special education programs. Whether the funding of high poverty schools is adequate to the needs of those schools is still a matter of considerable debate.


Figure 3.4 (above) shows how the overall expenditure on public schools is distributed across state, local, and federal sources. Individual districts, however, vary substantially in the degree to which they depend on state, federal, and local revenue. Contrary to what existed in the past, state revenues provide the majority of funding for schools, $52 \%$, while local revenues and private funds provide $43 \%$, and federal sources provide the remaining $5 \%{ }^{8}{ }^{8}$ Over the past three decades, as the state has absorbed more of the financial cost of schooling, increases in education expenditures at the state level reflect two factors: increases in total educational expenditures and the shift from local districts to the state as the major source of revenue.

Figure 3.3
Per Pupil Operating Expenditures by District Poverty Concentration

* District Poverty Concentration is the percentage of students in the district who are eligible for free or reduced-price lunch.

Figure 3.4
Percentage of School Funding Received Through Federal, State, and Local Sources for Minnesota

## NOTES

${ }^{8}$ School District Profiles 1997-98. Roseville, MN: Minnesota Department of Children, Families \& Learning.

Figure 3.5 shows how the expenditures statewide are distributed across expense categories. As in most states, the majority of revenues are expended on regular instruction, the category that includes teacher salaries. Exceptional instruction constitutes the second largest expense category. Expenditure patterns vary somewhat across districts.


## Teacher Characteristics

Table 3.4 (right) shows a profile of Minnesota's 46,597 full-time teachers. Since this table includes data only for full-time teachers, figures may differ from reports which include both full- and part-time teachers. Over 2,444, or about $5 \%$, were first-year teachers with one year or less of experience. Even though there was an approximately equal number of elementary and secondary teachers in the state, almost $60 \%$ of the new teachers were secondary teachers. Also, despite the fact that there are more full-time teaching positions in outstate Minnesota, there were more new teachers in the metro area. Demand for new teachers seems greater at the secondary level than at the elementary level, and it seems greater in the metro area than in outstate Minnesota. These trends in the demand for new teachers may reflect trends in enrollment shown in Table 3.2 (p. 22).

Virtually $100 \%$ of Minnesota teachers have at least a B.A. degree, and $42 \%$ have at least an M.A. or above. More than $40 \%$ of teachers have an M.A. or above in every region of the state, except the small outstate districts of less than 2000 students. Here, only $22 \%$ report an M.A. or above. This may reflect the availability of graduate programs or the salary structure of the smaller, outstate districts, structures which do not always recognize completion of the M.A. degree.

Across the state, the mean salary for full-time teachers was $\$ 38,642$, an increase of approximately $1 \%$ over the figure reported last year. Average salaries vary across the regions of the state and, in part, reflect differences in the educational attainment of teachers around the state. According to the American Federation of Teachers, Minnesota's average teacher salary ranks $17^{\text {th }}$ among the 50 states and is within $1 \%$ of the national average. Our

Table 3.4 1997-98 Minnesota Teachers Profile: Full-time Teachèrs (100\% FTE)

|  |  | $N$ | Number of New Teachers | \% with BA or Above | \% with MA or above | Mean <br> Years Experience | Regular Salary | Age | Age 55 or Above | Age 60 or Above |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| STATE TOTAL |  | 46,597 | 2,444 | 100 | 42 | 16 | \$38,642 | 44 | 8,071 | 2,091 |
| GENDER | Female | 31,179 | 1,648 | 100 | 40 | 15 | \$38,263 | 44 | 4,778 | 1,407 |
|  | Male | 15,418 | 796 | 100 | 44 | 17 | \$39,409 | 45 | 3,293 | 684 |
| GRADE LEVEL | Elementary | 22,676 | 973 | 100 | 41 | 16 | \$39,114 | 45 | 3,859 | 1,075 |
|  | Secondary | 22,294 | 1,363 | 100 | 42 | 16 | \$38,309 | 44 | 4,035 | 959 |
| REGION | Metro Area | 22,482 | 1,313 | 100 | 52 | 15 | \$41,648 | 44 | 4,092 | 1,071 |
|  | Outstate | 23,051 | 988 | 100 | 32 | 16 | \$35,909 | 45 | 3,861 | 988 |
| StRATA | Mpls/St. Paul | 5,645 | 397 | 100 | 46 | 14 | \$44,468 | 45 | 1,058 | 348 |
|  | TC Suburbs | 16,838 | 916 | 100 | 54 | 15 | \$40,703 | 44 | 3,034 | 723 |
|  | Outstate: 2000+ | 10,899 | 395 | 100 | 43 | 16 | \$38,043 | 45 | 1,971 | 493 |
|  | Outstate: 2000- | 12,152 | 593 | 100 | 22 | 16 | \$33,994 | 44 | 1,889 | 495 |
| SCHOOL CATEGORY: POVERTY | 0-19\% | 19,980 | 982 | 100 | 49 | 16 | \$39,475 | 44 | 3,412 | 809 |
|  | 20-29\% | 9,235 | 436 | 100 | 37 | 16 | \$37,321 | 45 | 1,743 | 413 |
|  | 30-49\% | 9,449 | 448 | 100 | 30 | 16 | \$36,829 | 45 | 1,620 | 460 |
|  | 50-100\% | 6,353 | 484 | 100 | 39 | 14 | \$40,791 | 44 | 1,054 | 339 |
| SCHOOL <br> CATEGORY: <br> LEP | 0\% | 18,766 | 937 | 100 | 34 | 16 | \$36,584 | 44 | 2,938 | 731 |
|  | 1-9\% | 20,941 | 1,022 | 100 | 47 | 16 | \$39,420 | 44 | 3,870 | 959 |
|  | 10-100\% | 5,309 | 391 | 100 | 45 | 14 | \$43,030 | 45 | 1,021 | 331 |
| SCHOOL CATEGORY: SPECIAL ED | 0-9\% | 17,415 | 854 | 100 | 44 | 16 | \$39,182 | 45 | 3,187 | 820 |
|  | 10-19\% | 26,280 | 1,391 | 100 | 40 | 16 | \$38,382 | 44 | 4,450 | 1,142 |
|  | 20-100\% | 1,321 | 105 | 100 | 42 | 13 | \$37,432 | 44 | 192 | 59 |
| SCHOOL CATEGORY: MOBILITY | 0-9\% | 5,968 | 282 | 100 | 34 | 16 | \$36,655 | 44 | 932 | 220 |
|  | 10-19\% | 22,531 | 1,039 | 100 | 41 | 16 | \$38,051 | 44 | 3,802 | 939 |
|  | 20-100\% | 16,875 | 1,032 | 100 | 45 | 15 | \$40,184 | 45 | 3,186 | 882 |

Each district category refers to the percentage of students who: (a) are eligible for free or reduced-price lunch (poverty); (b) have limited English proficiency (LEP); (c) are in special education; or (d) are new to the district since 1/1/98 (mobility).
teacher salaries are very near the national average, as one might expect given that our per pupil expenditures are near the national average. In the competition for new teachers, however, Minnesota benefits from the fact that its average salaries are higher than those of the surrounding states. ${ }^{9}$

## NOTES

9 Survey and Analysis of Salary Trends 1998. Washington, D.C.: American Federation of Teachers.

Table 3.5 shows the number of students, the number of full-time equivalent teachers, and the student-teacher ratio in various types of schools. If we include only teachers assigned to a specific school site, the statewide student teacher ratio is 16.93 students per teacher. Just as there has been concern in the United States that economically disadvantaged students may attend poorly funded schools, there has also been concern that they may attend overcrowded schools (Kozol, 1991).

Table 3.5
1997-98 Minnesota Pupil/
Teacher Ratio (FTE)

|  |  | Number of Students Enrolled in School | Total FTE for Teachers in School | Student/Teacher Ratio for Teachers in School |
| :---: | :---: | :---: | :---: | :---: |
| STATE TOTAL |  | 834,797 | 49,317 | 16.93 |
| REGION | Metro Area | 426,995 | 23,707 | 18.01 |
|  | Outstate | 407,802 | 24,846 | 16.41 |
| Strata | Mpls/St. Paul | 96,147 | 5,856 | 16.42 |
|  | TC Suburbs | 330,848 | 17,851 | 18.53 |
|  | Outstate: 2000+ | 201,227 | 11,597 | 17.35 |
|  | Outstate: 2000- | 206,575 | 13,249 | 15.59 |
| SCHOOL CATEGORY: F/R LUNCH | 0-19\% | 400,551 | 21,850 | 18.33 |
|  | 20-29\% | 161,989 | 9,629 | 16.82 |
|  | 30-49\% | 168,059 | 10,841 | 15.50 |
|  | 50-100\% | 100,057 | 6,997 | 14.30 |
| SChool CATEGORY: LEP | 0\% | 340,280 | 21,204 | 16.05 |
|  | 1-9\% | 407,019 | 22,753 | 17.89 |
|  | 10-100\% | 83,357 | 5,360 | 15.55 |
| SCHOOL <br> CATEGORY: <br> SPECIAL <br> ED | 0-9\% | 371,265 | 20,419 | 18.18 |
|  | 10-19\% | 445,423 | 27,375 | 16.27 |
|  | 20-100\% | 139,68 | 1,523 | 9.17 |
| SCHOOL CATEGORY: MOBLLITY | 0-9\% | 107,856 | 6,456 | 16.71 |
|  | 10-19\% | 421,902 | 24,197 | 17.44 |
|  | 20-100\% | 296,851 | 18,224 | 16.29 |

Figure 3.6 shows the average student teacher ratios in high and low poverty schools where poverty is, again, measured by the percentage of students eligible for free and reduced-price lunches. While the average studentteacher ratio appears to be lower in high poverty schools, the differences shown in Figure 3.6 are not statistically significant. This reflects a certain measure of success in Minnesota's effort to provide for its economically disadvantaged students. Schools with high concentrations of poverty have student-teacher ratios more or less comparable to the ratios found in more affluent schools.


## CONCLUSIONS

Per-pupil funding in Minnesota continues to increase as it does throughout the country. Minnesota's per pupil expenditure ranks $17^{\mathrm{th}}$ as compared to other states; this number falls within $1 \%$ of the national average. To its credit, Minnesota's efforts to equalize school resources for students irrespective of their economic background seems to have produced some success. Figures 3.3 (p. 25) and 3.6 (above) suggest that schools with high concentrations of poor students have funding levels and student-teacher ratios that are competitive with those in other schools around the state.

The demographic composition of our student body continues to become more diverse. As they have done in the past, schools must continually strive to educate students from a variety of backgrounds.

The teaching faculty in Minnesota is aging. ${ }^{10}$ Increased rates of retirement can be expected, and all other things being equal, those retirements would be expected to increase the demand for new teachers. However, the Minnesota State Demographic Center has projected a future decline in enrollments, which may partially offset the need for additional teachers. The projected decline may be more heavily concentrated in outstate Minnesota than in the Twin Cities metropolitan area, reflecting a shift in the concentration of Minnesota's population toward the metropolitan area.

Figure 3.6
1997-98 Minnesota Student/Teacher Ratios,* by School Poverty Concentration

* Includes certified teachers providing regular and special instruction (e.g., Special Education and Limited English Proficiency), but does not include administration staff or pupil support staff (e.g., school counselors).


## NOTES

10 School District Profiles 1997-98.
Roseville, MN: Minnesota Department of Children Families \& Learning.


## Chapter 4:

 PARTICIPATION, COURSEWORK, ATTENDANCE, AND GRADUATIONUsing resources wisely is one important part of the educational accountability equation. But it is not the only part. We must also address questions having to do with students' participation in school. For instance, are Minnesota's students taking challenging courses? How do they feel about the courses they take? What are their attendance patterns-do they attend those courses most of the time, or are there gaps in attendance? What patterns appear in Minnesota's graduation and dropout rates? What are students' future educational plans-do they intend to go to college after they graduate, and if so, are they planning to finish a four-year degree, a two-year degree, or attain a certificate from a vocational or technical program?

This chapter examines Minnesota students' participation outcomes. These indicators are the factors that help us to determine the answers to our questions about what Minnesota students are studying, both in particular educational programs and in general. The answers to these questions will help us to better understand how well our educational efforts are meeting the needs of Minnesota's students. They will also improve our ability to target the needs of students in the future by breaking down the data according to student subgroups, and comparing the various indicators against one another, against the aggregated data, and against data from other school years and other studies.

## Secondary School Coursework

Taking courses is the major activity of students in schools. However, the available information on student coursework is limited to information on the courses students take in core subjects, much of which is associated with, but not limited to, college-bound students. While most Minnesota students are college-bound, this limitation means that it is impossible to say for sure what courses are being taken by non-college-bound students, or what effect those choices of course work have for non-college-bound students.

Virtually every district in the state has high school coursework requirements, but the state of Minnesota itself has none. In place of course requirements at the state level, Minnesota has specified basic and high standards in its Graduation Rule. Rather than specifying courses to be completed, the Graduation Rule specifies what students must know and be able to do. When the Graduation Rule is fully implemented, students will

## OVERVIEW OF THE HIGH STANDARDS

Both the basic and high standards of the Graduation Rule refer to the clearly defined expectations against which individual student achievement and progress are judged; in other words, the content standards explain what students need to know, and be able to do, within any Learning Area. The basic and high standards are designed to ensure that students actually experience the learning that is necessary in order to function successfully in post-secondary education and in the work world. The basic standards set forth the minimum skills in reading, mathematics, and written composition for students at or above the eighth grade. A student who does not possess these basic skills, as demonstrated by passing the Basic Standards Tests, cannot graduate from high school. However, if the student's skills are limited to those required for passing the Basic Standards Test, they may not have the greatest success in the work world and/or post-secondary educational programs. In addition to the minimum level of reading, writing, and mathematics skills, students also need a variety of more advanced skills. These more advanced skills are embodied in the high standards portion of the Graduation Rule. The Graduation Rule lists 48 content standards. Students must complete the assignments contained in at least 24 of the 48 possible standards in each Learning Area.

Under the high standards, learning experiences are organized into ten Learning Areas (p. 52). These Learning Areas represent complex skills and processes that build sequentially through the primary, intermediate, middle, and high school levels. While these skills and processes are organized somewhat differently than the traditional subject categories used in most schools, the Learning Areas still require students to learn subject-related material. For example, Learning Areas 4 and 6 (Math Applications and Scientific Applications) require students to master math and science content. The difference is the focus on applying that content. To complete the Learning Area 4 (Math Applications) requirements, students must know their textbook-based math. But learning to solve textbook questions is no longer their only task: they must also be able to apply that knowledge, by completing assignments in a variety of realworld scenarios-from computer applications to the calculation of mathematical models of weather patterns.

In the same way, Learning Areas 1 and 2 (Read, View, and Listen; Write and Speak) elaborate the essential components of communication: reading, writing, and speaking. Students must be able to comprehend what they read, what they see (for example, graphical representations of a point of view, such as political cartoons), and what they hear; and they must be able to express themselves clearly in both written and spoken form.

Tn grades K-8, the content standards are called Preparatory Standards. These Preparatory Standards
 ing or specialized High Standards in high school. For example, in grades K-8, the Proparatory Standards for Learning Area 2 (Write and Speak) prepare students for the assignments they will encounter in the upper grades. In high school, students completing the High Standards may choose to emphasize academic writing or technical writing after having completed Preparatory Standards in both kinds of writing. (See CFL Web site: http://cfl.state.mn.us/grad/highstandards.htm

The score a student receives on a content standard is determined by the teacher or school district designee, after taking into account the level of accomplishment at which a student performs on a series of tasks (the performance package) representing an entire content standard. Within the performance packages, checklists provide feedback to the students about their work relative to the content
standard. The progress guidelines consist of a "Y" (yes), meaning that the student has met the performance task; or an " N " (no) if the student has not met the performance task. Once the student has attained all "Y's" on the performance tasks (satisfying the content standard requirements), their work will be evaluated. The scoring criteria for the completed content standard is based on a four point scale:

4 - Exemplary: Indicates evidence of student learning in all parts of the standard at a level that exceeds expectation by using and applying knowledge consistently in new and insightful ways.

3 - Proficient: Indicates evidence of student learning in all parts of the standard at a consistently proficient level.

2 - Novice: Indicates evidence of student learning in all parts of the standard at an adequate level some or all of the time.

1-Emerging: Indicates evidence of student learning in all parts of the standard at a superficial level some or all of the time.

$\xlongequal{\square}$he Minnesota Graduation Rule recognizes that, while all students need a comprehensive educa tional experience to prepare them for lifelong learning, people are different, having different skills, interests, and areas of strength and weakness. Therefore, the Graduation Rule does not demand that all students achieve outstanding levels of performance in all areas. Rather, individual achievement on content standards produces a student profile, indicating those areas and standards in which the student has and has not achieved at a high level.

Te Graduation Rute also recognizes individual learning styles and preferences by allowing the achievement of High Standards in varied contexts, programs, courses, and learning environments. The Graduation Rule is also working to establish a consistent means of recording and reporting student results as scored against high quality examples of excellent achievement. This profile will help the student-and those who teach and employ the graduate later-to recognize both strengths and needs for further experiences and learning.
need to accomplish three things for high school graduation. First, they will need to meet the course requirements of their local district. Second, they will need to pass the Basic Standards Test (BST) in mathematics, reading, and writing. Third, they will need to demonstrate mastery of the high standards by completing performance assessments in the ten areas specified by the Graduation Rule.

Unlike Minnesota, most states have high school graduation course requirements in English, social studies, mathematics, and science, with fewer courses required in mathematics and science than in English and social studies. Most states require four years of English and three or more years of social studies. In mathematics and science, however, most states require two or more years. Some states have additional graduation requirements in the arts, foreign language study, and computer technology.
it

Table 4.1 shows the course credit requirements in core academic areas that are recommended in A Nation at Risk (NCEE, 1983) ${ }^{1}$ and the ACT Assessment Program. The ACT Assessment Program publishes the college admissions test most frequently taken by Minnesota high school students. The requirements shown in Table 4.1 are similar to the preparation recommended by some colleges and universities in Minnesota.


|  | A Nation at Risk | ACT |
| ---: | :---: | :---: |
| Mathematics | 3 | $3^{1}$ |
| Science | 3 | 3 |
| Songlish | 4 | 4 |
| Social Studies Sciences | $3^{2}$ | $3^{2}$ |
| Foreign Language | $2^{3}$ | 0.1 |
| Computers | .5 | $0^{4}$ |

' ACT makes more specific suggestions concerning which math courses to take.
${ }^{2}$ ACT suggests three credits in social science, which includes social studies .A Nation at Risk just recommends social studies.
${ }^{3}$ A Nation at Risk recommends foreign language study for college-bound students.
${ }^{4}$ ACT places computer courses with mathematics.

National Commission on Excellence in Education. (1983). A nation at risk: The imperative for educational reform. Washington, DC: Superintendant of Documents, U.S. Government Printing Office.

American College Testing Program (1997). ACT high school profile report: high school graduating class 1997: State composite for Minnesota. (Code 240-000). Iowa City, IA: Author.

ACT Core Course Preparation. The ACT Assessment Program asks its test-takers to report on completion of the core academic courses shown in Table 4.1. While various factors influence a student's performance on any academic test, $A C T$ has found that taking the recommended core sequence is associated with higher scores on the admissions test. The recommended core sequence includes four years of English and three years each of science, social science, and mathematics. Figure 4.1 (p. 35, top) shows that the percentage of Minnesota test-takers completing the core increased

[^1]
## NOTES


during the early 1990 s, leveled off at $73 \%$ from 1996-98, and dropped to $71 \%$ in 1999 . While the number of students taking the $A C T$ assessment has continued to increase throughout the decade, this is the first year in which the increase was accompanied by any decline in preparation. This decline in preparation is more disturbing, because it is accompanied by a small decline in average test scores (see Chapter 5). This year's $A C T$ testtakers were less well prepared than last year's in every course work area, including English, mathematics, science, and social studies. It is to be hoped that this small decline in preparation does not signal the beginning of a long-term trend. It should be noted that the data in Figure 4.1 is based on $A C T$ test-takers, a presumably college-bound group whose core academic preparation may actually be better than that of students who are not planning to go to college.

Figure 4.2 shows the percentage, by ethnicity, of test-takers meeting the $A C T$ course work recommendation. The table shows that Black, American Indian, and Hispanic test-takers were less well prepared than Asian and


Figure 4.1
Percentage of Minnesota ACT Test-takers Having Completed the ACT Recommended Core Academic Preparation, by School Year

Figure 4.2
Percentage of 1998-99 Minnesota ACT
Test-takers Having Completed the ACT Recommended Core Academic Preparation, by Ethnicity

White test-takers. When we compared this year's figures to those in last year's report, ${ }^{2}$ there is a decline in course work preparation for every ethnic group, but it was most pronounced for American Indian students (from $63 \%$ to $50 \%$ this year) and Hispanic students (from $68 \%$ to $58 \%$ this year). Not only do the ethnicity data in Figure 4.2 raise serious questions about the equality of preparation for college across ethnic groups, they also raise doubts as to whether the preparation of some students is consistent with their future educational plans.

## Third International Mathematics and Science Study: Science and Mathematics Course Work of Minnesota High School Seniors in International Context

$\mathbb{T}$ hile it may be premature to become alarmed about a reversal in the course work preparation of college-bound students in Minnesota after only one year of decline, additional concerns about the preparation of Minnesota high school students in mathematics and science have been expressed by SciMath ${ }^{\mathrm{MN}}$ (a state partnership of Minnesota business, education and government pursuing statewide improvement in the teaching and learning of K-12 mathematics and science). These concerns stem from data arising out of the Third International Mathematics and Science Study (TIMSS), which includes a comparison of Minnesota twelfth graders to students in several other countries in terms of the amount of course work and achievement in mathematics and science.

The Third International Mathematics and Science Study (TIMSS) is the largest comparative assessment study of mathematics and science education to date. TIMSS is coordinated by the International Association for the Evaluation of Educational Achievement (IEA), an independent international cooperative of research centers and departments of education in more than 50 countries. Forty-five nations participated in the varied components of TIMSS, which included student assessments, a curriculum content analysis; and questionnaires for both students and teachers. During the academic year of 1994-95, approximately 34,000 U.S. students in grades $3-4,7-8$ and 12 participated. Additionally, SciMath ${ }^{\mathbb{M N}}$ sponsored the nearly 5,000 Minnesota students to participate as a 'mini-nation.' Mini-nation status makes it possible to compare Minnesota results with the U.S. as a whole in addition to the other countries in the study.

Minnesota's twelfth grade participation in mathematics and science courses was below international and national benchmarks. As shown in Figure 4.3 (p. 37, top), other participating countries reported having $79 \%$ of their seniors, on average, taking a math course, compared to $66 \%$ for the United States, and only $50 \%$ for Minnesota twelfth graders. Given that recommendations for high school course work in the United States (e.g., those in Table 4.1)—even recommendations for college-bound students-include only three years of mathematics in grades $9-12$, it should come as no

2 Minnesota Education Yearbook: The Status of Pre-K-12 Education in Minnesota. Minneapolis, MN: Office of Educational Accountability, University of Minnesota, p. 23.

surprise that many U.S. and Minnesota high school seniors do not take mathematics; after all, they are not required to do so. Figure 4.3 suggests that U.S. and Minnesota students are less well-prepared in terms of their course work than students in other countries.

Survey results regarding twelfth grade science course participation were similar. Although the international average of science course participation for students in their last year of secondary education is $67 \%$, Minnesota's rate of $54 \%$ remains about the same as the U.S. national average of $53 \%$ (Figure 4.3). Among Minnesota's $A C T$ test-takers, the most commonly unmet $A C T$ course work recommendation is the one suggesting three years of natural science courses. This intensifies our concerns about the science course work preparation of Minnesota seniors.

It seems worthwhile to carefully consider the relationship between course requirements and achievement. If we want our high school students to score more highly in the international comparisons of student achievement in math and science, we may first need to address the fact that U.S. and Minnesota high school graduates may have less preparation in mathematics and science than their counterparts internationally.

## Satisfaction with Teachers and Courses: Class of 1998

In the high school follow-up study ${ }^{3}$ conducted by the Human Capital Research Corporation for the Department of Children, Families \& Learning, a representative sample of high school seniors from the class of 1998 was asked to evaluate their schools on several issues. The survey was administered during the students' senior year, a time when students may feel less nostalgically favorable toward their high school than they will in later years. In the questions concerning teachers, students were asked to grade their teachers' knowledge, creativity, accessibility, and encouragement

Figure 4.3
Percentage of High School Seniors Studying Math and Science: Minnesota, the United States, and Other Countries

## NOTES

${ }^{3}$ Human Capital Research Corporation. (1999, May). A Digest of Information Based on the High School Experience of the Minnesota High School Class of 1998. Roseville, MN: Department of Children, Families \& Learning.

Student Grading of Satisfaction with Teachers and Coursework: Class of

1998

|  | Teacher <br> Knowledge | Teacher <br> Creativity l <br> Energy | Teacher <br> Accessibility | Teacher <br> Encouragement | Relevance of <br> Courses | Integration of <br> Academic Fields |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| TOTAL | 3.2 | 2.6 | 2.8 | 2.7 | 2.4 | 2.5 |
| GENDER | Female | 3.2 | 2.5 | 2.9 | 2.7 | 2.5 |

to learn and persist on an "A - F" scale where "A" = Excellent, "B" = Above Average, etc. Table $4.2^{4}$ shows the average numerical equivalent of the grades given by the students to their teachers, an " A " $=4$, " B " $=3$, etc.

Figure 4.4
Student Grading of Teachers and Coursework: Class of 1998

## NOTES

$\qquad$
${ }^{4}$ Unpublished tabulations from Human Capital Corporation Survey.


Figure 4.4, above, shows the mean rating given by students in each area. Teachers were rated most highly in the area of knowledge, where students assigned teachers a solid "B." In the other areas-creativity, accessibility, and encouragement-students assigned their teachers a "C+", with means of between 2.6 and 2.8. Students who planned to attend either a two- or four-year college gave higher marks to their teachers than did students planning to attend a technical college or no college in the fall. Using the student evaluations of teacher knowledge as an illustration, Figure 4.5 (p. 39, top) shows how ratings of the teachers increased according to students' plans for further (college-level) education.


Students also rated two aspects of their course work: its relevance to their future plans, and the interrelatedness of that course work. The mean ratings of the course work, 2.5 for relevance and 2.6 for integration, would best be characterized as a "C." As they did when rating their teachers, students planning to attend a community or four-year college gave their courses higher ratings than did students planning to attend a technical college or no college. In part, these results may indicate that the courses seem more relevant to future plans when those plans are more academically oriented. Alternatively, the results could also indicate that students with higher academic aspirations experienced better courses.

## Attendance

One of the strongest foundations for school success is regular school attendance. An earlier report by the Minnesota Office of the Legislative Auditor documented the relationship between attendance and success on the Basic Standards Test in reading and mathematics (see also Chapter 5). ${ }^{5}$ Of the variables analyzed in the auditor's report, attendance had the strongest relationship with average school test scores. Furthermore, poor attendance in the middle and upper grades is associated with dropping out. Therefore, attendance is of interest in its own right and because of its relationship to achievement and dropping out.

Table 4.3 (p. 40) shows the attendance rate for selected grades, for various categories of students, and for various categories of schools. As shown in Figure 4.6 (p. 40) , schools show an attendance rate of $93 \%$ or better through grade 10, but lower attendance rates in grades 11-12, the grades where, statewide, most dropping out occurs. To varying degrees, this same pattern of lower attendance in high school holds for all types of students, regions of the state, and types of schools shown in Table 4.3.

Figure 4.5
Student Grading of Teacher Knowledge by Student College Plans

## NOTES

5 Office of the Legislative Auditor, State of Minnesota. (1998, January). Remedial Education. St. Paul, MN: Author.

| Table 4.3 |  |  | Grade |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $3{ }^{14}$ | $5^{\text {m }}$ | $8^{\text {min }}$ | gn | $10^{\circ \prime}$ | $11^{17}$ | $12^{\text {n }}$ |
| Average Attendance Rate for Third, Fifth, Eighth, Ninth, Tenth, Eleventh, and Twelfth Grades | TOTAL |  | 96 | 96 | 94 | 93 | 93 | 92 | 91 |
|  | gender | Female | 96 | 96 | 94 | 93 | 92 | 91 | 90 |
|  |  | Male | 96 | 96 | 94 | 94 | 93 | 92 | 91 |
|  | ETHNICITY | Asian | 97 | 97 | 94 | 92 | 92 | 89 | 89 |
|  |  | Black | 93 | 93 | 89 | 86 | 87 | 86 | 87 |
|  |  | Hispanic | 94 | 93 | 90 | 87 | 87 | 86 | 89 |
|  |  | Am. Indian | 92 | 92 | 87 | 86 | 85 | 85 | 86 |
|  |  | White | 96 | 96 | 94 | 94 | 93 | 92 | 91 |
|  | LEP |  | 96 | 96 | 92 | 89 | 89 | 87 | 88 |
|  | SPECIAL ED |  | 95 | 95 | 91 | 90 | 90 | 89 | 90 |
|  | F/R LUNCH |  | 94 | 94 | 91 | 90 | 89 | 88 | 88 |
|  | NEW TO DIStRICT |  | 94 | 93 | 86 | 86 | 85 | 84 | 82 |
|  | Strata | Mpls/St. Paul | 94 | 94 | 90 | 88 | 88 | 87 | 89 |
| Note: LEP = \% of students who have limited English proficiency; Special Ed $=\%$ of students in special education; F/R Lunch $=\%$ of students eligible for free or reduced-price lunch; New to District $=\%$ students enrolled since 1/1/98. |  | TC Suburbs | 96 | 96 | 95 | 94 | 94 | 92 | 9 |
|  |  | Outstate: 2000+ | 96 | 96 | 94 | 93 | 92 | 9 | 90 |
|  |  | Outstate: 2000- | 96 | 95 | 94 | 94 | 94 | 93 | 92 |
|  | PUBLIC SCHOOLS | Non-charter | 96 | 96 | 94 | 93 | 93 | 92 | 91 |
|  |  | Charter | 95 | 94 | 90 | 91 | 88 | 85 | 86 |

Figure 4.6
Average Attendance Rate by Grade


Boys' and girls' attendance rates are are much the same, within one percentage point of each other. Attendance rates show differences among ethnic groups, with Asians and Whites attending at higher rates than American Indian, Black, and Hispanic students.

Educational researchers have long studied the association between atten-
dance and dropping out of high school. Poor attendance often precedes dropping out. The decline in attendance from fifth to twelfth grade that appears in Figure 4.6 may, for some students, precede dropping out. But it may also be associated with the failure of some students to graduate after four years of high school, presumably for lack of course credirs. Stemming the decline in attendance during the upper grades may be essential to improving the state's four-year graduation rate by reducing the number of students who drop out, and reducing the number of students who fail to accumulate enough credits to graduate after four years of high school. It seems reasonable to assume that when the Graduation Rule is fully implemented, students with poor attendance rates may have difficulty completing the performance packages associated with the High Standards in time to graduate in four years. Addressing student attendance would seem to be a first step toward ensuring that students graduate on time, as well as helping to lower dropout rates in Minnesota's schools.

High School Graduation Rates: Class of 1998. Table 4.4 shows the fouryear high school completion and dropout rates for the Minnesota class of

|  |  | Number of Students | Number of Graduates | Number of Dropouts | Number Continuing | 4-year Graduation Rate (\%) | Dropout Rate (\%) | Continuation Rate (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TOTAL |  | 62,822 | 48,976 | 6,950 | 6,896 | 78 | 11 | 11 |
| GENDER | Male | 32,209 | 24,114 | 4,091 | 4,004 | 75 | 13 | 12 |
|  | Female | 30,613 | 24,862 | 2,859 | 2,892 | 81 | - 9 | 9 |
| ETHNICITY | Asian | 2,085 | 1,408 | 350 | 327 | 68 | 17 | 16 |
|  | Black | 2,961 | 1,063 | 1,138 | 760 | 36 | 38 | 26 |
|  | Hispanic | 1,037 | 510 | 340 | 187 | 49 | 33 | 18 |
|  | Am. Indian | 1,197 | 520 | 424 | 253 | 43 | 35 | 21 |
|  | White | 55,542 | 45,475 | 4,698 | 5,369 | 82 | 8 | 10 |
| StRATA | Mpls/St. <br> Paul | 6,039 | 2,788 | 2,022 | 1,229 | 46 | 33 | 20 |
|  | TC Suburbs | 21,951 | 18,513 | 1,787 | 1,651 | 84 | 8 | 8 |
|  | Outstate: 2000+ | 15,639 | 12,407 | 1,488 | 1,744 | 79 | 10 | 11 |
|  | Outstate: 2000- | 16,032 | 14,582 | 807 | 643 | 91 | 5 | 4 |
| IEP | Yes | 6,051 | 3,459 | 1,277 | 1,315 | 57 | 21 | 22 |
|  | No | 56,771 | 45,517 | 5,673 | 5,581 | 80 | 10 | 10 |
| LEP | Yes | 963 | 554 | 212 | 197 | 58 | 22 | 20 |
|  | No | 61,859 | 48,422 | 6,738 | 6,699 | 78 | 11 | 11 |
| PUBLIC SCHOOLS | Non-charter | 62,626 | 48,921 | 6,900 | 6,805 | 78 | 11 | 11 |
|  | Charter | 196 | 55 | 50 | 91 | 28 | 26 | 46 |

Table 4.4
Four-year High School Completion Rate and Dropout Rate for the Minnesota Class of 1998

Note: $I E P=\%$ of studentss with an Individualized Education Plan; LEP = \% of students who have limited English proficiency.

1998 as a whole, for various categories of students, and for various categories of schools. Figure 4.7 (below) shows the four-year completion rates for the state as a whole, for males and females, and for the various ethnic groups. These data are based on students who were ninth graders in 1995 and were followed until spring of 1998 . Students who transferred to an educational program in another state or who stopped their education for reasons such as death or illness were not included for purposes of calculating the four-year high school graduation and drop-out rates. Furthermore, the final status of some students could not be determined; these students were not included in the calculations. ${ }^{6}$

Figure 4.7
Four-year High School Completion Rate by Gender and Ethnicity

## NOTES

${ }^{6}$ Completion Study for the Class of 1998. Roseville, MN: Department of Children, Families \& Learning.
${ }^{7}$ Human Capital Research Corporation. (1999, May). A Digest of Information Based on the High School Experience of the Minnesota High School Class of 1998. Roseville, MN: Department of Children, Families \& Learning.


For the state as a whole, $78 \%$ completed their education in four years, virtually the same percentage as last year. Eleven percent dropped out and another $11 \%$ were still enrolled in high school but had not yet completed work for their diploma. This graduation figure may not be comparable to that from other states where the data include students who finish in more than four years and students receiving a high school equivalency degree.

Boys have a lower graduation rate ( $75 \%$ vs. $81 \%$ ) and a higher dropout rate ( $13 \%$ vs. $9 \%$ ) than girls. Among ethnic groups, Whites have the highest graduation rate $(82 \%)$, followed by Asian ( $68 \%$ ), Hispanic ( $49 \%$ ), American Indian ( $43 \%$ ), and Black students ( $36 \%$ ). Completion rates vary widely across the different regions of the state, from $46 \%$ in the Twin Cities to a commendable $91 \%$ among the small outstate districts.

College Plans: Class of 1998. In the high school study conducted by the Human Capital Research Corporation ${ }^{7}$, the seniors were asked about their college plans for the following fall. Table 4.5 (p. 43, top) reports their plans for the sample as a whole, and by gender, ethnicity, and the parents' educational level. Overall, a majority of the 1998 seniors sampled ( $53 \%$ ) stated plans to attend a four year college the following fall, while only $15 \%$

|  |  | FALL 1998 COLLEGE PLANS |  |  |  | Table 4.5 <br> Percentage of Students with Various Kinds of College Plans: Class of 1998 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | None | Communlty College | Technical College | 4-year Institution |  |
| TOTAL |  | 15\% | 17\% | 15\% | 53\% |  |
| GENDER | Female | 11\% | 18\% | 11\% | 60\% |  |
|  | Male | 20\% | 15\% | 19\% | 46\% |  |
| ETHNICITY | White | 16\% | 16\% | 15\% | 53\% |  |
|  | Nonwhite | 12\% | 21\% | 14\% | 52\% |  |
| PARENT EDUCATION LEVEL | Less Than H.S. | 23\% | 24\% | 29\% | 24\% |  |
|  | H.S. Diploma | 17\% | 19\% | 19\% | 45\% |  |
|  | Associate Degree | 11\% | 18\% | 14\% | 58\% |  |
|  | B.A. or Higher | 6\% | 11\% | 0\% | 78\% |  |

stated no plans to attend any college at all, although not all students planning to attend college may actually do so. ${ }^{8}$ Girls were more likely than boys to plan to attend a four-year college ( $60 \%$ vs. $46 \%$ ) or a community college ( $18 \%$ vs. $15 \%$ ) while boys were more likely than girls to plan to attend a technical college ( $19 \%$ vs. $11 \%$ ) or no college at all ( $20 \%$ vs. $11 \%$ ). Whites and non-whites were almost equally likely to report plans for a technical or four-year college education. Non-white students' plans were more likely to include a community college ( $21 \%$ vs. $16 \%$ for Whites), while those of Whites were more likely to include no immediate college plans ( $16 \%$ vs. $12 \%$ ). As shown in Figure 4.8, the number of students planning to enter a four-year college increased sharply when parental education included college completion. Among students whose parents had a four-year college degree, $78 \%$ planned to attend a four-year college.


Figure 4.8
Student College Plans by Parent Education Level
$\qquad$
${ }^{8}$ Unpublished tabulations from Human Capital Corporation Survey.

Among those whose parents had less than a high school diploma, only $24 \%$ planned to attend a four-year college. This suggests that the effects of parents' education levels go beyond themselves to their children.

## Conclusions and Recommendations

TThe data in this chapter gives cause for concern about students' high school course work. Much of this concern is related to mathematics and science preparation.

- The percentage of $A C T$ test-takers having the recommended course work dipped for the first time this decade. Failing to take three years of natural science was the most common reason for failing to meet the course work recommendation.
- Minority $A C T$ test-takers were less well prepared than their white counterparts. This raises questions about the equity of preparation for minority students, and questions as to whether some minority students are taking course work consistent with their future educational plans.
- Minnesota twelfth graders in the Third International Mathematics and Science Study (TIMSS) were less commonly taking mathematics and science courses than students from other countries in their last year of high school. In mathematics, Minnesota high school seniors were less commonly enrolled in mathematics than high school seniors from around the United States. In mathematics and science, the amount of preparation received by Minnesota high school seniors seems low by international standards.

Statewide, high schools must make extra efforts just to maintain the current four-year high school completion rates, because graduation requirements are increasing. The class of 1998 only needed to fulfill their high schools' course credit requirements in order to graduate. With just their district course credit requirement, $11 \%$ dropped out and another $11 \%$ failed to graduate in four years. The class of 2000 will need to complete their high schools' course credit requirements and demonstrate attainment of the Basic Standards in two subjects, reading and mathematics. When the Graduation Rule is fully in place students will not only need to meet their district's course credit requirements, but they will need to demonstrate attainment of the Basic Standards in three subjects; mathematics, reading, and writing; and in addition, they will need to meet 24 of the 48 High Standards in the Profile of Learning. Given the increasing diversity of student demographics, and increasing high school graduation requirements, it will be difficult even to maintain current four-year high school completion rates. Students with poor attendance patterns can be expected to have particular difficulty, and some students may need longer than the traditional four years to complete the graduation requirements.


## Chapter 5:

## ACHIEVEMENT

Increasingly, the proof of success in Minnesota's K-12 educational system is framed in terms of student outcomes, particularly through various assessments designed to evaluate the extent to which our students are successfully learning and meeting high academic expectations. Comparing scores against a statewide standard does not, however, give us the "whole story" of Minnesota students' achievement. Just as American businesses and products must often compete in a nationwide or worldwide marketplace, American students may also need to be able to compete-for jobs and scholarships, etc.-with students from other states and even other countries. With this in mind, it is important to see how Minnesota students' test scores compare with test results from other states and countries. In this chapter, we examine achievement and, where possible, we try to put Minnesota's achievement data into perspective by comparing them to other nations and states. Also, where possible, we have examined comparable data from previous years and trends in achievement levels over the past decade, in order to track the general trend of Minnesota students' achievement.

Specifically, this chapter reviews recently-released data on student achievement as compared with other countries and other states:

- Data comparing the performance of Minnesota's $12^{\text {th }}$ graders to that of students from other countries in mathematics and science.
- The most recently released data comparing U.S. states on reading and writing achievement.
- Data from 1999 on the performance of Minnesota schools and students in the statewide testing program: the Minnesota Comprebensive Assessments (MCAs) in third grade reading and mathematics, the Minnesota Comprebensive Assessments in fifth grade reading, writing, and mathematics, the eighth grade Basic Standards Test (BSTs) in reading and mathematics, and the tenth grade Basic Standards Test in writing.
- The most recent performance of Minnesota's college-bound students on the $A C T$ Assessment, which is the college entrance examination taken most frequently by Minnesota students.
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Results from the following studies were released within the past year. They make it possible to compare our own students with those of other nations and other states.

## International Comparisons in Math and Science: Minnesota's High School Students

$T$The 1998 Yearbook reported data showing that Minnesota's students fared better than U.S. students generally in both fourth- and eighth grade science, with only one other country's students (Korea in fourth grade and Singapore in eighth grade) significantly outscoring Minnesota students. However, the performance of Minnesota's fourth and eighth graders in mathematics was rather mediocre compared to that of students from other countries. Given these results for fourth and eighth grade, how do our high school seniors compare? Since the data in Chapter 4 showed that Minnesota's high school seniors were taking less mathematics and science course work, on average, than their counterparts from other countries, it is not surprising that high school mathematics and science achievement levels do not compare favorably to those in other countries.

The data in Tables 5.1 and 5.2 (p. 47, top) come from the Third International Mathematics and Science Study, or TIMSS, the largest multinational study of math and science achievement ever conducted. ${ }^{1}$ Participating as a "mini-nation," the state's representative sample of students in Grades 4, 8, and 12 allows for valid comparisons between Minnesota students and those of the other 41 participating countries.

SciMath ${ }^{\mathbb{N}}$, a statewide partnership of both private and public agencies that advocates and supports standards-based improvements in the teaching of $\mathrm{K}-12$ science and mathematics, sponsored Minnesota's participation in TIMSS. For the Grade 12 student sample, students in their last year of secondary education were selected from 53 Minnesota high schools. The state sample was balanced to reflect schools of different types, geography, and minority populations. Students from both private and public schools were selected for participation.

The SciMath ${ }^{\text {MN }}$ final summary of Grade 12 results ${ }^{2}$ included the following conclusions:

- In both mathematics and science, the performance of Minnesota students, as measured by the average scale score, was significantly higher than that of students nationwide, but not significantly different from the international average; math and science performance was significantly below that of several other countries (See Tables 5.1 and 5.2.)
- Differences in the average scale scores for Minnesota male and female students were statistically significant. In math-

Table 5.1 TIMSS Mathematics Achievement

| Sweden | 559 |
| :--- | :--- |
| Netherlands | 558 |
| Iceland | 549 |
| Norway | 544 |
| Canada | 532 |


| New Zealand | 529 |
| :--- | :---: |
| Australia | 527 |
| Switzerland | 523 |
| Austria | 520 |
| Slovenia | 517 |
| MINNESOTA | 511 |
| Denmark | 509 |
| Germany | 497 |
| Czech Republic | 487 |
|  | "International Average |


| France | 487 |
| :--- | :--- |
| Russian Federation | 481 |
| UNITED STATES | 480 |
| Italy | 475 |
| Hungary | 471 |
| Lithuania | 461 |
| Cyprus | 448 |
| South Africa | 349 |

Table 5.2 TIMSS Science Achievement

| (Australia) | 522 |
| :--- | :--- |
| (Slovenia) | 512 |
| MINNESOTA | 495 |
| Germany | 495 |
| Hungary | 483 |
| Czech Republic | 466 |
|  | *International Average |
|  |  |
| Italy) | 476 |
| Russian Federation | 471 |
| Lithuania | 469 |
| UNITED STATES | 461 |
| Cyprus | 446 |
| (South Africa) | 356 |

KEY TO SCORES:


Notes: (1) Nations not meeting international sampling guidelines are shown in parentheses. (2) Some scale scores are "out of order" in ranking due to differences in sampling variability.
ematics, a 21 -point difference in the average scale score favored males; in science, a 28 -point difference also favored boys.

- In the TIMMS study, the performance of Minnesota fourth, eighth, and twelfth grade students in mathematics was mediocre compared with the international average, falling short of the high expectations we have for our children. Twelfth grade science results were equally mediocre. Some of the poor performance in twelfth grade may reflect the fact that, as compared to other countries, few Minnesota high school seniors are enrolled in science and math courses.


## Minnesota Student Performance in the 1998 NaEp Reading Assessment at Grades 4 and 8 and the 1998 NaEP Writing Assessment at Grade 8

$\mathbb{W}$hile the purpose of international studies, such as TIMSS, is to benchmark the performance of Minnesota students against students from other countries, the purpose of participation in national studies such as the National Assessment of Educational Progress (NAEP) is to benchmark Minnesota student performance against that of other states in the country. The latest national data are in reading and writing.


## NOTES

${ }^{3}$ Reading Literacy in the United States: Findings from the IEA Reading Literacy Study. Washington, DC: U.S. Department of Education, National Center on Education Statistics (1996).

4 NAEP 1998 Reading Report Card for the Nation and the States (NCES, 1999-500). Washington, DC: National Center for Education Statistics, U.S. Department of Education, March 1999.

The purpose of the NAEP is to assess the academic achievement of a nationally representative sample of students at Grades 4, 8, and 12 from our country's schools. To complement this nationwide assessment (often referred to as the "Nation's Report Card"), a state-level NAEP assessment program was initiated to allow for valid comparisons of achievement between states. Minnesota participated in the 1998 NAEP reading and writing assessments along with approximately 45 other states and jurisdictions (such as the U.S. Virgin Islands).

Fourth Grade Reading Acbievement. The international data comparing American students' reading achievement with that of students in other countries is dated and limited, compared to that in mathematics and science, but according to the most recent data available, ${ }^{3}$ reading levels in the United States seem near the top internationally. If Minnesota students read well compared to students from the highest-achieving states within the U.S., the available evidence (reviewed in last year's Yearbook) would suggest that reading levels in Minnesota are competitive with those of students from even those countries with the best reading scores. The NAEP provides just such a comparison to the highest achieving states in the U.S.

In 1998, Minnesota fourth graders achieved an average scale score of 222 in reading on the NAEP's 500-point performance scale, higher than the 1998 national average score of 215 . This difference is statistically significant. Only one state had a mean score significantly above that of Minnesota (Connecticut); six other states (Iowa, Maine, Massachusetts, Montana, New Hampshire, and Wisconsin) had higher mean scores, but these differences were not statistically significant.

NAEP is overseen by the National Assessment Governing Board (NAGB), which has adopted three achievement levels to describe student performance: Basic, Proficient, and Advanced. Because the Proficient and Advanced performance standards are defined as "solid academic performance" and "superior performance" respectively, ${ }^{4}$ examining the percentage of students who perform at these levels provided the public with a measure of our success in public education.

Figure 5.1 (p. 49 , top) displays the percentage of Minnesota students who reached Proficient or Advanced levels on the 1998 NAEP fourth grade Reading Assessment, and compares their performance to the nation as a whole. As a state, Minnesota had significantly more students achieving proficient or advanced levels than the nation ( $36 \%$ vs. $29 \%$ ). Both boys and girls in Minnesota significantly outperformed their counterparts nationally. Although each of the ethnic groups in Figure 5.1 outperformed their national counterparts, none of the differences are significant. Minnesota fourth graders deemed eligible for the federal free- or reduced price lunch program did score significantly above their national peers ( $18 \%$ vs. $13 \%$ ).

When comparing reading results for Minnesota's gender and ethnic groups, the girls in Figure 5.1 significantly outperformed the boys ( $40 \%$ vs $32 \%$ ),


and White students significantly outperformed Black and Hispanic students in our state. Asian and White students did not differ significantly.

Because Minnesota participated in the 1992 and 1994 administrations of the fourth grade NAEP Reading exam, student performance in the 1998 testing cycle can be compared to the achievement of Minnesota fourth graders in these two earlier years. As shown in Figure 5.2 (below), the percentage of Minnesota students scoring at or above the Basic level fell over the period from 1992 to 1998, although not significantly. The percentage of Minnesota students at the Proficient and Advanced levels, however, increased steadily between 1992 and 1998 , from $31 \%$ to $36 \%$. Indeed, Minnesota was one of only six states in which the percentage of fourth grade students reading at or above the Proficient level increased significantly between 1992 and $1998 .{ }^{5}$ We can see, then, that there have been


Figure 5.1
1998 NAEP Grade 4 Reading: Percentage of Students at or above Proficient, by StudentSubgroup

Figure 5.2
Percentage of Minnesota Fourth Graders at or above the Basic and Proficient Levels in the National Assessment of Educational Progress (Public Schools only): 1992-98

NOTES

5 NAEP 1998 Reading Report Card for the Nation and the States (NCES, 1999-500). Washington, DC: National Center for Education Statistics, U.S. Department of Education, March 1999.

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statistically significant improvements in Minnesota fourth graders' NAEP reading scores over the six year period from 1992 to 1998-but these improvements were confined to students in the higher-scoring groups, rather than extending through the lower achievement levels.

Eighth Grade Reading Achievement. Minnesota eighth graders took the state-level NAEP reading assessment for the first time in 1998. Their average scale score of 267 was significantly higher than that of the nation as a whole (261). Two participating states, Connecticut and Maine, had mean scores significantly higher than that of Minnesota, and three others had mean scores which were higher (Kansas, Massachusetts, and Montana), but not significantly so.

Figure 5.3
1998 NAEP Grade 8 Reading: Percentage of Students at or above Proficient Level, by Subgroup


Student Subgroup

Figure 5.3 shows the percentage of Minnesota eighth graders who reached Proficient or Advanced levels on the Grade 8 state-level NAEP reading assessment. As a group, Minnesota eighth graders showed a higher percentage of students reaching Proficient or Advanced levels than did the nation as a whole ( $37 \%$ vs. $31 \%$ ). In Figure 5.3, Minnesota girls outperformed girls nationally and Minnesota students eligible for free and reduced lunch outperformed their counterparts nationally; these differences were statistically significant. None of the other differences in Figure 5.3 between Minnesota students and the national sample are statistically significant. This figure also points to a gender difference favoring Minnesota eighth grade females over males in the eighth grade NAEP reading data, just as there is in the NAEP fourth grade reading data and in the statewide reading test data reported below.

The overall performance of Minnesota's fourth and eighth graders in the 1998 NAEP reading assessment is a reflection of our state's longstanding claim to educational excellence. By whatever measure we use-average scale scores or percentages of students at the Proficient or Advanced

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levels-Minnesota continues to sustain its high standings within the NAEP reading assessment program. The increase from 1992 to 1998 in the percentage of fourth grade students at the Proficient or Advanced levels provides some evidence that our emphasis on higher, rigorous standards may be paying off.

Eighth Grade Writing Achievement. Minnesota eighth graders took the NAEP state-level writing assessment for the first time in 1998. Their average scale score of 148 was exactly the same as the national average. In contrast to the fourth and eighth grade reading tests, where only one or two states had mean scores significantly higher than Minnesota's, in the writing assessment six states' scores were significantly higher (Connecticut, Maine, Massachusetts, Texas, Virginia, and Wisconsin).

Figure 5.4 shows the percentage of Minnesota eighth graders who reached Proficient or Advanced levels on the Grade 8 NAEP writing assessment. As a group, Minnesota eighth graders had almost the same percentage (25\%) of students reaching Proficient and Advanced levels as did the nation as a whole ( $24 \%$ ). In Figure 5.4, the gender differences are particularly striking, because more Minnesota girls reached the Proficient or Advanced level than did girls nationally; but fewer Minnesota boys reached these levels, compared to boys in the nation as a whole. This large difference between the performance of boys and girls is not unique to the eighth grade writing test; it is also the case for students in the fifth- and tenth grade statewide writing assessment results reported below.


Student Subgroup

Of the areas in which NAEP has conducted state-by-state achievement comparisons, the 1998 writing assessment is the only subject area where the Minnesota average failed to significantly exceed the national average. This mediocre statewide performance can largely be attributed to the below- average performance of Minnesota boys. If Minnesota's average
achievement level is among the top states in reading and mathematics, there would seem no reason why the state's writing achievement levels should not also be above average. It is to be hoped that, with the implementation of Preparatory and High Standards in writing and new statewide tests, writing achievement will also rise to levels that correspond with Minnesota students' scores in other content areas-at the top of the charts.

## Student Performance in the Minnesota Achievement Testing Programs

TThe international and national studies provide a comparison of Minnesota student performance to that of students in other states and countries. Because these studies include only a sample of Minnesota students, they do not provide a detailed look at achievement within the state. We now turn to data from statewide tests across regions and segments of Minnesota.

In 1997-98, Minnesota began statewide testing in grades 3,5 , and 8 for all students. Last year (1998-99), a required writing test was added in tenth grade. The third and fifth grade examinations, called the Minnesota Comprehensive Assessments, or MCAs, measure reading and mathematics performance in third grade, and reading, mathematics, and writing performance in fifth grade. At both grade levels, the tests are aligned with the Preparatory Standards articulated in the Profile of Learning (see box, below). The reading and mathematics portions contain both multiple-choice and short answer items, whereas the fifth grade writing test asks for a sample of the student's writing.

In eighth grade, students take the multiple-choice Basic Standards Tests (BSTs), which cover reading and mathematics content aligned with the Basic Standards in the Minnesota Graduation Rule. The eighth grade test

Preparatory Standards
$\left.\begin{array}{|l|l|l|l|l|}\hline \begin{array}{l}\text { 1. } \\ \text { Read, View, and Listen }\end{array} & \begin{array}{l}\text { 2. } \\ \text { Write and Speak } \\ \text { Read, view, and listen } \\ \text { to complex information } \\ \text { in the English language }\end{array} & \begin{array}{l}\text { Write and speak } \\ \text { effectively in the English } \\ \text { language }\end{array} & \begin{array}{l}\text { Arts and Literature } \\ \text { Apply and interpret } \\ \text { artistic expression }\end{array} & \begin{array}{l}\text { 4. } \\ \text { Math Applications } \\ \text { Solve problems by } \\ \text { applying mathematics }\end{array}\end{array} \begin{array}{l}\text { 5. } \\ \text { Inquiry } \\ \text { Conduct research and } \\ \text { communicate findings }\end{array}\right]$
is the student's first chance to demonstrate mastery of the high school basic requirements. Any student correctly answering at least $75 \%$ of the items meets the high school requirement set by the Minnesota State Board of Education for reading and mathematics. Students who do not meet the minimum graduation standard in reading or mathematics on their first attempt in eighth grade will have additional opportunities to retake the test in later grades.

The tenth grade writing examination is the student's first opportunity to demonstrate mastery of the high school basic requirement in writing. Students who do not meet the minimum graduation standard on their first attempt in tenth grade will have additional opportunities to retake the test in later grades.

The eighth and tenth grade $B S T s$ in reading, mathematics, and writing have clear passing scores. The third and fifth grade $M C A s$, however, use proficiency levels similar to those used in the NAEP Assessments. (See sidebar for explanations of the various levels of student performance in the MCA testing program.

In this section, we report the performance of students across various segments of Minnesota. After presenting statewide data, we turn to issues of ethnic and gender differences. In addition to the data in the body of this report, Appendix C contains tables showing how scores change when certain students are removed from the results: students with limited English proficiency, students in special education, students new to the district, and economically disadvantaged students. Appendix D contains tables summarizing the scores and changes in scores from 1998 to 1999 for schools of various types and student compositions.

Throughout the education literature, achievement test scores are correlated with student poverty (eligibility for free or reduced lunch), mobility (frequent school or residence changes), disabilities, and limited English proficiency. In accordance with the 1998 Minnesota Omnibus Education Act, Subdivision 1, and to provide context for the test scores, our tables include data on the percentage of test-takers who are in poverty, who recently moved into their district, who are classified as having a disability, and who have limited English proficiency. Also, in accordance with Minnesota statute the table includes additional data on all students except those with limited English proficiency, all students except those in special education, all students except those new to their district, and all students except those eligible for free/reduced lunch.

## Third Grade Minnesota Comprebensive Assessment Results in Reading

 and Mathematics. 1998-99 was the second year of statewide testing in third and fifth grade. Scores rose substantially for both grades and in all subject areas tested: mathematics, reading, and writing. The improvements were pervasive across student groups and types of schools (also see Appendix D).
## Achievement Levels

Achievement levels describe Minnesota student progress toward the state's High Standards in reading, mathematics and for fifthgraders, writing.
Level IV: Students demonstrate superior performance, well beyond what is expected at the grade level.
Level III: Students are working above grade level. Many are proficient with challenging subject matter. Level II: Most students in Minnesota fall within this level. This includes a wide range of students, from those with partial knowledge and skills to students who are increasingly proficient with grade level material.
Level I: Students have gaps in the knowledge and skills necessary for satisfactory work.

Tables 5.3 (below) and 5.4 (p. 55) show the results in reading and mathematics for all third grade students. Over 61,000 students took the tests, or $93 \%$ ( $94 \%$ in math) of the third graders enrolled at the time of testing, the same percentage as last year. Statewide, the percentage of students scoring "At or Above Level II" rose from $77 \%$ last year to $79 \%$ this year in reading and from $82 \%$ to $88 \%$ in mathematics. The percentage of students reaching or exceeding Level III increased from $35 \%$ last year to $40 \%$ this year in reading and from $35 \%$ last year to $42 \%$ this year in mathematics. In parentheses, the columns labeled "\% at or Above Level III" and " $\%$ at or Above Level II" show the corresponding percentages from the first administration of the test last year. These two columns show the pervasive-

Table 5.3
1999 Grade 3: Minnesota Comprehensive Assessment Results in Reading for all Public School Students Tested

|  |  | Number Tested | \% At or Above Level III | \% At or Above Level II | Mean <br> Scale <br> Score | \% Enr. Students | \% LEP <br> Students Tested | \% Sp Ed <br> Students Tested | \% New Students Tested | \% F/R Students |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TOTAL |  | 61,080 | 40 (35) | 79 (77) | 1,427 | 93 | 5 | 12 | 11 | 32 |
| GENDER | Female | 29,817 | 44 (41) | 83 (82) | 1,450 | 94 | 5 | 8 | 11 | 32 |
|  | Male | 31,232 | 36 (30) | 75 (73) | 1,405 | 93 | 5 | 16 | 10 | 31 |
| ETHNICITY | Asian | 3,021 | 21 (17) | 55 (52) | 1,317 | 92 | 60 | 7 | 13 | 68 |
|  | Black | 3,961 | 15 (11) | 49 (46) | 1,274 | 88 | 5 | 16 | 22 | 78 |
|  | Hispanic | 1,693 | 20 (16) | 57 (54) | 1,313 | 86 | 42 | 12 | 19 | 70 |
|  | Am. Indian | 1,216 | 18 (15) | 60 (56) | 1,323 | 90 | 1 | 17 | 18 | 76 |
|  | White | 50,386 | 45 (39) | 84 (83) | 1,454 | 95 | $0+$ | 12 | 9 | 23 |
| LEP |  | 2,825 | 7 (4) | $39 \text { (34) }$ |  | 87 | --- | 7 | 17 | 86 |
| SPECIAL ED |  | 6,524 | 15 (12) | 45 (41) | 1,258 | 83 | 3 | --- | 11 | 44 |
| NEW TO DISTRICT |  | 5,960 | 32 | 71 | 1,383 | 88 | 8 | 13 | --- | 48 |
| F/R LUNCH |  | 18,259 | 21 | 61 | 1,329 | 90 | 14 | 17 | 16 | -- |
| ATTENDANCE RATE | 95-100\% | 42,186 | 42 | 82 |  | 96 | 5 | 11 | 6 | 26 |
|  | 90-95\% | 11,787 | 38 | 77 | 1,418 | 93 | 5 | 13 | 9 | 38 |
|  | 0-90\% | 3,702 | 27 | 65 | 1,352 | 87 | 6 | 16 | 14 | 57 |
| Strata | Mpls/St. Paul | 7,383 | 21 (18) | 54 (51) | $1,306$ | 88 | 25 | 12 | 11 | 71 |
|  | Suburban | 26,013 | 47 (42) | 84 (84) | 1,461 | 95 | 3 | 11 | 11 | 17 |
|  | Outstate: $2000+$ | 13,695 | 40 (34) | 82 (79) | 1,433 | 92 | 3 | 13 | 10 | 31 |
|  | Outstate: 2000- | 13,921 | 38 (34) | 81 (79) | 1,425 | 93 | 1 | 13 | 10 | 37 |
| PUBLIC <br> SCHOOLS | Non-charter | 60,679 | 40 (35) | 79 (78) | 1,428 | 93 | 5 | 12 | 10 | 31 |
|  | Charter | 401 | 18 (21) | 48 (52) | 1,272 | 89 | 17 | 13 | 50 | 62 |
| PRIVATE SCHO |  | 1,719 | 48 (43) | 89 (88) | 1,472 | --- | --- | --- | --- | --- |

Note: $L E P=$ Limited English Proficiency; Special Ed $=$ Special Education; F/R Lunch = Eligible for free or reduced-price lunch; New to District $=$ Enrolled since 1/1/98; 1998 data is included in parentheses.

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ness of the score improvements across gender, ethnicity, regions of the state, and types of schools. While some of the score gains may bedue to greater familiarity with the tests, the NAEP fourth grade reading data (Figure 5.1, p. 49) tend to confirm a much smaller, but steady increase in students reading at proficient levels since 1992.

Table 5.4
1999 Grade 3: Minnesota Comprehensive Assessment Results in Mathematics for all Public School Students Tested

|  |  | Number Tested | \% At or Above Level III | \% At or Above Level II | Mean <br> Scale Score | \% Enr. <br> Students Tested | \% LEP <br> Students Tested | \% Sp Ed <br> Students Tested | \% New Students to District | \% F/R Students Tested |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TOTAL |  | 61,654 | 42 (35) | 88 (82) | 1,459 | 94 | 5 | 12 | 11 | 32 |
| GENDER | Female | 30,046 | 41 (34) | 88 (82) | 1,454 | 94 | 5 | 8 | 11 | 32 |
|  | Male | 31,551 | 44 (36) | 88 (82) | 1,465 | 94 | 5 | 16 | 10 | 31 |
| ETHNICITY | Asian | 3,072 | 23 (19) | 74 (64) | 1,349 | 93 | 60 | 7 | 13 | 68 |
|  | Black | 4,009 | 11 (8) | 58 (48) | 1,252 | 89 | 5 | 16 | 22 | 78 |
|  | Hispanic | 1,693 | 19 (14) | 70 (59) | 1,317 | 86 | 42 | 12 | 19 | 70 |
|  | Am. Indian | 1,230 | 21 (16) | 74 (67) | 1,339 | 91 | 1 | 17 | 18 | 76 |
|  | White | 50,773 | 47 (40) | 92 (87) | 1,492 | 95 | 0+ | 12 | 9 | 23 |
| LEP |  | 2,879 | 10 (7) | 62 (48) | 1,260 | 89 | --- | 7 | 16 | 86 |
| SPECIAL ED |  | 6,691 | 19 (14) | 65 (55) | 1,305 | 85 | 3 | --- | 11 | 44 |
| NEW TO DISTRICT |  | 6,050 | 33 | 80 | 1,401 | 89 | 8 | 13 | --- ' | 48 |
| F/R LUNCH |  | 18,564 | 24 | 75 | 1,351 | 91 | 14 | 17 | 16 | --- |
| ATTENDANCE RATE | 95-100\% | 42,518 | 45 | 90 | 1,480 | 96 | 5 | 11 | 6 | 26 |
|  | 90-95\% | 11,904 | 38 | 86 | 1,439 | 94 | 5 | 13 | 9 | 38 |
|  | 0-90\% | 3,749 | 28 | 75 | 1,364 | 88 | 6 | 16 | 14 | 57 |
| STRATA | Mpls/St. Paul | 7,531 | 22 (19) | 68 (59) | 1,324 | 90 | 25 | 12 | 11 | 71 |
|  | TC Suburbs | 25,975 | 48 (43) | 91 (88) | 1,493 | 95 | 3 | 11 | 11 | 17 |
|  | Outstate: 2000+ | 13,869 | 43 (33) | 90 (83) | 1,466 | 94 | 3 | 13 | 10 | 31 |
|  | Outstate: 2000- | 14,221 | 42 (33) | 91 (85) | 1,465 | 95 | 1 | 13 | 10 | 37 |
| $\begin{aligned} & \text { PUBLIC } \\ & \text { SCHOOLS } \end{aligned}$ | Non-charter | 61,242 | 42 (35) | 88 (82) | 1,461 | 94 | 5 | 12 | 10 | 31 |
|  | Charter | 412 | 16 (19) | 60 (57) | 1,285 | 92 | 17 | 14 | 49 | 62 |
| PRIVATE SCHOOLS |  | 1,709 | 43 (40) | 94 (88) | 1,483 | --- | --- | --- | --- | --- |

Note: LEP = Limited English Proficiency; Special Ed = Special Education; F/R Lunch = Eligible for free or reduced-price lunch; New to District $=$ Enrolled since 1/1/98; 1998 data is included in parentheses.

## Fifth Grade Minnesota Comprehensive Assessment Results in

Reading, Mathematics, and Writing. More than 60,000 students took the tests, or $94 \%$ ( $93 \%$ in writing) of the fifth graders enrolled at the time of testing. The percentages of students participating in the testing were
down slightly from $95 \%$ last year. Just as in the third grade data, improvements in scores are pervasive across gender, ethnicity, regions of the state, and types of schools. Tables 5.5-5.7 show the fifth grade MCA results in reading, writing, and mathematics for all public school students tested. From last year to this, the proportion of students "At or Above Level II"

Table 5.5
1999 Grade 5: Minnesota Comprehansive Assessment Results in Reading for all Public School Students Tested

|  |  | Number Tested | \% At or Above Level III | \% At or Above Level II |  | \% Enr. <br> Students Tested | \% LEP <br> Students <br> Tested | \% Sp Ed Students Tested | \% New Students Tested | \% F/R <br> Students <br> Tested |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TOTAL |  | 61,319 | 45 (38) | 82 (79) | 1,451 | 94 | 4 | 14 | 9 | 30 |
| GENDER | Female | 29,787 | 50 (43) | 85 (83) | 1,480 | 95 | 4 | 9 | 9 | 30 |
|  | Male | 31,500 | 40 (34) | 79 (76) | 1,424 | 94 | 4 | 19 | 10 | 30 |
| ETHNICITY | Asian | 3,114 | 26 (22) | 62 (59) | 1,350 | 95 | 49 | 9 | 12 | 63 |
|  | Black | 3,665 | 15 (13) | 51 (46) | 1,272 | 91 | 5 | 21 | 20 | 78 |
|  | Hispanic | 1,465 | 19 (16) | 58 (54) | 1,303 | 89 | 38 | 17 | 19 | 68 |
|  | Am. Indian | 1,229 | 20 (15) | 62 (58) | 1,326 | 88 | 0+ | 23 | 14 | 73 |
|  | White | 51,254 | 49 (42) | 87 (84) | 1,478 | 96 | 0+ | 14 | 8 | 22 |
| LEP |  | 2,354 | 5 (4) | 37 (33) | 1,211 | 90 | --- | 11 | 16 | 88 |
| SPECIAL ED |  | 8,056 | 15 (10) | 46 (39) | 1,253 | 88 | 3 | --- | 10 | 44 |
| NEW TO DISTRICT |  | 5,364 | 34 | 73 | 1,396 | 89 | 7 | 16 | --- | 46 |
| F/R LUNCH |  | 17,657 | 24 | 65 | 1,338 | 92 | 12 | 21 | 14 | --- |
| ATTENDANCE RATE | 95-100\% | 42,856 | 47 | 84 | 1,465 | 97 | 4 | 13 | 5 | 26 |
|  | 90-95\% | 11,646 | 42 | 80 | 1,437 | 94 | 3 | 16 | 7 | 35 |
|  | 0-90\% | 3,870 | 33 | 70 | 1,379 | 90 | 5 | 21 | 12 | 53 |
| STRATA | Mpls/St. Paul | 6,991 | 23 (21) | 57 (54) | 1,316 | 92 | 23 | 16 | 10 | 71 |
|  | TC Suburbs | 25,389 | 52 (45) | 87 (85) | 1,487 | 96 | 2 | 13 | 10 | 16 |
|  | Outstate: 2000+ | 14,338 | 45 (38) | 83 (80) | 1,458 | 94 | 2 | 15 | 9 | 29 |
|  | Outstate: 2000- | 14,599 | 43 (35) | 83 (80) | 1,445 | 94 | 1 | 15 | 9 | 36 |
| PUBLICSCHOOLS | Non-charter | 60,986 | 45 (38) | 82 (79) | 1,451 | 94 | 4 | 14 | 9 | 30 |
|  | Charter | 333 | 31 (26) | 65 (59) | 1,350 | 89 | 9 | 17 | 39 | 50 |
| PRIVATE SCHOOLS |  | 1,567 | 55 (45) | 91 (88) | 1,506 | -- | $\cdots$ | -- | -- | --- |

Note: LEP = Limited English Proficiency; F/R = Eligible for free or reduced-price lunch; New to District = enrolled since 1/1/98; Parentheses contain 1998 data; $0^{+}=$less than half a percentage point; All percentages and Mean Scale Scores are rounded to the nearest whole number.
increased from $79 \%$ to $82 \%$ in reading, from $80 \%$ to $82 \%$ in mathematics, and from $80 \%$ to $95 \%$ in writing. The proportion of students achieving the higher level III or above rose from $38 \%$ to $45 \%$ in reading, $31 \%$ to $36 \%$ in mathematics, and $42 \%$ to $45 \%$ in writing. Some of this gain may be
attributable to greater familiarity with the test among teachers and students.

Table 5.6
1999 Grade 5: Minnesota Comprehensive Assessment Results in Mathematics for all Public School Students Tested

|  |  | Number Tested | \% At or Above Level III | \% At or Above Level II | Mean <br> Scale <br> Score | \% Enr. Students Tested | \% LEP <br> Students Tested | \% Sp Ed Students Tested | \% New Students Tested | \% F/R <br> Students <br> Tested |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TOTAL |  | 60,854 | 36 (31) | 82 (80) | 1,416 | 94 | 4 | 14 | 9 | 30 |
| GENDER | Female | 29,541 | 36 (30) | 81 (80) | 1,416 | 94 | 4 | 9 | 9 | 30 |
|  | Male | 31,282 | 37 (32) | 82 (79) | 1,417 | 93 | 4 | 19 | 10 | 30 |
| ETHNICITY | Asian | 3,101 | 22 (19) | 66 (63) | 1,336 | 95 | 49 | 9 | 12 | 63 |
|  | Black | 3,632 | 8 (7) | 44 (41) | 1,221 | 90 | , 5 | 21 | 20 | 78 |
|  | Hispanic | 1,446 | 13 (11) | 54 (52) | 1,273 | 88 | 38 | 17 | 19 | 68 |
|  | Am. Indian | 1,225 | 16 (10) | 63 (55) | 1,302 | 88 | $0+$ | 23 | 14 | 73 |
|  | White | 50,857 | 41 (35) | 87 (84) | 1,443 | 95 | 0+ | 14 | 8 | 22 |
| LEP |  | 2,326 | 5 (4) | 42 (40) | 1,220 | 89 | --- | 11 | 16 | 88 |
| SPECIAL ED |  | 7,985 | 13 (11) | 52 (47) | 1,261 | 87 | 3 | --- | 10 | 44 |
| NEW TO DISTRICT |  | 5,307 | 26 | 72 | 1,358 | 88 | 7 | 16 | --- | 46 |
| F/R LUNCH |  | 17,528 | 18 | 64 | 1,312 | 91 | 12 | 21 | 14 | --- |
| ATTENDANCE RATE | 95-100\% | 42,583 | 39 | 84 | 1,433 | 96 | 4 | 13 | 5 | 26 |
|  | 90-95\% | 11,537 | 33 | 79 | 1,397 | 94 | 3 | 16 | 7 | 35 |
|  | 0-90\% | 3,801 | 24 | 68 | 1,337 | 88 | 5 | 21 | 12 | 53 |
| STRATA | Mpls/St. Paul | 6,926 | 18 (16) | 57 (54) | 1,292 | 91 | 23 | 16 | 10 | 71 |
|  | Suburban | 25,179 | 44 (39) | 87 (86) | 1,454 | 95 | 2 | 13 | 10 | 16 |
|  | Outstate: 2000+ | 14,234 | 36 (29) | 83 (81) | 1,420 | 93 | 2 | 15 | 9 | 29 |
|  | Outstate: 2000- | 14,511 | 33 (28) | 83 (80) | 1,408 | 93 | 1 | 15 | 9 | 36 |
| PUBLICSCHOOLS | Non-charter | 60,518 | 37 (31) | 82 (80) | 1,417 | 94 | 4 | 14 | 9 | 30 |
|  | Charter | 336 | 19 (18) | 61(60) | 1,305 | 90 | 9 | 17 | 39 | 50 |
| PRIVATE SCHOOLS |  | 1,561 | 36 (33) | 88 (89) | 1,436 | --- | --- | --- | --- | --- |

Note: $L E P=$ Limited English Proficiency; F/R = Eligible for free or reduced-price lunch; New to District $=$ enrolled since 1/1/98; Parentheses contain 1998 data; $0^{+}=$less than half a percentage point; All percentages and Mean Scale Scores are rounded to the nearest whole number.

Table 5.7
1999 Grade 5: Minnesota Comprehensive Assessment Results in Writing for all Public School Students Tested

|  |  | Number Tested | \% At or Above Level III | \% At or Above Level II | Mean <br> Scale <br> Score | \% Enr. Students Tested | \% LEP <br> Students Tested | Sp. Ed Students Tested | \% New Students Tested | \% F/R <br> Students Tested |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TOTAL |  | 60,238 | 45 (42) | 95 (80) | 1,414 | 93 | 4 | 14 | 9 | 30 |
| GENDER | Female | 29,320 | 55 (52) | 97 (87) | 1,470 | 93 | 4 | 9 | 9 | 30 |
|  | Male | 30,879 | 36 (32) | 93 (74) | 1,363 | 92 | 4 | 19 | 10 | 30 |
| ETHNICITY | Asian | 3,066 | 37 (35) | 92 (76) | 1,370 | 94 | 49 | 9 | 12 | 63 |
|  | Black | 3,578 | 22 (21) | 82 (57) | 1,236 | 88 | 5 | 21 | 20 | 78 |
|  | Hispanic | 1,456 | 26 (25) | 86 (64) | 1,278 | 88 | 38 | 17 | 19 | 68 |
|  | Am. Indian | 1,185 | 25 (19) | 86 (61) | 1,255 | 85 | O+ | 23 | 14 | 73 |
|  | White | 50,323 | 49 (45) | 96 (83) | 1,447 | 94 | O+ | 14 | 8 | 22 |
| LEP |  | 2,331 | 17 (18) | 82 (60) | 1,226 | 90 | --- | 11 | 16 | 88 |
| SPECIAL ED |  | 7,787 | 16 (15) | 78 (51) | 1,177 | 85 | 3 | --- | 10 | 44 |
| NEW TO DISTRICT |  | 5,207 | 36 | 92 | 1,306 | 86 | 7 | 16 | --- | 46 |
| F/R LUNCH |  | 17,312 | 29 | 89 | 1,299 | 90 | 12 | 21 | 14 | --- |
| ATTENDANCE RATE | 95-100\% | 42,120 | 48 | 96 | 1,449 | 95 | 4 | 13 | 5 | 26 |
|  | 90-95\% | 11,428 | 43 | 93 | 1,408 | 93 | 3 | 16 | 7 | 35 |
|  | 0-90\% | 3,764 | 34 | 89 | 1,328 | 88 | 5 | 21 | 12 | 53 |
| STRATA | Mpls/St. Paul | 6,879 | 30 (29) | 87 (65) | 1,290 | 90 | 23 | 16 | 10 | 71 |
|  | TC Suburbs | 24,999 | 53 (49) | 97 (85) | 1,476 | 94 | 2 | 13 | 10 | 16 |
|  | Outstate: $\mathbf{2 0 0 0}_{+}$ | 14,229 | 43 (40) | 95 (80) | 1,423 | 93 | 2 | 15 | 9 | 29 |
|  | Outstate: 2000- | 14,129 | 41 (38) | 95 (79) | 1,361 | 91 | 1 | 15 | 9 | 36 |
| PUBLIC SCHOOLS | Non-charter | 59,917 | 45 (42) | 95 (80) | 1,416 | 93 | 4 | 14 | 9 | 30 |
|  | Charter | 321 | 23 (31) | 85 (64) | 1,178 | 86 | 9 | 17 | 39 | 50 |
| PRIVATE SCHOOLS |  | 1,569 | 49 (43) | 97 (81) | 1,506 | --- | -- | --- | --- | -- |

Note: LEP = Limited English Proficiency; New to District = enrolled since 1/1/98; F/R = Eligible for free or reduced-price /unch; Parentheses contain 1998 data; $0_{+}=$less than half a percentage point; All percentages and Mean Scale Scores are rounded to the nearest whole number.

Eighth Grade Basic Standards Tests in Reading and Mathematics. Tables 5.8 and 5.9 show the eighth grade Basic Standards Test results in reading and mathematics for all students tested.

Over 65,000 students participated in the tests, or $96 \%$ of all eighth graders enrolled on the day of the test-the same percentage as last year. Seventy-

Table 5.8
1999 Grade 8: Basic Standards Test Results in Reading for all Public School Students Tested

|  |  | Number Tested | \% Meeting Minimum Standard | Mean Number Correct | \% Enr. Students Tested | \% LEP <br> Students Tested | \% Sp Ed Students Tested | \% New Students Tested | \% F/R <br> Students Tested |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TOTAL |  | 65,405 | 75 (68) | 32 | 96 | 3 | 13 | 8 | 26 |
| GENDER | Female | 31,933 | 77 (71) | 33 | 97 | 3 | 8 | 8 | 26 |
|  | Male | 33,442 | 74 (66) | 32 | 96 | 3 | 17 | 8 | 26 |
| ETHNICITY | Asian | 2,905 | 54 (48) | 29 | 96 | 41 | 7 | 10 | 62 |
|  | Black | 3,169 | 39 (32) | 25 | 93 | 7 | 23 | 19 | 75 |
|  | Hispanic | 1,344 | 45 (39) | 27 | 92 | 31 | 16 | 19 | 63 |
|  | Am. Indian | 1,159 | 47 (38) | 27 | 90 | 0+ | 23 | 17 | 67 |
|  | White | 56,302 | 80 (73) | 33 | 97 | 0+ | 12 | 7 | 19 |
| LEP |  | 1,887 | 22 (16) | 23 | 92 | --- | 12 | 16 | 87 |
| SPECIAL ED |  | 7,599 | 33 (27) | 24 | 90 | 3 | --- | 12 | 43 |
| NEW TO DISTRICT |  | 5,011 | 58 | 29 | 92 | 6 | 19 | --- | 46 |
| F/R LUNCH |  | 16,243 | 53 | 28 | 94 | 10 | 21 | 14 | --- |
| ATTENDANCE RATE | 95-100\% | 41,063 | 80 | 33 | 98 | 3 | 10 | 3 | 20 |
|  | 90-95\% | 14,384 | 73 | 32 | 96 | 3 | 14 | 6 | 28 |
|  | 0.90\% | 7,229 | 58 | 29 | 92 | 4 | 23 | 13 | 48 |
| STRATA | Mpls/St. Paul | 6,250 | 48 (41) | 27 | 93 | 20 | 16 | 10 | 66 |
|  | TC Suburbs | 25,944 | 81 (75) | 33 | 97 | 1 | 12 | 8 | 14 |
|  | Outstate 2000+ | 16,174 | 76 (69) | 32 | 96 | 2 | 13 | 7 | 23 |
|  | Outstate 2000- | 17,037 | 75 (68) | 32 | 97 | 1 | 13 | 8 | 31 |
| PUBLIC SCHOOLS | Non-charter | 65,159 | 75 (68) | 32 | 96 | 3 | 13 | 8 | 26 |
|  | Charter | 246 | 48 (43) | 27 | 87 | 1 | 21 | 45 | 51 |
| PRIVATE SCHOOLS |  | 4,475 | 88 (83) | 35 | --- | -- | -- | --- | --- |

Note: LEP = Limited English Proficiency; New to District $=$ enrolled since $1 / 1 / 98 ; F / R=$ Eligible for free or reduced-price lunch; Parentheses contain 1998 data; $0^{+}=$less than half a percentage point; All percentages and Mean Scale Scores are rounded to the nearest whole number.
five percent of the eighth grade test-takers met the state's minimum standard for high school graduation in reading, up substantially from $68 \%$ last year. Unlike the $M C A$, the BST testing has been in place for several years, and the improvement in scores is unlikely to have resulted from a marked improvement in familiarity with the test format over last year. In mathematics, the percentage of eighth grade students meeting the state's

Table 5.9
1999 Grade 8: Basic Standards Test Results in Mathematics for all Public School Students Tested

|  |  | Number Tested | \% Meeting Minimum Standard | Mean Number Correct | \% Enr. Students Tested | \% LEP <br> Students Tested | \% Sp Ed Students Tested | \% New Students to District | \% F/R Students Tested |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TOTAL |  | 65,362 | 70 (71) | 54 | 96 | 3 | 13 | 8 | 26 |
| GENDER | Female | 31,879 | 69 (70) | 53 | 96 | 3 | 8 | 8 | 26 |
|  | Male | 33,450 | $71(73)$ | 54 | 96 | 3 | 17 | 8 | 26 |
| ETHNICITY | Asian | 2,903 | 56 (53) | 50. | 96 | 41 | 7 | 10 | 62 |
|  | Black | 3,148 | 26 (26) | 39 | 92 | 7 | 23 | 19 | 75 |
|  | Hispanic | 1,337 | 37 (38) | 43 | 91 | 31 | 16 | 19 | 63 |
|  | Am. Indian | 1,158 | 38 (39) | 44 | 90 | 0+ | 23 | 17 | 67 |
|  | White | 56,281 | 75 (76) | 55 | 97 | $0+$ | 12 | 7 | 19 |
| LEP |  | 1,890 | 24 (23) | 39 | 92 | --- | 12 | 16 | 87 |
| SPECIAL ED |  | 7,601 | 27 (29) | 39 | 90 | 3 | --- | 12 | 43 |
| NEW TO DISTRICT |  | 5,002 | 51 | 48 | 92 | 6 | 19 | --- | 46 |
| F/R LUNCH |  | 16,200 | 47 | 46 | 93 | 10 | 21 | 14 | -.- |
| ATTENDANCE RATE | 95-100\% | 41,102 | 76 | 56 | 98 | 3 | 10 | 3 | 20 |
|  | 90-95\% | 14,373 | 67 | 53 | 96 | 3 | 14 | 6 | 28 |
|  | 0-90\% | 7,190 | 48 | 47 | 91 | 4 | 23 | 13 | 48 |
| STRATA | Mpls/St. Paul | 6,223 | 43 (41) | 45 | 93 | 20 | 16 | 10 | 66 |
|  | TC Suburbs | 25,920 | 76 (77) | 56 | 97 | 1 | 12 | 8 | 14 |
|  | Outstate 2000+ | 16,198 | 72 (72) | 54 | 96 | 2 | 13 | 7 | 23 |
|  | Outstate 2000- | 17,021 | 70 (71) | 54 | 96 | 1 | 13 | 8 | 31 |
| PUBLIC SCHOOLS | Non-charter | 65,116 | 70 (71) | 54 | 96 | 3 | 13 | 8 | 26 |
|  | Charter | 246 | 41 (40) | 43 | 87 | 1 | 21 | 45 | 51 |
| PRIVATE SCHOOLS |  | 4,464 | 81 (82) | 57 | --- | $\cdots$ | --- | --- | --- |

Note: LEP = Limited English Proficiency; New to District = enrolled since 1/1/98; F/R = Eligible for free or reduced-price lunch; Parentheses contain 1998 data; $0+=$ less than half a percentage point; All percentages and Mean Scale Scores are rounded to the nearest whole number.
minimum standard remained virtually the same as last year, $70 \%$.
Tenth Grade Basic Standards Test Results in Writing. The 1998-99 school year marked the first statewide administration of the BST in writing, a test which students must pass for high school graduation starting with the class of 2001. Table 5.10 shows results for the BST in writing. Over 63,000 students participated in the tests, $96 \%$ of all tenth graders enrolled on the

1999 Grade 10: Basic Standards Test Results in Writing for all Public School Students Tested

|  |  | Number Tested | \% Meeting <br> Minimum <br> Standard | Mean <br> Scale <br> Score | \% Enr. Students Tested | \% LEP <br> Students Tested | \% Sp Ed Students Tested | \% New Students Tested | \% F/R <br> Students Tested |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TOTAL |  | 63,112 | 85 | 3.10 | 96 | 3 | 11 | 8 | 21 |
| GENDER | Female | 30,764 | 91 | 3.24 | 96 | 3 | 7 | 8 | 21 |
|  | Male | 32,283 | 79 | 2.98 | 96 | 3 | 14 | 8 | 21 |
| ETHNICITY | Asian | 2,808 | 62 | 2.78 | 96 | 36 | 5 | 13 | 57 |
|  | Black | 2,570 | 51 | 2.52 | 88 | 9 | 18 | 20 | 66 |
|  | Hispanic | 1,078 | 63 | 2.71 | 91 | 26 | 13 | 18 | 52 |
|  | Am. Indian | 942 | 66 | 2.68 | 87 | 0+ | 19 | 18 | 54 |
|  | White | 55,386 | 88 | 3.17 | 97 | 0+ | 10 | 7 | 16 |
| LEP |  | 1,616 | 31 | 2.23 | 91 | --- | 6 | 20 | 83 |
| SPECIAL ED |  | 6,175 | 43 | 2.38 | 89 | 1 | --- | 13 | 35 |
| NEW TO DISTRICT |  | 4,774 | 68 | 2.80 | 90 | 7 | 17 | --- | 39 |
| F/R LUNCH |  | 12,736 | 67 | 2.77 | 93 | 11 | 18 | 15 | --- |
| ATTENDANCE RATE | 95-100\% | 39,397 | 89 | 3.19 | 98 | 2 | 8 | 3 | 16 |
|  | 90-95\% | 13,135 | 84 | 3.08 | 96 | 2 | 12 | 6 | 22 |
|  | 0-90\% | 7,393 | 72 | 2.85 | 90 | 4 | 20 | 14 | 38 |
| STRATA | Mpls/St. Paul | 5,516 | 61 | 2.71 | 92 | 20 | 11 | 12 | 57 |
|  | TC Suburbs | 24,647 | 88 | 3.18 | 96 | 1 | 10 | 8 | 11 |
|  | Outstate: 2000+ | 15,961 | 87 | 3.12 | 96 | 1 | 11 | 7 | 19 |
|  | Outstate: 2000- | 16,959 | 86 | 3.11 | 97 | 0+ | 11 | 8 | 25 |
| PUBLIC <br> SCHOOLS | Non-charter | 62,917 | 85 | 3.11 | 96 | 3 | 11 | 8 | 21 |
|  | Charter | 195 | 59 | 2.68 | 89 | 0+ | 13 | 55 | 47 |
| PRIVATE SCHOOLS |  | 1,611 | 93 | 3.00 | --- | --- | --- | --- | --- |

Note: LEP = Limited English Proficiency; New to District = enrolled since 1/1/98; F/R = Eligible for free or reduced-price lunch; Parentheses contain 1998 data; $0^{+}=$less than half a percentage point; All percentages and Mean Scale Scores are rounded to the nearest whole number.
day of testing. Eighty-five percent of the tenth grade test-takers met the state's minimum standard for high school graduation in writing in this first administration of the test.

Of the three Basic Standards Tests that students must pass for high school graduation, first-time pass rates were lowest in mathematics. Because firsttime pass rates in reading now surpass those in mathematics, the basic
standard in mathematics seems to have become the most difficult of the three for first time test-takers. Preparing students to meet the Basic Standards requirements would seem to warrant greater attention to the mathematics standard.

## Equity and Excellence Across Gender and Ethnicity

For the past several decades, "equity" and "excellence" have been guiding ideals in education. Schools have sought higher levels of excellence as demonstrated by student performance. At the same time, they have sought to ensure that the excellence is more equitably distributed

Figure 5.5
Percentage of Grade 3 Students at or above Level II and Level III in Reading and Mathematics, by Gender

across males and females, ethnic groups, and rich and poor students. We now turn to a consideration of how equitably excellence has been achieved across gender and ethnicity.

Achievement by Gender. Figures 5.5 (above) through 5.7 (p. 63) compare

Figure 5.6
Percentage of Grade 5 Students at or above Level II and Level III in Reading, Mathematics, and Writing, by Gender



Gender Subgroup
the performance levels of boys and girls on the various statewide tests. Where there are differences in mathematics, boys outscore girls, if only by a small amount. Girls outscore boys in reading and writing in all grades tested.

Achievement by Etbnicity. Figures 5.8 (below) through 5.10 (p. 64) compare ethnic group performance on the statewide tests. Whites have the highest scores; Blacks the lowest; and American Indian, Asian, and Hispanic students have scores in between. The ethnic differences appear to be less dramatic in writing than in mathematics or reading.


Figure 5.7
Percentage of Grade 8 and Grade 10 Students Meeting High School Graduation Standardsin Reading, Mathematics, and Writing, by Gender

Grade 8 students are tested in Reading and Mathematics; Grade 10 students are tested in writing.

Figure 5.8
Percentage of Grade 3 Students at or above Level II and Level III in Reading and Mathematics, by Ethnicity


Figure 5.9
Percentage of Grade 5 Students at or above Level II and Level III in Reading, Mathematics, and Writing, by Ethnicity

Figure 5.10
Percentage of Grade 8 and Grade 10 Students Meeting High School Graduation Standards in Reading, Mathematics, and Writing, by Ethnicity

* Note: Grade 8 students are tested in Reading and Mathematics; Grade 10 students are tested in writing.


Attendance. Achievement on the statewide tests also varies according to attendance level, as seen in Figures 5.11 (below) through 5.13 (p. 65). These attendance differences appear consistently across subject areas and grades.


Figure 5.11
Percentage of Grade 3 Students at or above Level II and Level III in Reading and Mathematics, by Attendance Rate


Figure 5.12
Percentage of Grade 5 Students at or above Level II and Level III in Reading, Mathematics, and Writing, by Attendance Rate

Figure 5.13
Percentage of Grade 8 and Grade 10 Students Meeting High School Graduation Standards in Reading, Mathematics, and Writing, by Attendance Rate

Grade 8 students are tested in Reading and Mathematics; Grade 10 students are tested in writing.

Poverty Levels. Figures 5.14 through 5.16 (p. 66) show how performance varied among schools with differing concentrations of poverty. Across grades and subject areas, schools with lower poverty levels display higher levels of achievement. Achievement falls off most sharply in schools with the highest poverty level, i.e., where $50-100 \%$ of the students in the school are eligible for free or reduced-price lunch.

## The Performance of Minnesota Students in College Admissions Testing

Tables 5.3 through 5.10 show data on all students for grades three, five, and eight. But what about Minnesota's college-bound students as they near the end of high school? Of the two college admissions tests, the $A C T$ Assessment (ACT) and the Scbolastic Assessment Test (SAT), far more Minnesota high school seniors and juniors take the former. Therefore,
(continued p. 67)



Figure 5.16
Percentage of Grade 8 and Grade 10
Students Meeting High School Graduation Standards in Reading, Mathematics, and Writing, by School Poverty Concentration*
*School Poverty Concentration is the percentage of students in the school who are eligible for free or reduced-price lunch.

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School Year/Number of Students Tested (N)
$A C T$ test results more completely reflect the performance levels of Minnesota students bound for two- and four-year colleges.

Figure 5.17 (above) shows the trend in Minnesota $A C T$ scores since the beginning of the decade. The trend appears much like the trend in Figure 4.1 (p. 35) that shows how the percentage of $A C T$ test-takers with the recommended course work has changed over the decade of the 90 's. Both graphs show steady increases through the early 1990s, level off from 199698 , and then decline slightly in 1999 , the first decline of this decade. It is to be hoped that high schools will address the preparation of college-bound students before this year's decline in course work preparation and $A C T$ scores becomes a trend.

Figure 5.17
Minnesota and National ACT Composite Scores by School Year (1989-99)

Differences also appear among ethnic groups. Figure 5.18 (below) shows $A C T$ composite scores by ethnic group. These differences closely parallel the differences in course work preparation shown in Figure 4.2 (p. 35).

## CONCLUSIONS

Tn the data above, results from reading assessments are the most $\mathbb{L}_{\text {gratifying. Improvements in } M C A \text { reading scores occurred in both third }}$ and fifth grades. NAEP fourth grade reading results show a steady increase in the proportion of students scoring at the Proficient and Advanced levels over the period from 1992 to 1998 . Eighth grade BST reading scores continue to rise.

Mathematics is the area of most concern. BST eighth grade pass rates have risen little in the past three years, and first time pass rates in mathematics are now lower than those in reading or writing. Of the three basic standards in reading, writing, and mathematics, the mathematics standard would seem to have replaced the reading standard as the biggest obstacle to graduation. And, in the TIMSS study, Minnesota's high school seniors performed at mediocre levels in mathematics compared to their counterparts from other countries, a result which may stem, in part, from the fact that Minnesota's high school seniors were less commonly enrolled in mathematics courses.

The NAEP comparison of writing achievement across states also raises concern. If Minnesota is among the top achieving states in reading and mathematics, there would seem to be no reason why it cannot also be among the top scoring states in writing. To be among the top states, substantial improvements in writing achievement are required, particularly among boys.


## Chapter 6:

 CONCLUSIONS AND RECOMMENDATIONS$\mathbb{M}$innesotans have high expectations for their public education system. The fictional Minnesota town of Lake Wobegon, with its "above-average" children, makes us smile; but in fact we want our children to excel academically, and to be able to reap the benefits of that excellence. The ongoing process of educational improvement in Minnesota shows the degree to which Minnesotans have achieved the goal of a public education system that gives students the best and most effective education possible.

Educational improvement is a process, however, rather than a pinnacle. It is a cycle that takes into account factors such as the changes in students served, new developments in knowledge, the context in which education must occur, and the hopes we all have for our children. It then analyzes, plans next steps, implements, and evaluates the outcomes so that the educational opportunities we provide for our children will keep improving.

All change occurs within a matrix, or context, of circumstances, motivators, and obstacles. Education is no exception; its context includes government regulations and policy, at all levels (federal, state, and local); financial and social realities, the needs of students, faculty, and communities. Real educational improvement can only take place if these, and a myriad of other considerations, are taken into account as we analyze, plan, implement, and evaluate those changes that we make.

This report has addressed a number of the contextual issues that will affect our public education system as we move into the $21^{\text {st }}$ century, including changes in state and federal regulations and policy; demographic and social shifts; and differences in Minnesota's student performance, compared with other states and other countries. Based on these considerations and others, this chapter summarizes our conclusions and recommendations about the status of education in Minnesota: what we are doing well, what issues remain unclear or undecided, and what needs improvement.

## Statewide Assessment and Accountability

TThe statewide assessment system rests upon the state's academic standards for elementary and secondary students. As their name implies, the Basic Standards Tests are aligned with the Basic Standards of the Graduation Rule. The Minnesota Comprehensive Assessments in third
$\because$

## NOTES

1 Minnesota Educational Accountability Reporting System. Minneapolis, MN: College of Education and Human Development, University of Minnesota, 1996.
${ }^{2}$ Minnesota Department of Children, Families \& Learning. Graduation Standards Advisory Panel Recommendations: Report to the Governor and CFL Commissioners. Roseville, MN: Author.
and fifth grade are aligned with the Preparatory Standards in the Profile of Learning. Continued progress in the development of the statewide assessment system, on which accountability rests, depends upon a continued commitment to high expectations for all students and the educational standards to which the statewide assessments are aligned.

Both the Mears report ${ }^{1}$ and federal requirements call for statewide tests in each of four grade intervals: $1-3,4-6,7-9$, and $10-12$. Starting in 1998, Minnesota began administering the statewide Minnesota Comprebensive Assessments in grade 3 and 5, which fall in the first two of these grade intervals. The statewide Basic Standards Test falls in the grade 7-9 range, although it may need to be replaced by an assessment aligned with the preparatory standards of the Graduation Rule in order to meet the federal mandate for assessments aligned with the state's challenging standards. If such a change is required by federal mandates, it should result in no additional tests. Eighth grade students would take the new test in place of the $B S T$, not in addition to it, and could meet the high school graduation requirements in reading and mathematics with a sufficiently high performance on the new test.

To complete the statewide assessments used for accountability as envisioned by federal requirements, the Mears report, and the Graduation Standards Advisory Panel, ${ }^{2}$ a statewide assessment is needed in the high school years. The purpose of this test is to serve as an indicator of achievement by students approaching graduation, and to provide an additional opportunity to satisfy the Graduation Standard's basic requirements for students who have not yet done so. To keep testing time at the high school level within reasonable limits, the legislature should revise their requirement that such an assessment cover all ten areas in the Profile of Learning. No more than five or six subject areas seem feasible in a reasonable testing time. Even this many tests would be feasible only if they utilized a mainly multiple choice format. While it has been recommended that such tests should be benchmarked to national and international standards, no statewide test or commercially published norm-referenced test is currently benchmarked to an international standard, and such benchmarking would take a substantial amount of time and money.

Federal requirements call for school standards, at least for Title I schools, and the federal government is urging states to extend such standards to all schools. As yet, Minnesota has no such standards for schools, and barring a change in federal requirements, the state will need to establish them. In the process of establishing such standards three questions must be answered: What will the standards be? Will they apply to all schools or just Title I schools? What steps will be taken to assist schools that are not meeting the standards nor making progress toward them? Minnesota should consider school standards covering, at a minimum, achievement, attendance rates, and graduation rates. If standards are adopted, the state will need to develop a continuous improvement program for schools that have neither met the standards nor are making substantial progress toward them. Any such standards will have serious consequences for the reputations and the
enrollments of schools.
Setting standards for schools requires addressing a very tough question: How good is good enough? Yet if standards are carefully set, they can provide clear expectations for schools, serve as incentives to improve, and trigger assistance to under-performing schools. They can also provide a basis for recognizing high- performing or rapidly improving schools.

## Educational Inputs and Processes

$T$There are two important trends in Minnesota school enrollments. First, the percentage of minority students in Minnesota continues to increase. Minnesota schools must be prepared to educate an increasingly diverse student body. Secondly, the Minnesota State Demographic Center has projected that enrollments will peak in about 1999-2000 and begin a gradual decline thereafter. These enrollment declines are likely to be heaviest outside the metro area, and they will first appear at the elementary level. Where the declines are sharpest, districts may experience resulting financial cutbacks, and in extreme cases, school closings. In addition, the declines will decrease the demand for new teachers resulting from any increased retirements among the increasingly older faculty.

Per pupil funding in Minnesota continues to increase, as it does throughout the country, but it remains very near the national average. In the last year for which data are available from other states, Minnesota ranked $17^{\text {th }}$ of the 50 states before any adjustments for cost-of-living. It ranked $21^{\text {st }}$ after adjusting for such cost of living differences. As one might expect, given an average level of per pupil funding, the average teacher salary in Minnesota is virtually equal to the national average. To its credit, Minnesota's efforts to equalize school resources for students irrespective of economic background have met with some success. The data in Chapter 3 indicate that schools with high concentrations of poverty have funding levels and student teacher ratios comparable to those in schools with students from more affluent backgrounds. There is still debate as to whether the expenditures adequately reflect the greater needs of low income students and the higher costs in urban areas.

The teaching faculty in Minnesota is aging, and increased retirements can be expected. An ample supply of new teachers each year in some areas (e.g., elementary education, high school social studies, and high school English), combined with the projected enrollment declines, may suffice to meet the expected increase in teaching vacancies for those fields. Nevertheless, the state and the districts will need to develop policies for recruiting, training, and retaining well qualified teachers, particularly in areas such as mathematics, science, technology, English as a second language, foreign languages, and special education, where the supply of new teachers may prove inadequate. Minnesota's schools have historically been staffed by a well-qualified teaching force, an asset we can ill afford to lose.

## Course Work attendance, and Graduation Rates

This year (1999) brought an abrupt end to the decade-long increase in the recommended college core preparation of Minnesota's $A C T$ testtakers, who constitute the bulk of college-bound students in Minnesota. The decline in course work preparation was accompanied by a decline in scores as well. The decline was most marked among American Indian and Hispanic test takers. Given the gap in course work preparation between White and Asian $A C T$ test-takers, on the one hand, and American Indian, Black, and Hispanic test takers on the other, schools, parents, and community leaders must work to close the course work preparation gap for American Indian, Black, and Hispanic students. Further, steps should be taken to ensure that the small decline in course work preparation this year does not become a long-term trend.

Just as there are ethnic group differences in high school course work preparation, there are corresponding ethnic group differences in attendance. The differences are small in the elementary grades, but grow more substantial in high school. As shown in the graphs in Chapter 5, poor attendance is associated with poor achievement on the statewide tests. For Minnesota schools, adapting to a more diverse student body will mean, in part, working with parents and community leaders to close the attendance gaps between affluent and poor students and the gaps among ethnic groups. The support of parents and community leaders is critical.

In the proposed Educational Excellence for All Children Act of 1999, the Clinton administration has proposed that high schools should work toward a graduation rate of $90 \%$. While the act does not specify whether this target is a four-year graduation rate, it is clear that at $78 \%$, Minnesota's 4 -year completion rate falls well below the target proposed in the Educational Excellence for All Children Act of 1999. It falls short for two reasons: some students drop out of school and others do not complete their district's course work requirements in time to graduate within four years. Only in the small outstate districts with fewer than 2000 students enrolled does the 4 -year completion rate reach $90 \%$. The completion rate is less than $50 \%$ in our urban schools and among American Indian, Black, and Hispanic students. As requirements for high school graduation increase in the next few years, it will be difficult to maintain our current 4 -year completion rate of $78 \%$, let alone improve upon it . Issues of attendance and graduation rate are inseparable, and it will be difficult to improve graduation rates without also improving attendance in the junior high and high school grades.

## ACHIEVEMENT

ducational Excellence. How does achievement in Minnesota compare
to national and international standards? Is achievement in Minnesota improving statewide? The answer varies by subject matter.

In reading, the answers seem to be affirmative. While there is less international data comparing nations in reading than in mathematics and science (the most recent comparison was in 1992), last year's Yearbook noted that only Finland had average reading scores in fourth and eighth grade that were higher than those from the United States in the most recent international reading study. In national comparisons, Minnesota students traditionally have had an average reading score above the U.S. average. In the 1998 data, for the fourth grade, only one state (Connecticut) scored significantly higher than Minnesota; and only Connecticut and Maine's eighth graders had average scores significantly higher than Minnesota's. Not only do Minnesota's elementary and junior high students seem to be reading well by national and international standards, they seem to be slowly improving. From 1998 to 1999 , reading scores improved on all of the statewide tests. In the National Assessment of Educational Progress, the proportion of students scoring in the highest two levels increased slowly from 1992 to 1998, although the proportion of students at the lowest level remained about the same.

In writing, the picture is less glowing. In the most recent National Assessment of Educational Progress, Minnesota students scored at the national average, largely due to a poor performance by boys. Of the three "R's", writing is the only area in which the Minnesota average is no higher than the U.S. average according to the National Assessment of Educational Progress. While it is hoped that the implementation of the Graduation Standards in writing will lead to an improvement in achievement levels statewide, it is too early to tell if such improvements have begun or whether the writing standards have been set sufficiently high. There would seem no obvious reason for Minnesota students to fare less well in writing than in reading or mathematics, when compared with students across the nation.

In mathematics, Minnesota fourth- and eighth graders' performance is mediocre at best by international standards, and by the end of high school, student performance is frankly below par. In the TIMSS study, the Minnesota mathematics average was significantly exceeded by that of several other countries and was at about the international average for fourth and eighth graders (see last year's Yearbook). The twelfth grade results, reported this year, place Minnesota significantly below the international average. Minnesota compares favorably to other states, as reported in the 1998 Yearbook, but comparing favorably to other states does not mean high achievement by international standards. In the eighth grade Basic Standards Test, pass rates have not improved materially for the last few years, and of the high school graduation basic standards requirements, the standard in mathematics is now proving to be the most difficult for students to meet. Both the performance of Minnesota students in international comparisons and the difficulty students seem to encounter in
meeting the basic standards in mathematics call for more attention to this area.

While some students in the state are having difficulty learning to read, the overall reading levels in the state seem to be high by national or international standards, and they seem to be improving. In writing, the performance of Minnesota students is mediocre compared to students around the U.S., and in mathematics, it is mediocre at best, compared with students from other countries. Of the three "R's," writing and mathematics achievement most require attention if Minnesota students are to be near the top both nationally and internationally. In order to improve achievement in high school mathematics (and science) to the level found in many other countries, Minnesota high school students need to take as much course work in mathematics (and science) as do students from those other countries.

## Equiry

For the past several decades, educators have sought, not just excellence, but also equity, particularly with respect to gender and ethnicity. There are gender differences in achievement, but they do not consistently favor boys or girls. Boys outscored girls on the statewide mathematics tests in third, fifth, and eighth grade, although the differences seem small. Minnesota twelfth grade boys significantly outscored girls in the TIMSS study of mathematics and science.

On the statewide tests, girls outscored boys in reading at every grade where such tests were given. The Minnesota girls participating in the NAEP eighth grade writing assessment markedly outscored the Minnesota boys. Indeed, the mediocre performance of Minnesota students, as compared to those from other states, is largely attributable to the poor writing performance of our boys.

Large differences between ethnic groups remain in virtually every subject area. For the most part, these ethnic group differences in achievement parallel differences in attendance, high school course work, and high school completion. Given the association between attendance and statewide achievement shown in Chapter 5, the issue of improved achievement generally, not just in mathematics and writing, is inseparable from the issue of improved attendance. Closing the gap in achievement must be part of a larger effort to close gaps in attendance, course work preparation, and graduation rates which will require a concerted effort by the schools, parents, and community leaders.

Minnesota's goal is to have one of the finest education systems in the world. Mathematics achievement levels are high compared to other states, but not when benchmarked against international standards, particularly at the high school level. Pass rates on the Basic Standards Test in mathemat-

ics are now lower than those in reading and writing, and if for no other reason, mathematics will warrant increased attention.

Although there are still too many Minnesota children struggling to read, the same can be said of other states and other countries. Based on both national and international studies, reading levels in Minnesota are near the top, both nationally and internationally. The recent eighth grade study of writing was the only comparison of U.S. states where Minnesota students performed at about the national average, rather than significantly above it. It is to be hoped that increased attention to writing, resulting from implementation of the Graduation Standards, will raise the writing performance of Minnesota students to an even higher level. It is also important to note that these levels of achievement are being reached at a per pupil cost near or slightly above the national average.

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An examination that measures the extent to which a person has acquired certain information or mastered certain skills, usually as a result of specific instruction.

The ACT assessment program measures educational development and readiness to pursue college-level coursework in English, mathematics, natural science, and social science. Student performance on the tests does not solely reflect innate ability and is influenced by a student's educational preparedness.

These are courses that the ACT Assessment program suggests students complete prior to high school graduation. The courses include: four years of English, three years of science, three years of social studies and three years of mathematics. The English portion of the test consists of punctuation $13 \%$, basic grammar $16 \%$ and sentence structure $24 \%$. Rhetorical skills include strategy $16 \%$, organization $15 \%$, and style $16 \%$. The math portion consists of pre-algebra $23 \%$, elementary algebra $17 \%$ intermediate algebra $15 \%$, coordinate geometry $15 \%$, plane geometry $23 \%$, and trigonometry $7 \%$. The reading portion consists of passages from social studies $25 \%$, natural sciences $25 \%$, prose fiction $25 \%$ and humanities $25 \%$. The science portion consists of data representation $38 \%$, research summary $45 \%$, and conflicting viewpoints $17 \%$. Web site: http://www.act.org/

Expenditures for the school board and for the office of the superintendent, principals, and any other line administrators who supervise staff.

Advanced Placement gives highly motivated students an opportunity to take college-level courses and exams while still in high school. There are now 32 different AP courses to choose from, in 18 different subject areas, offered by approximately 14,000 high schools worldwide. In 1998, AP reached a milestone-more than a million exams were taken by about half a million students. The College Board administers the exams. AP examination grades are reported on a 5 -point scale as follows: 5-extremely well qualified; 4-well qualified; 3-qualified; 2-possibly qualified; 1 -no recommendation. A score of 3 or above will receive college credit or advanced placement. Web site: http://www.collegeboard.org/ap

Districts that have identified direct instructional services to assure that K-8 pupils master learner outcomes in communications and math are eligible for state aid. Other district revenue must match the state aid. This match-

## Achievement test

ACT Assessment Program

## ACT Core Academic Courses

## Administration (Expenditure Category)

## Advanced Placement Program (AP)

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## Assurance of Mastery Revenue

ing revenue, along with limited English proficiency revenue and assurance of mastery revenue, is included in the targeted need revenue category.

At-risk Students Those students in danger of failing to complete their education with the skills necessary for a modern technological society.

Average Daily Attendance
The aggregate attendance of a school during a reporting period (normally a
school year) divided by the number of days school is in session during this period. Only days on which the pupils are under the guidance and direction of teachers should be considered days in session.

Average Daily Membership (ADM)

The aggregate enrollment of a school during a reporting period (normally a. school year) divided by the number of days school is in session during this period. Pupils need not be in attendance to be counted in ADM, but they must be in membership.

Bachelor's Degree A degree granted for the successful completion of a baccalaureate program of studies, usually requiring at least 4 years (or equivalent) of full-time college-level study.

Basic Standards These standards represent one of the two components of Minnesota's Graduation Rule, established in 1992. The Basic Standards represent the minimum skills required for a high school diploma in Minnesota.

Charter Schools Publicly funded schools that are granted a high degree of autonomy from existing rules and regulations. Depending upon state law, teachers, parents, or other would-be educators can apply for permission to open a school. The "charter" may be granted by, for example, the local school board, the state board of education, or a public institution of higher education, depending upon the state. Some states also allow existing public or nonsectarian private schools to convert to charter status. Charter schools have the potential to control their own budget, staffing and curriculum, but their autonomy varies from state to state. They must attract students and achieve the results agreed to in their charters, or their contracts can be revoked.

Choice Options The school choice options in Minnesota include the Postsecondary Enrollment Option, open enrollment or charter schools.

Class Size The number of students a teacher has in his/her class at a given time.

Compensatory Funds (also known as Compensatory Education Revenue)

Based on a complex formula which provides additional funding for districts with students eligible to receive free lunch and/or reduced priced lunch based on October 1 st enrollments of the previous fiscal year. Compensatory revenue increases as the percent of students eligible for free and reduced lunch increases. The percentage is capped, however.

Completion Rate Refers to the percentage of students who complete high school in four years.

Content Standards Content standards define what students should know and be able to do in

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key academic subjects at specific grades.

An initiative introduced by the Minnesota Educational Effectiveness Program (MEEP) aimed at assisting building-level leadership teams with data analysis, planning, implementation and evaluation.

A school's master plan for selecting content and organizing learning experiences for the purpose of changing and developing learners' behaviors and insights. A curriculum is characterized by its scope (breadth of content) and sequence (organization of content).

The percentage of students that leave high school before receiving their diploma. Students who transfer to a non-public high school or to a public high school in another state are not counted as a dropout.

A systematic method for examining whether schools and students are moving toward desired goals. In Minnesota, it is a statewide system that is applicable, with appropriate assessment accommodations, to all students, including those with disabilities and limited proficiency in English.

The highest grade of regular school attended and completed.
The total number of students registered in a given school unit at a given time, generally in the fall of a year.

Refers to equal treatment, justice.
The cultural heritage of a particular group.
Expenditures for instruction of students who, because of atypical characteristics or conditions, are provided educational programs that are different from regular instructional programs. Includes expenditures for special instruction of students who are emotionally or psychologically disabled, or mentally retarded; for students with physical, hearing, speech, and visual impairments; and for students with special learning and behavior problems.

Federal funding is the percentage of revenues from the federal government, whether paid directly or through another governmental unit. It includes all federal appropriations, grants, and contracts received by districts. The funds are typically targeted toward specific minority and disadvantaged student populations.

For the 1996-97, 1997-98 and 1998-99 school years, certain school sites are eligible for funding to operate full day kindergarten programs or half day programs for four year olds to develop reading and other skills necessary to succeed in school. School sites with the highest concentrations of pupils eligible for free and reduced lunch are eligible for funding. The funding is the amount equal to .53 times pupils enrolled in the program times the general education formula allowance..

Continuous Improvement Program

## Curriculum

## Dropout Rate

Educational Accountability

Educational Attainment

Enrollment

Equity
Ethnicity
Exceptional Instruction
(Expenditure Category)

Federal Funding

First Grade
Preparedness Funds

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Food Support Expenditures for the preparation and serving of meals and snacks to (Expenditure Category) students.

## Foundation Formula (also known as the General Education Funding Program)

The general education funding program is the method by which school districts receive the majority of their financial support. It is designed to provide a basic foundation of funding for all districts irrespective of local resources. It also channels more state aid to districts with low residential and commercial tax bases.

## Free Lunch/ Reduced-price Lunch

The eligibility requirements are based on household size and total household income. Household size includes every child and adult in the household, whether related or unrelated. Every person who shares housing and/ or expenses is considered to be part of your household for this purpose. To qualify, a total household income should not exceed the following amounts. Household size to total monthly household income: $1 / \$ 1,242 ; 2$ / $\$ 1,673 ; 3 / \$ 2,105 ; 4 / \$ 2,537 ; 5 / \$ 2,968 ; 6 / \$ 3,400 ; 7 / \$ 3,832 ; 8 / \$ 4,263$. For each additional household member add $\$ 432$. (Application for educational benefits 1998-99, Free or reduced-price school meals-State and Federally Funded Programs for Schools)

Full-time Equivalent (FTE) School staff members are counted using FTE values. For example, a fulltime staff member is counted as 1.0 FTE; one employed only half time is counted as . 5 FTE.

Graduation rate For the purposes of this report, graduation rate refers to the proportion of public school ninth graders who graduate from high school four years later. Ninth grade students who transfer to a non-public school or to a public school in another state are excluded from the calculations.

Graduation Rule State level rule that states that the following three criteria must be met for high school graduation: 1) Student must meet course requirements of their local school district; 2) Student must pass Basic Standards Tests in mathematics, reading, and writing; 3) Student must demonstrate mastery of the High Standards by completing performance assessments in ten areas.

High Standards Organization of high school learning subjects into ten different learning areas. These learning areas represent complex skills and processes that build sequentially through the primary, intermediate, middle, and high school levels. Students must know subject material and be able to apply it. Each learning area has 48 standards, of which 24 must be passed.

IDEA Individuals with Disabilities Education Act, the federal law that oversees the provision of a free and appropriate public education to students with disabilities.

IEA The International Association for the Evaluation of Educational Achievement is an independent international cooperative of research centers and departments of education in more than 50 countries.

Instructional alignment The match between learning goals, learning activities, and assessment.

Alignment is critical if teaching is to be effective and learning is to be maximized.

Expenditures for activities intended to help teachers provide instruction, not including expenditures for principals or superintendents. Includes expenditures for assistant principals, curriculum development, libraries, media centers, audiovisual support, staff development, and computerassisted instruction.

The International Baccalaureate Diploma Program is a rigorous preuniversity course of studies, leading to examinations, that meets the need of highly motivated secondary school students between the ages of 16 and 19 years. Designed as a comprehensive two-year curriculum that allows its graduates to fulfill requirements of various national education systems, the diploma model is based on the pattern of no single country but incorporates the best elements of several. Each examined subject is graded on a scale of 1 (minimum) to 7 (maximum). The award of the diploma requires students to meet defined standards and conditions including a minimum total of 24 points and the satisfactory completion of the extended essay, Theory of Knowledge course (TOK) and CAS (creativity, action, service) activities. The maximum score of 45 includes three points for the combination of the extended essay and work in TOK. IB diploma holders gain admission to selective universities throughout the world, including University of Minnesota, Oxford, Yale, and Sorbonne. Formal agreements exist between the IBO and many ministries of education and private institutions. Some colleges and universities may offer advanced standing or course credit to students with strong IB examination results. The program is available in English, French, and Spanish. (Web site: http://www.ibo.org).

A student with limited English proficiency is defined as one whose primary language is not English and whose score on an English reading or language arts test is significantly below the average score for students of the same age. This definition is used by the Minnesota legislature; however, it may vary across school districts.

The percent of revenues from local sources, including property taxes, fees, county apportionment, etc.

A degree awarded for successful completion of a program generally requiring 1 or 2 years of full-time college-level study beyond the bachelor's degree.

What is normally meant by the word average. The total of the scores divided by the number of scores.

Refers to school districts located in Minneapolis, St. Paul, and the seven county metro area.

The label given to individual states that participated in the TIMSS study. States were offered the opportunity to assess a state-representative sample

Instructional Support (Expenditure Category)

International Baccalaureate (IB)

## Limited English Proficiency

 (LEP)
## Local Sources

Master's Degree

Mean Score

## Metro Area

## Mini-nation Status

of their students at the same time as the U.S. National TIMSS study. Colorado, Illinois and Minnesota joined in this program. Web site: http:// www.ed.gov/NCES/timss/brochure.html

## Minnesota Comprehensive Assessments (MCA)

These tests are given at the third and fifth grade levels to evaluate student progress on the Preparatory Standards and to measure the success of schools and districts in improving achievement over time.

Minnesota Test of Emerging Academic English (MTEAE)

A test designed to provide and assessment specifically for students with limited English proficiency. The test results may also be used to evaluated progress students are making in English as a Second Language (ESL) instructional programs.

Mobility The number of times a student moves from school to school or district to district in a given year (frequent school or residence changes).

## National Assessment of Educational Progress (NAEP)

NAEP is often called the "nation's report card." It is the only regularly conducted survey of what a nationally representative sample of students in grades 4,8 , and 12 know and can do in various subjects. The project is mandated by Congress and carried out by the National Center for Education Statistics at the U.S. Department of Education. Beginning in 1990, the survey was expanded to provide state-level results for individual states that choose to participate. The policy defines three NAEP achievement levels basic, proficient and advanced. The definitions for each level follow. A basic achievement level denotes partial mastery of prerequisite knowledge and skills that are fundamental for proficient work at each grade. A proficient achievement level represents solid academic performance for each grade accessed. Students reaching this level have demonstrated competency over challenging subject matter, including subject-matter knowledge, application of such knowledge to real-world situations, and analytical skills appropriate to the subject matter. An advanced achievement level signifies superior performance.

The NAEP scores have been evaluated at certain performance levels. In reading a score of 300 implies an ability to find, understand, summarize and explain relatively complicated literary and informational material. A score of 250 implies an ability to search for specific information, interrelate ideas, and make generalizations about literature, science and social studies materials. A score of 200 implies an ability to understand, combine ideas, and make inferences based on short uncomplicated passages about specific or sequentially related information. A score of 150 implies an ability to follow brief written directions and carry out simple, discrete reading tasks. Scale ranges from 0 to 500 . In 1994, the NAEP reading achievement levels were as follows: For Grade 4, basic achievement is a score of 208-237, proficient achievement is 238-267 and advanced achievement is above 268. For Grade 8, basic achievement is a score of 243-280, proficient achievement is 281-322 and advanced achievement is above 323. For Grade 12, basic achievement is a score of $265-301$, proficient achievement is $302-345$ and advanced achievement is above 346 .

The NAEP scores have been evaluated at certain performance levels. In math performers at the 150 level know some basic addition and subtraction facts, and most can add two-digit numbers without regrouping. They recognize simple situations in which addition and subtraction applies. Performers at the 200 level have considerable understanding of two digit numbers and know some basic multiplication and division facts. Performers at the 250 level have an initial understanding of the four basic operations. They can also compare information from graphs and charts, and are developing an ability to analyze simple logical relations. Performers at the 300 level can compute decimals, simple fractions and percents. They can identify geometric figures, measure lengths and angles, and calculate areas of rectangles. They are developing the skills to operate with signed numbers, exponents, and square roots. Performers at the 350 level can apply a range of reasoning skills to solve multi-step problems. They can solve routine problems involving fractions and percents, recognize properties of basic geometric figures, and work with exponents and square roots. Scale ranges from 0 to 500. In 1996, the NAEP mathematics achievement levels were as follows: For Grade 4, basic achievement is a score of 214-248, proficient achievement is 249-281 and advanced achievement is above 282 . For Grade 8, basic achievement is a score of 262-298, proficient achievement is 299-332 and advanced achievement is above 333. For Grade 12, basic achievement is a score of $288-335$, proficient achievement is $336-366$ and advanced achievement is above 367 .

Public-school-choice programs allow families to choose the public schools their children attend. Intradistrict programs limit a family's choice to some or all of the public schools in their own district. Open-enrollment programs allow families to choose schools outside the district in which they live.

Expenditures for operation, maintenance, and repair of the district's buildings, grounds and equipment. Includes expenditures for custodians, fuel for buildings, electricity, telephones and repairs.

Expenditures for general fund operating programs necessary to a district's operations but not able to be assigned to other programs. These can include federally funded community education services for students, property and liability premiums, principle and interest on non-capital obligations, and nonrecurring costs such as judgements and liens.

The desired results of an educational system
Is a structure at a school and district level that stresses clearly defined outcomes, criterion-referenced measures of success, and instructional strategies. These outcomes are directly related to student abilities and needs, flexible use of time and learning opportunities, recognition of student success, and modification of programs on the basis of student results. Web site: http://www.hrdc-drhc.gc.ca/hrde/corp/stratpol/ arbsite/research/r964sm e.html

## Open enrollment

Operations and Maintenance (Expenditure Category)

## Other Operations (Expenditure Category)

## Outcomes

Outcome-based Education (OBE)

Outstate Refers to the school districts located outside the seven county metro area. For some purposes, they are divided into districts that have enrollments of 2000 students or less (2000-), or enrollments of greater than 2000 students (2000+).

Performance Standards

Per-pupil Expenditure or Perpupil Spending

Performance standards define in what ways and how well students must demonstrate their knowledge and skills to be considered competent.

The State's annual total spending on public K-12 education divided by its total number of students. An adjusted amount makes the number comparable by taking into account how much it costs school districts in different regions to recruit and employ teachers with similar qualifications.

# Post-secondary Enrollment Option (PSEO) 

This program allows high school juniors and seniors to enroll in classes at postsecondary institutions at public expense and receive both high school and college credit for their courses. The Minnesota program is two fold: To promote rigorous academic pursuits and to provide a variety of options to high school students.

Poverty Measures the proportion of students eligible for free or reduced lunch. See also "Student Poverty."

Preparatory Standards Organization of learning subjects in grades K-8. These standards ensure that students have sufficient content background and skills to pursue somewhat more challenging or specialized High Standards in high school.

Proficiency levels on the Minnesota Comprehensive Assessment

There are four achievement levels that represent the expectations for academic success in Minnesota:

- Level I: Students at this level demonstrate evidence of limited knowledge and skills necessary for satisfactory work in the High Standards in the elementary grades.
- Level II: Students at this level demonstrate evidence of partial knowledge and skills necessary for satisfactory work in the High Standards in the elementary grades.
- Level III: Students at this level demonstrate evidence of solid academic performance and competence in the knowledge and skills necessary for satisfactory work in the High Standards in the elementary grades.
- Level IV: Students at this level demonstrate evidence of advanced academic performance, knowledge and skills that exceed the level necessary for satisfactory work in the High Standards in the elementary grades.

Profile of Learning The second component of the Minnesota standards-based Graduation Rutle. It is a taxonomy of Preparatory Standards ( $\mathrm{K}-8^{\mathrm{th}}$ grade) and High

Standards ( $9-12^{\text {th }}$ grade) that students are expected to achieve before leaving high school.

Expenditures for all non-instructional services provided to students, not including transportation and food. Includes expenditures for counseling, guidance, health services, psychological services, and attendance and social work services.

Expenditures for transportation of students, including salaries, contracted services, fuel for buses, and other expenditures.

Pupil/staff ratios are based on the total number of pupils in attendance (ADA) at a school compared to the total number of licensed school personnel (FTE) (e.g. administrators, counselors, teachers, media specialists, speech clinicians, psychologists, etc.) in that school.

Are based on the total number of pupils in attendance (ADA) at a school compared to the total number of licensed teaching staff (FTE) in that school.

Expenditures for elementary and secondary classroom instruction, not including vocational instruction and exception instruction. Includes salaries of teachers, classroom aides, coaches, and expenditures for classroom supplies and textbooks

Same as Outcomes Based Education.
A scale score provides a common scale for different forms of a test used at a given grade or across age/gender levels.

Formerly known as the Scholastic Aptitude Test, the SAT is commonly used as a college entrance exam.

The awarding of credentials to schools in particular the award of membership in one of the regional associations of educational institutions that attempt to maintain certain quality standards for membership.

The social system and culture of the school, including the organizational structure, and values and expectations within it.

Programs intended to improve school quality.
Founded in 1993. A state partnership of Minnesota business, education, and government pursuing statewide improvement in the teaching and learning of $\mathrm{K}-12$ mathematics and science based on the national mathematics and science education standards. The vision of SciMath ${ }^{\mathrm{MN}}$ is to increase the educational achievement and participation of all Minnesota students in science and mathematics to help them meet the complex challenges of their future.

Pupil Support (Expenditure Category)

Pupil Transportation (Expenditure Category)

Pupil/Staff Ratio

## Pupil/Teacher Ratio

## Regular Instruction (Expenditure Category)

## Results-oriented Educational System

Scale Score

## Scholastic Assessment Test (SAT)

## School Accreditation Processes

School climate

School improvement programs
SciMath ${ }^{M N}$

Site-based Management Governance arrangements designed to give the people closest to students the ability to make decisions about their education. Typically, teachers, parents, and administrators at the school site are given more say over such matters as staffing, budgets, curriculum, and instructional materials. But the level of autonomy granted to individual schools, who is involved in making the decisions, and whether they are focused on student learning vary widely.

Social Promotion Promoting students to the next grade level in order for them to remain at the same social level as their peers, without regard to whether or not the student meets the academic standards needed to succeed at the next grade level.

Special Education Direct instructional activities or special learning experiences designed primarily for students identified as having exceptionalities in one or more aspects of the cognitive process or as being underachievers in relation to general level or model of their overall abilities. Such services usually are directed at students with physical, emotional, cognitive learning disabilities. Programs for the mentally gifted and talented are also included in some special education programs.

Stakes Often described as the positive and/or negative consequences that are placed on students, schools or districts as the result of student achievement data. The terms "low stakes" and "high stakes" express the varying levels of risk being placed on those responsible for the expected results.

Standards The knowledge or skill level necessary for a particular rating or grade on a given dimension of achievement. It is used as a basis of comparison. See content standards and performance standards.

State Allocations The percentage of revenues a school receives from the Minnesota state government.

State-funded Learning Readiness Programs

The purpose of a Learning Readiness program is to provide all eligible children adequate opportunities to participate in child development programs that enable the children to enter school with the necessary skills and behavior as well as the family stability needed for them to progress and flourish. Learning Readiness is offered in 345 school districts in Minnesota. The cost per child for Learning Readiness varies depending on the level of participation. The average statewide cost is $\$ 382$ per child.

Student Poverty In most of this report, student poverty refers to students eligible for free or reduced lunch. Other indicators are possible (e.g., the term could refer to students from families receiving aid for Families with Dependent Children).

## Support Services (Expenditure Category)

Expenditures for central office administration and central office operations not included in district and school administration. Includes expenditures for business services, data processing, legal services, personnel office, printing, and the school census.

The amount of education a teacher has. The major distinction is between teachers having Bachelor's Degrees and those having Master's Degrees.

A teacher's number of years in the teaching profession.
Refers to the annual pay received by teachers.
TIMSS is a study of classrooms across the country and around the world. It is the largest international comparative study of educational achievement to date. The National Center for Educational Statistics (NCES) of the U.S. Department of Education, the National Science Foundation (NSF) and the Canadian Government funded the international TIMMS project to assess school achievement in mathematics and science in nearly 50 countries. TIMMS studied student outcomes, instructional practices, curricula, and cultural context. TIMMS provides a comparative international assessment of educational achievement in mathematics and science, and the factors that contribute to achievement. Web site: http://www.ed.gov/NCES/ timss/brochure.html

Title I of the Elementary and Secondary Education Act (ESEA), as restructured by the Improving America's Schools Act (IASA) of 1994, has as its primary focus to help disadvantaged students acquire the same knowledge and skills in challenging academic standards expected of all children. By the beginning of the 2000-2001 school year, Title I requires that each State develop or adopt a set of high-quality yearly student assessments that measure performance in at least mathematics and reading/language arts. Such assessments are to be aligned with the State content standards and be used to monitor progress toward achievement goals for accountability. purposes. In a key change from previous law, States now use the same assessment that is used for all children to measure whether students served by Title I are achieving the State standards. There is no longer any requirement for a separate assessment for Title I students. Web page: http:// www.ed.gov/legislation/ESEA/Title I

The total of the following categories: administration, support services, regular instruction, vocational instruction, exceptional instruction, instructional support, pupil support, operations and maintenance, food support, pupil transportation and other operations. This figure includes all expenditures incurred for the benefit of elementary and secondary education during the school year, except for capital and debt service expenditures.

Expenditures in secondary schools for instruction that is related to job skills and career exploration. Includes expenditures for home economics, as well as industrial, business, agriculture, and distributive education.

Vouchers enable families to use public tax dollars to pay for their children's education at a public or private school of their choice. Voucher programs may or may not include private religious schools.

Teacher Education

Teacher Experience
Teacher Salary

Third International Mathematics and Science Study (TIMSS)

## Title I (Federally funded program)

## Total Operating Expenditures (Expenditure Category)

Vocational Instruction

## Vouchers



## APPENDIX B: CONTENT (Curriculum) and PERFORMANCE STANDARDS

The National Council of Teachers of Mathematics sets content standards for mathematics in their 1989 publication Curriculum and Evaluation Standards for School Mathematics. This publication details the mathematics content a student should know and be able to demonstrate. A revision of these standards is due October 1998. You may order the standards online (http://www.nctm.org/standards2000), by telephone (888-220-7952 or 703-620-9840 ext. 2103), by fax (703-476-2970), by email (standards2000draft@nctm.org), or by mail (NCTM / Drawer A / 1906 Association Drive / Reston, VA 20191-1593 / Attn: Standards 2000).

The National Council of Teachers of English and the International Reading Association (http://www.ira.org) set content standards for English in their 1996 publication, Standards for the English Language Arts. NCTE can be reached online (http://www.ncte.org/standards), by telephone (800-$369-6283$ or 217-328-3870), by fax (217-328-9645), by email (standards@ncte.org), or by mail (NCTE / 1111 West Kenyon Road / Urbana, IL 61801).
The National Research Council, an arm of the National Academy of Science created standards iṇ science. These standards have been adopted and promoted by the National Science Teachers Association (http:// www.nsta.org). Discounts apply for multiple orders. Orders can be sent to the National Academy Press by telephone (202-334-3313 or 800-624-6242), by mail (National Academy Press / 2101 Constitution Avenue, NW / Washington, DC 20418), or online at (http://www.nap.edu/bookstore). Note that books ordered online merit a $20 \%$ discount.

The National Council for the Social Studies developed social studies standards in 1994. Their publication, Expectation of Excellence: Curriculum Standards for Social Studies, can be ordered by telephone (800-6830812), by fax (301-843-0159), by mail (NCSS Publications / P.O. Box 2067 / Waldorf, Maryland 20604-2067), or online (http://www.ncss.org/' bookstore/standards.html).

There is also a set of standards for history (both United States history and world history). The National Center for History in the Schools (http:// www.sscnet.ucla.edu/nchs) originated the standards in 1994 and subsequently revised then in 1996. To order the standards contact the UCLA Store which can be accessed by telephone (310-206-0788), by fax (310-8250382), by mail (UCLA Book Zone / 308 Westwood Plaza / Ackerman Union / Los Angeles, CA 90024-1645), or by e-mail at:

National Council of Teachers of MATHEMATICS (NCTM)

National Council of Teachers of English (NCTE)

National Research Council

National Council for the Social Studies (NCSS)
national Center for History in the Schools
(bookorder@asucla.ucla.edu). Note that these standards can also be ordered via NCSS's online bookstore (http://www.ncss.org/bookstorel standards.html).

Center for Civic Education

National Council for Geographic Education

American Council on the Teaching of Foreicn Langluages (ACTFL)

Consortilum of National Arts Education Associations

- The American Alliance for Theatre \& Education
- The Music Educators National Conference
- The National Art Education Association
- The National Dance Association.

Civics and government also have a set of standards. These were created by the Center for Civic Education. The publication is entitled National Standards for Civics and Government. The Center for Civic Education can be contacted by phone (818-591-9321), fax (818-591-9330), e-mail (center4civ@aol.com), mail (Center for Civic Education / 5146 Douglas Fir Rd. / Calabasas, CA 91302-1467), or online (http://www.civiced.org). Note that these standards can also be ordered via NCSS's online bookstore (http://www.ncss.org/bookstore/standards.html).

Geography for Life: The National Geography Standards are available from the National Council for Geographic Education. NCGE can be contacted by mail (National Council for Geographic Education / Leonard 16A / Indiana University of Pennsylvania / Indiana PA 15705), by telephone (724-357-6290), by email (NCGE-ORG@grove.iup.edu), or online (http:// www.ncge.org). Note that these standards can also be ordered via NCSS's online bookstore, (htep://www.ncss.org/bookstore/standards.heml).

The American Council on the Teaching of Foreign Languages (http:// www.actfl.org), and a host of other organizations developed a set of standards for foreign language. Standards for Foreign Language Learning: Preparing for the $21^{t}$ Century. These prices include shipping and handling. You can order by telephone (800-627-0629 or 913-843-1221), by fax (913-843-1274), or by mail (National Standards Report / P.O. Box 1897 / Lawrence, KS 66044)

The Arts Standards were developed by the Consortium of National Arts Education Associations (http://artsedge.kennedy-center.org/cs/design/ standards) which consisted of the American Alliance for Theatre \& Education (http://www.aate.com), the Music Educators National Conference (http://www.menc.org), the National Art Education Association (http:// www.naea-reston.org), and the National Dance Association (http:// www.aahperd.org). National Standards for Arts Education: What Every Young American Should Know and Be Able to Do in the Arts, is available for $\$ 20$ (nonmembers) or $\$ 16$ (members) and can be ordered from MENC by mail (Music Educators National Conference / 1806 Robert Fulton Drive, Reston, VA 20191), by telephone (800-828-0229), by fax (888-275MENC), or online (http://www.menc.org/publication/books/order.html).

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## Appendix C:

MCA and Basic Standards Test Results, by Category

$\stackrel{\digamma}{ } \sqrt{ }$Tables C. 1 to C. 24 show results on the Minnesota Comprehensive Assessments and the Basic Standards Tests for the state as a whole, for various types of students, and various categories of schools after removing either students with limited English proficiency, students new to their district since January 1, 1998, or students in Special Education.

The effect of removing such students from the results can be seen by comparing the results in Tables C. 1 to C. 24 with corresponding results for all students in Tables 5.3 to 5.10 .

Table C. 1
1999 Grade 3: Minnesota Comprehensive Assessment Results in Reading for all Public School Students Tested except those with Limited English Proficiency

|  |  | Number Tested | \% At or Above Level III | \% At or Above Level II | Mean Scale Score | \% Enr Students Tested | \% Sp Ed Students Tested | \% New Students Tested | \% F/R 'Students Tested |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TOTAL |  | 58,255 | 42 | 81 | 1,437 | 93 | 12 | 10 | 29 |
| GENDER | Female | 28,466 | 46 | 85 | 1,460 | 94 | 8 | 10 | 29 |
|  | Male | 29,759 | 37 | 77 | 1,415 | 93 | 16 | 10 | 29 |
| ETHNICITY | Asian | 1,227 | 42 | 84 | 1,450 | 94 | 7 | 14 | 40 |
|  | Black | 3,773 | 15 | 50 | 1,276 | 89 | 17 | 21 | 78 |
|  | Hispanic | 1,029 | 29 | 69 | 1,370 | 90 | 14 | 19 | 56 |
|  | Am. Indian | 1,210 | 18 | 60 | 1,324 | 90 | 17 | 18 | 76 |
|  | White | 50,213 | 45 | 84 | 1,454 | 95 | 12 | 9 | 23 |
| SPECIAL ED |  | 6,340 | 16 | 46 | 1,262 | 84 | --- | 11 | 43 |
| NEW TO DISTRICT |  | 5,582 | 34 | 74 | 1,395 | 89 | 14 | --- | 45 |
| F/R LUNCH |  | 15,850 | 24 | 65 | 1,346 | 90 | 18 | 16 | --- |
| ATTENDANCE RATE | 95-100\% | 40,357 | 44 | 84 | 1,451 | 96 | 11 | 5 | 23 |
|  | 90-95\% | 11,243 | 40 | 79 | 1,426 | 93 | 13 | 9 | 35 |
|  | 0-90\% | 3,505 | 29 | 66 | 1,360 | 88 | 17 | 14 | 55 |
| STRATA | Mpls/St. Paul | 5,607 | 27 | 60 | 1,338 | 89 | 13 | 10 | 63 |
|  | TC Suburbs | 25,397 | 47 | 85 | 1,465 | 95 | 11 | 11 | 16 |
|  | Outstate: 2000+ | 13,371 | 41 | 83 | 1,438 | 93 | 13 | 9 | 30 |
|  | Outstate: 2000- | 13,812 | 38 | 81 | 1,426 | 93 | 13 | 10 | 37 |
| PUBLIC SCHOOLS | Non-charter | 57,925 | 42 | 81 | 1,438 | 93 | 12 | 10 | 28 |
|  | Charter | 330 | 21 | 54 | 1,299 | 88 | 14 | 50 | 57 |

[^2]Table C. 2
1999 Grade 3: Minnesota Comprehensive Assessment Results in Reading for all Public School Students Tested except those New to Their District Since January 1, 1998

|  |  | Number Tested | \% At or Above Level III | \% At or Above Level II | Mean Scale Score | \% Enr. <br> Students Tested | \% LEP <br> Students <br> Tested | \% Sp Ed Students Tested | \% F/R Students Tested |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TOTAL |  | 55,120 | 41 | 80 | 1,432 | 94 | 5 | 12 | 30 |
| GENDER | Female | 26,823 | 45 | 84 | 1,456 | 94 | 5 | 8 | 29 |
|  | Male | 28,271 | 37 | 76 | 1,410 | 93 | 5 | 16 | 30 |
| ETHNICITY | Asian | 2,660 | 21 | 56 | 1,320 | 93 | 61 | 7 | 68 |
|  | Black | 3,150 | 16 | 50 | 1,280 | 90 | 4 | 17 | 78 |
|  | Hispanic | 1,412 | 22 | 58 | 1,320 | 89 | 42 | 13 | 68 |
|  | Am. Indian | 1,009 | 18 | 60 | 1,325 | 90 | 1 | 19 | 75 |
|  | White | 46,086 | 45 | 85 | 1,456 | 95 | $0+$ | 12 | 21 |
| LEP |  | 2,447 | 8 | 39 | 1,236 | 90 | --- | 8 | 86 |
| SPECIAL ED |  | 5,846 | 16 | 46 | 1,262 | 84 | 3 | --- | 42 |
| F/R LUNCH |  | 15,521 | 22 | 62 | 1,333 | 91 | 14 | 17 | --- |
| ATTENDANCE RATE | 95-100\% | 39,945 | 43 | 82 | 1,444 | 96 | 4 | 11 | 25 |
|  | 90-95\% | 10,789 | 39 | 78 | 1,423 | 93 | 5 | 13 | 36 |
|  | 0-90\% | 3,213 | 28 | 66 | 1,358 | 88 | 6 | 16 | 54 |
| STRATA | Mpls/St. Paul | 6,701 | 22 | 54 | 1,312 | 89 | 25 | 12 | 70 |
|  | TC Suburbs | 23,277 | 48 | 85 | 1,467 | 95 | 2 | 11 | 14 |
|  | Outstate: $\mathbf{2 0 0 0}_{+}$ | 12,487 | 41 | 82 | 1,437 | 93 | 2 | 13 | 29 |
|  | Outstate: 2000- | 12,587 | 38 | 81 | 1,429 | 93 | 1 | 13 | 35 |
| PUBLIC SCHOOLS | Non-charter | 54,904 | 41 | 80 | 1,433 | 94 | 5 | 12 | 29 |
|  | Charter | 216 | 18 | 55 | 1,302 | 93 | 19 | 13 | 54 |

Note: LEP=Limited English Proficiency; F/R=Eligible for free or reduced-price lunch; $0+$ indicates less than one-half percentage point; All percentages and mean scale scores are rounded to the nearest whole number.

Table C. 3
1999 Grade 3: Minnesota Comprehensive Assessment Results in Reading for all Public School Students Tested except those in Special Education


Note: LEP=Limited English Proficiency; F/R=Eligible for free or reduced-price lunch; $0+$ indicates less than one-half percentage point; All percentages and mean scale scores are rounded to the nearest whole number.

Table C. 4
1999 Grade 3: Minnesota Comprehensive Assessment Results in Mathematics for all Public School Students Tested except those with Limited English Proficiency


[^3]Table C. 5
1999 Grade 3: Minnesota Comprehensive Assessment Results in Mathematics for all Public School Students Tested except those New to Their District Since January 1, 1998


Note: LEP=Limited English Proficiency; F/R=Eligible for free or reduced-price lunch; 0+ indicates less than one-half percentage point; All percentages and mean scale scores are rounded to the nearest whole number.

Table C. 6
1999 Grade 3: Minnesota Comprehensive Assessment Results in Mathematics for all Public School Students Tested except those in Special Education


[^4] mean scale scores are rounded to the nearest whole number.

Table C. 7
1999 Grade 5: Minnesota Comprehensive Assessment Results in Reading for all Public School Students Tested except those with Limited English Proficiency


[^5]Table C. 8
1999 Grade 5: Minnesota Comprehensive Assessment Results in Reading for all Public School Students Tested except those New to Their District Since January 1, 1998

|  |  | Number Tested | \% At or Above Level III | \% At or Above Level II | Mean <br> Scale <br> Score | \% Enr. Students Tested | \% LEP <br> Students Tested | \% Sp Ed Students Tested | \% F/R Students Tested |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TOTAL |  | 55,955 | 46 | 83 | 1,456 | 95 | 4 | 14 | 28 |
| GENDER | Female | 27,221 | 51 | 86 | 1,485 | 95 | 4 | 9 | 29 |
|  | Male | 28,710 | 40 | 80 | 1,428 | 95 | 4 | 19 | 28 |
| ETHNICITY | Asian | 2,757 | 26 | 63 | 1,352 | 96 | 50 | 9 | 64 |
|  | Black | 2,995 | 16 | 52 | 1,278 | 92 | 4 | 22 | 77 |
|  | Hispanic | 1,240 | 20 | 59 | 1,309 | 93 | 38 | 18 | 67 |
|  | Am. Indian | 1,071 | 21 | 63 | 1,333 | 89 | 1 | 22 | 72 |
|  | White | 47,300 | 50 | 87 | 1,481 | 96 | $0+$ | 14 | 21 |
| LEP |  | 2,069 | 5 | 38 | 1,215 | 95 | --- | 12 | 88 |
| SPECIAL ED |  | 7,276 | 16 | 47 | 1,259 | 89 | 3 | -- | 43 |
| F/R LUNCH |  | 15,321 | 25 | 65 | 1,343 | 93 | 12 | 21 | --- |
| ATTENDANCE RATE | 95-100\% | 40,767 | 48 | 85 | 1,468 | 97 | 4 | 13 | 25 |
|  | 90-95\% | 10,859 | 43 | 80 | 1,441 | 95 | 3 | 16 | 33 |
|  | 0-90\% | 3,431 | 34 | 71 | 1,386 | 91 | 5 | 20 | 51 |
| STRATA | Mpls/St. Paul | 6,395 | 23 | 58 | 1,322 | 93 | 22 | 16 | 69 |
|  | TC Suburbs | 23,011 | 53 | 88 | 1,494 | 96 | 1 | 13 | 14 |
|  | Outstate: 2000+ | 13,165 | 46 | 84 | 1,461 | 95 | 2 | 15 | 28 |
|  | Outstate: 2000- | 13,382 | 44 | 84 | 1,450 | 94 | 1 | 15 | 34 |
| PUBLIC SCHOOLS | Non-charter | 55,745 | 46 | 83 | 1,456 | 95 | 4 | 14 | 28 |
|  | Charter | 210 | 34 | 70 | 1,368 | 89 | 10 | 19 | 45 |

Note: LEP=Limited English Proficiency; F/R=Eligible for free or reduced-price lunch; $0+$ indicates less than one-half percentage point; All percentages and mean scale scores are rounded to the nearest whole number.

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Table C. 9
1999 Grade 5: Minnesota Comprehensive Assessment Results in Reading for all Public School Students Tested except those in Special Education

|  |  | Number Tested | \% At or Above Level III | \% At or Above Level II | Mean Scale Score | \% Enr Students Tested | \% LEP <br> Students <br> Tested | \% New Students Tested | \% F/R <br> Students <br> Tested |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TOTAL |  | 53,263 | 49 | 87 | 1,481 | 95 | 4 | 9 | 28 |
| GENDER | Female | 27,224 | 53 | 89 | 1,501 | 95 | 4 | 9 | 29 |
|  | Male | 26,010 | 45 | 86 | 1,460 | 95 | 4 | 9 | 27 |
| ETHNICITY | Asian | 2,866 | 28 | 65 | 1,365 | 96 | 48 | 13 | 63 |
|  | Black | 2,954 | 18 | 59 | 1,312 | 93 | 6 | 21 | 76 |
|  | Hispanic | 1,222 | 22 | 65 | 1,339 | 89 | 39 | 20 | 66 |
|  | Am. Indian | 994 | 24 | 69 | 1,362 | 92 | 0+ | 13 | 70 |
|  | White | 44,635 | 54 | 92 | 1,508 | 97 | 0+ | 8 | 20 |
| LEP |  | 2,095 | 6 | 39 | 1,225 | 91 | --- | 17 | 88 |
| NEW TO DISTRICT |  | 4,584 | 39 | 80 | 1,431 | 90 | 8 | --- | 43 |
| F/R LUNCH |  | 14,219 | 28 | 72 | 1,376 | 94 | 13 | 14 | --- |
| ATTENDANCE RATE | 95-100\% | 37,594 | 51 | 89 | 1,492 | 97 | 4 | 5 | 24 |
|  | 90-95\% | 9,866 | 48 | 87 | 1,474 | 96 | 3 | 7 | 32 |
|  | 0-90\% | 3,161 | 38 | 78 | 1,420 | 93 | 5 | 11 | 49 |
| STRATA | Mpls/St. Paul | 5,999 | 26 | 63 | 1,348 | 93 | 24 | 10 | 69 |
|  | TC Suburbs | 22,294 | 56 | 92 | 1,515 | 96 | 2 | 10 | 15 |
|  | Outstate: 2000+ | 12,408 | 50 | 89 | 1,489 | 95 | 2 | 9 | 26 |
|  | Outstate: 2000- | 12,560 | 47 | 89 | 1,477 | 95 | 1 | 8 | 33 |
| PUBLIC <br> SCHOOLS | Non-charter | 52,980 | 49 | 87 | 1,482 | 95 | 4 | 9 | 28 |
|  | Charter | 283 | 35 | 70 | 1,379 | 90 | 7 | 40 | 50 |

Note: LEP=Limited English Proficiency; F/R=Eligible for free or reduced-price lunch; 0+indicates less than one-half percentage point; All percentages and mean scale scores are rounded to the nearest whole number.

Table C. 10
1999 Grade 5: Minnesota Comprehensive Assessment Results in Mathematics for all Public School Students Tested except those with Limited English Proficiency


Note: LEP=Limited English Proficiency; F/R=Eligible for free or reduced-price lunch; $0+$ indicates less than one-half percentage point; All percentages and mean scale scores are rounded to the nearest whole number.

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Table C. 11
1999 Grade 5: Minnesota Comprehensive Assessment Results in Mathematics for all Public School Students Tested except those New to Their District Since January 1, 1998


[^7] mean scale scores are rounded to the nearest whole number.

Table C. 12
1999 Grade 5: Minnesota Comprehensive Assessment Results in Mathematics for all Public School Students Tested except those in Special Education


Note: LEP=Limited English Proficiency; F/R=Eligible for free or reduced-price lunch; $0+$ indicates less than one-half percentage point; All percentages and mean scale scores are rounded to the nearest whole number.

Table C. 13
1999 Grade 5: Minnesota Comprehensive Assessment Results in Writing for all Public School Students Tested except those with Limited English Proficiency


Note: LEP=Limited English Proficiency; F/R=Eligible for free or reduced-price lunch; 0+ indicates less than one-half percentage point; All percentages and mean scale scores are rounded to the nearest whole number.

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Table C. 14
1999 Grade 5: Minnesota Comprehensive Assessment Results in Writing for all Public School Students Tested except those New to Their District Since January 1, 1998

|  |  | Number Tested | \% At or Above Level III | \% At or Above Level II | Mean Scale Score | \% Enr. Students Tested | \% LEP <br> Students <br> Tested | \% Sp Ed Students Tested | \% F/R <br> Students Tested |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TOTAL |  | 55,031 | 46 | 95 | 1,425 | 93 | 4 | 14 | 28 |
| GENDER | Female | 26,821 | 56 | 97 | 1,481 | 94 | 4 | 9 | 29 |
|  | Male | 28,178 | 37 | 93 | 1,373 | 93 | 4 | 19 | 28 |
| ETHNICITY | Asian | 2,712 | 37 | 92 | 1,382 | 95 | 50 | 9 | 64 |
|  | Black | 2,932 | 23 | 82 | 1,258 | 90 | 4 | 22 | 77 |
|  | Hispanic | 1,233 | 27 | 86 | 1,309 | 92 | 38 | 18 | 67 |
|  | Am. Indian | 1,037 | 26 | 86 | 1,273 | 87 | 1 | 22 | 72 |
|  | White | 46,487 | 49 | 96 | 1,455 | 94 | 0+ | 14 | 21 |
| LEP |  | 2,042 | 18 | 83 | 1,255 | 94 | --- | 12 | 88 |
| SPECIAL ED |  | 7,066 | 17 | 79 | 1,193 | 86 | 3 | --- | 43 |
| F/R LUNCH |  | 15,059 | 30 | 89 | 1,315 | 92 | 12 | 21 | -- |
| ATTENDANCE RATE | 95-100\% | 40,121 | 48 | 96 | 1,455 | 95 | 4 | 13 | 25 |
|  | 90-95\% | 10,661 | 44 | 94 | 1,417 | 93 | 3 | 16 | 33 |
|  | 0.90\% | 3,347 | 36 | 89 | 1,345 | 88 | 5 | 20 | 51 |
| STRATA | Mpls/St. Paul | 6,297 | 30 | 87 | 1,305 | 91 | 22 | 16 | 69 |
|  | TC Suburbs | 22,679 | 54 | 97 | 1,488 | 95 | 1 | 13 | 14 |
|  | Outstate: $2000+$ | 13,079 | 44 | 95 | 1,432 | 94 | 2 | 15 | 28 |
|  | Outstate: 2000- | 12,974 | 42 | 95 | 1,370 | 91 | 1 | 15 | 34 |
| PUBLICSCHOOLS | Non-charter | 54,830 | 46 | 95 | 1,426 | 93 | 4 | 14 | 28 |
|  | Charter | 201 | 26 | 87 | 1,181 | 86 | 10 | 19 | 45 |

Note: LEP=Limited English Proficiency; F/R=Eligible for free or reduced-price lunch; $0+$ indicates less than one-half percentage point; All percentages and mean scale scores are rounded to the nearest whole number.

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Table C. 15
1999 Grade 5: Minnesota Comprehensive Assessment Results inWriting for all Public School Students Tested except those in Special Education

|  |  | Number Tested | \% At or Above Level III | \% At or Above Level II | Mean <br> Scale <br> Score | \% Enr. Students Tested | \% LEP <br> Students <br> Tested | \% New <br> Students <br> Tested | \% F/R <br> Students Tested |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TOTAL |  | 52,451 | 50 | 97 | 1,451 | 94 | 4 | 9 | 28 |
| GENDER | Female | 26,823 | 58 | 98 | 1,495 | 94 | 4 | 9 | 29 |
|  | Male | 25,593 | 41 | 96 | 1,407 | 94 | 4 | 9 | 27 |
| ETHNICITY | Asian | 2,823 | 39 | 94 | 1,392 | 95 | 48 | 13 | 63 |
|  | Black | 2,902 | 26 | 89 | 1,298 | 91 | 6 | 21 | 76 |
|  | Hispanic | 1,220 | 31 | 90 | 1,323 | 89 | 39 | 20 | 66 |
|  | Am. Indian | 952 | 30 | 92 | 1,321 | 88 | 0+ | 13 | 70 |
|  | White | 43,924 | 53 | 98 | 1,483 | 95 | $0+$ | 8 | 20 |
| LEP |  | 2,078 | 19 | 86 | 1,250 | 90 | --- | 17 | 88 |
| NEW TO DISTRICT |  | 4,486 | 40 | 95 | 1,353 | 88 | 8 | -- | 43 |
| F/R LUNCH |  | 13,994 | 33 | 94 | 1,353 | 92 | 13 | 14 | --- |
| attendance RATE | 95-100\% | 37,014 | 52 | 98 | 1,480 | 96 | 4 | 5 | 24 |
|  | 90-95\% | 9,706 | 48 | 97 | 1,455 | 94 | 3 | 7 | 32 |
|  | 0-90\% | 3,071 | 40 | 94 | 1,395 | 90 | 5 | 11 | 49 |
| STRATA | Mpls/St. Paul | 5,918 | 33 | 92 | 1,338 | 92 | 24 | 10 | 69 |
|  | TC Suburbs | 21,997 | 57 | 98 | 1,508 | 95 | 2 | 10 | 15 |
|  | Outstate: 2000+ | 12,357 | 48 | 97 | 1,461 | 95 | 2 | 9 | 26 |
|  | Outstate: 2000- | 12,177 | 46 | 98 | 1,398 | 92 | 1 | 8 | 33 |
| PUBLIC SCHOOLS | Non-charter | 52,173 | 50 | 97 | 1,452 | 94 | 4 | 9 | 28 |
|  | Charter | 278 | 26 | 89 | 1,235 | 89 | 7 | 40 | 50 |

Note: LEP=Limited English Proficiency; F/R=Eligible for free or reduced-price lunch; $0+$ indicates less than one-half percentage point; All percentages and mean scale scores are rounded to the nearest whole number.

Table C. 16
1999 Grade 8: Basic Standards Test Results in Reading for all Public School Students Tested except those with Limited English Proficiency


[^8]TableC. 17
1999 Grade 8: Basic Standards Test Results in Reading for all Public School Students Tested except those New to Their District Since January 1, 1998

|  |  | Number Tested | \% Meeting Minimum Standard | Mean Number Correct | \% Enr. Students Tested | \% LEP <br> Students <br> Tested | \% Sp Ed Students Tested | \% F/R <br> Students <br> Tested |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TOTAL |  | 60,394 | 77 | 33 | 97 | 3 | 12 | 24 |
| GENDER | Female | 29,547 | 78 | 33 | 97 | 3 | 7 | 24 |
|  | Male | 30,827 | 75 | 32 | 96 | 3 | 17 | 24 |
| ETHNICITY | Asian | 2,621 | 55 | 29 | 96 | 41 | 8 | 61 |
|  | Black | 2,600 | 41 | 26 | 93 | 6 | 23 | 74 |
|  | Hispanic | 1,107 | 49 | 27 | 94 | 30 | 18 | 60 |
|  | Am. Indian | 978 | 49 | 28 | 92 | 0+ | 22 | 65 |
|  | White | 52,562 | 81 | 33 | 97 | 0+ | 11 | 18 |
| LEP |  | 1,622 | 22 | 23 | 94 | --- | 13 | 87 |
| SPECIAL ED |  | 6,714 | 33 | 24 | 90 | 3 | .-. | 41 |
| F/R LUNCH |  | 14,010 | 55 | 29 | 94 | 10 | 20 | --- |
| ATTENDANCE RATE | 95-100\% | 39,694 | 81 | 33 | 98 | 2 | 10 | 19 |
|  | 90-95\% | 13,547 | 74 | 32 | 96 | 3 | 13 | 26 |
|  | 0-90\% | 6,346 | 60 | 29 | 92 | 4 | 22 | 46 |
| STRATA | Mpls/St. Paul | 5,672 | 50 | 28 | 94 | 20 | 16 | 64 |
|  | TC Suburbs | 23,936 | 82 | 34 | 97 | 1 | 11 | 12 |
|  | Outstate 2000+ | 15,060 | 78 | 33 | 96 | 2 | 12 | 22 |
|  | Outstate 2000- | 15,726 | 77 | 33 | 97 | 0+ | 12 | 29 |
| PUBLIC <br> SCHOOLS | Non-charter | 60,247 | 77 | 33 | 97 | 3 | 12 | 24 |
|  | Charter | 147 | 54 | 28 | 91 | 2 | 22 | 49 |

[^9]Table C. 18
1999 Grade 8: Basic Standards Test Results in Reading for all Public School Students Tested except those in Special Education


Note: LEP=Limited English Proficiency; F/R=Eligible for free or reduced-price lunch; 0+ indicates less than one-half percentage point; All percentages and mean scale scores are rounded to the nearest whole number.

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Table C. 19
1999 Grade 8: Basic Standards Test Results in Mathematics for all Public School Students Tested except those with Limited English Proficiency

|  |  | Number Tested | \% Meeting <br> Minimum <br> Standard | Mean Number Correct | \% Enr. Students Tested | \% Sp Ed Students Tested | \% New Students Tested | \% F/R Students Tested |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TOTAL |  | 63,472 | 72 | 54 | 96 | 13 | 8 | 24 |
| GENDER | Female | 31,022 | 70 | 54 | 97 | 8 | 8 | 24 |
|  | Male | 32,425 | 73 | 54 | 96 | 17 | 8 | 24 |
| ETHNICITY | Asian | 1,744 | 76 | 55 | 97 | 5 | 11 | 43 |
|  | Black | 2,945 | 27 | 39 | 92 | 24 | 18 | 73 |
|  | Hispanic | 937 | 46 | 46 | 92 | 16 | 18 | 53 |
|  | Am. Indian | 1,154 | 38 | 44 | 90 | 23 | 17 | 67 |
|  | White | 56,157 | 75 | 55 | 97 | 12 | 7 | 19 |
| SPECIAL ED |  | 7,401 | 28 | 39 | 90 | --- | 12 | 42 |
| NEW TO DISTRICT |  | 4,732 | 53 | 48 | 93 | 20 | --- | 44 |
| F/R LUNCH |  | 14,555 | 50 | 47 | 94 | 22 | 14 | --- |
| ATTENDANCE RATE | 95-100\% | 40,074 | 78 | 56 | 98 | 10 | 3 | 18 |
|  | 90-95\% | 13,999 | 68 | 53 | 96 | 14 | 6 | 26 |
|  | 0-90\% | 6,907 | 50 | 47 | 91 | 23 | 13 | 46 |
| STRATA | Mpls/St. Paul | 4,989 | 48 | 46 | 93 | 17 | 9 | 59 |
|  | TC Suburbs | 25,635 | 76 | 56 | 97 | 12 | 8 | 13 |
|  | Outstate: 2000+ | 15,906 | 73 | 55 | 96 | 13 | 7 | 22 |
|  | Outstate: 2000- | 16,942 | 70 | 54 | 96 | 13 | 8 | 30 |
| $\begin{array}{\|l\|} \text { PUBLIC } \\ \text { SCHOOLS } \end{array}$ | Non-charter | 63,229 | 72 | 54 | 96 | 13 | 8 | 24 |
|  | Charter | 243 | 42 | 44 | 87 | 21 | 45 | 51 |

Note: LEP=Limited English Proficiency; F/R=Eligible for free or reduced-price lunch; 0+indicates less than one-half percentage point; All percentages and mean scale scores are rounded to the nearest whole number.

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Table C. 20
1999 Grade 8: Basic Standards Test Results in Mathematics for all Public School Students Tested except those New to Their District Since January 1, 1998


Note: LEP=Limited English Proficiency; F/R=Eligible for free or reduced-price lunch; $0+$ indicates less than one-half percentage point; All percentages and mean scale scores are rounded to the nearest whole number.

1999 Grade 8: Basic Standards Test Results in Mathematics for all Public School Students Tested except those in Special Education

|  |  | Number Tested | \% Meeting Minimum Standard | Mean Number Correct | \% Enrolled Students Tested | \% LEP Students Tested | \% New Students Tested | \% F/R Students Tested |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TOTAL |  | 57,761 | 76 | 56 | 97 | 3 | 8 | 23 |
| GENDER | Female | 29,663 | 73 | 55 | 97 | 3 | 8 | 24 |
|  | Male | 28,073 | 79 | 57 | 97 | 3 | 7 | 23 |
| ETHNICITY | Asian | 2,707 | 59 | 51 | 96 | 39 | 10 | 61 |
|  | Black | 2,478 | 32 | 42 | 94 | 8 | 19 | 71 |
|  | Hispanic | 1,128 | 42 | 45 | 92 | 31 | 21 | 61 |
|  | Am. Indian | 900 | 45 | 47 | 91 | 0+ | 16 | 65 |
|  | White | 50,013 | 81 | 57 | 98 | $0+$ | 6 | 17 |
| LEP |  | 1,690 | 27 | 40 | 93 | --- | 17 | 87 |
| NEW TO DISTRICT |  | 4,099 | 58 | 50 | 93 | 7 | --- | 43 |
| F/R LUNCH |  | 13,037 | 54 | 49 | 95 | 11 | 14 | --- |
| ATTENDANCE RATE | 95-100\% | 37,258 | 81 | 57 | 99 | 3 | 3 | 18 |
|  | 90-95\% | 12,479 | 73 | 55 | 97 | 3 | 5 | 25 |
|  | 0-90\% | 5,635 | 57 | 50 | 93 | 4 | 11 | 44 |
| STRATA | Mpls/St. Paul | 5,345 | 48 | 47 | 95 | 21 | 10 | 63 |
|  | TC Suburbs | 23,094 | 81 | 57 | 98 | 1 | 7 | 12 |
|  | Outstate 2000+ | 14,298 | 78 | 56 | 97 | 2 | 7 | 21 |
|  | Outstate 2000- | 15,024 | 76 | 56 | 97 | 0+ | 7 | 28 |
| PUBLIC SCHOOLS | Non-charter | 57,567 | 76 | 56 | 97 | 3 | 7 | 23 |
|  | Charter | 194 | 46 | 46 | 85 | 1 | 46 | 47 |

Note: LEP=Limited English Proficiency; F/R=Eligible for free or reduced-price lunch; 0+indicates less than one-half percentage point; All percentages and mean scale scores are rounded to the nearest whole number.

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## Table C. 22

1999 Grade 10: Basic Standards Test Results in Writing for all Public School Students Tested except those with Limited English Proficiency

|  |  | Number Tested | \% Meeting Minimum Standard | Mean Scale Score | \% Enr. Students Tested | \% Sp Ed Students Tested | \% New Students Tested | \% F/R <br> Students Tested |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TOTAL |  | 61,496 | 86 | 3.13 | 96 | 11 | 8 | 19 |
| GENDER | Female | 29,990 | 92 | 3.26 | 97 | 7 | 8 | 19 |
|  | Male | 31,443 | 81 | 3.00 | 96 | 15 | 8 | 19 |
| ETHNICITY | Asian | 1,793 | 78 | 3.06 | 96 | 5 | 12 | 42 |
|  | Black | 2,361 | 54 | 2.58 | 90 | 20 | 18 | 64 |
|  | Hispanic | 800 | 74 | 2.89 | 92 | 14 | 18 | 43 |
|  | Am. Indian | 941 | 66 | 2.68 | 87 | 19 | 18 | 54 |
|  | White | 55,273 | 88 | 3.17 | 97 | 10 | 7 | 15 |
| SPECIAL ED |  | 6,091 | 43 | 2.39 | 89 | --- | 13 | 34 |
| NEW TO DISTRICT |  | 4,495 | 71 | 2.85 | 91 | 18 | -- | 36 |
| F/R LUNCH |  | 11,394 | 72 | 2.83 | 93 | 19 | 14 | --- |
| ATTENDANCE RATE | 95-100\% | 38,557 | 90 | 3.21 | 98 | 8 | 3 | . 14 |
|  | 90-95\% | 12,905 | 85 | 3.10 | 97 | 12 | 5 | 21 |
|  | 0-90\% | 7,125 | 73 | 2.87 | 90 | 20 | 14 | 36 |
| STRATA | Mpls/St. Paul | 4,418 | 68 | 2.83 | 92 | 13 | 11 | 48 |
|  | TC Suburbs | 24,393 | 88 | 3.19 | 96 | 10 | 8 | 11 |
|  | Outstate: 2000+ | 15,759 | 87 | 3.14 | 97 | 11 | 7 | 18 |
|  | Outstate: 2000- | 16,897 | 86 | 3.11 | 97 | 11 | 7 | 25 |
| PUBLIC SCHOOLS | Non-charter | 61,301 | 86 | 3.13 | 96 | 11 | 8 | 19 |
|  | Charter | 195 | 59 | 2.68 | 90 | 13 | 55 | 47 |

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Table C. 23
1999 Grade 10: Basic Standards Test Results inWriting for all Public School Students Tested except those New to Their District Since January 1, 1998

|  |  | Number Tested | \% Meeting Minimum Standard | Mean Scale Score | \% Enr. Students Tested | \% LEP <br> Students <br> Tested | \% Sp Ed Students Tested | \% F/R <br> Students <br> Tested |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TOTAL |  | 58,338 | 86 | 3.13 | 97 | 2 | 10 | 19 |
| GENDER | Female | 28,476 | 92 | 3.26 | 97 | 2 | 6 | 19 |
|  | Male | 29,817 | 81 | 3.00 | 96 | 2 | 14 | 20 |
| ETHNICITY | Asian | 2,466 | 65 | 2.83 | 97 | 36 | 5 | 57 |
|  | Black | 2,078 | 54 | 2.57 | 90 | 7 | 19 | 66 |
|  | Hispanic | 894 | 66 | 2.77 | 92 | 26 | 14 | 51 |
|  | Am. Indian | 784 | 70 | 2.76 | 88 | $0+$ | 19 | 51 |
|  | White | 51,788 | 89 | 3.18 | 97 | 0+ | 10 | 15 |
| LEP |  | 1,337 | 33 | 2.28 | 94 | --- | 6 | 83 |
| SPECIAL ED |  | 5,399 | 43 | 2.39 | 89 | 1 | --- | 32 |
| F/R LUNCH |  | 10,943 | 70 | 2.81 | 94 | 10 | 17 | --- |
| attendance RATE | 95-100\% | 38,323 | 89 | 3.20 | 98 | 2 | 8 | 15 |
|  | 90-95\% | 12,429 | 85 | 3.09 | 97 | 2 | 11 | 21 |
|  | 0.90\% | 6,395 | 74 | 2.88 | 90 | 4 | 19 | 36 |
| STRATA | Mpls/St. Paul | 4,909 | 62 | 2.74 | 93 | 19 | 12 | 56 |
|  | TC Suburbs | 22,738 | 89 | 3.21 | 97 | 1 | 10 | 9 |
|  | Outstate: 2000+ | 14,936 | 88 | 3.14 | 97 | 1 | 10 | 18 |
|  | Outstate: 2000- | 15,754 | 87 | 3.12 | 98 | 0+ | 10 | 24 |
| PUBLIC SCHOOLS | Non-charter | 58,251 | 86 | 3.13 | 97 | 2 | 10 | 19 |
|  | Charter | 87 | 64 | 2.79 | 87 | 0+ | 13 | 29 |

[^11]Table C. 24
1999 Grade 10: Basic Standards Test Results inWriting for all Public School Students Tested except those in Special Education


Note: LEP=Limited English Proficiency; F/R=Eligible for free or reduced-price lunch; 0+ indicates less than one-half percentage point; All percentages and mean scale scores are rounded to the nearest whole number.

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APPENDIX D: School Improvement ReSults

$T$ables D. 1 to D. 8 show school improvement data on the Minnesota Comprehensive Assessments and the Basic Skills Tests for the state as a whole and for categories of schools that vary in their concentrations of poverty, students with disabilities, students with limited English proficiency, and students new to the district. Results are also broken down by region of the state: Mpls./St. Paul, twin city suburbs, outstate districts with 2000 or more students, and outstate districts with less than 2000 students. Also shown are date for charter schools and private schools.

Tables D. 1 through D. 5 contain the Minnesota Comprehensive Assessment data. Tables show the number of schools and the median percentage of students scoring at or above Levels II and III in schools of varying types. Tables D. 6 through D. 8 show the Basic Standards Test data. Tables show the number of schools and the percentage of students meeting the high school minimum requirement in schools of various types. Tables D. 1 to D. 8 make it possible for schools to compare their own performance to that of other schools which are similar in concentration of poverty, students with disabilities, students with limited English proficiency, and new students.

Furthermore, the tables show the percentage of schools with a substantial increase ( $5 \%$ or more) and a substantial decrease ( $5 \%$ or more) in students achieving Level II this year as compared to last. These figures are based only on schools with at least ten students participating in the testing this year and last. Finally, the tables show the percentage of schools with a substantial increase and the percentage of schools with a substantial decrease in students reaching Level III this year as compared to last. Again, these latter figures are based only on schools with at least 10 students participating this year and last.

Table D. 1
1999 Grade 3: School Improvement Results in Reading for Public Schools

|  |  | 1998-99 \% INCREASE/DECREASE IN EXAMINEES AT OR ABOVE LEVEL II |  |  |  |  |  | 1998-99 \% INCREASE/DECREASE IN EXAMINEES AT OR ABOVE LEVEL III |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | N of Schools | Median \% <br> Examinees at or Above Level II |  | Less Than $5 \%$ Change | $\begin{array}{\|l} \text { Increase } \\ \text { More } \\ \text { Than 5\% } \end{array}$ | Median \% <br> Examinees at or Above Level III | Decrease More Than 5\% | $\begin{gathered} \text { Less } \\ \text { Than 5\% } \\ \text { Change } \end{gathered}$ | $\begin{array}{\|l} \text { Increase } \\ \text { More } \\ \text { Than 5\% } \end{array}$ |
| TOTAL |  | 850 | 82 | 19 | 48 | 33 | 39 | 17 | 38 | 45 |
| F/R LUNCH | 0-19\% | 246 | 88 | 10 | 61 | 29 | 48 | 15 | 38 | 47 |
|  | 20-29\% | 154 | 83 | 16 | 51 | 33 | 41 | 11 | 39 | 50 |
|  | 30-49\% | 262 | 79 | 23 | 44 | 33 | 36 | 21 | 34 | 45 |
|  | 50-100\% | 188 | 64 | 26 | 34 | 40 | 22 | 19 | 45 | 36 |
| SPECIAL ED | 0-9\% | 384 | 83 | 13 | 49 | 38 | 41 | 13 | 38 | 50 |
|  | 10-19\% | 393 | 1 | 21 | 48 | 31 | 38 | 18 | 40 | 42 |
|  | 20-100\% | 73 | 76 | 35 | 45 | 20 | 33 | 31 | 35 | 34 |
| LEP | 0\% | 515 | 84 | 19 | 45 | 36 | 40 | 18 | 35 | 47 |
|  | 1-9\% | 2.15 | 83 | 17 | 57 | 26 | 43 | 15 | 39 | 45 |
|  | 10-100\% | 120 | 60 | 19 | 44 | 36 | 23 | 12 | 53 | 35 |
| NEW TO DISTRICT | 0-9\% | 473 | 83 | 16 | 49 | 35 | 40 | 16 | 39 | --- |
|  | 10-19\% | 324 | 80 | 21 | 48 | 31 | 38 | 18 | 38 | 44 |
|  | 20-100\% | 53 | 74 | 27 |  | 34 | 27 | 16 | 41 | 43 |
| STRATA | Mpls/St. Paul | 110 | 54 | 17 | 42 | 41 | 19 | 11 | 51 | 37 |
|  | TC Suburbs | 262 | 85 | 16 | 59 | 25 | ${ }_{46}$ | 16 | 40 | 43 |
|  | Outstate: 2000+ | 179 | 83 | 15 | 50 | 35 | 40 | 10 | 43 | 48 |
|  | Outstate: 2000- | 280 | 82 | 24 | 40 | 36 | 38 | 24 | 28 | 48 |
| PUBLIC SCHOOLS | Non-charter | 837 | 82 | 18 | 48 | 33 | 39 | 17 | 38 | 45 |
|  | Charter | 13 | 53 | 30 | 20 | 50 | 7 | 20 | 60 | 20 |

Note: LEP=Limited English Proficiency; F/R=Eligible for free or reduced-price lunch; $0+$ indicates less than one-half percentage point; All percentages and mean scale scores are rounded to the nearest whole number.

Table D. 2
1999 Grade 3: School Improvement Results in Mathematics for Public Schools

|  |  | 1998-99 \% INCREASE/DECREASE IN EXAMINEES AT OR ABOVE LEVEL II |  |  |  |  |  | 1998-99 \% INCREASE/DECREASE IN EXAMINEES AT OR ABOVE LEVEL III |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | N of Schools | Median \% Examinees at or Above Level II | Decrease More Than 5\% | Less Than 5\% Change | Increase More Than 5\% | Median \% <br> Examinees at or Above Level III | Decrease More Than 5\% | Less Than $5 \%$ Change | Increase More Than 5\% |
| TOTAL |  | 851 | 91 | 8 | 42 | 50 | 42 | 13 | 32 | 54 |
| F/R LUNCH | 0-19\% | 245 | 94 | 3 | 58 | 40 | 50 | 10 | 35 | 56 |
|  | 20-29\% | 161 | 92 | 6 | 39 | 56 | 44 | 13 | 25 | 62 |
|  | 30-49\% | 254 | 90 | 7 | 40 | 53 | 40 | 15 | 31 | 55 |
|  | 50-100\% | 191 | 78 | 17 | 28 | 55 | 23 | 17 | 38 | 45 |
| SPECIAL ED | 0-9\% | 378 | 92 | 4 | 43 | 52 | 44 | 12 | 32 | 57 |
|  | 10-19\% | 400 | 91 | 9 | 40 | 51 | 41 | 14 | 34 | 52 |
|  | 20-100\% | 73 | 89 | 21 | 44 | 35 | 39 | 22 | 26 | 51 |
| LEP | 0\% | 518 | 92 | 9 | 41 | 50 | 44 | 15 | 28 | 57 |
|  | 1-9\% | 212 | 91 | 5 | 52 | 43 | 45 | 12 | 37 | 51 |
|  | 10-100\% | 121 | 76 | 6 | 31 | 63 | 24 | 11 | 43 | 46 |
| NEW TO DISTRICT | 0-9\% | 478 | 92 | 6 | 42 | 52 | 44 | 13 | 30 | 57 |
|  | 10-19\% | 320 | 90 | 9 | 44 | 47 | 41 | 14 | 35 | 52 |
|  | 20-100\% | 53 | 83 | 22 | 29 | 49 | 30 | 22 | 40 | 38 |
| STRATA | Mpls/St. Paul | 110 | 71 | 7 | 27 | 65 | 20 | 13 | 49 | 38 |
|  | TC Suburbs | 262 | 93 | 6 | 58 | 36 | 47 | 12 | 40 | 48 |
|  | Outstate: 2000+ | 179 | 91 | 5 | 39 | 56 | 43 | 9 | 20 | 70 |
|  | Outstate: 2000- | 279 | 92 | 11 | 36 | 54 | 43 | 17 | 26 | 57 |
| PUBLIC SCHOOLS | Non-charter | 838 | 91 | 8 | 42 | 50 | 43 | 13 | 32 | 54 |
|  | Charter | 13 | 63 | 27 | 18 | 55 | 13 | 27 | 36 | 3 |

Note: LEP=Limited English Proficiency; F/R=Eligible for free or reduced-price lunch; $0+$ indicates less than one-half percentage point; All percentages and mean scale scores are rounded to the nearest whole number.

Table D. 3
1999 Grade 5: School Improvement Results in Reading for Public Schools

|  |  | 1998-99 \% INCREASE/DECREASE IN EXAMINEES AT OR ABOVE LEVEL II |  |  |  |  |  | 1998-99 \% INCREASE/DECREASE IN EXAMINEES AT OR ABOVE LEVEL III |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | N of Schools | Median \% <br> Examinees at or Above Level II | Decrease More Than 5\% | Less Than $5 \%$ <br> Change | Increase More Than 5\% | Median \% <br> Examinees at or Above Level III | Decrease More Than 5\% | Less Than 5\% Change | Increase More Than 5\% |
| TOTAL |  | 804 | 84 | 12 | 52 | 36 | 44 | 13 | 36 | 52 |
| F/R LUNCH | 0-19\% | 249 | 90 | 7 | 63 | 30 | 53 | 8 | 35 | 56 |
|  | 20-29\% | 150 | 83 | 12 | 55 | 33 | 45 | 10 | 27 | 63 |
|  | 30-49\% | 237 | 82 | 13 | 51 | 36 | 42 | 17 | 33 | 50 |
|  | 50-100\% | 168 | 64 | 18 | 35 | 47 | 23 | 15 | 48 | 37 |
| SPECIALED | 0-9\% | 193 | 87 | 5 | 51 | 44 | - 46 | 9 | 32 | 59 |
|  | 10-19\% | 503 | 84 | 13 | 52 | 35 | 44 | 14 | 36 | 49 |
|  | 20-100\% | 108 | 80 | 19 | 53 | 28 | 41 | 11 | 39 | 50 |
| LEP | 0\% | 496 | 86 | 12 | 49 | 39 | 45 | 13 | 30 | 57 |
|  | 1-9\% | 211 | 85 | 9 | 64 | 26 | 45 | 10 | 38 | 51 |
|  | 10-100\% | 97 | 58 | 18 | 43 | 39 | 22 | 15 | 57 | 28 |
| NEW TO DISTRICT | 0-9\% | 517 | 85 | 11 | 53 | 36 | 45 | 12 | 36 | 52 |
|  | 10-19\% | 251 | 83 | 13 | 51 | 37 | 43 | 14 | 35 | 51 |
|  | 20-100\% | 36 | 72 | 14 | 61 | 25 | 34 | 11 | 32 | 57 |
| STRATA | Mpls/St. Paul | 107 | 56 | 17 | 43 | 40 | 19 | 12 | 61 | 27 |
|  | TC Suburbs | 240 | 88 | 8 | 64 | 28 | 51 | 10 | 34 | 56 |
|  | Outstate: 2000+ | 168 | 85 | 9 | 53 | 38 | 44 | 12 | 30 | 58 |
|  | Outstate: 2000- | 270 | 84 | 15 | 45 | 40 | 43 | 15 | 30 | 55 |
| PUBLIC SCHOOLS | Non-charter | 792 | 84 | 12 | 52 | 36 | 44 | 13 | 35 | 52 |
|  | Charter | 12 | 71 | 0 | 50 | 50 | 36 | 25 | 50 | 25 |

Note: LEP=Limited English Proficiency; F/R=Eligible for free or reduced-price lunch; $0+$ indicates less than one-half percentage point; All percentages and mean scale scores are rounded to the nearest whole number.

Table D. 4
1999 Grade 5: School Improvement Results in Mathematics for Public Schools

|  |  | 1998-99 \% INCREASE/DECREASE IN EXAMINEES AT OR ABOVE LEVEL II |  |  |  |  |  | 1998-99 INCREASE/DECREASE IN EXAMINEES AT OR ABOVE LEVEL III |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | N of Schools | Median \% <br> Examinees <br> at or <br> Above <br> Level II | Decrease More Than 5\% | Less Than 5\% Change | Increase More Than 5\% | Median \% <br> Examinees at or Above Level III | Decrease More Than 5\% | Less <br> Than 5\% <br> Change | Increase More Than 5\% |
| TOTAL |  | 803 | 85 | 14 | 54 | 32 | 35 | 15 | 38 | 47 |
| F/R LUNCH | 0-19\% | 252 | 90 | 9 | 66 | 25 | 45 | 11 | 36 | 53 |
|  | 20-29\% | 143 | 85 | 9 | 62 | 28 | 36 | 13 | 36 | 51 |
|  | 0-49\% | 240 | 83 | 18 | 48 | 34 | 33 | 19 | 32 | 49 |
|  | 0-100\% | 168 | 64 | 19 | 37 | 44 | 16 | 16 | 52 | 33 |
| SPECIAL ED | 0-9\% | 197 | 87 | 11 | 52 | 37 | 37 | 12 | 42 | 47 |
|  | 10-19\% | 494 | 85 | 13 | 56 | 31 | 35 | 15 | 37 | 48 |
|  | 20-100\% | 112 | 77 | 21 | 48 | 31 | 29 | 20 | 34 | 45 |
| LEP | 0\% | 496 | 86 | 12 | 54 | 34 | 36 | 15 | 32 | 52 |
|  | 1-9\% | 208 | 85 | 14 | 60 | 26 | 38 | 14 | 38 | 48 |
|  | 10-100\% | 99 | 59 | 22 | 42 | 35 | 16 | 12 | 65 | 23 |
| NEW TO DISTRICT | 0-9\% | 521 | 85 | 14 | 56 | 30 | 36 | 16 | 34 | 50 |
|  | 10-19\% | 247 | 83 | 15 | 49 | 35 | 33 | 12 | 44 | 44 |
|  | 20-100\% | 35 | 70 | 7 | 52 | 41 | 20 | 19 | 48 | 33 |
| STRATA | Mpls/St.Paul | 107 | 55 | 20 | 39 | 41 | 14 | 10 | 70 | 21 |
|  | TC Suburbs | 240 | 89 | 10 | 65 | 25 | 43 | 10 | 41 | 49 |
|  | Outstate 2000+ | 168 | 85 | 16 | 56 | 28 | 35 | 12 | 31 | 57 |
|  | Outstate 2000- | 269 | 85 | 14 | 48 | 37 | 33 | 23 | 27 | 51 |
| PUBLIC <br> SCHOOLS | Non-charter | 791 | 85 | 14 | 54 | 32 | 35 | 15 | 38 | 48 |
|  | Charter | 12 | 68 | 0 | 50 | 50 | 21 | 13 | 63 | 25 |

Note: LEP=Limited English Proficiency; F/R=Eligible for free or reduced-price lunch; $0+$ indicates less than one-half percentage point; All percentages and mean scale scores are rounded to the nearest whole number.

TableD. 5
1999 Grade 5: School Improvement Results in Writing for Public Schools

|  |  | 1998-99 \% INCREASE/DECREASE IN EXAMINEES AT OR ABOVE LEVEL II |  |  |  |  |  | 1998-99 \% INCREASE/DECREASE IN EXAMINEES AT OR ABOVE LEVEL III |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | N of Schools | Median \% Examinees at or Above Level II | Decrease More Than 5\% | Less Than 5\% <br> Change | Increase More Than 5\% | Median \% <br> Examinees at or Above Level III | Decrease More Than 5\% | Less Than 5\% Change | Increase More Than 5\% |
| TOTAL |  | 801 | 96 | 1 | 14 | 85 | 43 | 26 | 31 | 43 |
| F/R LUNCH | 0-19\% | 248 | 98 | 0 | 17 | 83 | 54 | 22 | 32 | 45 |
|  | 20-29\% | 149 | 97 | 0 | 9 | 91 | 46 | 23 | 24 | 52 |
|  | 30-49\% | 232 | 95 | 2 | 17 | 81 | 41 | 30 | 29 | 40 |
|  | 50-100\% | 172 | 90 | 0 | 9 | 91 | 28 | 30 | 37 | 33 |
| SPECIAL ED | 0-9\% | 208 | 97 | 0 | 10 | 90 | 47 | 22 | 30 | 48 |
|  | 10-19\% | 486 | 96 | 0 | 14 | 86 | 43 | 27 | 31 | 42 |
|  | 20-100\% | 107 | 92 | 3 | 24 | 73 | 37 | 33 | 31 | 35 |
| LEP | 0\% | 499 | 97 | 1 | 15 | 85 | 45 | 28 | 26 | 46 |
|  | 1-9\% | 204 | 97 | 1 | 13 | 86 | 47 | 21 | 36 | 43 |
|  | 10-100\% | 98 | 89 | 0 | 13 | 87 | 29 | 27 | 47 | 25 |
| NEW TO DISTRICT | 0-9\% | 520 | 96 | 0 | 17 | 83 | 45 | 25 | 32 | 43 |
|  | 10-19\% | 250 | 96 | 1 | 10 | 89 | 41 | 30 | 29 | 41 |
|  | 20-100\% | 31 | 92 | 0 | 0 | 100 | 26 | 20 | 35 | 45 |
| STRATA | Mpls/St.Paul | 106 | 87 | 0 | 9 | 91 | 28 | 22 | 49 | 29 |
|  | TC Suburbs | 240 | 98 | 0 | 12 | 88 | 53 | 20 | 35 | 45 |
|  | Outstate 2000+ | 168 | 97 | 0 | 15 | 85 | 42 | 28 | 25 | 48 |
|  | Outstate 2000- | 258 | 96 | 2 | 17 | 81 | 41 | 33 | 24 | 43 |
| PUBLIC SCHOOLS | Non-charter | 789 | 96 | 1 | 14 | 85 | 44 | 26 | 31 | 43 |
|  | Charter | 12 | 95 | 0 | 17 | 83 | 22 | 50 | 33 | 17 |

Note: LEP=Limited English Proficiency; F/R=Eligible for free or reduced-price lunch; $0+$ indicates less than one-half percentage point; All percentages and mean scale scores are rounded to the nearest whole number.

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$$

Table D. 6
1999 Grade 8: School Improvement Results in Reading for all Public Schools

|  |  | \% AT OR ABOVE SCORE OF 75 FOR READING IN GRADE 8 |  | 1998-99 \% INCREASE/DECREASE MEETING H.S. MINIMUM STANDARD |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | N of Schools | Median \% <br> Examinees Meeting H.S. Grad. Standard | $\begin{aligned} & \text { Decrease } \\ & \text { More } \\ & \text { Than 5\% } \end{aligned}$ | Less <br> Than 5\% <br> Change | Increase More Than 5\% |
| TOTAL |  | 462 | 76 | 6 | 35 | 59 |
| F/R LUNCH | 0-19\% | 137 | 81 | 2 | 36 | 61 |
|  | 20-29\% | 119 | 78 | 4 | 34 | 62 |
|  | 30-49\% | 122 | 73 | 6 | 36 | 59 |
|  | 50-100\% | 84 | 52 | 15 | 35 | 50 |
| SPECIAL ED | 0-9\% | 164 | 80 | 4 | 33 | 63 |
|  | 10-19\% | 250 | 76 | 5 | 36 | 59 |
|  | 20-100\% | 48 | 56 | 16 | 37 | 47 |
| LEP | 0\% | 321 | 77 | 5 | 32 | 63 |
|  | 1-9\% | 108 | 77 | 5 | 49 | 46 |
|  | 10-100\% | 33 | 44 | 13 | 23 | 65 |
| NEW TO DISTRICT | 0-9\% | 349 | 78 | 4 | 34 | 62 |
|  | 10-19\% | 86 | 71 | 8 | 40 | 51 |
|  | 20-100\% | 27 | 48 | 24 | 35 | 41 |
| STRATA | Mpls/St.Paul | 44 | 44 | 12 | 32 | 56 |
|  | TC Suburbs | 87 | 82 | 2 | 40 | 58 |
|  | Outstate: 2000+ | 79 | 77 | 4 | 34 | 62 |
|  | Outstate: 2000- | 243 | 76 | 6 | 34 | 59 |
| PUBLIC SCHOOLS | Non-charter | 453 | 76 | 6 | 35 | 59 |
|  | Charter | 9 | 54 | 17 | 50 | 33 |

Note: LEP=Limited English Proficiency; F/R=Eligible for free or reduced-price lunch; $0+$ indicates less than one-half percentage point; All percentages and mean scale scores are rounded to the nearest whole number.

Table D. 7
1999 Grade 8: School Improvement Results in Mathematics for Public Schools

|  |  | \% AT OR ABOVE SCORE OF 75 FOR MATH IN GRADE 8 |  | 1998-99 \% <br> INCREASE/DECREASE MEETING H.S. MINIMUM STANDARD |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | N of Schools | Median \% <br> Examinees Meeting H.S. Grad. Standard | Decrease More Than 5\% | Less Than 5\% Change | Increase More Than 5\% |
| TOTAL |  | 459 | 71 | 23 | 55 | 23 |
| F/R LUNCH | 0-19\% | 138 | 77 | 13 | 74 | 13 |
|  | 20-29\% | 122 | 74 | 21 | 52 | 27 |
|  | 30-49\% | 120 | 67 | 29 | 45 | 25 |
|  | 50-100\% | 79 | 47 | 34 | 36 | 30 |
| SPECIAL ED | 0.9\% | 158 | 74 | 19 | 55 | 26 |
|  | 10-19\% | 252 | 71 | 22 | 59 | 19 |
|  | 20-100\% | 49 | 47 | 43 | 27 | 30 |
| LEP | 0\% | 319 | 72 | 23 | 52 | 24 |
|  | 1-9\% | 108 | 72 | 24 | 64 | 12 |
|  | 10-100\% | 32 | 46 | 17 | 43 | 40 |
| NEW TO DISTRICT | 0-9\% | 355 | 73 | 21 | 59 | 20 |
|  | 10-19\% | 78 | 65 | 26 | 43 | 30 |
|  | 20-100\% | 26 | 35 | 47 | 12 | 41 |
| STRATA | Mpls/St.Paul | 42 | 41 | 15 | 49 | 36 |
|  | TC Suburbs | 87 | 78 | 8 | 76 | 16 |
|  | Outstate 2000+ | 80 | 71 | 26 | 56 | 18 |
|  | Outstate 2000- | 242 | 72 | 27 | 49 | 24 |
| PUBLIC <br> SCHOOLS | Non-charter | 451 | 71 | 22 | 55 | 23 |
|  | Charter | 8 | 45 | 80 | 0 | 20 |

Note: LEP=Limited English Proficiency; F/R=Eligible for free or reduced-price lunch; $0+$ indicates less than one-half percentage point; All percentages and mean scale scores are rounded to the nearest whole number.

Table D. 8
1999 Grade 10: School Improvement Results in Writing for Public Schools

|  |  | \% AT OR ABOVE 3.0 IN GRADE 10 |  |
| :---: | :---: | :---: | :---: |
|  |  | N of Schools | Median \% Examinees Meeting H.S. Minimum Standard |
| TOTAL |  | 428 | 87 |
| F/R LUNCH | 0-19\% | 172 | 89 |
|  | 20-29\% | 103 | 86 |
|  | 30-49\% | 106 | 84 |
|  | 50-100\% | 47 | 55 |
| SPECIAL ED | 0.9\% | 223 | 88 |
|  | 10-19\% | 164 | 86 |
|  | 20-100\% | 41 | 60 |
| LEP | 0\% | 316 | 87 |
|  | 1-9\% | 94 | 86 |
|  | 10-100\% | 18 | 55 |
| NEW TO DISTRICT | 0-9\% | 330 | 88 |
|  | 10-19\% | 53 | 82 |
|  | 20-100\% | 45 | 59 |
| PUBLIC SCHOOLS | Non-charter | 420 | 87 |
|  | Charter | 8 | 62 |

Note: LEP=Limited English Proficiency; F/R=Eligible for free or reduced-price lunch; $0_{+}$indicates less than one-half percentage point; All percentages and mean scale scores are rounded to the nearest whole number.
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[^0]:    7 Kozol, J. (1991). Savage Inequalities: Children in America's Schools. New York: Crown.

[^1]:    ${ }^{1}$ National Commission on Excellence in Education. (1983). A Nation at Risk: The Imperative for Educational Reform (Stock \#065-000-00177-2). Washington, DC: U.S. Government Printing Office.

[^2]:    Note: F/R=Eligible for free or reduced-price lunch; All percentages and mean scale scores are rounded to the nearest whole number.

[^3]:    Note: LEP=Limited English Proficiency; F/R=Eligible for free or reduced-price lunch; $0+$ indicates less than one-half percentage point; All percentages and mean scale scores are rounded to the nearest whole number.

[^4]:    Note: LEP=Limited English Proficiency; F/R=Eligible for free or reduced-price lunch; O+ indicates less than one-half percentage point; All percentages and

[^5]:    Note: LEP=Limited English Proficiency; F/R=Eligible for free or reduced-price lunch; $0+$ indicates less than one-half percentage point; All percentages and mean scale scores are rounded to the nearest whole number.

[^6]:    6

[^7]:    Note: LEP=Limited English Proficiency; F/R=Eligible for free or reduced-price lunch; $0+$ indicates less than one-half percentage point; All percentages and

[^8]:    Note: LEP=Limited English Proficiency; F/R=Eligible for free or reduced-price lunch; $0+$ indicates less than one-half percentage point; All percentages and mean scale scores are rounded to the nearest whole number.

[^9]:    Note: LEP=Limited English Proficiency; F/R=Eligible for free or reduced-price lunch; 0+indicates less than one-half percentage point; All percentages and mean scale scores are rounded to the nearest whole number.

[^10]:    Note: LEP=Limited English Proficiency; F/R=Eligible for free or reduced-price lunch; $0+$ indicates less than one-half percentage point; All percentages and mean scale scores are rounded to the nearest whole number.

[^11]:    Note: LEP=Limited English Proficiency; F/R=Eligible for free or reduced-price lunch; $O_{+}$indicates less than one-half percentage point; All percentages and mean scale scores are rounded to the nearest whole number

