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ABSTRACT

Public education in Iowa was created through community initiatives and continues to rely heavily on the public for support and direction. This report is designed to keep the public informed of the current condition of education as well as issues that may have an impact on education. It provides a comprehensive view of kindergarten through 12th-grade education. Three types of indicators are described: (1) input indicators, which are somewhat fixed by outside constraints (such as student population, the value of existing land and real estate, and the financial aid formula); (2) process indicators, which can be controlled or varied to some extent by school districts (such as specific policies, program design and development, and expenditure allocations); and (3) outcome indicators, which result from planned educational programs of the school district (such as student achievement and attendance rates). The most current information is compared to information for the 1985-86 school year and to that for the year . A section entitled "Reform Initiatives" describes a few of the ...atives implemented to ensure quality and expand educational opportunities in the state. Several indicators are treated extensively in textual and tabular form: pupil outcomes, enrollment, finance, staff, and program (curriculum). Appendix A presents Iowa's standing relative to the nation on selected indicators (nine tables). Appendix B is the executive summary of Iowa's Progress Toward the National Education Goals. (LAP)

The Annual Condition of Education Report

Iowa Department of Education, 1991

THE ANNUAL
CONDITION OF EDUCATION
REPORT

A Report on Elementary and Secondary Education in Iowa

Iowa Department of Education
November 1991

Printed on Recycled Paper

STATE BOARD OF EDUCATION

State of Iowa
DEPARTMENT OF EDUCATION
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To The Citizens of Iowa:

The winds of change are blowing strong across Iowa, the nation and the world. During the next 10 years, we may see changes in our educational system unequalled in America's history.

In Iowa, the Business and Education Roundtable, through its report, *World Class Schools: The Iowa Initiative*, called for major restructuring to create world-class schools that prepare students for a high-technology, information age. Iowa teachers, through their report *A Time for Change*, have called for major reforms in Iowa's schools. The Iowa Legislature has shown renewed interest by establishing an interim study committee on K-12 education reform. The State Board of Education is creating a blueprint for educational excellence through its strategic plan scheduled for adoption in December.

Nationally, President Bush and the nation's governors have set six ambitious education goals that will require tremendous effort on the part of every American. Education groups such as the National Council of Teachers of Mathematics have called for extensive reforms within specific disciplines.

In addressing and dealing with "the winds of change," the need for reliable, accurate information on which to base decisions is of utmost importance. This report is an essential component in helping all the stakeholders of Iowa's educational system, working together in the consideration of change, to accurately comprehend the current status as we formulate the future.

Ron McGauvran, President
Iowa State Board of Education

William L. Lepley, Director
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First the Department wishes to acknowledge the commitment and dedication of the members of the Condition of Education Task Force who provided the basic foundation of the report by helping to define the scope and content and by providing recommendations and considerations to guide in the preparation of the report. A special acknowlegment is extended to Peter Flynn, chair of the task force, who provided outstanding leadership and motivation to the effort.

The Department also greatly appreciates the many hours of service and insight provided by the Condition of Education Steering Committee. The activities of this committee provided the framework for task force meetings which helped to maximize interaction among task force members.

Appreciation is also expressed to members of the Research and Development Sub-committee who expended time and effort defining and refining variables which could be used to reflect task force members' interests in the area of pupil outcomes.

Finally, gratitude is extended to Department of Education staff members who contributed to this report.

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INTRODUCTION

Public education in Iowa was created through community initiatives and continues to rely heavily on the public for direction and support. Active participation in the educational process is encouraged by keeping the public informed of the current condition of education as well as issues that may have an impact on education. The *Condition of Education Report* is intended to serve as a resource in this effort.

The report is designed to provide a comprehensive view of kindergarten through twelfth grade education in the state. Elements or indicators described in the report include input indicators, which are somewhat fixed by outside constraints, such as student population, the value of existing land and real estate, and the financial aid formula; process indicators, which can be controlled or varied to some extent by school districts, such as specific policies, program design and development, and expenditure allocations; and outcome indicators, which result from planned educational programs of the school district such as student achievement and attendance rates. Specific indicators were selected on the basis of appropriateness for inclusion in a statewide report; commonality in terms of availability of information; the ability to monitor the indicator across time; feasibility in terms of cost and time needed to secure the information; data burden to local school districts; statistical considerations of validity and reliability; potential impact on educational policy; and overall importance relative to other potential indicators.

Comparison factors or variables have been introduced to increase the meaning of the information in the report. To provide context, the most current information was compared to information for the 1985-86 school year (base year) and to the year immediately preceding the current year. The base year of 1985-86 was selected because the time period from 1985-86 to the present encompasses a number of significant statewide initiatives such as the implementation of *Renewing the Commitment*, the Department of Education's five-year plan; new standards for school accreditation; the Educational Excellence Program to improve teacher salaries and encourage staff development; and increased exploration of inter-district sharing arrangements. It also represents a period when "accountability" received increased emphasis in education. Indicators are also described based on district enrollment when appropriate.

In addition to major findings related to the indicators, the *Condition of Education Report* contains sections to enhance understanding of Iowa's K-12 educational system. The section entitled "Reform Initiatives" describes a few of the initiatives implemented to ensure quality and expand educational opportunities in the state. Appendix A presents Iowa's standing relative to the nation on selected indicators. Appendix B is the executive summary of *Iowa's Progress Toward the National Education Goals*. Although the initial status report was released as a separate document, future editions of the *Condition of Education Report* will monitor Iowa's progress on the national goals and other state goals.

REFORM INITIATIVES

Like education nationwide, Iowa's education system is changing to keep pace with rapid changes in families, the economy, society and the world. Public and professional demands for quality programs and services have stimulated examination of current practices and exploration of alternatives to improve education. This section of the report describes selected initiatives implemented in Iowa during the last five years which provide additional context in interpreting the indicators.

Improvement and Quality Assurance Initiatives

Phase III of the Educational Excellence Program

Teachers are becoming more effective in the classroom and are assuming new leadership roles as a result of Phase III of Iowa's three-year-old Educational Excellence Program. The program is designed to promote quality and effectiveness in teachers through supplemental and performance-based pay. Teachers can earn extra money for additional work or for superior performance. During the 1989-90 school year, teachers from 429 of Iowa's 431 school districts and from all 15 of Iowa's area education agencies participated in Phase III, earning an average salary increase of $1,231. The total expenditure for Phase III for the 1989-90 school year was $43.4 million.

According to a Department of Education report, the majority of districts and AEAs have seen teachers' roles expand beyond their regular teaching responsibilities as a result of Phase III. New roles include mentoring new teachers, coaching peers, training colleagues and collaborating with other teachers and administrators. Over 60 percent of districts and AEAs reported that Phase III has helped to develop teachers as instructional leaders.

Phase III has also had an impact on student performance, according to DE records. More than 70 percent of districts and AEAs reported that student performance has improved as a result of Phase III.

A 1990 amendment to the Phase III legislation is encouraging the accomplishment of building- and district-level goals. The legislation states that the intent of Phase III is "that real and fundamental change in the educational system must emerge from the school site...and that plans funded in this program must be an integral part of a comprehensive school district or area education agency effort" to meet goals or needs. For the 1991-92 school year, 67 districts applied to use Phase III funds for this purpose.

Phase I of the Educational Excellence Program is designed to recruit quality teachers by raising the starting salary for full-time teachers. Phase II was established to retain quality teachers by increasing the salaries of experienced teachers. About $49.5 million was devoted to Phases I and II in fiscal year 1991.

Accreditation

The DE accredits public school districts and nonpublic schools through a process designed to safeguard the educational welfare of students and encourage school improvement well beyond minimum standards. The state sets minimum accreditation standards which must be met by public school districts. Nonpublic schools that meet the standards may also be accredited. The current standards went into effect in July 1989.

The accreditation process consists of two phases. The first phase includes routine visits and reviews by a DE consultant who checks compliance with standards and suggests where improvements can be made to move beyond the minimum. If deficiencies warrant, the consultant could recommend a second-level visit, which includes an intensive review of the district or nonpublic school by a team of DE staff members. If deficiencies are found as a result of the second-level visit, the DE and the district or nonpublic school agree on a reasonable time line for correcting the problems. If that time line isn't met, the loss of accreditation is recommended.

Each year, approximately 390 districts and nonpublic schools receive routine accreditation visits. In 1991, one public school district received a second-level visit and was later closed for continued failure to comply with state standards. Three nonpublic schools have requested that the State Board of Education remove their accreditation.

Accountability

Increasing accountability in the educational system is a priority of the Iowa State Board of Education. Both the *Code of Iowa* and the administrative rules of the DE require nonpublic schools and public

school districts to identify needs, plan, set student achievement and other goals, assess their progress in meeting the goals, and to be accountable by reporting their results to their communities and to the DE. Although a statewide report based on this information is not required, the documentation of compliance with the accreditation standards and the identified local needs and goals are used in state-level planning.

The comprehensive planning requirement is intended to result in school improvement by coordinating planning and goal setting with curriculum development, staff development and other development and implementation processes. Through this process, schools and communities can integrate local needs, existing practices, mandates and their human and financial resources into an effective school organization.

Accountability is also a priority at the state level. This report on the condition of education is one method to improve accountability by compiling information on pupil outcomes, enrollment, school finance, staff and programming. In addition, a statewide strategic plan is being developed to serve as a guide in shaping the future of Iowa's educational system. A 40-member Strategic Planning Council, appointed by the DE, is developing a comprehensive, long-range plan to be submitted to the State Board of Education for approval in December 1991. The planning process consists of four stages: information gathering, decision making, approval and implementation, and evaluation and reporting.

Assessment

Several initiatives are occurring at the state level to improve how student achievement is measured.

NAEP Iowa participated in the pilot and state trial assessment of the National Assessment of Educational Progress (NAEP). In June 1991, the results of the first state-by-state comparisons were released for eighth grade mathematics. In 1991-92, Iowa school districts will participate in the NAEP in the areas of mathematics and reading at grades 4 and 8.

New Standards Project Iowa has agreed to participate in the New Standards Project initiated by the National Center on Education and the Economy. In the project, a consortium of 16 states and six large-city school districts representing 42 percent of America's students will join to develop pilot examinations to assess progress toward areas of the national education goals, beginning with language arts and mathematics. The exams will go beyond traditional paper-and-pencil assessments to assess students based on projects, performance and portfolios.

WorkKeys Iowa is one of 10 states working with the American College Testing Service to test the WorkKeys program, which is an effort to develop multiple assessments of vocational skills agreed to by business, labor and education. Individual school districts will participate in this project voluntarily.

ITBS/ITED Iowa schools have voluntarily been involved in assessing student achievement in all areas through the Iowa Tests of Basic Skills and the Iowa Tests of Educational Development for the past four decades. These two assessments, produced by the Iowa Testing Program, have provided students, parents, teachers, schools and districts with comparative information on how well Iowa students perform compared to other Iowa students or students in the nation. In recent years, the Iowa Testing Program has initiated the development of new tests and approaches to testing.

Special Education

To ensure that Iowa students with disabilities receive the highest quality education, the state has created what is known as the Renewed Service Delivery System (RSDS) for special education. The RSDS, in use for three years, was designed to address the concerns of parents and educators regarding the traditional approach to special education. It emphasizes expanding innovative intervention options for students, coordinating resources to expand services or reduce duplication, allowing more flexibility in the use of special education support service personnel, and focusing assessment on interventions rather than identification of handicaps. The RSDS is now being implemented in 14 of Iowa's 15 AEAs.

Gifted Education Programs

Iowa's school accreditation standards mandate that school districts provide services for gifted students. Schools are required to have a method for locating gifted children and to appropriately modify their educational programs.

School districts have the option of providing a higher level of service which requires more rigorous planning and approval of the district's program by the

DE. Districts can obtain additional funding through property taxes to offset the extra costs of providing an appropriate educational program for gifted students. For the 1991-92 school year, 331 public school districts are approved to use this funding, and will spend over $12.3 million for gifted education programs.

Initiatives to Increase Educational Opportunity

Chapter 1 and Special Education Blending

Blending the resources of Chapter 1 and special education to better meet students' educational needs is the focus of a DE initiative begun in 1991. Chapter 1 is a federally funded program designed to meet the special needs of educationally deprived children, while special education programs are designed to meet the needs of children with disabilities. The two have traditionally been operated separately in school buildings, with little interaction between teachers or students in the two programs.

With the belief that some students in each program could be better served using the resources of both programs, the DE is seeking six to 15 schools as pilot sites for integrating the programs. During 1991-92, each pilot school will develop a unique plan to coordinate instructional and support services. The experiences of the pilot schools can be used as a model for other schools in the future.

Postsecondary Enrollment Options

Since 1987 Iowa's 11th and 12th grade students have had the opportunity to enroll in postsecondary institutions while simultaneously being enrolled in their public school district. The"Postsecondary Enrollment Options Act" in the *Iowa Code* was established to promote rigorous academic or vocational-technical pursuits and to provide a wider range of options to high school students. In the 1989-90 school year, 731 students earned 3,063 credits through participation in this initiative. The majority of these credits were earned in community colleges.

Iowa Communication Network

Iowa is developing a statewide telecommunications network to provide interactive, full-color, full-motion video services to state government, libraries and education agencies. The primary educational use of the network will be in "distance learning," or using technology to "move" the instructor to the student where he or she normally attends class, rather than physically moving the student to the instructor. Increased learning opportunities will be available to students regardless of where they attend school. Iowa's 15 community colleges will serve as the central core of the network, with transmissions able to reach all 99 Iowa counties.

Business and Education Roundtable

The 30-member Iowa Business and Education Roundtable was formed in 1989 to give business and education leaders input into public education policy at the state level. In 1990, the Roundtable cooperated with the State Board of Education and the Iowa Future Project sponsored by the Iowa Newspaper Association to develop a report that recommended widespread change in Iowa education. The report, *World-Class Schools: The Iowa Initiative*, called for a clear focus on student achievement, improved ways to measure student progress, and rewarding or penalizing schools based on student performance. Recommendations from the report are being used by several groups in long-term planning.

School District Sharing/Restructuring/ Reorganization

Whole Grade Sharing Arrangements Whole grade sharing arrangements between two or more school districts began during the 1980-81 school year. These arrangements allowed school districts to expand opportunities for students by sharing resources. The majority involve two school districts, however, arrangements involving three and sometimes four districts became more common in the last three years.

The number of whole grade sharing arrangements grew slowly at first with only two districts involved for the first five years. The number has grown dramatically to 111 districts in 1991-92.

Shared Superintendents During the same period the practice of sharing superintendents also became prominent. During the 1985-86 school year, five shared superintendents served 10 school districts. By 1989-90, 50 shared superintendents were serving 100 school districts.

Restructuring Feasibility Studies During

1985, the Department of Education's reorganization consultant conducted five restructuring studies involving a total of 14 school districts. In 1989, 16 studies were conducted involving 39 school districts. From 1987 to 1991, between 40 and 60 districts have been studied each year.

Reorganization Since July 1986, there have been nine school district reorganizations involving 18 school districts and two district dissolutions. The number of public school districts has decreased from 437 during the 1985-86 school year to 425 for 1991-92.

Open Enrollment

Open enrollment allows parents to choose which school district their children attend. The first year of open enrollment in Iowa was 1989-90 and 223 of Iowa's 431 school districts were involved. Less than than one-tenth of 1 percent (458 students) of the certified enrollment took part. Eligibility for the first year was limited by a number of restrictions. In 1990-91, 1,484 students participated.

The greatest percentage of open enrollment requests involved kindergarten students, 22.9 percent, while requests for students in grades 1 through 10 were fairly evenly distributed ranging from about 6 percent to 8 percent. Requests for students in grades 11 and 12 fell below the range for students in grades 1 through 10.

Nearly 15.5 percent of all open enrollment requests involved districts with enrollments under 250, more than 45 percent involved districts with enrollments of 250-599, while schools with enrollments of 2,500 or more accounted for just over 9 percent.

The main reasons given for open enrollment requests were educational benefits, 32.3 percent, family convenience, 26 percent, and proximity to the school site, 16.4 percent.

Early Childhood Education

In 1989, the Iowa legislature enacted legislation that provided $7.6 million to promote the development of innovative programs for at-risk students. Three- and four-year-old children considered "at-risk" may participate in preschool programs funded through the Child Development Coordinating Council. Approximately half of the funding went for these programs, which emphasize comprehensive child development. Head Start agencies, nonprofit agencies and public school districts are eligible to receive the funds. Other types of programs developed as a result of the legislation include parent education and support programs for low-income families with children from birth to age 3; programs for 3-, 4- and 5-year-olds that include a full-day kindergarten; and innovative early elementary programs for children in kindergarten through grade 3 in schools with a high proportion of at-risk students. Programs now exist in about 100 Iowa communities as a result of this legislation.

As a result of a statewide study by local Early Childhood Advisory Committees in 1990, a five-year plan for early childhood education was approved by the State Board of Education in January 1991. This plan encourages the development of a coordinated system of early childhood education. A number of initiatives supporting this system have been completed.

A state-level Early Childhood Task Force established guidelines for indoor and outdoor learning environments, including class size and pupil-teacher ratios. Recommended criteria for early childhood and early elementary certification and endorsement standards for administrators and teachers who work with children from birth through age 8 have been submitted to the State Board of Educational Examiners.

An early childhood support network has been created statewide in coordination with the area education agencies. This network provides technical assistance to help school districts create developmentally appropriate programs and assist in other early childhood initiatives.

Programs for Students At Risk

Dropout Prevention The *Iowa Code* provides for the development of programs and support services for dropouts and dropout prevention programs. Since 1985, programs and services expanded from 10 to 104. Fifty percent of the dropouts involved returned and graduated via this initiative. Twenty programs started under this process are now supported by local tax levies. In 1990, 10,969 students (4,109 dropouts and 6,860 potential dropouts) were served at an average excess cost of $1,042 per student.

In 1990 dropout rates were reduced in districts with prevention programs by .28 percent. Fifty-seven percent of students served improved their grade

point average by a full grade point, 46 percent of students with poor attendance improved their attendance rates, and 40 percent of students identified as needing improvement in personal/social skill development showed improvement. Approximately 47 percent of alternative school graduates pursued postsecondary training.

Homeless Programs Iowa's goal is to eliminate homelessness and the barriers it presents to education and success. In 1989, state administrative rules were developed to provide direction for schools in addressing the growing problem of homelessness. (Nearly 16,000 people including 9,390 children were identified as homeless in 1990). Schools are being asked to address six primary issues: residency and guardianship, coordination and identification, program continuity, transportation, student records and public awareness.

During 1990, Iowa secured $130,000 in additional federal funds to implement a computer delivery system (NovaNet) to help instructors in 10 centers continue educational programs and facilitate transfer of student records.

School-Based Youth Services With funding from the Iowa Legislature, four communities, Des Moines, Dubuque, Marshalltown and South Tama, are developing model programs that involve schools and community services in cooperative arrangements to better serve at-risk youth. Each community received a $200,000 state appropriation and developed a center either in or near middle and high schools to create a link between schools and community services. Outreach services were established with parents and other family members. In 1990-91 the programs served 3,917 at-risk youth.

The communities involved in these programs are experiencing increased communication between school and service agencies and parents, decreased dropout rates and increased attendance.

Vocational Education

Ensuring that all high school students learn basic vocational competencies and strengthening the link between vocational education and the "real world" are two goals of Iowa's new standards for vocational education being developed by the DE. The standards are to become effective in July 1992.

Senate File 449, passed by the Iowa Legislature in June 1989, is designed to increase the diversity and quality of vocational programming in Iowa high schools. The law requires high schools to offer at least three sequential units of four of the six following vocational areas: agriculture, business or office skills, health occupations, consumer and family science, industrial education and marketing education.

The standards will create competency-based vocational education in Iowa. The law calls on the DE to adopt a set of vocational competencies developed by incumbent workers and academic and vocational teachers and calls for a set of assessments at the local level to ensure that competencies are met.

A regional planning board is being established in each of the 15 merged areas of the state to help schools coordinate their efforts. Instead of offering its own vocational program, a school may contract with another high school or two-year college as long as the school pays tuition and provides transportation for the students. To ensure a smooth transition from high school vocational training to postsecondary training, high schools will be required to enter into an agreement with at least one postsecondary institution. The agreement will enable students to smoothly complete their vocational training and in some cases even receive postsecondary credit for some of their high school education.

Special Education Finance

In October 1991, the State Board of Education adopted the recommendations of the State Task Force on Special Education Finance. The task force recommended modifying Iowa's current system to maintain the integrity of programming for students, use educational resources efficiently and productively, distribute funds equitably, and create predictable and manageable funding for special education.

The recommendations adopted by the State Board were: 1) Generate predictable and manageable funding for special education programs. 2) Provide partial compensation to school districts providing a program for a special education student who requires extremely expensive services. 3) Maintain area education agency special education support service funding at the current level. 4) Allow school districts to carry special education year-end balances into the next school year in an amount up to 10 percent of the additional funds generated for special education. 5) Continue to allow additional special education administrative costs in school districts with unique

circumstances. 6) Simplify and change the focus of current practices for assessment, intervention and identification of students requiring special education. 7) Adjust the implementation of regular education, special education and Chapter 1 to better serve the needs of all students. 8) Change requirements for special education practices to allow better use of all school district and AEA personnel. 9) Develop guidelines for transporting special education students. 10) Develop recommendations to help public education better coordinate services with other agencies. 11) Develop recommendations to improve programs for behaviorally disordered students.

Implementing the recommendations will result in a maximum level of funding for the least expensive programs, adjust for previous deficit spending, provide stable and predictable financial growth for districts under the maximum level, and provide for growth in districts in which participation grows in the most expensive programs. The recommendations should enable school districts to make instructionally effective, responsible decisions and to continue to provide quality services to special students despite limited fiscal resources.

OVERVIEW OF INDICATORS

PUPIL OUTCOMES

- *A higher percentage of graduates pursued postsecondary education/training opportunities in 1989-90 than in 1985-86. In general, a higher percentage of graduates in districts under 1,000 enrollment pursued postsecondary opportunities than students from districts with more than 1,000 enrollment.*
- *Performance of students in grades 3 through 8, as measured by ITBS composite scores, increased steadily through the mid 1980s and leveled off in the past three years. Mathematics performance increased slightly each year from 1985 to 1990. Reading performance was stable with only insignificant year-to-year changes between 1985 and 1990.*
- *Performance of students in grades 9-11, as measured by ITED composite scores, increased steadily through the 1980s and leveled off in the past three years.*
- *State average ACT scores decreased slightly over the five-year period, but surpassed national averages by about the same amount each year. ACT enhanced scores show that students who take a "core" or college preparatory program — generally defined as four years of English and three years each of mathematics, social studies and natural sciences — score significantly higher than those who do not. Both groups of Iowa students scored higher than their national counterparts.*
- *Attendance rates remained relatively constant from 1985-86 to 1989-90 at about 95 percent.*
- *The dropout rate increased from 2.3 percent in 1985-86 to 2.5 percent in 1989-90. The rate for 1989-90 is down from the 2.6 percent reported in 1988-89. In 1989-90 over 66 percent of all dropouts were from districts which enrolled 2,500 or more students.*
- *In 1990 nearly 1,800 Iowa students participated in the Advanced Placement Program.*
- *Of the Iowa eighth graders tested in the NAEP Mathematics Trial Assessment, 100 percent had mastered simple addition and subtraction problems with whole numbers and 21 percent showed a consistent grasp of fractions, decimals, percents and simple algebra. Iowa students outperformed students nationally on all five content areas in the assessment. Iowa ranked third among participating states and territories, although Iowa's overall score was essentially the same as scores for the five other top-ranking states.*

ENROLLMENT

- *For the first time in 20 years public school enrollments have increased for two consecutive years.*
- *Public school enrollment projections forecast increases each year through 1994-95.*
- *Over two-thirds of Iowa's public school students attend school districts with enrollments of 1,000 or more. These districts represent only about 24 percent of all districts.*
- *54.7 percent of Iowa's public school districts have fewer than 600 students and enroll just under 18 percent of all pupils.*
- *Enrollment of minority students in public and nonpublic schools increased slightly while majority populations decreased slightly.*
- *Public school prekindergarten enrollments outpace projections and are up nearly 82 percent from 1989-90 figures.*

FINANCE

- *Total revenues from the general fund increased statewide by 23.3 percent from 1985-86 to 1989-90. Total revenues increased from $1.47 billion in 1985-86 to $1.76 billion in 1988-89 and $1.82 billion in 1989-90.*
- *Federal revenues increased statewide by 18.6 percent from 1985-86, intermediate revenues increased 28.6 percent, state revenues increased 47.4 percent and local revenues increased 3.6 percent over the period.*
- *Assessed valuation per-pupil increased only 1.5 percent statewide from 1985-86 to 1989-90 and decreased for districts with enrollments below 2,500.*
- *The percent of districts utilizing the site levy increased from 76 percent in 1985-86, to 79 percent in 1988-89 and to 82.4 percent in 1989-90.*
- *An average of about 4 percent of districts used the playground levy in 1985-86, 1988-89 and 1989-90.*
- *Between 55 percent and 56 percent of school districts used the schoolhouse levy in 1985-86, 1988-89 and 1989-90.*
- *Per-pupil operating expenditures increased from an average of $3,032 in 1985-86 to $3,853 in 1989-90, an increase of 27.1 percent. The discrepancy between the highest and lowest average among enrollment categories was about 16 percent in 1985-86 and about 19 percent in 1989-90.*
- *Changes in per-pupil expenditures for object categories from 1985-86 to 1989-90 resulted in the following:*
  - *Salaries increased 28 percent.*
  - *Benefits increased 40.2 percent.*
  - *Purchased services increased 19.3 percent.*
  - *Supplies increased 14.5 percent.*
  - *Capital outlay increased 10.1 percent.*
  - *Other expenses decreased statewide by 24 percent and decreased across all enrollment categories.*
- *Operation and maintenance accounted for 12.2 percent of total operating expenditures in 1985-86 and 10.2 percent in 1989-90.*
- *Administrative expenditures represented 10.2 percent of total operating expenditures in 1985-86 and 10 percent in 1989-90.*
- *Instructional expenditures per-pupil increased 31.3 percent from 1985-86 to 1989-90. As a percent of total operating fund expenditures, instruction accounted for 65.3 percent in 1985-86 and 67.5 percent in 1989-90, up slightly over 67.4 percent in 1988-89.*

STAFF

- *The average age of teachers increased two years from 1985-86 to 1990-91. For public school teachers this increase was from 40.0 years to 42.3 years. Among nonpublic school teachers, the increase was from 36.6 to 38.6.*
- *Over two-thirds of public school and three-fourths of nonpublic school teachers are female.*
- *The percentage of minority teachers in public schools was less than 1.5 percent in 1990-91 and has increased only slightly from 1985-86.*

OVERVIEW OF INDICATORS

- *Almost 30 percent of public and 13 percent of nonpublic school teachers held advanced degrees in 1990-91.*
- *Total experience in education for public school teachers increased from 14.3 years in 1985-86 to 15.3 years in 1990-91. Total experience for nonpublic teachers remained unchanged at approximately 11 years.*
- *Average tenure in a given district for full-time public teachers increased from 10.6 years in 1985-86 to 11.6 years in 1990-91. Tenure for nonpublic teachers increased from 5.7 to 6.5 over the same period.*
- *Average salaries for public school teachers increased about 29 percent from 1985-86 to 1990-91 and were up 4.6 percent over 1989-90 salaries. On the average, teachers in the smallest districts earned about 72 percent of the salaries of colleagues in larger districts.*
- *Full-time public school principals and superintendents tend to be between the ages of 45 and 50, male, and Caucasian. Average salaries for principals increased 26.4 percent from 1985-86 to 1990-91 and were up 5.1 percent over 1989-90 salaries. Average salaries for superintendents increased 31.3 percent between 1985-86 and 1990-91 and were up 5.3 percent over 1989-90 salaries.*
- *The state average K-12 pupil-teacher ratio remained approximately 16:1 between 1985-86 and 1990-91. In 1990-91, averages ranged from 10.8:1 to 18.7:1 across enrollment categories and tended to increase with the size of the school district.*
- *Statewide, 40 percent more instructional aides were employed in 1990-91 than in 1985-86. The number of instructional aides employed in 1990-91 was up 13.6 percent over 1989-90 figures.*

PROGRAM

- *The average number of high school curriculum units increased 13.1 percent statewide from 1985-86 to 1990-91. Average total units varied across the seven enrollment categories from 49.1 to 163.7. The range of total unit offerings varied considerably within enrollment categories as well.*
- *Average offerings in English/language arts, mathematics, science, social studies, and foreign language increased from 1985-86 to 1990-91 and were higher in 1990-91 than in 1989-90. Average vocational education units decreased statewide from 1985-86 to 1990-91, although average unit offerings were well above minimum standards and were higher statewide in 1990-91 than in 1989-90.*
- *The estimated percentage of 12th grade students enrolled in calculus increased from 5.6 percent in 1985-86 to 8.3 percent in 1990-91. The 1990-91 figure was up 1.3 percentage points over 1989-90.*
- *The estimated percentage of 11th grade students enrolled in trigonometry increased from 9.2 percent in 1985-86 to 15.2 percent in 1990-91. Figures for 1990-91 were up 1.2 percentage points over 1989-90.*
- *Enrollment in chemistry increased from an estimated 48.2 percent of 11th grade students in 1985-86 to an estimated 61 percent in 1990-91. Enrollments in chemistry were up nearly 3 percentage points over 1989-90 figures.*
- *An estimated 24.3 percent of 11th grade students were enrolled in physics in 1985-86 and an estimated 28.4 percent in 1990-91.*
- *Foreign language enrollments in grades 9-12 increased from 30.8 percent in 1985-86 to 48.0 percent in 1990-91 and were up 1.1 percentage points over 1989-90 figures.*

- A higher percentage of graduates pursued postsecondary education/training opportunities in 1989-90 than in 1985-86. In general, a higher percentage of graduates in districts under 1,000 enrollment pursued postsecondary opportunities than students from districts with more than 1,000 enrollment.

- Performance of students in grades 3 through 8, as measured by ITBS composite scores, increased steadily through the mid 1980s and leveled off in the past three years. Mathematics performance increased slightly each year from 1985 to 1990. Reading performance was stable with only insignificant year-to-year changes between 1985 and 1990.

- Performance of students in grades 9-11, as measured by ITED composite scores, increased steadily through the 1980s and leveled off in the past three years.

- State average ACT scores decreased slightly over the five-year period, but surpassed national averages by about the same amount each year. ACT enhanced scores show that students who take a "core" or college preparatory program — generally defined as four years of English and three years each of mathematics, social studies and natural sciences — score significantly higher than those who do not. Both groups of Iowa students scored higher than their national counterparts.

- Attendance rates remained relatively constant from 1985-86 to 1989-90 at about 95 percent.

- The dropout rate increased from 2.3 percent in 1985-86 to 2.5 percent in 1989-90. The rate for 1989-90 is down from the 2.6 percent reported in 1988-89. In 1989-90 over 66 percent of all dropouts were from districts which enrolled 2,500 or more students.

- In 1990 nearly 1,800 Iowa students participated in the Advanced Placement Program.

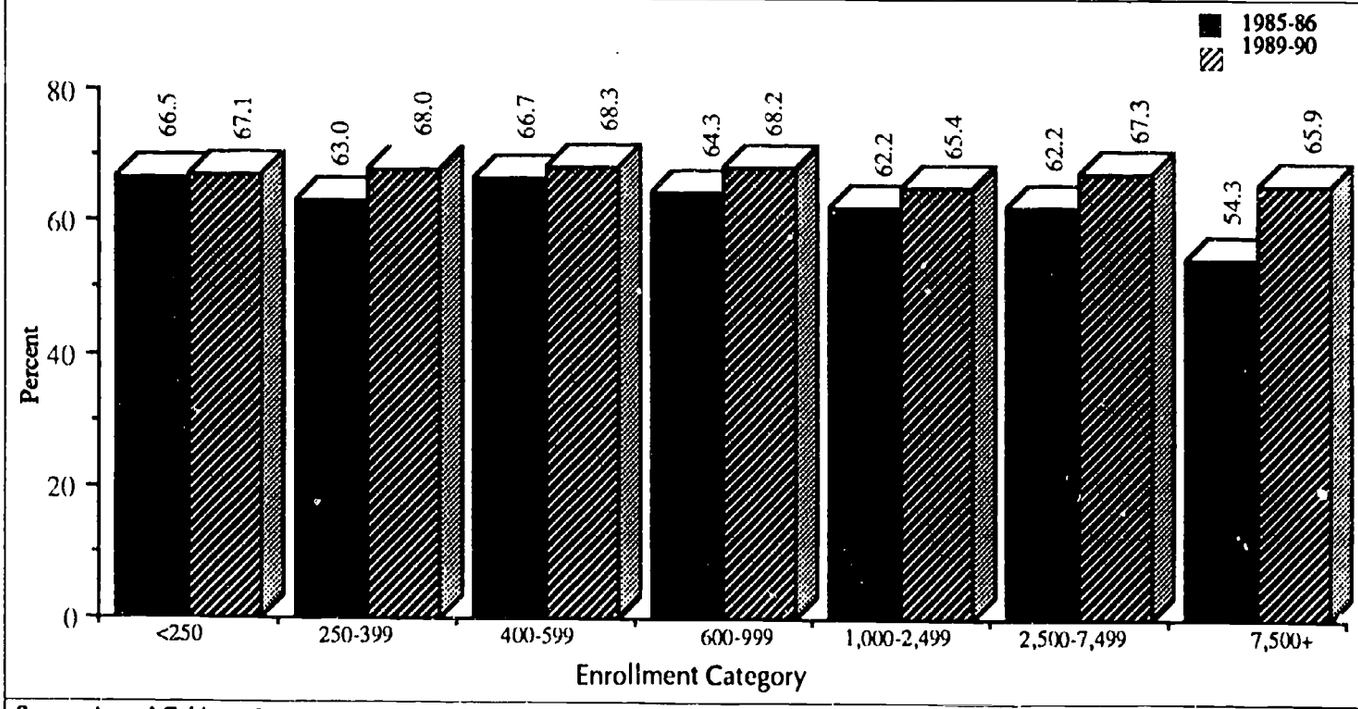
- Of the Iowa eighth graders tested in the NAEP Mathematics Trial Assessment, 100 percent had mastered simple addition and subtraction problems with whole numbers and 21 percent showed a consistent grasp of fractions, decimals, percents and simple algebra. Iowa students outperformed students nationally on all five content areas in the assessment. Iowa ranked third among participating states and territories, although Iowa's overall score was essentially the same as scores for the five other top-ranking states.

PUPIL OUTCOMES

This chapter on pupil outcomes includes direct and indirect measures of student success such as characteristics of students who successfully complete regular school programs and those who do not; follow-up of students who leave regular school programs; student attendance; and indices of academic achievement. Although Iowa does not have a mandated statewide assessment program, over 95 percent of all nonpublic schools and public school districts voluntarily participate in the Iowa Testing Program (ITP), a professional unit within the College of Education at the University of Iowa. ITP personnel administer two standardized testing programs. The Iowa Basic Skills Testing Program, which uses the Iowa Test of Basic Skills (ITBS), serves elementary schools. The Fall Testing Program for Iowa High Schools uses the Iowa Tests of Educational Development (ITED). Approximately 60 percent of eligible students in Iowa take the American College Test (ACT), a standardized college entrance exam. The Advanced Placement Program is administered by the College Board with the advice of national groups of educators. The program allows secondary students to complete college-level studies while still in high school. Participating colleges, in turn, grant credit and appropriate placement to students who have met criteria set by the colleges. The U.S. Department of Education released both national and state results of the National Assessment of Educational Progress (NAEP) Trial Mathematics Assessment in 1991. Results and trends among Iowa students on these measures are summarized in this chapter.

Figure 1

PERCENT OF GRADUATES PURSUING POSTSECONDARY EDUCATION/TRAINING



Source: Annual Guidance Surveys
Department of Education

Student Achievement
High School Graduates

The U.S. Department of Education estimates that 86.5 percent of Iowa's ninth grade students in 1982 went on to graduate in 1985. In 1986, 1987 and 1988 Iowa ranked fifth in the nation in the percentage of ninth graders subsequently graduating from high school. The percentages for 1986, 1987 and 1988 were 87.5 percent, 86.4 percent and 85.8 percent respectively. This figure is no longer available from the Department of Education.

The Iowa Department of Education's graduate follow-up survey indicates that 61.4 percent of 1985 graduates were enrolled in a postsecondary education program or some type of training.

Figures for the class of 1989 show that 66.8 percent of students statewide pursued postsecondary education or training. Percentages of students across enrollment categories were very similar, varying from 65.4 percent to 68.3 percent. The variation across enrollment categories in 1985-86 was much greater, varying from a low of 54.3 percent in districts with enrollments of 7,500 and over to a high of 66.7 percent in districts with enrollments of 400-599. A comparison for 1985-86 and 1989-90 is reflected in Figure 1.

Student Achievement Tests
ITBS

The Iowa Test of Basic Skills (ITBS) is a collection of tests designed to measure academic growth in a variety of areas in grades K-8. The five areas included for most grades are vocabulary; reading; language, (including spelling, capitalization, punctuation, and usage); work-study (visual and reference materials); and mathematics (concepts, problem solving, and computation). For grades K-2, tests include listening and word analysis, and in grades 3-8 tests in social studies and science are also available.

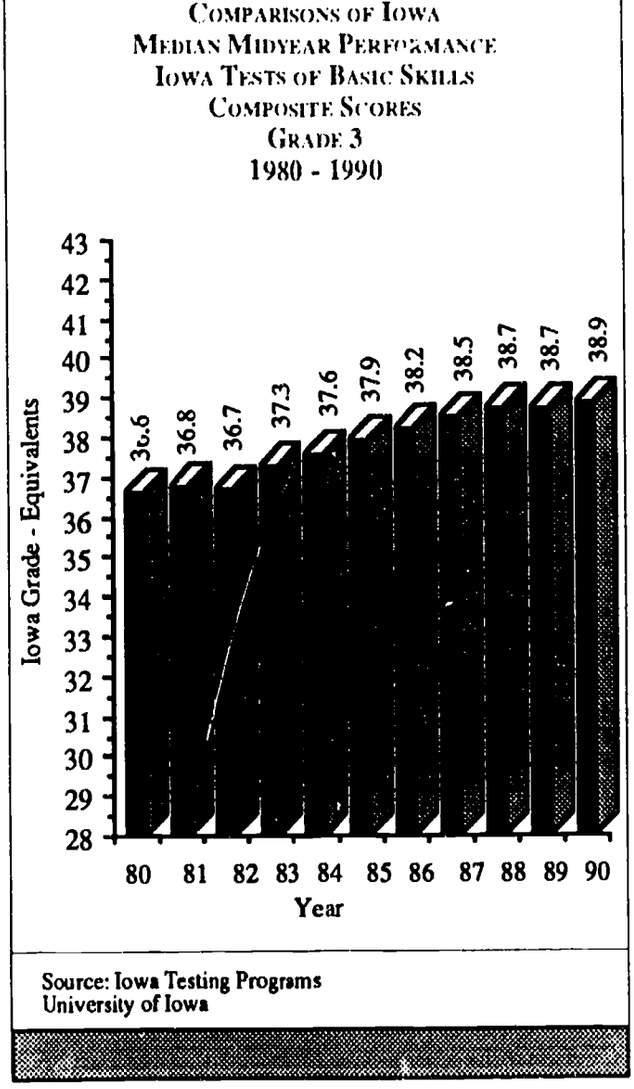
The average scores shown are composite scores for grades 3-8. In these grades, the composite score is the average of the five subtest scores: vocabulary, reading, language, work study, and mathematics. Thus, the composite score is an indicator of overall student achievement. The figures show how the typical pupil at each

grade level scored in a given year. They do not tell how well the highest-achieving pupils scored or how poorly the lowest-achieving pupils scored.

Since schools in Iowa give the ITBS at various times of the year, the scores are adjusted to show how students would have scored if everyone had been tested in late January of each year. Further, the grade-equivalent scores used in these figures tell how pupils performed based on a school grade and the number of months in that grade. For example, a grade-equivalent score of 45 tells how the typical Iowa pupil finishing the fifth month (January) of grade 4 would score.

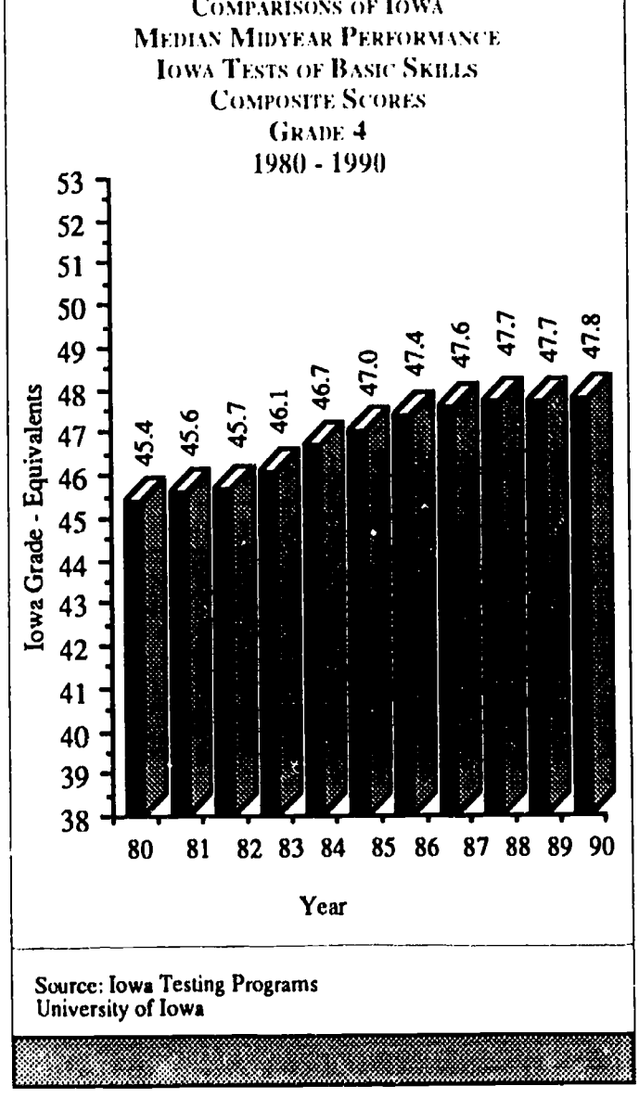
Achievement, in general, as measured by the ITBS composite scores improved steadily through the mid 1980s and stabilized at the higher levels (Figures 2-7).

Figure 2



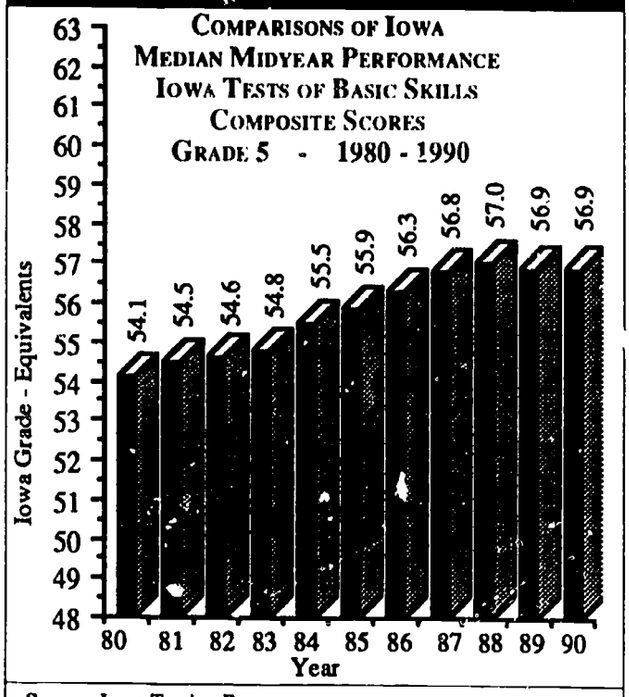
Source: Iowa Testing Programs
University of Iowa

Figure 3



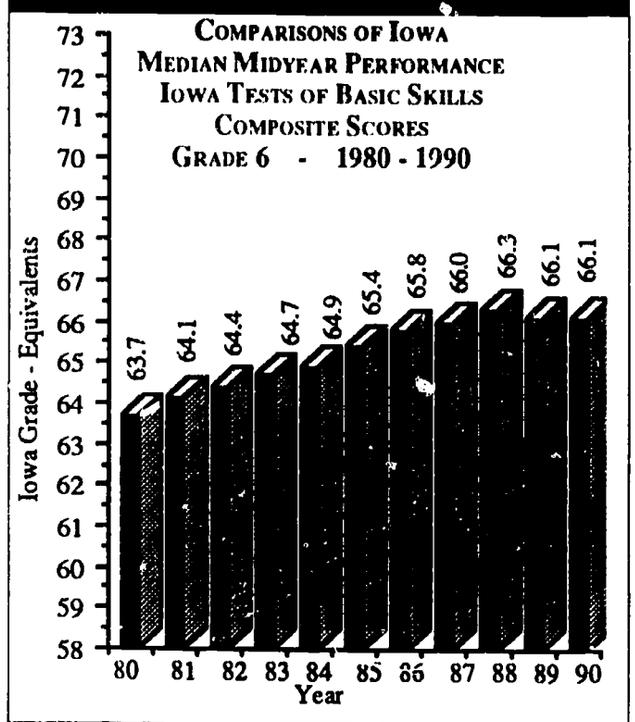
Source: Iowa Testing Programs
University of Iowa

Figure 4



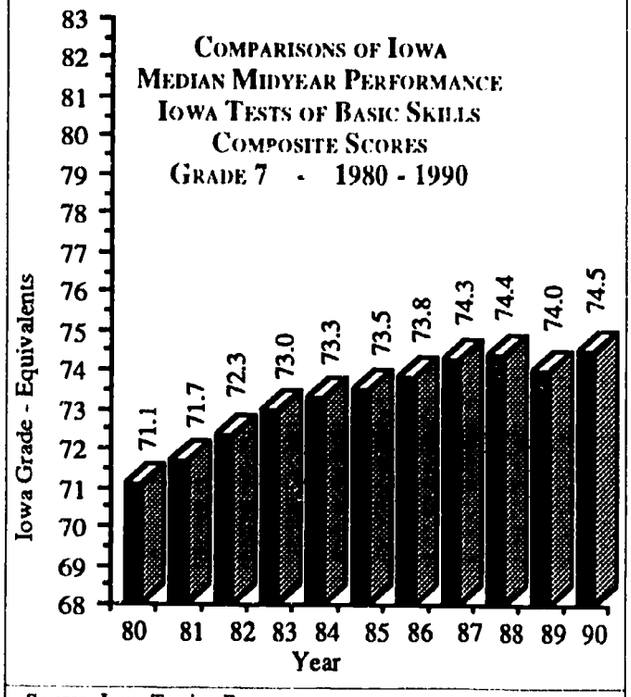
Source: Iowa Testing Programs
University of Iowa

Figure 5



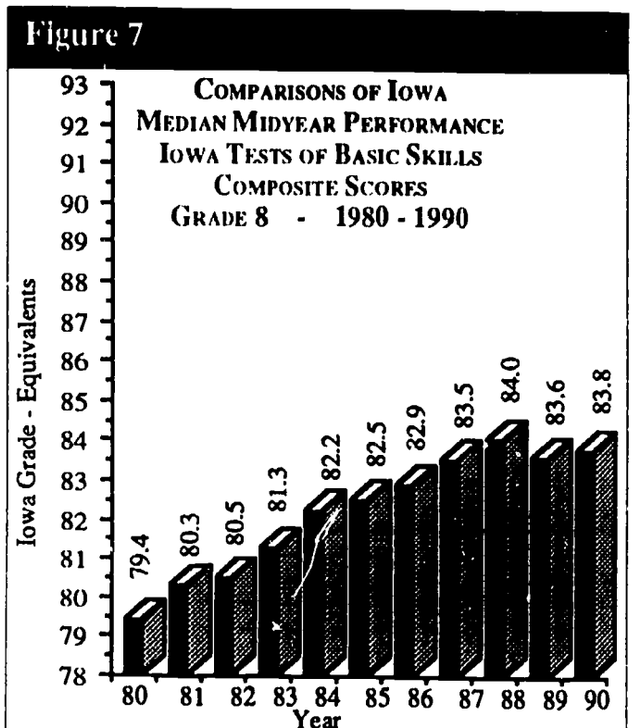
Source: Iowa Testing Programs
University of Iowa

Figure 6



Source: Iowa Testing Programs
University of Iowa

Figure 7



Source: Iowa Testing Programs
University of Iowa

PUPIL OUTCOMES

Median mathematics performance of Iowa students in grades 3 through 8 has generally increased slightly each year from 1985 to 1990.

Median reading performance of Iowa pupils on the ITBS reading subtest indicates stable achievement levels with only insignificant year-to-year changes between 1985 and 1990.

Table 1

COMPARISONS OF IOWA MEDIAN MIDYEAR PERFORMANCE
IOWA TESTS OF BASIC SKILLS
MATHEMATICS SKILLS TOTAL SCORE 1985 - 1990

	Grade Level					
Year	3	4	5	6	7	8
1985	36.6	44.9	52.8	61.8	71.3	80.1
1986	36.9	45.0	53.2	62.3	71.6	80.5
1987	37.4	45.3	53.6	62.6	72.0	80.8
1988	37.7	45.6	53.8	62.8	72.4	81.6
1989	37.8	45.7	54.0	63.1	72.0	81.4
1990	37.9	46.0	54.1	63.3	72.8	81.5

Note: 1965 "Base Year" Iowa Grade Equivalent Scores
Source: Iowa Testing Programs, University of Iowa

Table 2

COMPARISONS OF IOWA MEDIAN MIDYEAR PERFORMANCE
IOWA TESTS OF BASIC SKILLS
READING SCORES 1985 THROUGH 1990

	Grade Level					
Year	3	4	5	6	7	8
1985	38.5	46.4	55.1	64.5	72.6	80.3
1986	38.8	46.6	55.5	64.8	72.9	80.7
1987	39.0	46.7	56.1	65.1	73.4	81.3
1988	39.1	46.7	56.4	65.5	73.8	81.5
1989	39.0	46.6	56.0	65.1	73.2	81.1
1990	39.1	46.6	56.0	65.0	73.6	81.3

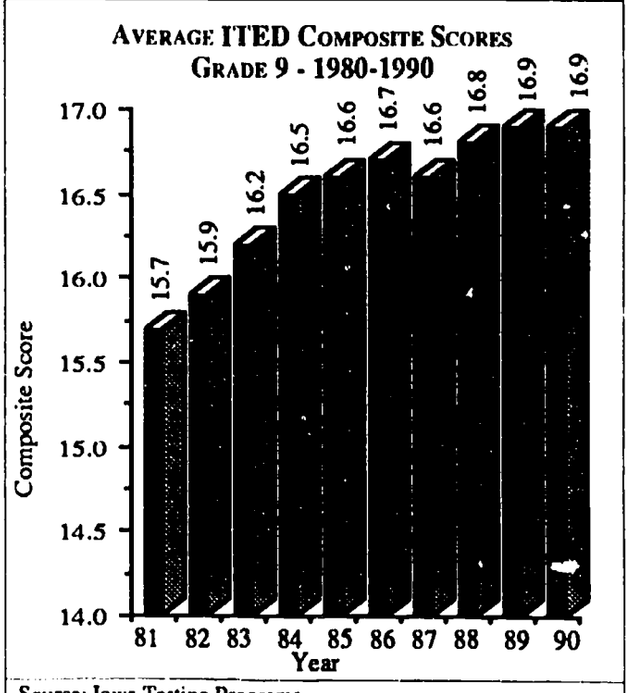
Note: 1965 "Base Year" Iowa Grade Equivalent Scores
Source: Iowa Testing Programs, University of Iowa

ITED

The Iowa Tests of Educational Development (ITED) are a battery of seven tests measuring skills that are important in adolescent and adult life. These skills include recognizing the essentials of correct and effective writing, solving quantitative problems, critically analyzing discussions of social issues, understanding nontechnical scientific reports, and recognizing methods of scientific inquiry. The ITED composite score is based on the scores obtained from all seven tests and is an indicator of the level of overall student achievement. ITED composite scores range from 1 to 38.

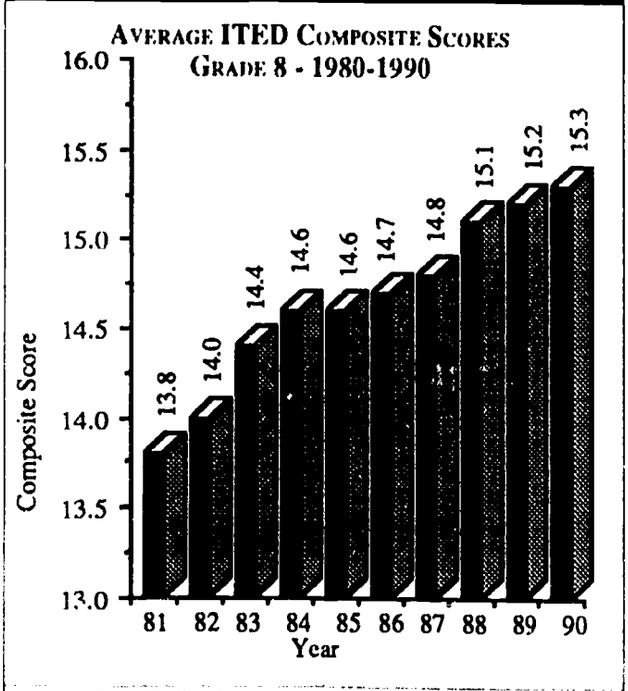
Average ITED composite scores for Iowa students from 1981-1990 are presented in Figures 8-10. Data generally indicate a steady increase in mean ITED composite scores at grades 9, 10 and 11. Grade 12 has been omitted from comparisons as recommended by experts from the Iowa Testing Program due to the limited number of 12th grade participants.

Figure 9



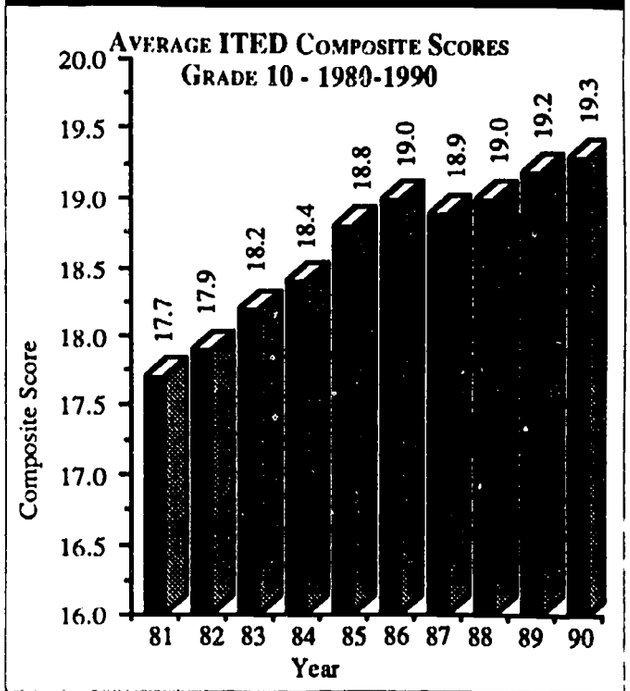
Source: Iowa Testing Programs
University of Iowa

Figure 8



Source: Iowa Testing Programs
University of Iowa

Figure 10

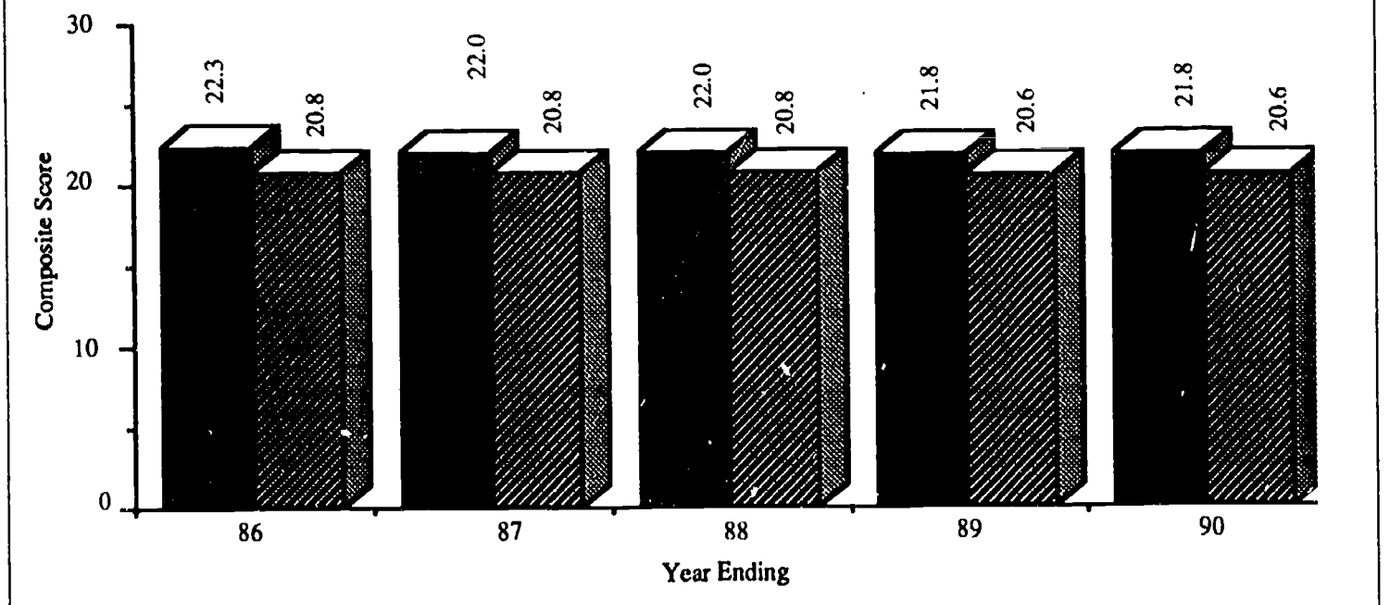


Source: Iowa Testing Programs
University of Iowa

PUPIL OUTCOMES

Figure 11

ESTIMATED AVERAGE ENHANCED ACT COMPOSITE SCORES
1985-86 THROUGH 1989-90



Source: ACT Assessment Results, 1990 Summary Report Iowa American College Testing

Enhanced ACT Assessment

In October of 1989, ACT released the Enhanced ACT assessment. Revisions were based on advice and feedback from college and high school teachers and administrators, content experts and curriculum specialists, a review of recent critiques of American education and popular high school and college tests. The Enhanced ACT is designed to reflect changes in high school curricula and is more sensitive to current expectations regarding skills and knowledge students need for college success. The test battery still assesses English, mathematics, social studies, the natural sciences, and reading and includes two new subtests. One assesses inferential and reasoning skills. The second is designed to measure science reasoning. In addition, the Enhanced ACT increases emphasis on rhetorical skills in writing proficiency and includes more items to assess advanced mathematics skills. Scores still range from 1 - 36.

To allow for comparisons across time, ACT adjusted pre-enhanced scores to equate them to enhanced scores (Figure 11). Average Enhanced ACT composite scores declined slightly between 1985-86 (22.3) and 1989-90 (21.8). There was no meaningful change in the national average during this period. Iowa scores remained above national scores in each year reported. The percentage of students taking the ACT increased steadily between 1985-86 (57.9 percent) and 1989-90 (61.2 percent).

ACT provides a breakdown of scores according to the type of academic programs students completed in high school. Table 3 compares the results of students who completed core requirements (i.e., at least four years of English, at least three years of mathematics, at least three years of social studies, and at least three years of natural sciences), and students who completed less than the core requirements. These results indicate that Iowa students consistently scored higher than the national averages for these students. The number of Iowa test-takers who satisfy ACT core requirements increased each year for which data were available.

Table 3

ESTIMATED AVERAGE ENHANCED ACT COMPOSITE SCORES OF STUDENTS COMPLETING CORE REQUIREMENTS VS STUDENTS COMPLETING LESS THAN CORE REQUIREMENTS

	Core or More			Less Than Core		
Year	No. Iowa Students Tested	Iowa	Nation	No. Iowa Students Tested	Iowa	Nation
1986-87	9,298	24.0	22.8	13,564	20.6	19.6
1987-88	10,700	24.0	22.7	12,821	20.4	19.4
1988-89	11,273	23.8	22.5	11,887	20.0	19.1
1989-90	11,738	23.5	22.3	9,761	19.8	19.1

Source: ACT Assessment Results 1990, Summary Report, Iowa American College Testing

Student Attendance

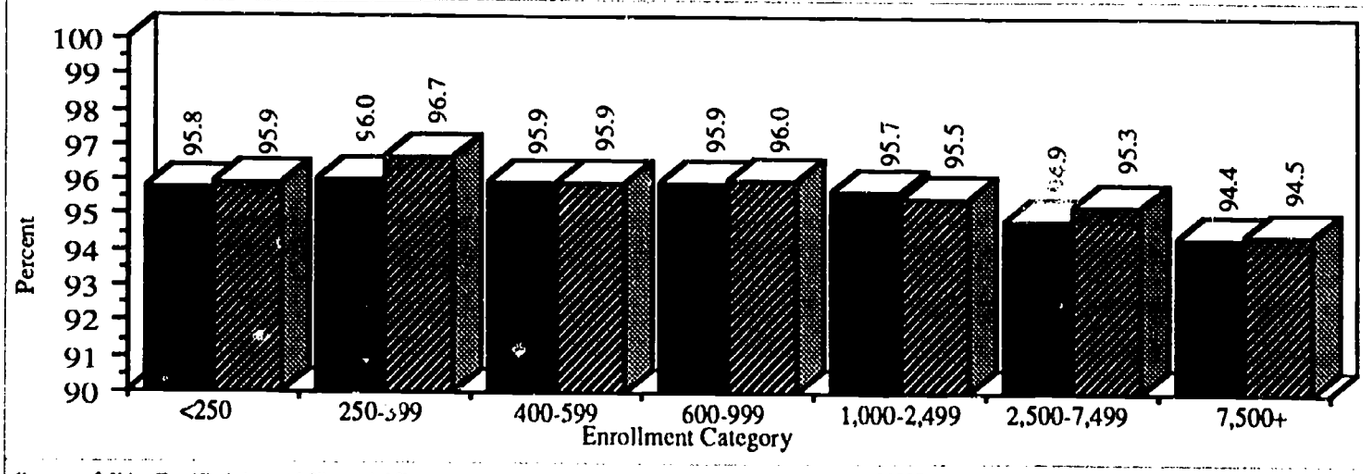
Attendance Rates

Attendance rates are calculated by dividing average daily attendance by average daily membership. Average daily attendance (ADA) is an average of students in attendance for the school year. Average daily membership (ADM) is an average of students enrolled for the school year. Attendance rates have been converted to percentages for presentation here.

Attendance rates remained relatively constant from 1985-86 to 1989-90 (Figure 12). For the state, rates increased from 95.3 percent in 1985-86 to 95.4 percent in 1989-90.

Figure 12

ATTENDANCE RATES 1985-86 VS 1989-90
AVERAGE DAILY ATTENDANCE AS A PERCENT OF AVERAGE DAILY MEMBERSHIP



Source: LEAs Certified Annual Financial Report
Department of Education

PUPIL OUTCOMES

Dropouts

Dropouts are defined as students who leave school before graduating or completing a program of studies and do not transfer to another school. The dropout rate is calculated by dividing dropouts by enrollees. Enrollees are taken from the LEA's Certified Annual Financial Report. Dropouts are reported for grades 7 through 12.

The state dropout rate for students in grades 7-12 was 2.3 percent in 1985-86 and 2.5 percent in 1989-90 (Tables 4 and 5). The 1989-90 figure is down slightly from the 2.6 percent figure reported for 1988-89.

From 1985-86 to 1989-90 slight increases in the percentage of dropouts in grades 7-12 occurred for all but one enrollment category. The percentage of dropouts across enrollment categories was very similar in the base year, 1988-89 and 1989-90. In 1985-86 districts with enrollments of 2,500 and above accounted for 70.4 percent of all dropouts and represented 45.1 percent of total enrollees. Similar figures were reported for 1989-90 when districts with enrollments of 2,500 and above accounted for 66.1 percent of all dropouts and 44.4 percent of enrollees.

From 1985-86 to 1989-90 the percentage of dropouts decreased in grades 7 and 8 and increased for remaining grade levels (Table 6). For all years shown, the highest

Table 4

TOTAL DROPOUTS BY ENROLLMENT CATEGORY — 1985-86

	Grade Level							Total	% of Total	% of	Dropout
	7	8	9	10	11	12	Other*	Dropouts	Dropouts	Enrollees	Rate
State	55	113	1,238	1,236	1,314	1,246	141	5,343			2.3
<250	0	0	4	4	11	10	0	29	0.5	2.0	.6
250-399	1	3	18	27	35	32	3	119	2.2	5.8	.9
400-599	1	7	32	45	51	65	1	202	3.8	9.5	.9
600-999	2	0	62	93	118	86	3	364	6.8	14.8	1.0
1,000-2,499	7	27	161	197	256	214	7	869	16.3	22.8	1.6
2,500-7,499	21	31	287	264	291	287	38	1,219	22.8	20.0	2.6
7,500 and over	23	45	674	606	552	552	89	2,541	47.6	25.1	4.3

*"Other" includes secondary special education students who are not assigned to a specific grade level.
Source: Dropout File, 1985-86
Department of Education

Table 5

TOTAL DROPOUTS BY ENROLLMENT CATEGORY — 1989-90

	Grade Level							Total	% of Total	% of	Dropout
	7	8	9	10	11	12	Other*	Dropouts	Dropouts	Enrollees	Rate
State	25	67	1,168	1,230	1,328	1,269	183	5,270	-	-	2.5
<250	0	0	7	9	7	10	0	33	0.6	2.1	.7
250-399	0	5	12	31	27	40	0	115	2.2	5.6	1.0
400-599	2	2	31	60	63	79	1	238	4.5	10.2	1.1
600-999	4	2	48	84	111	110	0	359	6.8	13.9	1.2
1,000-2,499	0	14	193	218	290	312	16	1,043	19.8	23.8	2.0
2,500-7,499	1	5	185	253	280	244	38	1,006	19.1	19.4	2.4
7,500 and over	18	39	692	575	550	474	128	2,476	47.0	25.0	4.6

*"Other" includes secondary special eduction students who are not assigned to a specific grade level.
Source: Dropout File, 1989-90
Department of Education

percentage of dropouts was in grade 11 and the lowest occurred in grade 7. For each of the three years shown, the percentage of dropouts increased with each successive increase in grade level with the exception of grades 11 and 12.

Table 6

DROPOUTS AS A PERCENT OF STUDENT ENROLLED BY GRADE LEVEL 1985-86, 1988-89 AND 1989-90

Grade Level	1985-86	1988-89	1989-90
7	0.2	0.1	0.1
8	0.3	0.2	0.2
9	3.0	3.2	3.2
10	3.0	4.1	3.7
11	3.4	4.5	4.1
12	3.4	4.0	3.7
Other	2.2	0.6	2.6
Total	2.3	2.6	2.5

"Other" includes secondary education students who are not assigned to a specific grade level.
Source: Dropout File, 1985-86, 1988-89, and 1989-90. Department of Education

Advanced Placement

In 1990, about 43 percent of the secondary schools in the United States participated in the Advanced Placement program; 1,797 students in Iowa participated in programs in 65 schools. The number of candidates has increased in Iowa each year for which data are shown (Table 7). An increase of more than 15 percent was reported between 1988 and 1989. An increase of over 47 percent was reported between 1989 and 1990.

Table 7

NUMBER OF ADVANCED PLACEMENT CANDIDATES 1988 THROUGH 1990

Year	Iowa Candidates	% Change from Previous Year
1988	1,059	-
1989	1,221	15.3
1990	1,797	47.2

Source: Advanced Placement Program, The College Board, 1990

In 1990, 29 Advanced Placement examinations were offered in 15 fields of study. Possible scores on the exams range from 1 to 5. A score of 3 is required by most colleges for credit. Average scores for Iowa candidates were higher than average scores for the nation on all but two of the 12 exams most frequently taken by Iowa candidates (Table 8). Iowa scores for chemistry and English literature and composition were just slightly under average scores for the nation.

Table 8

DISTRIBUTION OF IOWA ADVANCED PLACEMENT PARTICIPANTS BY THE 12 MOST FREQUENTLY TAKEN EXAMS

Exam Area	Number	Average Score	Average Score Nation
U.S. History	232	2.97	2.81
Biology	103	3.41	2.96
Chemistry	57	2.93	2.94
Computer Science A	31	3.65	2.92
Economics Macro	31	3.87	2.95
English Lang. & Comp.	161	2.93	2.91
English Lit & Comp	580	3.12	3.13
European History	146	3.17	3.13
Government & Pol. U.S.	56	3.25	3.10
Calculus AB	200	3.89	3.23
Calculus BC	57	3.47	3.65
Physics B	34	3.62	2.80

Source: Advanced Placement Program, The College Board, 1990.

The majority of Iowa candidates (54.7 percent) were male (Table 9). Females represented 45.3 percent of the participants. Males had higher average composite scores than females, while both sexes recorded higher average scores than their national counterparts.

Table 9

DISTRIBUTION OF IOWA ADVANCED PLACEMENT PARTICIPANTS BY SEX - 1990

Sex	Number	Percent	Average Score Nation	Average Composite Score
Male	983	54.7	3.34	3.14
Female	814	45.3	3.07	2.96

Source: Advanced Placement Program, The College Board, 1990

Approximately 87 percent of Advanced Placement participants were white and 3.8 percent were Asian/Asian American (Table 10). Other ethnic groups represented less than one percent of the total participants. Scores are not reported by ethnic group due to limited representation.

Table 10

DISTRIBUTION OF IOWA ADVANCED PLACEMENT PARTICIPANTS BY ETHNIC GROUP

Ethnic Group	Number
Not Stated	117
Am. Indian/Alaskan Am.	4
Black/Afro Am.	7
Chicano/Mex. Am.	10
Asian/Asian Am.	69
Puerto Rican	3
Other Hispanic	3
White	1,567
Other	17
Total	1,797

Source: Advanced Placement Program
The College Board, 1990.

NAEP Mathematics Assessment

The NAEP project has monitored educational achievement of the nation's students for over 20 years. In 1990, however, individual states and territories were given the opportunity to obtain state-level data for mathematics achievement of eighth grade students. A total of 2,474 eighth grade students, randomly selected from 92 public schools in Iowa, participated in the trial assessment.

According to the Educational Testing Service (ETS), contracted by the U.S. Department of Education to conduct the project, mathematics proficiency was measured on a scale of 0 to 500 and was characterized by four levels. Level 200 described students who could perform simple additive reasoning and problem solving with whole numbers. Level 250 described students who could perform simple multiplicative reasoning and two-step problem solving. Level 300 described students who could perform reasoning and problem solving involving fractions, decimals, percents, elementary geometry, and simple algebra. Level 350 described students who could perform reasoning and problem solving involving geometry, algebra, and beginning statistics and probability.

According to the results published by ETS, the average score for Iowa eighth graders (278) was higher than the national average (261). Although this placed Iowa third among the states and territories that participated, there was no significant difference between the average scores for the five top-ranked states. Iowa students performed higher than the nation in general on all five content areas assessed (numbers and operations; measurement; geometry; data analysis, statistics, and probability; and algebra and functions).

Table 11 represents the distribution of students among the proficiency levels. Greater percentages of Iowa students attained each of the proficiency levels than the nation in general for all but level 350.

Table 11

THE DISTRIBUTION OF STUDENTS AMONG THE NAEP PROFICIENCY LEVELS

Level	Iowa	Nation
200	100	97
250	84	64
300	21	12
350	0.2	0.2

Source: National Center for Education Statistics, 1991

Analyses of the results for Iowa by various demographic factors indicate that males had higher average scores than females and a greater percentage of males attained level 300 than females. The average mathematics proficiency of students with at least one parent who graduated from college was approximately 26 points higher than that of students whose parents did not graduate from high school. The average performance of students attending schools in "advantaged" areas was higher than that of students attending schools in "disadvantaged" urban areas, extreme rural areas or areas classified by ETS as "other."

Mathematics Achievement: Iowa and the Nation

When achievement results from ITBS and ITED are compared to the NAEP Trial Mathematics Assessment it can be seen that Iowa students, on these measures, are performing considerably better than other students across the nation (Table 12). Scores from each of the three achievement measures indicate that from 62 percent to 72 percent of Iowa students are above the national median, while 67 percent of students in the nation fall below the Iowa median on two of the three measures.

Table 12

NAEP TRIAL MATHEMATICS ASSESSMENT ACHIEVEMENT COMPARED TO ITBS AND ITED MATHEMATICS ACHIEVEMENT

Measure	% of Iowa Students Above the National Median	% of Students in the Nation Below the Iowa Median
NAEP	72	67
ITBS	69	67
ITED	62	-

Source: Iowa Testing Programs
University of Iowa

ENROLLMENT

- For the first time in 20 years public school enrollments have increased for two consecutive years.
- Public school enrollment projections forecast increases each year through 1994-95.
- Over two-thirds of Iowa's public school students attend school districts with enrollments of 1,000 or more. These districts represent only about 24 percent of all districts.
- 54.7 percent of Iowa's public school districts have fewer than 600 students and enroll just under 18 percent of all pupils.
- Enrollment of minority students in public and nonpublic schools increased slightly while majority populations decreased slightly.
- Public school prekindergarten enrollments outpace projections and are up nearly 82 percent from 1989-90 figures.

Students are the basis of Iowa's educational program. Their characteristics and special needs dictate the type of programs and services offered by public and nonpublic schools. Changes in enrollments significantly influence staffing, program and facility needs. This section examines trends in enrollment characteristics of public and approved nonpublic schools

ENROLLMENT

Table 1

PUBLIC AND NONPUBLIC SCHOOL ENROLLMENTS
1985-86 THROUGH 1990-91

Year	Public	Nonpublic	Total
1985-86	485,676	49,026	534,702
1986-87	481,205	48,520	529,725
1987-88	478,859	47,228	526,087
1988-89	476,771	47,373	524,144
1989-90	478,210	46,033	524,243
1990-91	483,396	45,562	528,958

Source: K-12 Enrollment Statistics
Department of Education
Bureau of Planning, Research, and Evaluation

Enrollment Trends and Projections

Total Enrollmen

After 20 years of continuous decline, public school enrollments have shown two consecutive years of increases. Compared to the base year of 1985-86 the 1989-90 enrollments indicated a net loss of almost 7,500 students, a decline of more than 1.5 percent (Table 1). The 1990-91 figures substantially reduce the decrease from 1985-86 to a net loss of 2,280 students which represents a decline of only about .5 percent from 1985-86 to 1990-91. For the 1990-91 school year enrollments in public schools were up 5,186 students over 1989-90 enrollments.

Combined public and nonpublic enrollments for the 1990-91 school year were 528,958 as compared to 534,702 in 1985-86. The 1990-91 figures represent a combined enrollment decline of 1.1 percent from the base year 1985-86.

Projected enrollments for public schools suggest continued increases each year through 1994-95 (Table 2). An increase of 6,183 students is projected by 1994-95. This represents an increase of 1.3 percent over 1990-91 figures. Projected enrollments for nonpublic schools suggest increases around 2 percent each year through 1992-93, followed by a slight decrease in 1993-94 and increases of about 1 percent each year for 1994-95 and 1995-96.

Public School Enrollment

Compared to 1985-86 enrollments, losses in 1990-91 occurred in grades 8 through 12, kindergarten, and first grade while other grades recorded increases. The greatest percentage decreases occurred in grades 9-12, ranging from a 12.4 percent decline in grade 9 to a nearly 15 percent decline at grade 11.

Table 2

PUBLIC AND NONPUBLIC SCHOOLS
ENROLLMENT PROJECTIONS
1991-92 through 1995-96

Year	Public	Nonpublic
1991-92	486,400	46,571
1992-93	488,713	47,399
1993-94	488,810	47,096
1994-95	489,579	47,461
1995-96	489,480	48,086

Source: K-12 Enrollment Statistics
Department of Education
Bureau of Planning, Research and Evaluation

Nonpublic School Enrollment

As a percentage of combined public and nonpublic enrollment, nonpublic enrollment in 1985-86 represented 9.2 percent declining to 8.6 percent in 1990-91. Compared to 1985-86 enrollments, nonpublic enrollments declined 7.1 percent overall (Table 4). The steepest declines occurred in grades 10 through 12, with losses of over 25 percent in grade 12 and 26 percent in grade 11. Gains over 1985-86 figures occurred only for grades 4, 5, and 6.

Table 3

PUBLIC SCHOOL ENROLLMENTS BY GRADE LEVEL
1985-86, 89-90, 90-91

Grade Level	1985-86	1989-90	1990-91	89-90 to 90-91 % Change	85-86 to 90-91 % Change
K	40,925	38,136	38,778	1.68	-5.25
1	38,110	38,181	37,117	-2.79	-2.61
2	35,387	37,088	37,192	0.28	5.10
3	34,508	37,690	37,022	-1.77	7.29
4	32,977	37,298	37,642	0.92	14.15
5	33,327	35,598	37,408	5.08	12.25
6	32,038	34,654	35,885	3.55	12.01
7	32,653	34,743	35,361	1.78	8.29
8	35,136	33,143	34,930	5.39	-0.59
9	39,688	35,041	34,768	-0.78	-12.40
10	39,337	32,489	34,067	4.86	-13.40
11	37,203	31,472	31,688	0.69	-14.82
12	35,906	33,795	30,928	-8.48	-13.86
Other	18,481	18,882	20,610	9.15	11.52
Total	**485,676**	**478,210**	**483,396**	**1.08**	**-0.47**

Source: K-12 Enrollment Statistics
Department of Education
Bureau of Planning, Research and Evaluation

Table 4

NONPUBLIC SCHOOL ENROLLMENTS BY GRADE LEVEL
1985-86, 89-90, 90-91

Grade Level	1985-86	1989-90	1990-91	89-90 to 90-91 % Change	85-86 to 90-91 % Change
K	4,034	3,893	3,994	2.59	-.99
1	4,918	4,610	4,436	-3.77	-9.80
2	4,752	4,711	4,476	-4.99	-5.81
3	4,634	4,592	4,530	-1.35	-2.24
4	4,159	4,573	4,386	-4.09	5.46
5	4,167	4,230	4,312	1.94	3.48
6	3,804	3,865	3,946	2.10	3.73
7	3,347	3,29(	3,208	-2.67	-4.15
8	3,404	3,037	3,128	3.00	-8.11
9	2,842	2,457	2,410	-1.91	-15.20
10	3,062	2,281	2,370	3.90	-22.60
11	2,992	2,179	2,205	1.19	-26.30
12	2,911	2,309	2,161	-6.41	-25.76
Total	**49,026**	**46,033**	**45,562**	**-1.02**	**-7.07**

Totals exclude special education ungraded students
Source: K-12 Enrollment Statistics
Department of Education
Bureau of Planning, Research and Evaluation

ENROLLMENT

Table 5

DISTRIBUTION OF PUBLIC SCHOOL PUPILS BY ENROLLMENT CATEGORY
1985-86, 1989-90 and 1990-91

Enrollment Category	1985-86				1989-90				1990-91			
	Pupils	%	Dist.	%	Pupils	%	Dist.	%	Pupils	%	Dist.	%
<250	10,124	2.1	52	11.9	10,791	2.3	56	13.0	9,214	1.9	51	11.9
250-399	29,060	6.0	90	20.6	28,203	5.9	85	19.7	27,409	5.7	85	19.8
400-599	46,544	9.6	94	21.5	49,047	10.2	98	22.7	49,124	10.3	99	23.0
600-999	72,595	15.0	97	22.2	66,119	13.8	88	20.4	69,413	14.5	92	21.4
1000-2499	109,551	22.5	72	16.5	111,966	23.4	73	16.9	114,453	23.9	73	17.0
2500-7499	95,189	19.6	24	5.5	93,099	19.5	23	5.4	90,569	18.9	22	5.1
7500 +	122,269	25.2	8	1.8	119,261	24.9	8	1.9	118,723	24.8	8	1.9
State	485,332	100.0	437	100.0	478,486	100.0	431	100.0	478,905	100.0	430	100.0

Source: Basic Education Data Survey
Department of Education
Bureau of Planning, Research, and Evaluation

Distribution of Pupils

Public School Districts

Table 5 shows that the distribution of public school pupils and districts across the seven enrollment categories remained relatively constant from 1985-86 to 1990-91. In both years, approximately 18 percent of public school students were enrolled in districts with under 600 enrollment. These districts represent about 55 percent of all districts. Districts with enrollments of 2,500 and over enrolled about 44 percent of all students and represent only about 7 percent of all districts.

Approved Nonpublic Schools

In 1990-91 there were 220 approved nonpublic schools in the state, down from 230 schools in 1985-86. In 1990-91, 50 percent of all nonpublic schools had enrollments under 160 students, while 25 percent had enrollments under 90 students. Only 4.5 percent of nonpublic schools had enrollments over 500 students. The majority of nonpublic schools serve elementary grades, while a limited number of schools serve both elementary and secondary students.

Ethnic Distribution

Minority students in public schools have increased slightly from 1985-86 to 1990-91, with minority enrollments representing 4.6 percent of all students in 1985-86 and 5.8 percent in 1990-91 (Table 6). The Hispanic and American Indian ethnic groups had increases of 48.2 percent and 45.8 percent respectively. During the same period non-minority enrollments decreased by 1.5 percent.

In 1990-91, 3.0 percent of nonpublic students were minorities, compared to 2.5 percent in 1985-86. The Black and Asian ethnic groups had the greatest increases over the period, increasing 35.2 percent and 19.5 percent respectively (Table 7).

Prekindergarten Enrollment

Prekindergarten enrollments in public schools increased from 974 students in 1985-86 to 2,793 in 1990-91 (Table 8). This represents an increase of 187 percent for the period and an increase of nearly 82 percent over 1989-90 figures. Increases in 1990-91 over the base year of 1985-86 for all but two enrollment categories were well over 100 percent, ranging to increases of more than 900 percent. The most substantial increases over 1989-90 figures were for districts with enrollments of 600-999 and for districts with enrollments of 7,500 or more. The initial *Condition of Education Report* (1990) noted that if the current rate of increase in prekindergarten enrollment continued there would be over 2,600 prekindergarten students enrolled in public schools by 1994-95. This projection was based on an average increase from 1985-86 through 1989-90 of 11.5 percent per year. Using the increase from 1985-86 to 1990-91 the average increase per year is now 31 percent. If this rate of increase is sustained, prekindergarten enrollments could almost double in the next three years. This would represent a prekindergarten enrollment equal to more than 15 percent of the projected kindergarten enrollment in 1993-94.

Table 6

PUBLIC SCHOOL ENROLLMENTS BY ETHNIC GROUP 1985-86, 1989-90 and 1990-91

Race	1985-86 Number	1985-86 Percent	1989-90 Number	1989-90 Percent	1990-91 Number	1990-91 Percent	% Change 89-90 to 90-91	% Change 85-86 to 90-91
American Indian	1,090	.2	1,432	.3	1,615	.3	12.8	48.2
Hispanic	4,069	.8	5,478	1.1	5,933	1.2	8.3	45.8
Asian	5,310	1.1	6,127	1.3	6,547	1.4	6.9	23.3
Black	12,308	2.5	13,086	2.7	13,809	2.9	5.5	12.2
White	462,555	95.3	452,363	94.6	455,748	94.2	.7	-1.5

Source: Basic Educational Data Survey
Department of Education
Bureau of Planning, Research and Evaluation

Table 7

NONPUBLIC SCHOOL ENROLLMENTS BY ETHNIC GROUP 1985-86, 1989-90, and 1990-91

Race	1985-86 Number	1985-86 Percent	1989-90 Number	1989-90 Percent	1990-91 Number	1990-91 Percent	% Change 89-90 to 90-91	% Change 85-86 to 90-91
American Indian	42	.1	30	.1	32	.1	6.7	-23.8
Hispanic	527	1.1	506	1.1	550	1.2	8.7	4.4
Asian	344	.7	420	.9	411	.9	-2.1	19.5
Black	273	.6	380	.8	369	.8	-2.9	35.2
White	48,372	97.5	46,623	97.1	46,165	97.0	-1.0	-4.6

Source: Basic Educational Data Survey
Department of Education
Bureau of Planning, Research and Evaluation

Table 8

PUBLIC SCHOOL PREKINDERGARTEN ENROLLMENTS BY ENROLLMENT CATEGORY 1985-86, 1989-90 and 1990-91

	1985-86	1989-90	1990-91	1989-90 to 1990-1991 % Change	1985-1986 to 1990-1991 % Change
<250	70	151	178	17.88	154.29
250-399	67	297	331	11.45	394.03
400-599	14	108	153	41.67	992.86
600-999	72	85	267	214.12	270.83
1,000-2,499	124	133	154	15.79	24.19
2,500-7,499	271	350	401	14.57	47.97
7,500 +	356	412	1,309	217.72	267.70
State	974	1,536	2,793	81.84	186.76

Source: Basic Educational Data Survey
Department of Education
Bureau of Planning, Research and Evaluation

FINANCE

- Total revenues from the general fund increased statewide by 23.3 percent from 1985-86 to 1989-90. Total revenues increased from $1.47 billion in 1985-86 to $1.76 billion in 1988-89 and $1.82 billion in 1989-90.

- Federal revenues increased statewide by 18.6 percent from 1985-86, intermediate revenues increased 28.6 percent, state revenues increased 47.4 percent and local revenues increased 3.6 percent over the period.

- Assessed valuation per-pupil increased only 1.5 percent statewide from 1985-86 to 1989-90 and decreased for districts with enrollments below 2,500.

- The percent of districts utilizing the site levy increased from 76 percent in 1985-86, to 79 percent in 1988-89 and to 82.4 percent in 1989-90.

- An average of about 4 percent of districts used the playground levy in 1985-86, 1988-89 and 1989-90.

- Between 55 percent and 56 percent of school districts used the schoolhouse levy in 1985-86, 1988-89 and 1989-90.

- Per-pupil operating expenditures increased from an average of $3,032 in 1985-86 to $3,853 in 1989-90, an increase of 27.1 percent. The discrepancy between the highest and lowest average among enrollment categories was about 16 percent in 1985-86 and about 19 percent in 1989-90.

- Changes in per-pupil expenditures for object categories from 1985-86 to 1989-90 resulted in the following:
  - Salaries increased 28 percent.
  - Benefits increased 40.2 percent.
  - Purchased services increased 19.3 percent.
  - Supplies increased 14.5 percent.
  - Capital outlay increased 10.1 percent.
  - Other expenses decreased statewide by 24 percent and decreased across all enrollment categories.

- Operation and maintenance accounted for 12.2 percent of total operating expenditures in 1985-86 and 10.2 percent in 1989-90.

- Administrative expenditures represented 10.2 percent of total operating expenditures in 1985-86 and 10 percent in 1989-90.

- Instructional expenditures per-pupil increased 31.3 percent from 1985-86 to 1989-90. As a percent of total operating fund expenditures, instruction accounted for 65.3 percent in 1985-86 and 67.5 percent in 1989-90, up slightly over 67.4 percent in 1988-89.

FINANCE

Revenues and expenditures compose the finance section of this report. Revenues are inputs into the system which set financial boundaries for providing programs and services for school districts. Expenditures reflect, to some extent, the spending plans to provide programs and services.

Revenues come from federal, state, intermediate, and local sources. Federal funds are generally provided for programs such as remediation and food programs based upon the needs of districts. A majority of the revenue for school districts is provided by property taxes and state aid. The distribution of these resources is determined by the finance formula. The total enrollment of a district is used to determine the amount of its budget, while the assessed valuation of property determines the state aid and property taxes needed to support the budget. School districts receive some money through intermediate units or area education agencies (AEAs). These funds are primarily used to fund programs and services coordinated through the AEAs. In addition to these revenues, local school districts may increase budgets through income surtaxes, special levies and miscellaneous income.

There are two fund groups which account for school districts' generation and expenditure of funds, the general fund and the schoolhouse fund. In the general fund, the majority of revenues and expenditures is accounted for in the operating fund. The examination of expenditures includes both programs and object category areas. Most of the data for this section comes from the 1985-86 and 1989-90 LEA's Certified Annual Financial Report. The 1989-90 report reflects the most current information available. Financial information for nonpublic schools is not reported to the Department of Education and is not included in this report.

FINANCE

Table 1

TOTAL REVENUES BY ENROLLMENT CATEGORY
1985-86, 1988-89, AND 1989-90

Enrollment Category	1985-86	1988-89	1989-90	Percent Change 1985-86 to 1989-90
State	$1,471,976,378	$1,764,078,121	$1,815,017,742	23.3
<250	35,782,820	48,537,731	52,036,386	45.4
250-399	91,722,570	111,276,036	112,036,330	22.1
400-599	140,308,973	181,424,049	189,865,352	35.3
600-999	215,497,347	238,446,261	247,748,248	15.0
1,000-2,499	320,686,864	401,636,821	409,136,330	27.6
2,500-7,499	288,703,313	330,342,100	339,374,739	17.5
7,500+	379,269,491	452,415,123	464,820,357	22.6

Source: LEA's Certified Annual Finance Report
Department of Education

School Revenues

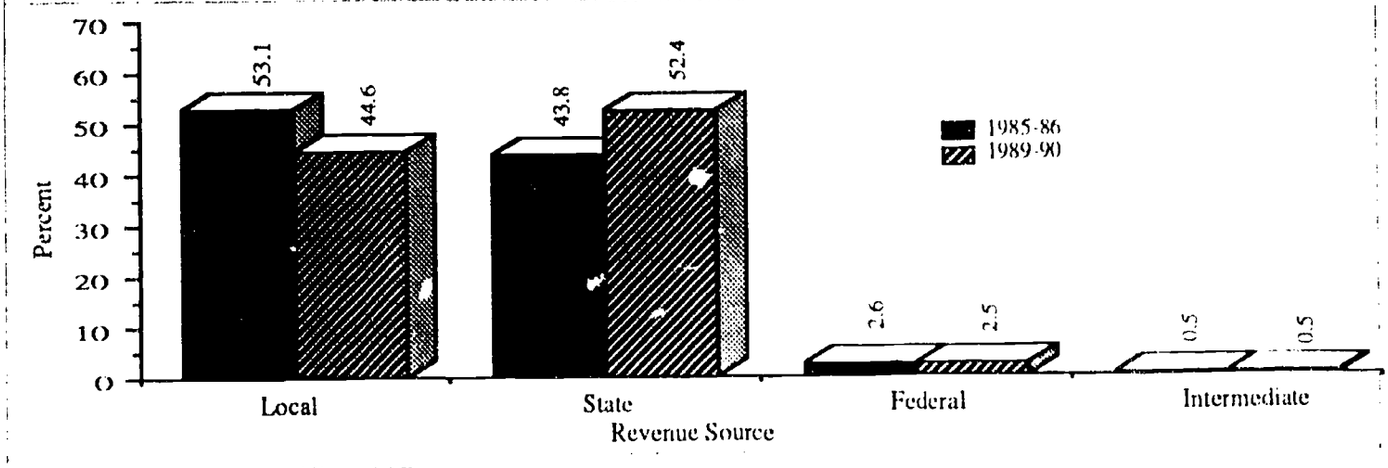
Total Revenues

Total revenues from the general fund increased statewide by 23.3 percent between 1985-86 and 1989-90 (Table 1). Increases in total revenues varied from 15 percent in districts with enrollments of 600-999 to more than 45 percent in districts under 250 enrollment. Increases occurred in all enrollment categories. Increases also occurred among all enrollment categories between 1988-89 and 1989-90. The state average for 1989-90 is an increase of 2.9 percent from the average for 1988-89.

Figure 1 presents the distribution of total general fund revenues by funding source. For the period 1985-86 through 1989-90, federal and intermediate revenues remained relatively constant, while significant shifts occurred in revenues from local and state sources. The state and local sources reflect what districts received and do not include state revenue provided in the form of credits to taxpayers; thus, the total property tax and state aid distribution is not reflected by these figures.

Figure 1

DISTRIBUTION OF TOTAL REVENUES BY SOURCE
1985-86 VS 1989-90



Source: LEA's Certified Annual Financial Report
Department of Education

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Table 10

NUMBER AND PERCENT OF DISTRICTS WITH SCHOOLHOUSE LEVY
1985-86, 1988-89, AND 1989-90

Enrollment Category	1985-86 No. Districts	1985-86 N	1985-86 Percent Districts	1988-89 No. Districts	1988-89 N	1988-89 Percent Districts	1989-90 No. Districts	1989-90 N	1989-90 Percent Districts
State	242	437	55.4	238	433	55.0	241	431	55.9
<250	42	52	80.8	39	55	70.9	39	56	69.6
250-399	55	90	61.1	51	88	58.0	49	85	57.6
400-599	42	94	44.7	40	97	41.2	41	98	41.8
600-999	38	97	39.2	42	88	47.7	45	88	51.1
1,000-2,499	39	72	54.2	41	74	55.4	42	73	57.5
2,500-7,499	20	24	83.3	19	23	82.6	19	23	82.6
7,500+	6	8	75.0	6	8	75.0	6	8	75.0

Source: LEA's Certified Annual Financial Report
Department of Education

Table 11

AVERAGE OPERATING FUND EXPENDITURES PER CERTIFIED ENROLLMENT
1985-86, 1988-89, AND 1989-90

Enrollment Category	1985-86	1988-89	1989-90	Percent Change 1985-86 to 1989-90
State	$3,032	$3,720	$3,853	27.1
<250	3,489	4,442	4,633	32.8
250-399	3,105	3,935	4,094	31.9
400-599	3,021	3,777	3,936	30.3
600-999	2,975	3,671	3,792	27.5
1,000-2,499	2,935	3,604	3,727	27.0
2,500-7,499	3,005	3,604	3,727	24.0
7,500+	3,122	3,804	3,934	26.0

Source: LEA's Certified Annual Financial Report
Department of Education

Per-Pupil Expenditures

Table 11 depicts per-pupil expenditures based on total operating fund expenditures less fund modifications (i.e. transfers between funds, AEA flow-through funds and refunds of a prior year's revenue). Per-pupil expenditures are calculated using certified enrollments. On a statewide basis, per-pupil expenditures increased from $3,032 in 1985-86 to $3,853 in 1989-90, an increase of 27.1 percent. Increases in total operating expenditures per-pupil over the previous year amounted to 3.6 percent.

Per-pupil expenditures appear to be indirectly related to district enrollment. In 1985-86 the average per-pupil expenditure for districts in the lowest spending enrollment category amounted to 84 percent of the average expenditures of high spending districts. In the 1989-90 comparisons, the comparable figure was 80.4 percent. The range in average per-pupil expenditures for enrollment categories was $484 in 1985-86 and $906 in 1989-90.

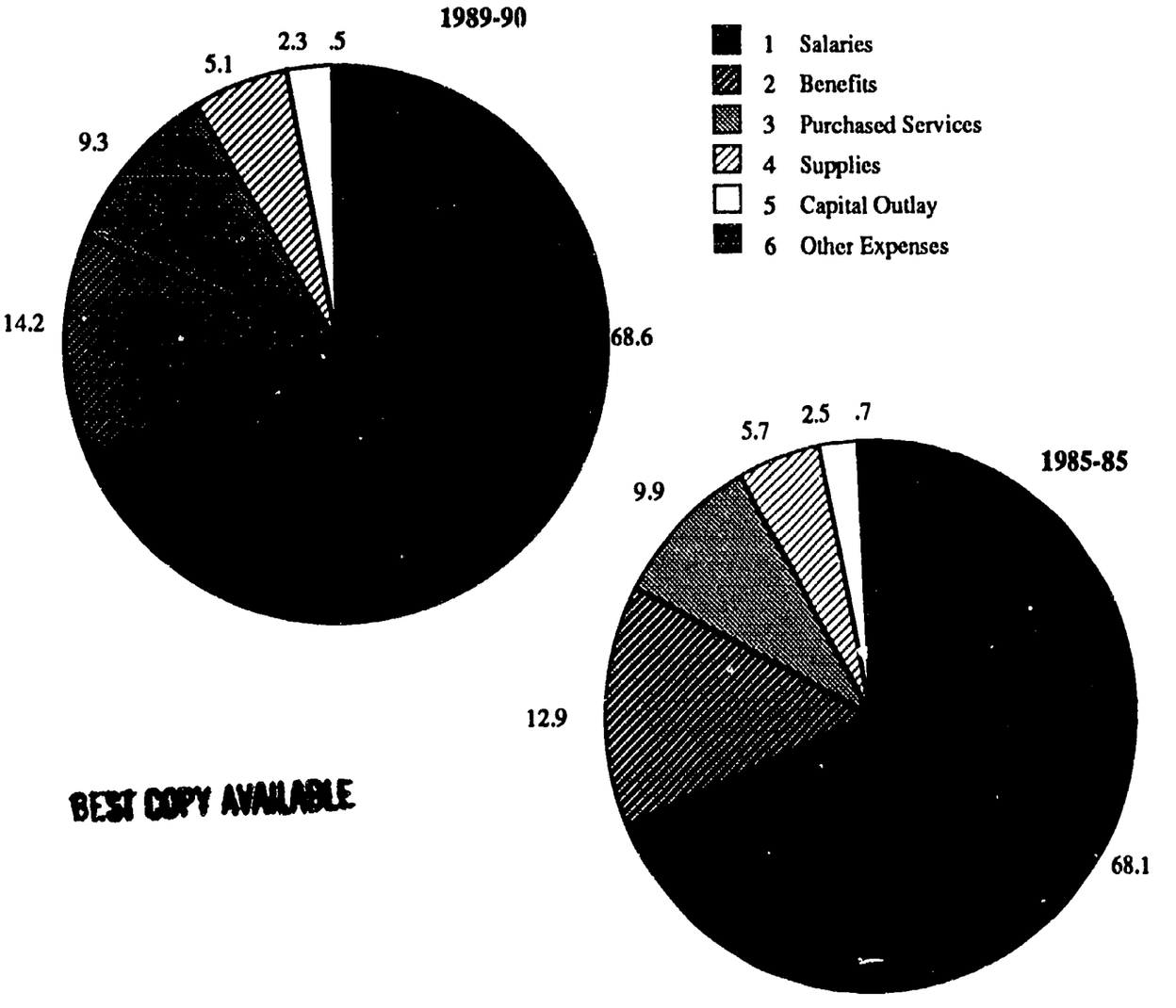
Percentage increases in per-pupil expenditures across enrollment categories varied from a low of 24 percent in districts with enrollments of 2,500-7,499 to a high of 32.8 percent in districts under 250 enrollment.

Object Category Expenditures

Figure 2 illustrates the distribution of object category expenditures for 1985-86 and 1989-90. This distribution remained relatively stable, with slight increases in salaries and benefits and slight decreases in the remaining categories.

Figure 2

OBJECT CATEGORY EXPENDITURES AS A PERCENT OF TOTAL OPERATING EXPENDITURES
1985-86 VS 1989-90



Source: LEA's Certified Annual Financial Report
Department of Education

Table 12

OBJECT CATEGORY EXPENDITURES AS A PERCENT OF TOTAL OPERATING FUND
1985-86
ENROLLMENT CATEGORY

Object Category	State	<250	250-399	400-599	600-999	1,000-2,499	2,500-7,499	7,500+
Salaries	68.1	65.1	64.9	66.0	65.1	68.1	69.8	70.3
Benefits	12.9	11.4	11.8	12.0	12.0	12.6	13.4	14.2
Purchased Services	9.9	11.2	11.2	11.4	11.4	9.9	8.9	8.8
Supplies	5.7	8.3	7.9	6.6	7.1	5.9	5.0	4.0
Capital Outlay	2.6	2.8	3.1	3.1	3.5	2.8	2.2	1.9
Other Expenses	0.8	1.2	1.1	0.9	0.9	0.7	0.7	0.8

Source: LEA's Certified Annual Financial Report
Department of Education

Table 13

OBJECT CATEGORY EXPENDITURES AS A PERCENT OF TOTAL OPERATING FUND
1989-90
ENROLLMENT CATEGORY

Object Category	State	<250	250-399	400-599	600-999	1,000-2,499	2,500-7,499	7,500+
Salaries	68.6	61.6	65.3	66.1	66.6	69.4	70.4	70.3
Benefits	14.2	12.4	13.2	13.1	13.7	13.8	14.5	15.6
Purchased Services	9.3	15.5	11.2	11.3	10.2	8.4	8.0	8.5
Supplies	5.1	7.0	6.9	6.1	6.1	5.4	4.5	3.8
Capital Outlay	2.3	2.7	2.8	2.9	2.8	2.7	2.1	1.3
Other Expenses	0.5	0.8	0.6	0.5	0.6	0.3	0.6	0.5

Source: LEA's Certified Annual Financial Report
Department of Education

Table 14

OBJECT CATEGORY EXPENDITURES PER CERTIFIED ENROLLMENT
1985-86
ENROLLMENT CATEGORY

Object Category	State	<250	250-399	400-599	600-999	1,000-2,499	2,500-7,499	7,500+
Salaries	$2,065	$2,271	$2,016	$1,994	$1,937	$1,998	$2,099	$2,196
Benefits	391	399	364	361	356	368	401	443
Purchased Services	300	392	348	344	337	290	266	275
Supplies	173	288	246	200	213	173	151	126
Capital Outlay	79	98	97	93	106	84	65	58
Other Expenses	25	41	34	28	27	22	22	24

Source: LEA's Certified Annual Financial Report
Department of Education

Table 15

OBJECT CATEGORY EXPENDITURES PER CERTIFIED ENROLLMENT
1989-90
ENROLLMENT CATEGORY

Object Category	State	<250	250-399	400-599	600-999	1,000-2,499	2,500-7,499	7,500+
Salaries	$2,643	$2,852	$2,674	$2,600	$2,526	$2,585	$2,624	$2,767
Benefits	548	575	542	516	518	515	541	614
Purchased Services	358	717	458	444	388	313	298	335
Supplies	198	324	282	241	232	201	166	150
Capital Outlay	87	127	114	116	106	99	77	51
Other Expenses	19	39	23	19	21	13	21	18

Source: LEA's Certified Annual Financial Report
Department of Education

Salaries

In 1989-90, salaries as a percent of total operating fund expenditures averaged 68.6 percent statewide (Table 13), up from 68.1 percent in 1985-86 (Table 12) and 68.4 percent in 1988-89. In 1989-90, the percentage of total operating funds allocated for salaries across the seven enrollment categories varied from 61.6 percent in districts with enrollments under 250 to 70.4 percent in districts with enrollments of 2,500-7,499.

In terms of per-pupil expenditures, expenditures for salaries increased statewide from $2,065 in 1985-86 (Table 14) to $2,643 in 1989-90 (Table 15), an increase of 28 percent. Per-pupil expenditures for salaries in 1989-90 varied from a low of $2,526 in districts with enrollments of 600-999 to $2,852 in districts under 250 enrollment.

Benefits

In 1985-86, 12.9 percent of total operating fund expenditures were directed to employee benefits. The figure increased to 13.6 percent in 1988-89 and to 14.2 percent statewide in 1989-90. The percentage of total operating funds allocated to employee benefits varied in 1989-90 across enrollment categories, from 12.4 percent in the smallest districts to more than 15 percent in districts with enrollments of 7,500 and above. The percentage of total operating funds allocated to benefits appears to be associated with enrollment.

State per-pupil expenditures for benefits went from an average of $391 in 1985-86 to $548 in 1989-90, an increase of 40.2 percent. The range in per-pupil expenditures for benefits for 1989-90 was nearly $100.

Purchased Services

Total operating fund allocations for purchased services decreased slowly, from 9.9 percent in 1985-86 to 9.5 percent in 1988-89 and 9.3 percent in 1989-90. Across enrollment categories the spread in percentages of total operating funds allocated to purchased services was nearly two to one in 1989-90.

Supplies

The percentage of total operating funds allocated for supplies decreased slightly from 5.7 percent in 1985-86 to 5.1 percent in 1989-90. The 5.1 percent figure is down from 5.3 percent in 1988-89. Percentages for supplies varied from 7 percent in districts under 250 enrollment to 3.8 percent in districts with enrollments of 7,500 and over. The percentage of total operating funds for supplies generally decreased with each successively larger enrollment category.

In 1989-90 per-pupil expenditures for supplies statewide averaged just under $200, up 14.5 percent from 1985-86.

Capital Outlay

Capital outlay accounted for 2.5 percent of expenditures in 1985-86 and 2.6 percent in 1989-90. In terms of per-pupil expenditures, capital outlay expenditures were $79 statewide in 1985-86 and $87 in 1989-90. This represents an increase in per-pupil expenditures of 10.1 percent over the period.

Other Expenses

"Other expenses" include expenditures for redemption of principal, interest, taxes, insurance, expenses in lieu of insurance, judgments against local school districts and miscellaneous expenditures. In 1989-90 other expenses accounted for just .5 percent of total operating fund expenditures, slightly less than the .7 percent in 1985-86. Per-pupil expenditures for other expenses statewide averaged $19 in 1989-90 compared to $25 in 1985-86, a decrease of 24 percent.

Operation and Maintenance

Operation and maintenance expenditures as a percent of total operating expenditures decreased from 12.2 percent in 1985-86 to 10.2 percent in 1989-90 (Table 16). The percentage also decreased from 1988-89 to 1989-90. The range across enrollment categories in 1989-90 was fairly restricted. The percentage of expenditures for operation and maintenance decreased across all enrollment categories from 1985-86 to 1989-90. Operation and maintenance expenditures increased from $371 per pupil in 1985-86 to $394 per pupil in 1989-90, accounting for an increase in per-pupil expenditures of 6.2 percent.

Administrative Expenditures

Administrative expenditures as a percent of total operating fund expenditures decreased slightly statewide, from an average of 10.2 percent in 1985-86 to an average of 10.0 percent in 1989-90 (Table 17). In 1985-86 administrative expenditures across enrollment categories varied from 8.9 percent in the largest districts to 13 percent in the smallest districts. In 1989-90 administrative expenditures as a percent of total operating expenditures varied from 8.7 percent in the largest districts to 12.6 percent in districts with enrollments under 250.

In terms of expenditures per-pupil, the statewide average in 1985-86 was $308. This increased to $386 in 1989-90, an increase of 25.3 percent. In 1989-90 as in 1985-86 both per-pupil expenditures and expenditures as a percent of total operating funds appeared to be associated with district enrollment.

Instructional Expenditures

In 1985-86 the percentage of total operating funds allocated for instructional expenditures was 65.3 percent (Table 18). This increased to 67.5 percent in 1989-90. The variation across enrollment categories was similar in both 1985-86 and 1989-90.

Per-pupil expenditures for instruction averaged $1,981 in 1985-86 and $2,602 in 1989-90, an increase of 31.3 percent. The range in per-pupil expenditures in 1989-90 was $525 across enrollment categories, with districts under 250 enrollment spending an average of $3,058 per pupil and districts with enrollments of 1,000-2,499 spending an average of $2,533.

FINANCE

Table 16

OPERATION AND MAINTENANCE EXPENDITURES
1985-86, 1988-89 AND 1989-90

Enrollment Category	1985-86 As % of Op Fund	1985-86 Per-Pupil	1988-89 As % of Op Fund	1988-89 Per-Pupil	1989-90 As % of Op Fund	1989-90 Per-Pupil
State	12.2	$371	10.6	$393	10.2	$394
<250	10.9	381	8.8	392	8.9	414
250-399	11.3	351	9.3	366	9.1	373
400-599	11.3	340	9.6	362	9.3	366
600-999	12.1	360	10.2	375	9.8	370
1,000-2,499	11.7	345	10.3	369	9.8	366
2,500-7,499	12.4	372	10.7	386	10.4	387
7,500+	13.3	415	11.9	451	11.5	452

Source: LEA's Certified Annual Financial Report
Department of Education
Per pupil amounts based on certified enrollments

Table 17

TOTAL ADMINISTRATIVE EXPENDITURES
1985-86, 1988-89 AND 1989-90

Enrollment Category	1985-86 As % of Op Fund	1985-86 Per-Pupil	1988-89 As % of Op Fund	1988-89 Per-Pupil	1989-90 As % of Op Fund	1989-90 Per-Pupil
State	10.2	$308	9.9	$367	10.0	$386
<250	13.0	454	12.2	542	12.6	582
250-399	12.0	372	12.0	474	12.5	514
400-599	11.9	359	11.3	429	11.7	459
600-999	10.6	316	10.2	374	10.6	400
1,000-2,499	10.2	299	10.0	360	10.0	371
2,500-7,499	9.6	289	9.2	331	9.3	346
7,500+	8.9	278	8.7	331	8.7	344

Source: LEA's Certified Annual Financial Report
Department of Education

Table 18

INSTRUCTIONAL EXPENDITURES
1985-86, 1988-89 AND 1989-90

Enrollment Category	1985-86 As % of Op Fund	1985-86 Per-Pupil	1988-89 As % of Op Fund	1988-89 Per-Pupil	1989-90 As % of Op Fund	1989-90 Per-Pupil
State	65.3	$1,981	67.4	$2,508	67.5	$2,602
<250	64.4	2,246	66.5	2,954	66.0	3,058
250-399	63.8	1,981	66.0	2,595	65.9	2,698
400-599	64.6	1,950	67.0	2,532	66.9	2,634
600-999	63.9	1,902	66.9	2,456	67.1	2,544
1,000-2,499	65.6	1,926	67.5	2,432	68.0	2,533
2,500-7,499	66.5	1,998	68.4	2,465	68.3	2,545
7,500+	65.7	2,052	67.3	2,559	67.7	2,664

Source: LEA's Certified Annual Financial Report
Department of Education

- The average age of teachers increased two years from 1985-86 to 1990-91. For public school teachers this increase was from 40.0 years to 42.3 years. Among nonpublic school teachers, the increase was from 36.6 to 38.6.
- Over two-thirds of public school and three-fourths of nonpublic school teachers are female.
- The percentage of minority teachers in public schools was less than 1.5 percent in 1990-91 and has increased only slightly from 1985-86.
- Almost 30 percent of public and 13 percent of nonpublic school teachers held advanced degrees in 1990-91.
- Total experience in education for public school teachers increased from 14.3 years in 1985-86 to 15.3 years in 1990-91. Total experience for nonpublic teachers remained unchanged at approximately 11 years.
- Average tenure in a given district for full-time public teachers increased from 10.6 years in 1985-86 to 11.6 years in 1990-91. Tenure for nonpublic teachers increased from 5.7 to 6.5 over the same period.
- Average salaries for public school teachers increased about 29 percent from 1985-86 to 1990-91 and were up 4.6 percent over 1989-90 salaries. On the average, teachers in the smallest districts earned about 72 percent of the salaries of colleagues in larger districts.
- Full-time public school principals and superintendents tend to be between the ages of 45 and 50, male, and Caucasian. Average salaries for principals increased 26.4 percent from 1985-86 to 1990-91 and were up 5.1 percent over 1989-90 salaries. Average salaries for superintendents increased 31.3 percent between 1985-86 and 1990-91 and were up 5.3 percent over 1989-90 salaries.
- The state average K-12 pupil-teacher ratio remained approximately 16:1 between 1985-86 and 1990-91. In 1990-91, averages ranged from 10.8:1 to 18.7:1 across enrollment categories and tended to increase with the size of the school district.
- Statewide, 40 percent more instructional aides were employed in 1990-91 than in 1985-86. The number of instructional aides employed in 1990-91 was up 13.6 percent over 1989-90 figures.

More than 42,000 full- and part-time licensed staff in Iowa's public school districts, approved nonpublic schools, and AEAs provided services to Iowa students. While this section focuses only on teachers, principals, and superintendents, there are countless others who serve Iowa students as school board members, transportation service personnel, school nutrition personnel, and community volunteers, etc.

The characteristics of staff members examined here include educational background, experience, contract length, salaries, gender distribution, and minority distribution. Public school districts and approved nonpublic schools are included. Nonpublic superintendents are excluded from this chapter since nonpublic schools are not typically administered by superintendents. Two other factors that influence the education process are also reviewed, pupil-teacher ratios and instructional aides.

STAFF

Teachers

Age

Table 1 indicates that the average age of full-time public and nonpublic teachers increased between 1985-86 and 1990-91. Average age also increased between 1989-90 and 1990-91.

Table 1

AVERAGE AGE OF FULL-TIME PUBLIC AND NONPUBLIC SCHOOL TEACHERS

Year	Public	Nonpublic
1985-86	40.0	36.6
1989-90	41.1	37.4
1990-91	42.3	38.6

Source: Basic Educational Data Survey
Department of Education

Table 2 demonstrates that, on average, teachers in larger school districts are older. The same pattern holds for each of the three years displayed.

Table 2

AVERAGE AGE OF FULL-TIME PUBLIC SCHOOL TEACHERS BY DISTRICT ENROLLMENT CATEGORY 1985-86, 1989-90, AND 1990-91

Enrollment Category	1985-86	1989-90	1990-91
State	40.0	41.1	42.3
<250	36.5	37.7	38.8
250-399	37.7	39.0	40.3
400-599	38.3	39.6	40.8
600-999	39.1	40.2	41.5
1,000-2,499	40.0	41.0	42.2
2,500-7,499	40.9	42.1	43.3
7,500 +	41.7	42.8	44.0

Source: Basic Educational Data Survey,
Department of Education

Distribution of Males and Females

Table 3 depicts the distribution of males and females for full-time school teachers for 1985-86, 1989-90 and 1990-91. In public schools, more than 60 percent of teachers were female, with increases in the percent of female teachers occurring in both 1989-90 and in 1990-91 over the base year 1985-86. In nonpublic schools nearly 80 percent of all teachers were females.

Table 3

DISTRIBUTION OF MALES AND FEMALES AMONG TEACHERS IN PUBLIC AND NONPUBLIC SCHOOLS 1985-86, 1989-90, AND 1990-91

	Public		Nonpublic	
Year	Percent Female	Percent Male	Percent Female	Percent Male
85-86	62.8	37.2	77.5	22.5
89-90	65.0	35.0	79.0	21.0
90-91	66.3	33.7	77.6	22.4

Source: Basic Educational Data Survey
Department of Education

Ethnic Distribution

Table 4 indicates that less than 1.5 percent of all public school teachers were minorities in each of the three years shown. The percentage of minority teachers in public schools increased only slightly from 1985-86 to 1990-91 and did not change from 1989-90 to 1990-91. Minority teachers in nonpublic schools remained at about .5 percent from 1985-86 to 1990-91, with no change from 1989-90 to 1990-91.

Table 4

DISTRIBUTION OF MINORITIES AND NONMINORITIES AMONG FULL-TIME PUBLIC AND NONPUBLIC SCHOOL TEACHERS 1985-86, 1989-90, AND 1990-91

	Public		Nonpublic	
Year	Percent Minority	Percent Nonminority	Percent Minority	Percent Nonminority
85-86	1.16	98.84	.52	99.48
89-90	1.30	98.70	.50	99.50
90-91	1.30	98.70	.50	99.50

Source: Basic Educational Data Survey
Department of Education

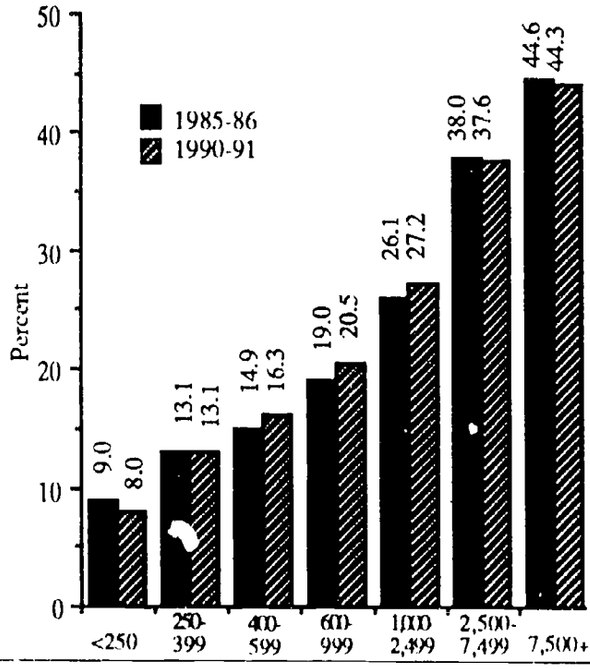
Formal Education

Approximately 29 percent of full-time public school teachers held advanced degrees in 1990-91 compared to 28.9 percent in 1985-86 and 30.2 percent in 1989-90. In 1990-91, 12.9 percent of nonpublic teachers held advanced degrees compared to 16 percent in 1985-86 and 13.5 percent in 1989-90.

For both 1985-86 and 1990-91 the percentage of public school teachers with advanced degrees corresponded closely with school district enrollment. School districts in larger enrollment categories had higher percentages of teachers with advanced degrees (Figure 1). Compared to the base year of 1985-86, the percentage of teachers with advanced degrees was higher in districts with enrollments of 400-2,499 and slightly lower in other enrollment categories except for districts with enrollments of 250-399 where the percentage of teachers with advanced degrees remained unchanged.

Figure 1

PERCENT OF FULL-TIME PUBLIC SCHOOL TEACHERS WITH ADVANCED DEGREES BY ENROLLMENT CATEGORY
1985-86 vs 1990-91



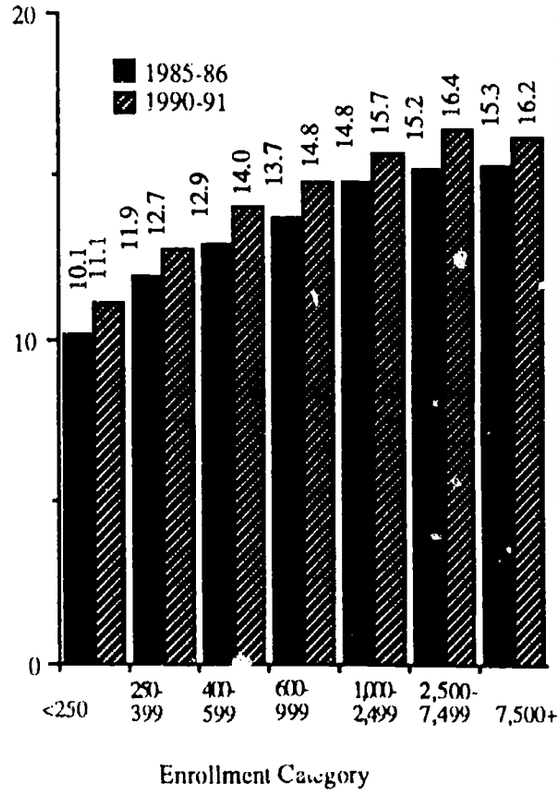
Source: Basic Educational Data Survey
Department of Education

Professional Experience in Education

The average total experience for full-time public school teachers in 1990-91 was 15.3 years, up from 14.3 years in 1985-86 and up from 15.1 year in 1989-90 (Figure 2). In general, average total experience was higher in 1990-91 than in both 1985-86 and 1989-90 for all enrollment categories. The one exception was among the smallest districts, where 1990-91 figures were slightly lower than 1989-90. The average total experience for nonpublic school teachers in 1990-91 was 11.1 years, nearly identical to the average of 11 years in 1985-86 and 1989-90.

Figure 2

AVERAGE TOTAL EXPERIENCE OF FULL-TIME PUBLIC SCHOOL TEACHERS BY ENROLLMENT CATEGORY
1985-86 vs 1990-91



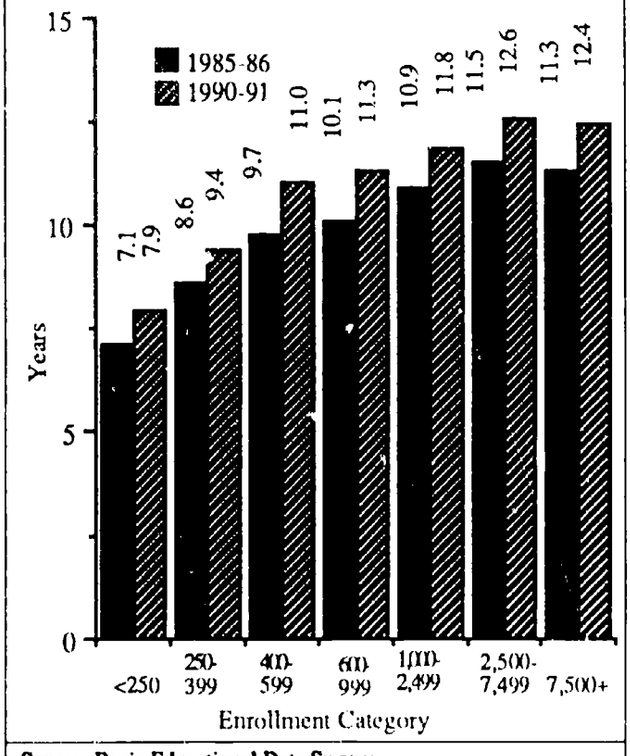
Source: Basic Educational Data Survey
Department of Education

District Experience

The average district experience for full-time public school teachers increased from 10.6 years in 1985-86 to 11.6 years in 1990-91 (Figure 3). The 1990-91 figure was slightly higher than the 11.5 years in 1989-90. The range in district experience in 1990-91 was 4.5 years across enrollment categories, with an average of 7.9 years in districts under 250 enrollment and an average of 12.4 years in districts enrolling 7,500 and above. The average district experience for nonpublic teachers rose from 5.7 years in 1985-86 to 6.5 years in 1990-91, just above the 1989-90 average of 6.3 years.

Figure 3

AVERAGE DISTRICT EXPERIENCE FOR FULL-TIME PUBLIC SCHOOL TEACHERS
1985-86 vs 1990-91



Source: Basic Educational Data Survey
Department of Education

Length of Contract

Average contract days for full-time public school teachers remained essentially unchanged between 1985-86 and 1990-91 at 191 days. Figures for 1990-91 were up slightly to 191.1 over the 190.8 figure for 1989-90. Only slight differences across enrollment categories existed in the base year, in 1989-90 and in 1990-91 (Table 5). Average contract days for nonpublic teachers increased slightly for each of the three years, from 190 days in 1985-86 to 191 days in 1989-90 and 191.8 days in 1990-91.

Table 5

AVERAGE CONTRACT DAYS FOR FULL-TIME PUBLIC SCHOOL TEACHERS
1985-86, 1989-90, AND 1990-91

Enrollment Category	Year 1985-86	1989-90	1990-91
State	191.0	190.8	191.1
<250	190.4	189.4	190.6
250-399	190.5	190.5	190.5
400-599	190.7	190.7	190.3
600-999	191.3	190.7	191.4
1,000-2,499	191.3	191.3	191.4
2,500-7,499	191.3	191.2	191.5
7,500+	190.9	190.6	190.9

Source: Basic Educational Data Survey
Department of Education

Salaries

Salaries for full-time public school teachers averaged $21,690 in 1985-86 and increased to $27,977 in 1990-91 (Table 6). This is an increase of $6,287 or approximately 29 percent over the period. The 1990-91 average salary represents a 4.6 percent increase over 1989-90 average salaries. The range in average salaries across enrollment categories in 1985-86 was $7,694 and $8,649 in 1990-91. The 1990-91 salary range across enrollment categories was up $870 over the $7,779 range reported in 1989-90. The average salaries for 1989-90 and 1990-91 do not include Education Excellence Program Phase III funds. The average Phase III award was about $1,200 in 1989-90 and in 1990-91. This would increase the 1989-90 estimated average salary to $27,947 and the 1990-91 estimated average salary to $29,177.

Average salaries increased for each subsequently larger enrollment category. In 1985-86 average salaries in the smallest districts were 68 percent of average salaries for teachers in the largest districts. In 1989-90 teachers in districts under 250 enrollment earned 73 percent of the average salary of teachers in districts with enrollments of 7,500 and over, and in 1990-91 the range in average salaries across enrollment categories suggests that teachers in the smallest districts earn 71.8 percent of what their counterparts in the largest districts earn.

Table 6

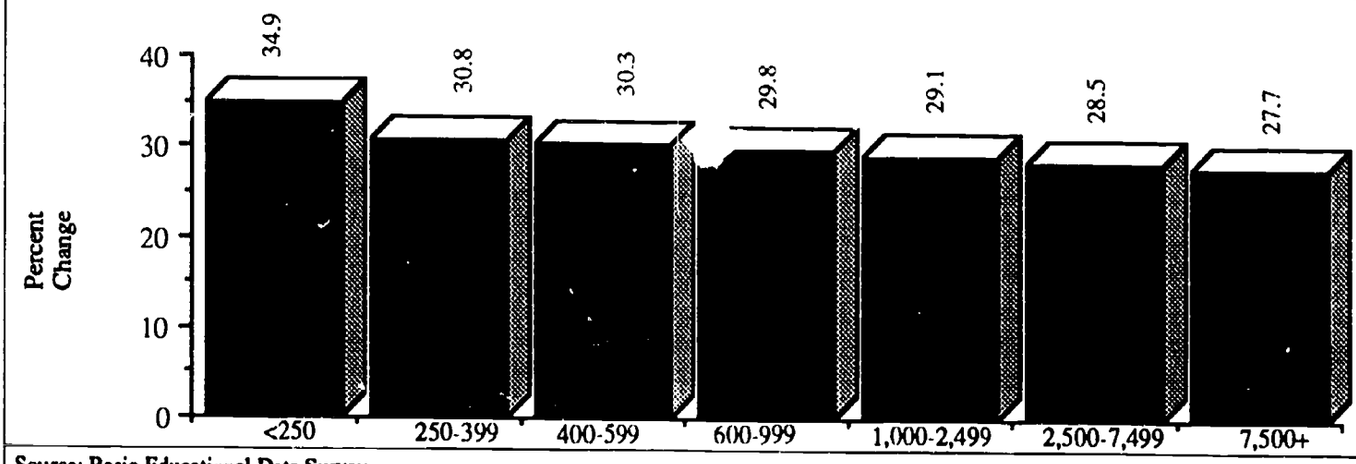
AVERAGE SALARY OF FULL-TIME PUBLIC SCHOOL TEACHERS BY ENROLLMENT CATEGORY

Enrollment Category	Average Salary			Percent Change	
	1985-86	1989-90*	1990-91*	1985-86 to 1990-91	1989-90 to 1990-91
State	$21,690	$26,747	$27,977	29.0	4.6
>250	16,347	21,538	22,051	34.9	2.4
250-399	17,971	22,559	23,512	30.8	4.2
400-599	19,198	24,098	25,024	30.3	3.8
600-999	20,079	24,976	26,058	29.8	4.3
1,000-2,499	21,616	26,697	27,899	29.1	4.5
2,500-7,499	23,835	29,250	30,625	28.5	4.7
7,500+	24,041	29,317	30,700	27.7	4.7

*Does not include Phase III funds
Source: Basic Educational Data Survey
Department of Education

Figure 4

PERCENT CHANGE IN FULL-TIME PUBLIC SCHOOL TEACHER SALARIES FROM 1985-86 TO 1990-91 BY ENROLLMENT CATEGORY



Source: Basic Educational Data Survey
Department of Education

Figure 4 suggests that the percentage increase in average teacher salaries from 1985-86 to 1990-91 is inversely related to the size of the school district. The greatest increases occurred in the smallest enrollment category. The spread in increases ranged from 27.7 percent in the largest districts to nearly 35 percent in the smallest districts.

Salaries for nonpublic teachers averaged $13,449 in 1985-86 and increased to $17,664 in 1990-91. This represents an increase of 31.3 percent over the period. Average nonpublic teacher salaries were up 8 percent from 1989-90 compared to an increase of 4.6 percent for public school teachers.

Principals

Age

The average age of both public and nonpublic school principals increased only slightly from 1985-86 to 1990-

91 (Table 7). The average age for both public and nonpublic principals was also higher in 1990-91 than in 1989-90. The average age of principals was greater than teachers and less than superintendents.

Table 7

AVERAGE AGE OF PUBLIC AND NONPUBLIC SCHOOL PRINCIPALS
1985-86, 1989-90, AND 1990-91

Year	Public	Nonpublic
1985-86	46.6	46.0
1989-90	46.7	46.8
1990-91	47.7	47.8

Source: Basic Educational Data Survey
Department of Education

Table 8 suggests that the average age of public school principals, like teachers, tends to increase with increases in district enrollment. In 1990-91 the average age for principals in the smallest district was 43, with an average age of 49.1 in the largest districts.

Table 8

AVERAGE AGE OF PUBLIC SCHOOL PRINCIPALS BY ENROLLMENT CATEGORY
1985-86, 1989-90, AND 1990-91

Enrollment Category	1985-86	1989-90	1990-91
State	46.6	46.7	47.7
>250	41.9	43.1	43.0
250-399	43.1	44.0	46.2
400-599	44.2	44.6	46.3
600-999	46.3	46.0	47.4
1,000-2,499	47.8	47.7	48.4
2,500-7,499	47.5	48.2	48.7
7,500+	48.7	48.4	49.1

Source: Basic Educational Data Survey
Department of Education

Distribution of Males and Females

Table 9 depicts the distribution of male and female principals in public and nonpublic schools. The percentage of female public school principals declined 3.4 percentage points from 1985-86 to 1990-91, with a decline in nonpublic schools of 3.5 percentage points.

Table 9

DISTRIBUTION OF MALES AND FEMALES AMONG PRINCIPALS IN PUBLIC AND NONPUBLIC SCHOOLS
1985-86, 1989-90, AND 1990-91

	Public		Nonpublic	
Year	Percent Male	Percent Female	Percent Male	Percent Female
1985-86	91.3	8.7	50.5	49.5
1989-90	84.6	13.6	53.1	46.9
1990-91	84.7	15.3	54.0	46.0

Source: Basic Educational Data Survey
Department of Education

Ethnic Distribution

Minority representation among public and nonpublic school principals increased slightly from 1985-86 to 1990-91 (Table 10). For public schools the percentage of minority principals increased in 1990-91 over 1989-90 figures.

Table 10

DISTRIBUTION OF MINORITIES AND NONMINORITIES AMONG PUBLIC AND NONPUBLIC SCHOOL PRINCIPALS

	Public		Nonpublic	
Year	Minority	Nonminority	Minority	Nonminority
1985-86	1.6	98.4	0.0	100.0
1989-90	2.6	97.4	0.6	99.4
1990-91	2.7	97.3	0.6	99.4

Source: Basic Educational Data Survey
Department of Education

Formal Education

In 1990-91 more than 99 percent of public school principals held advanced degrees, compared to about the same percentage in 1985-86 and in 1989-90. In 1985-86, 12.9 percent of public school principals held specialist or doctorate degrees, compared to 11.7 percent in 1990-91. The percentage of public school principals with specialist and doctorate degrees was most prevalent in districts over 2,500 enrollment and least prevalent in the smallest districts.

The percentage of nonpublic principals with advanced degrees has decreased from 97.7 percent in 1985-86 to 93.8 percent in 1990-91. In 1989-90, 95 percent of nonpublic principals held advanced degrees.

Experience in Education

The average total years of experience in education for public school principals was about 22 in 1985-86 (Table 11). This increased to 22.2 years in 1990-91. Total experience was similar across enrollment categories, varying by one year or less in 1990-91. The exception was for principals in districts with enrollments under 250, where average total experience was generally a little more than two years less than that for the other six enrollment categories. For principals in nonpublic schools, total experience averaged 21.4 years in 1990-91 and was approximately the same in 1985-86 and in 1989-90.

District longevity for public school principals decreased slightly from just over 13 years in 1985-86 to 12.4 years in 1990-91. This was also down slightly, from 12.6 years in 1989-90. As with total experience, tenure within districts tended to increase with enrollment. District experience for nonpublic principals averaged six years in 1985-86 and 5.1 years in 1990-91. The 1990-91 figure represents a decrease in district experience from both 1985-86 and 1989-90.

Table 11

EXPERIENCE IN EDUCATION (TOTAL EXPERIENCE) AND IN THE CURRENT (DISTRICT EXPERIENCE) OF FULL-TIME PUBLIC SCHOOL PRINCIPALS BY ENROLLEMNT CATEGORY

Enrollment Category	1985-86 Tot. Exp.	1985-86 Dist. Exp.	1990-91 Tot. Exp.	1990-91 Dist. Exp
State	21.9	13.3	22.2	12.4
<250	17.3	8.0	16.6	5.2
250-399	17.9	8.0	19.5	7.8
400-599	19.3	10.0	20.6	9.1
600-999	22.1	13.2	22.2	12.3
1,000-2,499	23.5	14.1	23.5	13.1
2,500-7,499	23.3	15.2	23.9	15.3
7,500+	23.1	15.7	22.9	15.7

Source: Basic Educational Data Survey
Department of Education

Length of Contract

Average contract length for public school principals increased from 223 days in 1985-86 to 226 days in 1990-91 (Table 12). Average contact days in 1990-91 varied from just over 214 in districts under 250 enrollment to 241 days in districts with enrollments of 7,500 and over, a range of 27 days. Contract days tended to increase with district enrollment.

Table 12

AVERAGE NUMBER OF CONTRACT DAYS FOR FULL-TIME PUBLIC SCHOOL PRINCIPALS BY ENROLLMENT CATEGROY

Enrollment Category	1985-86	1990-91
State	223	226
<250	209	214
250-399	212	216
400-599	213	215
600-999	218	219
1,000-2,499	227	228
2,500-7,499	229	234
7,500+	235	241

Source: Basic Educational Data Survey
Department of Education

Salaries

Average salaries for full-time public school principals increased from $35,313 in 1985-86 to $44,644 in 1990-91 (Table 13), an increase of 26.4 percent. This is approximately 2.5 percentage points less than the average salary increase for public school teachers during the same period. The 1990-91 average represents an increase of 5.1 percent over the 1989-90 average salary. The 1990-91 range in average salaries across enrollment categories was more than $17,500. On the average, principals in districts below 1,000 enrollment made less than the state average. Average salaries in the smallest enrollment category represented only 65.4 percent of average salaries in the largest enrollment categories in 1990-91 compared to 66.7 percent in 1985-86 and 67.6 percent in 1989-90. Average salaries for nonpublic school principals increased from $14,100 in 1985-86 to $22,539 in 1990-91, an increase of 59.9 percent. Salaries for 1990-91 increased 14.2 percent over salaries for 1989-90.

Superintendents

Age

The average age for public school superintendents in 1985-86 was 48.7 years (Table 14). In 1990-91 the average age had risen to 50.5. The average age across enrollment categories in 1990-91 varied from 49.2 years in districts with enrollments of 2,500-7,499 to 53.1 years in the smallest districts.

STAFF

Table 13

AVERAGE SALARIES OF FULL-TIME PUBLIC SCHOOL PRINCIPALS BY ENROLLMENT CATEGORY
1985-86, 1989-90, AND 1990-91

Enrollment Category	Year 1985-86	Year 1989-90	Year 1990-91	Percent Change 1989-90 to 1990-91	Percent Change 1985-86 to 1990-91
State	$35,313	$42,462	$44,644	5.1%	26.4%
<250	26,399	32,295	33,164	2.7	25.6
250-399	28,387	34,464	36,299	5.3	27.9
400-599	31,095	36,987	39,071	5.6	25.7
600-999	33,428	40,045	42,101	5.1	26.7
1,000-2,499	36,427	44,089	46,516	5.5	27.7
2,500-7,499	39,465	48,324	50,581	4.7	28.2
7,500+	39,584	47,786	50,746	6.2	28.2

Source: Basic Educational Data Survey
Department of Education

Table 14

AVERAGE AGE OF PUBLIC SCHOOL SUPERINTENDENTS BY ENROLLMENT CATEGORY
1985-86, 1989-90, AND 1990-91

Enrollment Category	1985-86	1989-90	1990-91
State	48.7	49.3	50.5
<250	47.9	51.1	53.1
250-399	46.6	47.4	50.2
400-599	48.2	50.0	50.4
600-999	49.5	49.4	50.7
1,000-2,499	51.2	48.9	50.0
2,500-7,499	49.5	49.6	49.2
7,500+	48.0	50.1	49.4

Source: Basic Educational Data Survey
Department of Education

Distribution of Males and Females

The percentage of female superintendents increased from 1.6 percent in 1985-86 to 2.8 percent in 1990-91. The figures for 1990-91 also reflect an increase over 1989-90 figures (Table 15).

Ethnic Distribution

All public school superintendents in 1985-86, 1989-90, and 1990-91 were non-minority, compared to 97.7 percent for principals and 1.3 percent for teachers in 1990-91 (Table 16).

Table 15

DISTRIBUTION OF MALES AND FEMALES AMONG FULL-TIME PUBLIC SCHOOL SUPERINTENDENTS
1985-86, 1989-90, AND 1990-91

Year	% Male	% Female
1985-86	98.4	1.6
1989-90	97.7	2.3
1990-91	97.2	2.8

Source: Basic Educational Data Survey
Department of Education

Table 16

DISTRIBUTION OF MINORITIES AND NONMINORITIES AMONG FULL-TIME PUBLIC SCHOOL SUPERINTENDENTS
1985-86, 1989-90, AND 1990-91

Year	% Minority	% Nonminority
1985-86	0.0	100.0
1989-90	0.0	100.0
1990-91	0.0	100.0

Source: Basic Educational Data Survey
Department of Education

Formal Education

In 1985-86, 50.9 percent of public school superintendents held either specialist or doctorate degrees (Table 17). In 1990-91, 47.7 percent held specialist or doctorate degrees. In both years, only one superintendent had less than a master's degree.

Table 17

DEGREE STATUS OF FULL-TIME PUBLIC SCHOOL SUPERINTENDENTS BY ENROLLMENT CATEGORY
1990-91

Enrollment Category	Bach.	Master's	Specialist	Prof.	Doctorate	Total (N)
State	.3	50.8	33.7	1.1	14.0	356
<250	-	56.5	39.1	-	4.3	23
250-399	-	55.0	43.3	-	1.7	60
400-599	-	58.1	29.1	1.2	11.6	86
600-999	-	52.9	39.1	-	8.0	87
1,000-2,499	1.4	40.3	30.6	1.4	26.4	72
2,500-7,499	-	47.6	14.3	-	38.1	21
7,500+	-	-	14.3	28.6	57.1	7

Source: Basic Educational Data Survey
Department of Education

Experience in Education

The average experience in education for public school superintendents in 1985-86 was 23.6 years. In 1990-91 the average experience increased to 24.2 years, up from 23.8 years in 1989-90. The average district experience for public school superintendents has slowly declined since 1985-86. In 1985-86 average district experience was 8.8 years, declining to 8.2 years in 1989-90 and 8.0 years in 1990-91.

Length of Contract

Average contract length for public school superintendents has increased slowly from 1985-86 to 1990-91. Contracts averaged 248 days in 1985-86, 251 days in 1989-90 and 252.9 days in 1990-91.

Salaries

Average salaries for full-time public school superintendents increased from $40,710 in 1985-86 to $53,479 in 1990-91 (Table 18), an increase of 31.4 percent. Over the same period, average teacher salaries increased 31.3 percent while principal salaries increased 26.4 percent. In 1990-91 the range in superintendent salaries across enrollment categories was $37,158. The salary range for superintendents was $28,638 in 1985-86 and $32,305 in 1989-90.

Table 18

AVERAGE SALARIES OF FULL-TIME PUBLIC SCHOOL SUPERINTENDENTS BY ENROLLMENT CATEGORY

Enrollment Category	Year			Percent Change	
	1985-86	1989-90	1990-91	1989-90 to 1990-91	1985-86 to 1990-91
State	$40,710	$50,809	$53,479	5.3	31.4
<250	33,597	42,929	44,362	3.3	32.0
250-399	34,060	42,297	46,069	6.4	35.3
400-599	39,213	47,524	49,407	4.0	26.0
600-999	41,482	50,498	52,821	4.6	27.3
1,000-2,499	47,288	57,008	60,274	5.7	27.5
2,500-7,499	55,110	67,377	71,399	6.0	29.6
7,500+	62,235	75,234	81,520	8.4	31.0

Source: Basic Education Data Survey
Department of Education

STAFF

Table 19

PUPIL -TEACHER RATIOS FOR PUBLIC SCHOOLS
1990-91

Grade	State	Enrollment Category <250	250-399	400-599	600-999	1,000-2,499	2,500-7,499	7,500+
K	25.0	16.7	18.8	21.1	23.2	28.4	33.6	23.4
1	16.9	12.5	15.0	15.4	16.4	17.1	19.0	17.1
2	17.3	12.9	14.8	16.3	16.4	18.0	19.4	17.3
3	17.6	12.7	15.1	16.5	17.2	17.7	19.4	18.5
4	18.0	11.8	15.4	16.6	17.5	18.4	19.3	19.0
5	18.0	11.8	15.5	16.8	17.3	18.4	19.1	19.7
6	17.0	12.3	15.5	16.3	17.1	17.3	17.8	17.4
7	15.4	11.0	12.3	14.4	16.1	15.7	17.1	15.9
8	15.1	10.2	12.1	14.4	16.0	15.2	16.4	15.7
9	14.2	7.4	10.3	11.4	12.4	14.8	17.3	16.6
10	13.8	7.8	10.3	11.1	12.3	14.3	16.8	15.8
11	13.1	6.5	9.3	10.4	11.4	13.4	17.2	15.3
12	13.0	7.2	9.0	10.1	11.6	13.5	17.5	15.0
K-6	18.3	12.8	15.7	16.9	17.7	18.9	20.3	18.8
9-12	13.5	7.2	9.7	10.8	11.9	14.0	17.2	15.7
K-12	16.2	10.8	12.9	14.2	15.3	16.6	18.7	17.3

Source: Basic Educational Data Survey
Department of Education

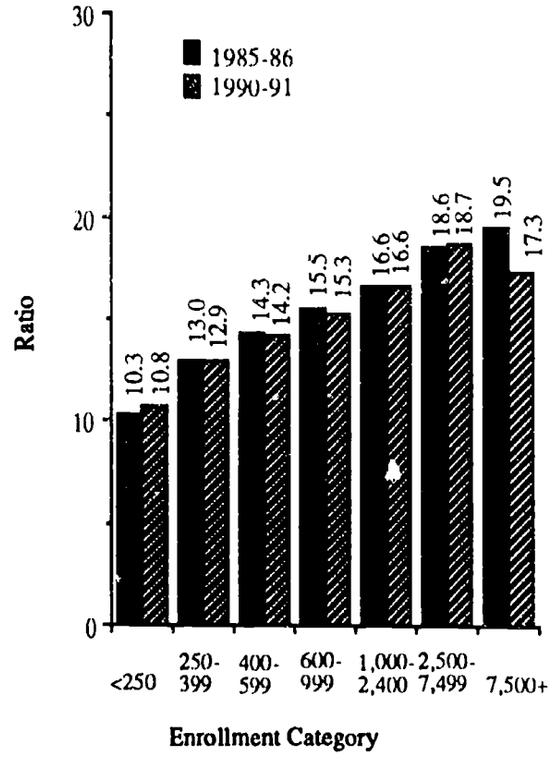
Pupil-Teacher Ratios

In 1985-86 pupil-teacher ratios for the public schools, on a statewide basis, ranged from an average of 18.3:1 in grade 1 to 13.9:1 in grade 12 (Table 19). Kindergarten is generally excluded from grade-by-grade comparison since school districts offer a variety of attendance alternatives. In 1990-91 ratios ranged from a high of 18:1 in grades 4 and 5 to a low of 13:1 in grade 12. In 1990-91 as in 1985-86, pupil-teacher ratios tended to be higher in larger enrollment categories. The K-12 ratio in 1985-86 was 16.6:1 and declined to 16.2:1 in 1990-91. The K-12 ratio in 1990-91 was slightly lower than 1989-90 (16.3:1).

Nonpublic K-12 ratios decreased from 18.1 in 1985-86 to 17.6:1 in 1990-91. For nonpublic schools, ratios ranged from a high in kindergarten for 1985-86 and 1990-91 of 28.6:1 and 26.4:1 respectively, to a low in grade 12 of 14.8:1 in 1985-86 and 11.8:1 in 1990-91.

Figure 5

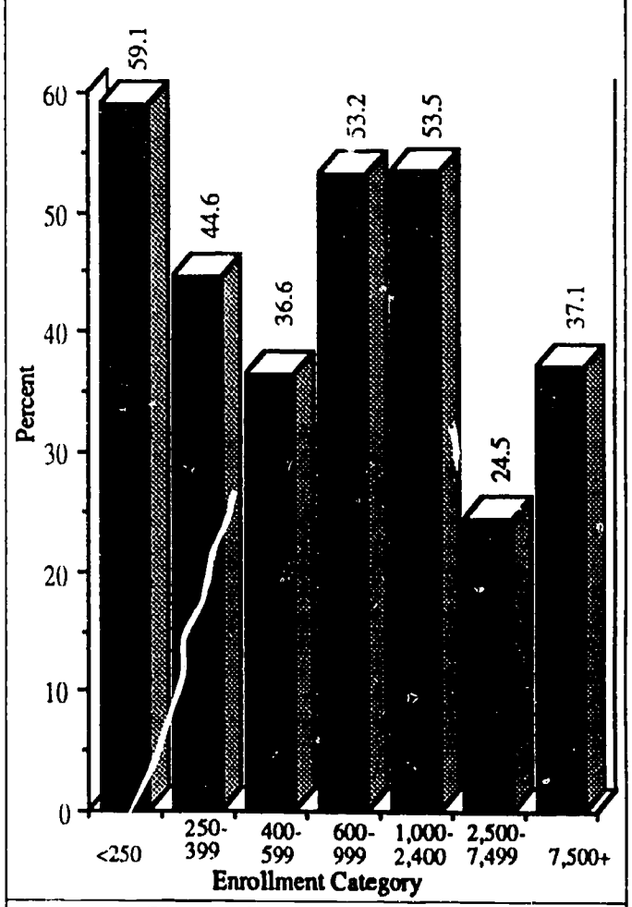
AVERAGE PUPIL-TEACHER RATIO BY ENROLLMENT CATEGORY 1985-86 AND 1990-91



Source: Basic Educational Data Survey
Department of Education

Figure 6

PERCENT CHANGE IN THE NUMBER OF INSTRUCTIONAL AIDES IN PUBLIC SCHOOLS BY ENROLLMENT CATEGORY 1985-86 TO 1990-91



Source: Basic Educational Data Survey
Department of Education

Average K-12 pupil-teacher ratios across all enrollment categories varied only slightly in1990-91 compared to 1985-86 (Figure 5). One exception occurred in districts with enrollments greater than 7,500, where ratios decreased between 1985-86 (19.5:1) and 1990-91 (17.3:1).

Instructional Aides

The state pupil-aide ratio averaged 182:1 in 1985-86 and 128:1 in 1990-91. The 1990-91 ratio of pupils to instructional aides declined from 145:1 in 1989-90. Pupil-aide ratios in 1990-91 were highest for districts with enrollments of 400-599 and lowest for districts with enrollments of 7,500 and above.

Statewide the percent change in the number of instructional aides employed by districts increased 40 percent from 1985-86 to 1990-91 (Figure 6). Increases in instructional aides occurred for each enrollment category with the greatest percentage increase occurring for districts with enrollments under 250. For the state the number of aides increased 13.6 percent over 1989-90 figures .

PROGRAM

- The average number of high school curriculum units increased 13.1 percent statewide from 1985-86 to 1990-91. Average total units varied across the seven enrollment categories from 49.1 to 163.7. The range of total unit offerings varied considerably within enrollment categories as well.
- Average offerings in English/language arts, mathematics, science, social studies, and foreign language increased from 1985-86 to 1990-91 and were higher in 1990-91 than in 1989-90. Average vocational education units decreased statewide from 1985-86 to 1990-91, although average unit offerings were well above minimum standards and were higher statewide in 1990-91 than in 1989-90.
- The estimated percentage of 12th grade students enrolled in calculus increased from 5.6 percent in 1985-86 to 8.3 percent in 1990-91. The 1990-91 figure was up 1.3 percentage points over 1989-90.
- The estimated percentage of 11th grade students enrolled in trigonometry increased from 9.2 percent in 1985-86 to 15.2 percent in 1990-91. Figures for 1990-91 were up 1.2 percentage points over 1989-90.
- Enrollment in chemistry increased from an estimated 48.2 percent of 11th grade students in 1985-86 to an estimated 61 percent in 1990-91. Enrollments in chemistry were up nearly 3 percentage points over 1989-90 figures.
- An estimated 24.3 percent of 11th grade students were enrolled in physics in 1985-86 and an estimated 28.4 percent in 1990-91.
- Foreign language enrollments in grades 9-12 increased from 30.8 percent in 1985-86 to 48.0 percent in 1990-91 and were up 1.1 percentage points over 1989-90 figures.

Program offerings are described in this section in terms of curriculum units offered by public school districts in grades 9 through 12. A unit of credit is defined as a course offered for 36 weeks for at least 200 minutes per week or the equivalent of 120 hours of instruction.

The Iowa Code sets minimum standards to be met in terms of unit offerings. High school programs in grades 9-12 are required to offer a specified number of units in several curricular areas. Standards for unit offerings were increased for the 1989-90 school year.

Comparisons of unit offerings are made for English/language arts, mathematics, science, social studies, foreign language, and vocational education. Comparisons are also made for total unit offerings.

Also included are enrollments in advanced mathematics, advanced science and foreign languages.

Results for this section are limited to public school districts due to the limited number of approved nonpublic schools offering 9-12 programs.

Total Curriculum Units

Table 1 compares minimum curriculum unit requirements for 1985-86 and 1989-90. Increased requirements were the result of new standards implemented for the 1989-90 school year.

The average total units offered by school districts in 1990-91 was 61.3 (Table 2), up slightly from 59.9 units in 1989-90. The increase in total units from the 1985-86 base year is 13.1 percent.

Increases in total units offered from 1985-86 to 1990-91 occurred for each of the seven enrollment categories (Figure 1). Increases varied from 23.1 percent for districts with enrollments under 250 to 7 percent in districts with enrollments of 1,000-2,499. Districts with enrollments under 400 exceeded the state average increase in total units, while districts in the remaining categories fell below the state average increase. All categories reported increases in average total offerings over the 1989-90 school year except those districts with enrollments of 400-599, which reported a slight decrease.

For districts with enrollments of 600 and above, the range of units offered increased as enrollments increased. For 1990-91 the range in units for districts with enrollments of 7,500 and over was more than 8.5 times the range for districts with enrollments of 400-599.

Table 1

COMPARISON OF MINIMUM CURRICULUM UNIT REQUIREMENTS
1985-86 VS 1989-90

Subject Area	1985-1986	1989-1990	Unit Increase
English/Language Arts	5	6	1
Social Studies	4	5	1
Math	5	6	1
Science	4	5	1
Health & Physical Ed.	1	2	1
Fine Arts	1	3	2
Foreign Language	2	4	2
Vocational Education	5	5	0
Total	27	36	9

Source: Bureau of School Administration and Accreditation Department of Education

Table 2

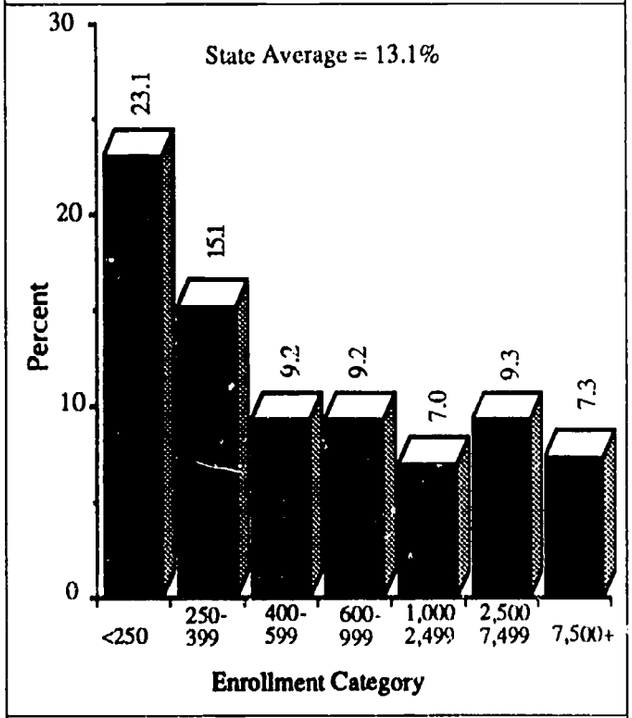
TOTAL CURRICULUM UNITS OFFERED BY PUBLIC SCHOOL DISTRICTS BY ENROLLMENT CATEGORY
1985-86, 1989-90, AND 1990-91

Enrollment Category	Average Units			Minimum Units			Maximum Units		
	1985-86	1989-90	1990-91	1985-86	1989-90	1990-91	1985-86	1989-90	1990-91
State	54.2	59.9	61.3	18.5	29.8	36.3	291.3	254.0	284.5
<250	39.9	46.3	49.1	18.5	29.8	36.3	51.5	59.5	71.5
250-399	43.8	49.2	50.4	31.0	37.5	41.5	58.5	63.5	65.0
400-599	49.0	53.6	53.5	38.5	39.5	43.5	65.5	68.5	65.5
600-999	51.9	56.2	56.7	39.5	42.0	43.0	72.5	80.0	81.8
1,000-2,499	64.6	67.4	69.1	42.3	43.8	52.0	105.3	100.0	94.5
2,500-7,499	88.3	94.4	96.5	61.0	67.0	71.5	122.0	133.5	133.0
7,500+	152.6	154.4	163.7	91.4	96.0	95.5	291.3	254.0	284.5

Source: Basic Educational Data Survey Department of Education

Figure 1

PERCENT CHANGE IN TOTAL CURRICULUM UNITS BY ENROLLMENT CATEGORY OFFERED BY PUBLIC SCHOOL DISTRICTS 1985-86 TO 1990-91



Source: Basic Educational Data Survey
Department of Education

Subject Area Curriculum Units

English/Language Arts

In 1990-91 average English/language arts units offered increased to 8.0 units (Table 3). This represents a 15.9 percent increase from the base year of 1985-86 and an increase of 3.9 percent over 1989-90 figures. Increases for the period ranged from approximately 32 percent in the largest and smallest enrollment categories to just under 8 percent in districts with enrollments of 400-599 (Figure 2).

Mathematics

Average unit offerings in mathematics increased from 7.2 units in 1985-86 to 8.1 units in 1990-91 (Table 4). This represents an average increase of 12.5 percent. Increases varied from 7.1 percent in districts with enrollments of 600-999 to 22.4 percent for districts with enrollments of 2,500-7,499 (Figure 3). Average units offered appeared to be associated with district enrollment in both 1985-86 and 1990-91. Average unit offerings in 1990-91 generally were higher or the same as in1989-90 except in districts with enrollments of 250-399 and in districts with enrollments of 600-999.

Table 3

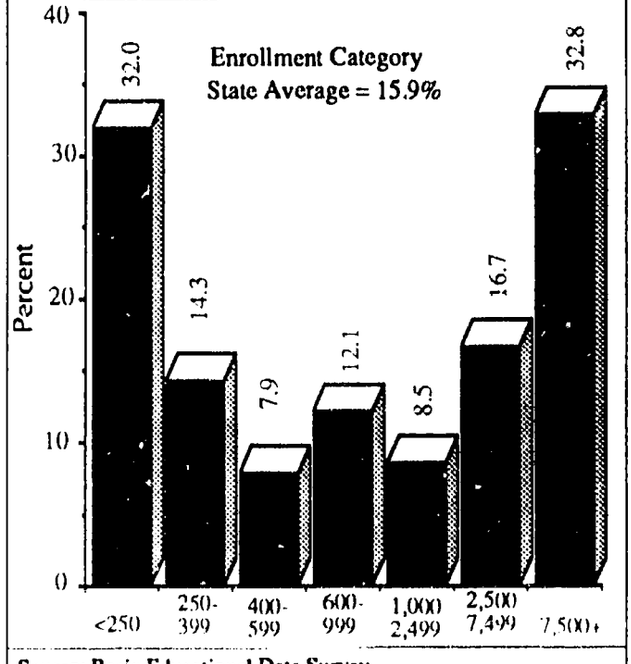
AVERAGE NUMBER OF ENGLISH/LANGUAGE ARTS UNITS BY ENROLLMENT CATEGORY OFFERED BY PUBLIC SCHOOL DISTRICTS 1985-86, 1989-90, AND 1990-91

Enrollment Category	1985-86	1989-90	1990-91
State	6.9	7.7	8.0
<250	5.0	6.2	6.6
250-399	5.6	6.4	6.4
400-599	6.3	6.8	6.8
600-999	6.6	7.3	7.4
1,000-2,499	8.2	8.4	8.9
2,500-7,499	11.4	13.1	13.3
7,500+	17.7	20.4	23.5

Source: Basic Educational Data Survey
Department of Education

Figure 2

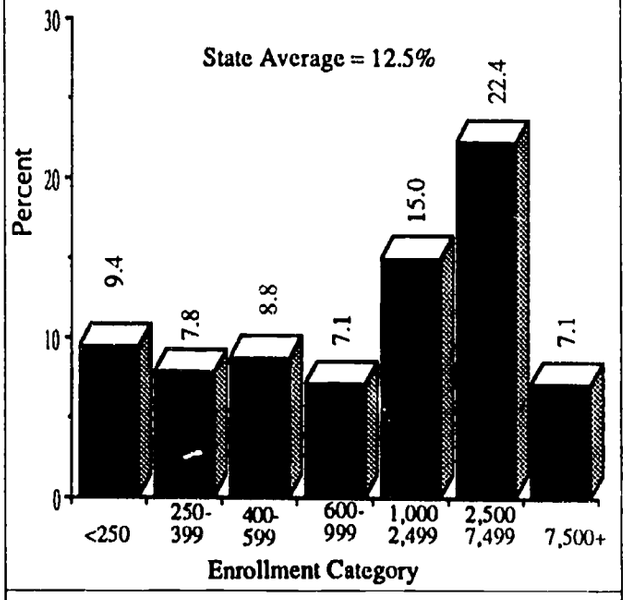
PERCENT CHANGE IN ENGLISH/LANGUAGE ARTS UNITS OFFERED BY PUBLIC SCHOOL DISTRICTS BY ENROLLMENT CATEGORY 1985-86 TO 1990-91



Source: Basic Educational Data Survey
Department of Education

Figure 3

PERCENT CHANGE IN MATHEMATICS UNITS OFFERED BY PUBLIC SCHOOL DISTRICTS BY ENROLLMENT CATEGORY 1985-86 TO 1990-91



Source: Basic Educational Data Survey
Department of Education

Table 4

AVERAGE NUMBER OF MATHEMATICS UNITS BY ENROLLMENT CATEGORY OFFERED BY PUBLIC SCHOOL DISTRICTS 1985-86, 1989-90, AND 1990-91

Enrollment Category	1985-86	1989-90	1990-91
State	7.2	8.0	8.1
<250	6.4	6.7	7.0
250-399	6.4	7.0	6.9
400-599	6.8	7.4	7.4
600-999	7.0	7.7	7.5
1,000-2,499	8.0	9.0	9.2
2,500-7,499	9.8	11.7	12.0
7,500+	12.7	13.2	13.6

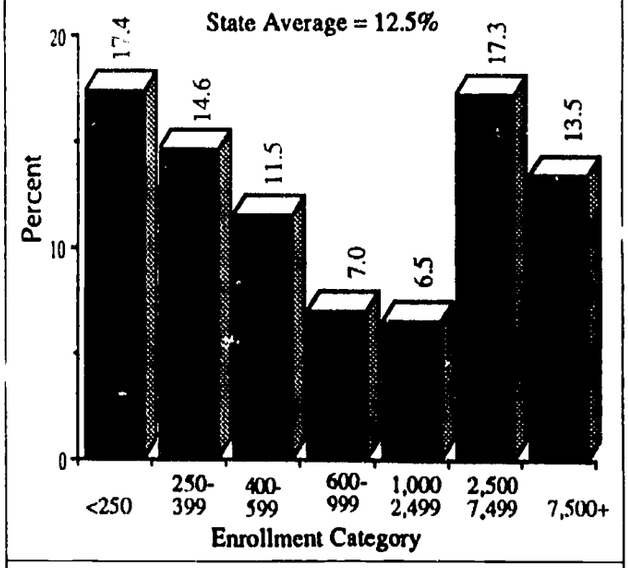
Source: Basic Educational Data Survey
Department of Education

Science

Average science unit offerings in 1990-91 increased 12.5 percent over 1985-86 offerings to 6.3 units statewide. Changes in average unit offerings varied from an increase of 6.5 percent in districts with enrollments of 1,000-2,499 to an increase of 17.4 percent in districts under 250 enrollment (Figure 4). In all but two enrollment categories average science units showed increases over the 1989-90 school year. Higher average unit offerings were associated with larger enrollment categories (Table 5).

Figure 4

PERCENT CHANGE IN SCIENCE UNITS OFFERED BY PUBLIC SCHOOL DISTRICTS BY ENROLLMENT CATEGORY 1985-86 TO 1990-91



Source: Basic Educational Data Survey
Department of Education

Table 5

AVERAGE NUMBER OF SCIENCE UNITS BY ENROLLMENT CATEGORY OFFERED BY PUBLIC SCHOOL DISTRICTS 1985-86, 1989-90, AND 1990-91

Enrollment Category	1985-86	1989-90	1990-91
State	5.6	6.2	6.3
<250	4.6	5.2	5.4
250-399	4.8	5.3	5.5
400-599	5.2	5.7	5.8
600-999	5.7	6.2	6.1
1,000-2,499	6.2	6.5	6.6
2,500-7,499	8.1	9.2	9.5
7,500+	9.6	11.5	10.9

Source: Basic Educational Data Survey
Department of Education

Table 6

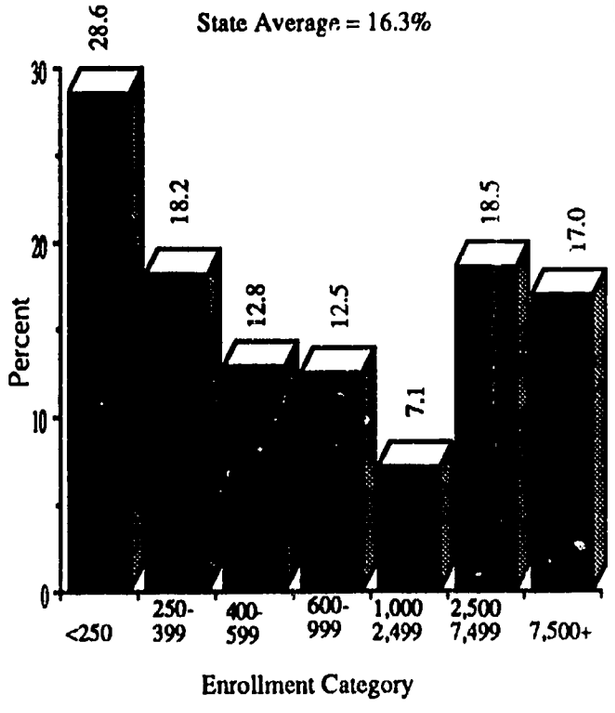
AVERAGE NUMBER OF SOCIAL STUDIES UNITS OFFERED BY PUBLIC SCHOOL DISTRICTS BY ENROLLMENT CATEGORY 1985-86, 1989-90, AND 1990-91

Enrollment Category	1985-86	1989-90	1990-91
State	4.2	5.1	5.4
<250	4.4	5.1	5.2
250-399	4.7	5.2	5.3
400-599	4.8	5.4	5.4
600-999	5.6	5.9	6.0
1,000-2,499	6.5	7.2	7.7
2,500-7,499	8.8	9.9	10.3
7,500+	4.9	5.5	5.7

Source: Basic Educational Data Survey
Department of Education

Figure 5

PERCENT CHANGE IN SOCIAL STUDIES UNITS OFFERED BY PUBLIC SCHOOL DISTRICTS BY ENROLLMENT CATEGORY 1985-86 TO 1990-91



Source: Basic Educational Data Survey
Department of Education

Social Studies

On a statewide basis the average number of social studies units increased from 4.9 in 1985-86 to 5.7 in 1990-91 (Table 6). This represented an increase of 16.3 percent (Figure 5). The average unit offerings in 1990-91 generally increased with each successively higher enrollment category. The largest districts in 1990-91 offered nearly twice the number of social studies units as did districts under 600 enrollment. Districts with enrollments of 600-999 offered the same number of units as in 1989-90, while all other enrollment category averages exceeded 1989-90 figures.

Foreign Languages

Average foreign language units offered statewide increased from 3.6 units in 1985-86 to 5.2 units in 1990-91 (Table 7). This represents an increase of 44.4 percent. Increases from 1985-86 to 1990-91 ranged from 16.3 percent in districts with enrollments of 2,500-7,499 to about 76 percent in districts with enrollments under 250 (Figure 6). Average units in all enrollments categories were higher than in 1989-90.

Unit requirements for foreign language doubled from 1985-86 to 1990-91, and districts were granted the opportunity to apply for waivers, thus accounting for average unit offerings in some instances falling below the minimum requirement of four.

Table 7

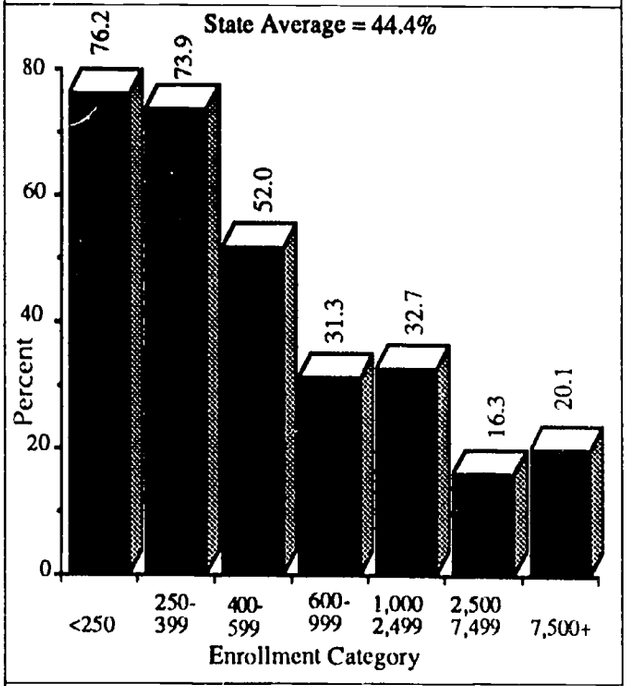
AVERAGE NUMBER OF FOREIGN LANGUAGE UNITS OFFERED BY PUBLIC SCHOOL DISTRICTS BY ENROLLMENT CATEGORY 1985-86, 1989-90, AND 1990-91

Enrollment Category	1985-86	1989-90	1990-91
State	3.6	4.9	5.2
<250	2.1	3.2	3.7
250-399	2.3	3.6	4.0
400-599	2.5	3.7	3.8
600-999	3.2	4.0	4.2
1,000-2,499	4.9	6.1	6.5
2,500-7,499	9.8	10.9	11.4
7,500+	14.9	16.7	17.9

Source: Basic Educational Data Survey
Department of Education

Figure 6

PERCENT CHANGE IN FOREIGN LANGUAGE UNITS OFFERED BY PUBLIC SCHOOL DISTRICTS BY ENROLLMENT CATEGORY 1985-86 TO 1990-91



Source: Basic Educational Data Survey
Department of Education

Vocational Education

The average number of vocational education units offered was 19.5 in 1985-86 and decreased to 18.9 in 1990-91 (Table 8). This represents a decrease of 3.1 percent statewide. Decreases in the average unit offerings from 1985-86 to 1990-91 occurred for districts in all categories except those under 400 enrollment. Increases in average vocational units over 1989-90 figures occurred for districts with enrollments under 400 and for districts with enrollments of 7,500 and over.

Districts under 400 enrollment reported percentage increases in the number of vocational education units offered in 1990-91 over 1985-86 offerings (Figure 7). All other enrollment categories reported percentage decreases.

Vocational education was the only subject area in which decreases in the average units offered occurred between 1985-86 and 1990-91. However, average offerings in 1985-86 and in 1990-91 were well above maximum requirements and in four of the seven enrollment categories, and for the state as a whole, 1990-91 averages were equal to or above 1989-90 figures.

Table 8

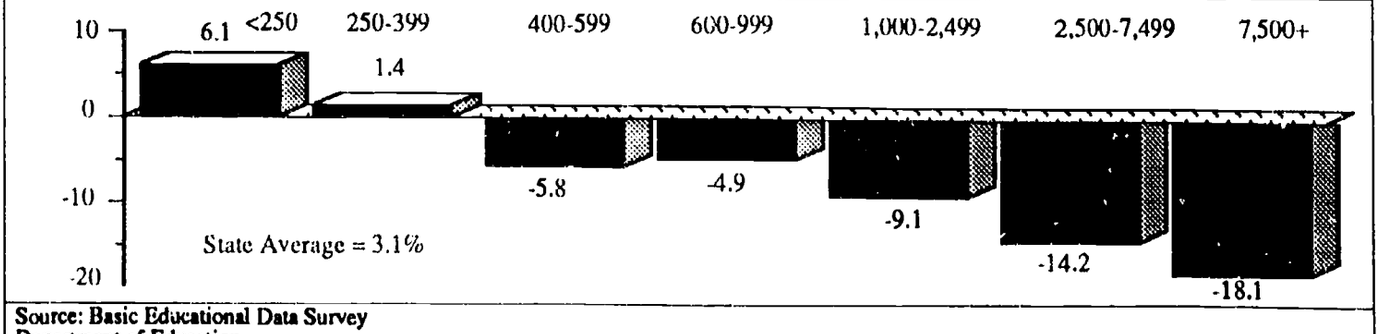
AVERAGE NUMBER OF VOCATIONAL EDUCATION UNITS OFFERED BY PUBLIC SCHOOL DISTRICTS BY ENROLLMENT CATEGORY 1985-86, 1989-90, AND 1990-91

Enrollment Category	1985-86	1989-90	1990-91
State	19.5	18.7	18.9
<250	13.1	13.1	13.9
250-399	14.7	14.4	14.9
400-599	17.3	16.7	16.3
600-999	18.5	17.6	17.6
1,000-2,499	24.1	22.0	21.9
2,500-7,499	33.1	28.8	28.4
7,500+	70.1	56.0	57.4

Source: Basic Educational Data Survey
Department of Education

Figure 7

PERCENT CHANGE IN VOCATIONAL EDUCATION UNITS OFFERED BY PUBLIC SCHOOL DISTRICTS BY ENROLLMENT CATEGORY 1985-86 TO 1990-91



Source: Basic Educational Data Survey
Department of Education

Table 9

ENROLLMENT IN CALCULUS BY ENROLLMENT CATEGORY — 1985-86, 1989-90, AND 1990-91

Enrollment Category	1985-86 Number Enrolled	1985-86 Estimated* % Enrolled	1989-90 Number Enrolled	1989-90 Estimated* % Enrolled	1990-91 Number Enrolled	1990-91 Estimated* % Enrolled
State	2,004	5.6	2,358	7.0	2,574	8.3
<250	24	2.9	18	3.2	16	4.0
250-399	35	1.6	47	2.5	41	2.3
400-599	89	2.5	198	5.1	202	6.0
600-999	200	3.6	247	5.1	253	5.3
1,000-2,499	451	5.4	637	7.8	787	10.3
2,500-7,499	680	9.4	437	6.6	351	6.0
7,500+	525	6.4	774	9.7	924	13.1

*Estimate based on the assumption that all students taking calculus were enroiled in grade 12.
Source: Basic Educational Data Survey
Department of Education

Table 10

ENROLLMENT IN TRIGONOMETRY BY ENROLLMENT CATEGORY — 1985-86, 1989-90, AND 1990-91

Enrollment Category	1985-86 Number Enrolled	1985-86 Estimated* % Enrolled	1989-90 Number Enrolled	1989-90 Estimated* % Enrolled	1990-91 Number Enrolled	1990-91 Estimated* % Enrolled
State	5,107	9.2	4,392	14.0	4,820	15.2
<250	69	9.2	40	7.8	35	9.3
250-399	105	4.6	114	6.5	117	6.5
400-599	242	6.7	372	10.8	248	7.2
600-999	369	6.5	307	6.8	557	11.5
1,000-2,499	1,158	13.4	1,278	17.1	1,242	16.1
2,500-7,499	1,086	14.7	545	8.8	790	13.2
7,500+	2,078	23.6	1,736	23.1	1,831	24.5

*Estimate based on the assumption that all students taking trigonometry were enrolled in grade 12.
Source: Basic Educational Data Survey
Department of Education

Table 11

ENROLLMENT IN CHEMISTRY BY ENROLLMENT CATEGORY — 1985-86, 1989-90, AND 1990-91

Enrollment Category	1985-86 Number Enrolled	1985-86 Estimated* % Enrolled	1989-90 Number Enrolled	1989-90 Estimated* % Enrolled	1990-91 Number Enrolled	1990-91 Estimated* % Enrolled
State	17,945	48.2	18,272	58.1	19,329	61.0
<250	413	55.4	283	54.8	211	56.3
250-399	971	42.4	910	51.6	1,034	57.2
400-599	1,678	46.2	1,876	54.2	2,000	58.0
600-999	2,896	51.0	2,971	65.5	3,023	62.3
1,000-2,499	4,031	46.5	4,426	59.1	4,647	60.2
2,500-7,499	4,283	57.8	3,712	60.0	3,937	65.6
7,500+	3,673	41.8	4,094	54.4	4,477	59.9

*Estimate based on the assumption that all students taking Chemistry were enrolled in grade 12.
Source: Basic Educational Data Survey
Department of Education

Table 12

ENROLLMENT IN PHYSICS BY ENROLLMENT CATEGORY — 1985-86, 1989-90, AND 1990-91

Enrollment Category	1985-86 Number Enrolled	1985-86 Estimated* % Enrolled	1989-90 Number Enrolled	1989-90 Estimated* % Enrolled	1990-91 Number Enrolled	1990-91 Estimated* % Enrolled
State	9,051	24.3	9,043	28.7	8,991	28.4
<250	191	25.6	126	24.4	101	26.9
250-399	683	29.8	491	27.8	495	27.4
400-599	887	24.4	981	28.4	865	25.1
600-999	1,226	21.6	1,324	29.2	1,237	25.5
1,000-2,499	1,737	20.0	1,781	23.8	1,803	23.4
2,500-7,499	2,303	31.1	1,981	32.0	1,952	32.5
7,500+	2,024	23.0	2,359	31.3	2,538	33.9

*Estimate based on the assumption that all students taking physics were enrolled in grade 11.
Source: Basic Educational Data Survey
Department of Education

Table 13

ENROLLMENT IN FOREIGN LANGUAGE BY ENROLLMENT CATEGORY — 1985-86, 1989-90, AND 1990-91

Enrollment Category	1985-86 Number Enrolled	1985-86 Estimated* % Enrolled	1989-90 Number Enrolled	1989-90 Estimated* % Enrolled	1990-91 Number Enrolled	1990-91 Estimated* % Enrolled
State	46,791	30.8	62,268	46.9	63,107	48.0
<250	658	20.4	871	40.7	707	43.5
250-399	1,667	18.2	2,950	39.4	2,990	40.1
400-599	2,769	18.9	5,858	39.9	5,657	39.7
600-999	5,079	21.8	8,713	46.0	8,353	41.6
1,000-2,499	10,536	30.2	15,414	48.5	15,776	49.1
2,500-7,499	13,018	42.7	13,041	50.5	13,194	53.7
7,500+	13,064	35.9	15,421	48.2	16,430	52.4

*Based on percentage of 9-12 students enrolled in foreign language.
Source: Basic Educational Data Survey
Department of Education

Advanced Courses

Mathematics

Calculus

In 1985-86 a total of 2,004 students were enrolled in calculus (Table 9). This figure increased to 2,574 in 1990-91, an increase of 28.4 percent. Compared to 1989-90 figures, enrollment in calculus was up 216 students or 9.2 percent. The assumption is made that calculus is generally taken in grade 12. Based on this assumption it is estimated that 8.3 percent of 12th grade students from 131 school districts were enrolled in calculus. This is up from an estimated 7 percent in 1989-90 and an estimated 5.6 percent in 1985-86.

Trigonometry

During the 1985-86 school year 5,107 students were enrolled in trigonometry classes statewide. Assuming that trigonometry is most often taken in 11th grade, it was estimated that 13.7 percent of 11th grade students took calculus. In 1990-91 the estimated percentage of 11th graders enrolled in calculus is 15.2 percent, up from an estimated 14 percent in 1989-90 (Table 10).

Districts in four of the seven enrollment categories showed increases in the percentage of eleventh grade students enrolled in trigonometry over 1989-90 figures, two enrollment categories showed decreases and one remained unchanged.

Science

Chemistry

Nearly 18,000 students were enrolled in chemistry in 1985-86. Assuming that chemistry is generally taken by students in 11th grade, this represents an estimated 48.2 percent of 11th grade students. In 1990-91, 19,329 students were enrolled in chemistry or an estimated 61 percent of 11th graders. This is up from an estimated 58.1 percent in 1989-90. In 1990-91 estimates across enrollment categories ranged from 56.3 percent in districts under 250 enrollment to 65.6 percent in districts with enrollments of 2,500-7,499 (Table 11).

Physics

In 1985-86 physics enrollment totaled 9,051 students. Assuming that physics is generally taken in 11th grade, an estimated 24.3 percent of 11th graders were enrolled in physics. This figure increased to 28.7 percent in 1989-90, and for 1990-91, it is estimated that 28.4 percent of 11th grade students were enrolled in physics (Table 12).

Estimates across enrollment categories were down from 1989-90 in all categories except in districts with enrollments under 250 and in districts with enrollments of 2,500 or more.

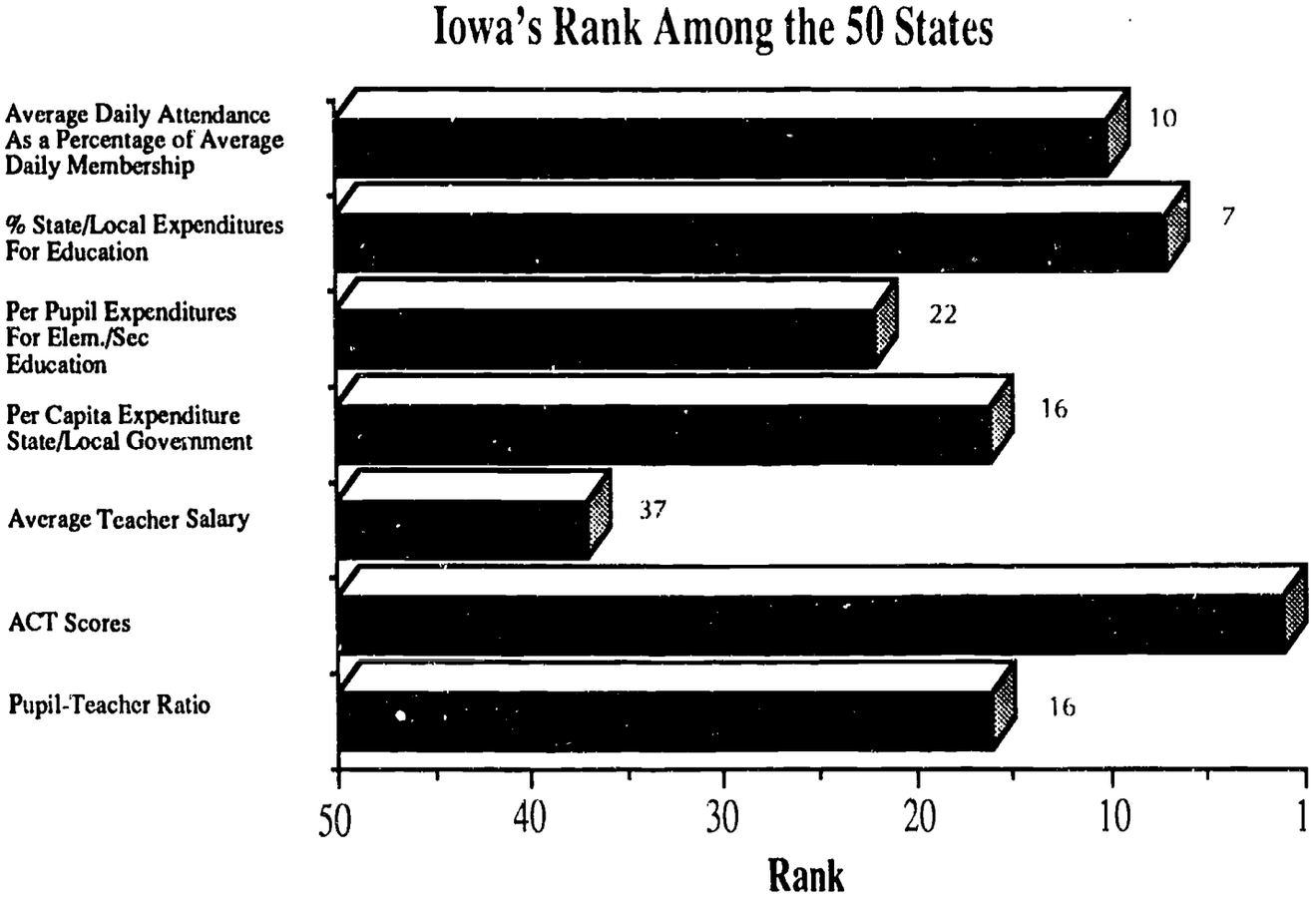
Foreign Languages

In 1985-86, 30.8 percent of 9-12 students were enrolled in foreign language courses. This increased to 46.9 percent in 1989-90 and to 48 percent in 1990-91 (Table 13). Increases in the percentage of students enrolled in foreign language courses over the 1989-90 school year occurred in all enrollment categories but two, those districts with enrollments of 400-599 and districts with enrollments of 600-999.

APPENDIX A

Iowa and the Nation: A Comparison of Education Indicators

This section of the report provides a wide range of comparisons of Iowa to the nation on a number of education indicators. Areas of comparison include local, state and federal support for education, expenditures, student attendance, teacher salaries, pupil-teacher ratios, teacher involvement in educational decision making, teacher perceptions of educational problems, teacher characteristics and teacher assignments, school and student participation in the Advanced Placement Program, grade point averages of ACT test-takers, student enrollments in math and science courses and time allocations for math and science classes.



APPENDIX A

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APPENDIX A

Table 1

COMPARISON OF IOWA AND THE NATION FOR SELECTED EDUCATIONAL INDICATORS

Indicator	Year	Iowa	Rank	Nation
Pupil-Teacher ratio (a)	1989	15.8:1	16	17.4:1
Percent of total schools with Advanced Placement programs (a)	1989	12.6	48	39.7
Percent of high school graduates scoring 3 or above on AP exams (a)	1989	2.3	42	8.6
Average Advanced Placement score (b)	1990	3.22	-	3.05
ACT average score (a)	1989	20.1	1	18.6

Source:
(a) State Education Performance Chart
U.S. Department of Education, Office of Planning, Budget and Evaluation, May, 1990, Revised

(b) 1990 Advanced Placement Program, National and Iowa Summary Reports, The College Boards.

Table 2

COMPARISON OF SELECTED EDUCATIONAL INDICATORS

Indicator	Year	Iowa	Rank	Nation
Average teacher salary*	1989-90	$26,747	37	$31,166
Percent change in teacher salaries (constant dollars)	1979-89 to 1989-90	8.9	3.8	20.8
Per capita expenditure of state and local government for all education	1987-88	$1,072	16	$987
State and local government expenditures for all education as a percent of total general fund expenditures for all functions	1987-88	40.4	7	34.4
Public school revenue per average daily membership*	1989-90	$4,6[illegible]	32	$5,327
Percent of revenue for public elementary and secondary schools from local government*	1989-90	43.7	27	45.0
Percent of revenue for public elementary and secondary schools from state government*	1989-90	51.0	23	48.7
Percent of revenue for public elementary and secondary schools from federal government*	1989-90	5.3	33	6.3
Expenditures for public elementary and secondary schools Per average daily membership	*1989-90	$4,362	22	NA
Average daily attendance as a percent of average daily membership	1989-90	95.0	10	NA

*Indicates Estimate
Source: Rankings of the States, 1990. National Education Association

APPENDIX A

Table 3

PERCENTAGE OF TEACHERS REPORTING PROBLEMS IN THEIR SCHOOLS, 1987

Problem	Iowa %	Nation %
Disruptive classroom behavior	80	87
Student absenteeism	78	83
Student apathy	86	88
Lack of parental support	87	90
Violence against students	35	44
Violence against teachers	16	24
Use of alcohol	63	49
Use of drugs other than alcohol	63	54
Abused/neglected students	88	89
Poor health of students	61	69

Source: Digest of Education Statistics, 1990
Adapted from Table 68

Table 4

PERCENT OF TEACHERS INVOLVED IN SELECTED DECISIONS, 1987

	Iowa	Nation
Choosing textbooks	90	79
Shaping curriculum	75	63
Tracking students	48	45
Setting promotion/retention policies	37	34
Deciding school budgets	15	20
Evaluating teacher performance	7	10
Selecting new teachers	6	7
Selecting new administrators	10	7

Source: Digest of Education Statistics, 1990
Adapted from Table 67

Table 5

SELECTED CHARACTERISTICS OF PUBLIC SCHOOL TEACHERS' CURRENT TEACHING ASSIGNMENTS, 1987

	Iowa	Nation
Average number students per class	21	23
Feeling about typical class size		
Too large	20%	36%
About right	79%	62%
Too small	1%	1%
Average hours per week on the job		
Less than 40	7	11
40 - 59	78	78
60+	15	11
Teaching subjects unqualified to teach	18	20

Source: Digest of Education Statistics, 1990
Adapted from Table 66

Table 6

DISTRIBUTION OF TEACHERS BY DEGREE TYPE AND TOTAL YEARS OF TEACHING EXPERIENCE 1987-88

Degree Type	Iowa %	Nation %
Bachelor's	65.6	52.2
Master's	31.2	40.0
Specialist	-	6.3
Doctorate	-	0.9
Total Teaching Experience		
Less than 3 years	7.6	8.0
3 to 9	24.2	26.0
10 to 20	39.9	44.5
Over 20	28.3	21.4

Source: Digest of Education Statistics, 1990
Adapted from Table 62

APPENDIX A

Table 7

AVERAGE HIGH SCHOOL GRADE POINT AVERAGES OF ACT TEST-TAKERS

	Year	English	Math	Social Studies	Natural Sciences	Overall Average
Iowa	1986	3.06	2.77	3.05	2.89	2.94
	1990	3.09	2.74	3.05	2.90	2.94
Midwest	1986	2.97	2.68	3.04	2.84	2.88
	1990	2.97	2.68	3.03	2.84	2.87
Nation	1986	2.97	2.70	3.06	2.87	2.89
	1990	2.98	2.71	3.06	2.88	2.90

Source: ACT Assessment Results, 1990 Summary Report, Iowa

Table 8

ACT TEST-TAKERS EXPRESSING NEED FOR HELP 1990

Area	Iowa	Midwest	Nation
Educational/Occupational Planning	48	44	43
Expressing Ideas in Writing	24	26	27
Reading/Comprehension	29	28	29
Study Skills	46	45	45
Math Skills	40	41	42

Source: ACT Assessment Results 1990, Summary Report

Table 9

MATHEMATICS AND SCIENCE COMPARISONS IOWA AND THE NATION

	Iowa	Nation
Elementary Class Time Spent on Mathematics		
in Grades 1-3	4.3 hrs.	4.8 hrs.
in Grades 4-6	5.0 hrs	4.9 hrs.
Elementary Class Time Spent on Science		
in Grades 1-3	2.2 hrs.	2.7 hrs.
in Grades 4-6	2.3 hrs.	3.0 hrs.
Percent of 9-12 Mathematics Teachers with Major in Mathematics or Mathematics Education	64	63
Percent of 9-12 Science Teachers with Major in Science or Science Education	68	64
Course Enrollments in Science as a Percent of Students in Grades 9-12		
Earth, Physical & Gen. Science 1st Yr.	20	23
Biology 1st Yr.	28	25
Biology 2nd Yr., Earth Sci. 2nd Yr., Chemistry & Physics 1st & 2nd Yr.	23	21
Other Sciences	0	3
Total Science	71	72
Students Taking Formal Mathematics as a Percent of Students in Grades 9-12		
Algebra I	24	21
Geometry	17	14
Algebra II	15	12
Trigonometry	8	6
Calculus	2	1

Source: State Indicators of Science and Mathematics Education, 1990, Council of Chief State School Officers, Adapted from Table 6

APPENDIX B

Executive Summary: Iowa's Progress Toward the National Education Goals

In recognition of the important role of education in maintaining the economic strength, security and international competitiveness of the United States, the nation's President and Governors agreed to establish and monitor progress toward national education goals at the historic Education Summit in 1989. In 1990, the National Governors Association adopted six goals presented by the President in his 1990 State of the Union message, and created the National Education Goals Panel to evaluate and report on progress toward meeting the goals. Once the Goals Panel identified indicators that would provide an accurate measure of progress toward each of the goals, preparation of the first progress report was initiated. As many of the recommendations of the resource groups called for the development of new measures, the initial report summarized the best information that was currently available at the national level. The Goals Panel encouraged each state to take a similar approach in the development of their individual reports. *Iowa's Progress toward the National Education Goals* is a compilation of the best available data designed to describe the status of Iowa education relative to the National Goals. In addition, it includes brief descriptions of programs and other initiatives currently being implemented across the state that are likely to affect this status.

Goal 1: *By the year 2000, all children in America will start school ready to learn.*

There is not yet an adequate measure of school readiness at the national or state level. Assessing school readiness is complicated by the lack of universal agreement on the concept of "readiness" as well as appropriate programs for preschool children. However, the importance of such programs is evident in increased emphasis on prekindergarten/early childhood programs:

* Enrollment in Iowa public school prekindergarten programs has increased 186.76 percent from 1985-86 to 1990-91.

* Preschool programs are offered to meet the needs of young students with special needs through Chapter 1 of the Elementary and Secondary Education Act, special education, and at-risk programs funded through the Iowa legislature. In 1990-91, 51 of 74 grants provided through at-risk legislation, and one-half of the $7.6 million available, supported early childhood prekindergarten programs.

Goal 2: *By the year 2000, the high school graduation rate will increase to at least 90 percent.*

At present, there are no comparable data to accurately measure high school completion and dropout rates across the country. However, the National Center for Education Statistics, with cooperation from the Council of Chief State School Officers, has been working with states to develop such measures.

Iowa data suggest that the graduation rate ranged from approximately 86 to 88 percent between 1985-86 and 1987-88. The dropout rate has remained at or below 2.5 percent since 1985-86.

In recent years, Iowa legislation provided financial incentives to school districts for implementing dropout prevention programs. As a result, the number of programs increased from 10 in 1985-86 to 84 in 1991-92.

Goal 3: *By the year 2000, American students will leave grades 4, 8 and 12 having demonstrated competency in challenging subject matter including English, mathematics, science, history and geography; and every school in America will ensure that all students learn to use their minds well so they may be prepared for responsible citizenship, further learning and productive employment in our modern economy.*

There are limited direct measures of student achievement in English, social studies, foreign language, vocational education, and citizenship. One indicator recommended by the National Goals Panel is the results of Advanced Placement tests. Iowa students generally scored higher than the national average on Advanced Placement exams in economics, English, language and composition, English literature and cornposition, European history, and U.S. government and politics. However, the number of students who participated in the Advance Placement Program is quite small.

Beginning in 1991, increased access and involvement in the program for Iowa students is occurring through a program offered by the University of Iowa. The Iowa Project is a cooperative venture of the University of Iowa and the College Board, manager of the Advanced Placement Program. It is unique in that it is the only such experiment in the United States, and may serve as a model for other states. The project is designed to show the effectiveness of an alternative to high school administration of the Advanced Placement exams and may improve the opportunities for students whose schools cannot afford to provide Advanced Placement courses.

State level data indicate that scores on the Social Studies subtest of the Iowa Test of Educational Development (ITED) generally increased at grades 9, 10, and 11 between 1985-86 and 1988-89. The results of the language skills subtests of the Iowa Test of Basic Skills show increases in grades 3 through 8 from 1985-86 to 1989-90.

Goal 4: *By the year 2000, U.S. students will be the first in the world in mathematics and science achievement.*

Data are available through national assessment projects to describe student achievement in science and mathematics. Results of the National Assessment of Education Progress (NAEP) Trial State Assessment in mathematics (Educational Testing Service interpretation) indicate that 100 percent of Iowa 8th graders achieved level 200, simple additive reasoning and problem solving with whole numbers (97 percent nationally). Eighty-four percent achieved level 250, simple multiplicative reasoning and two-step problem solving (64 percent nationally). Twenty-one percent achieved level 300, reasoning and problem solving involving fractions, decimals, percents, elementary geometry, and simple algebra (12 percent nationally). And .2 percent achieved level 350, reasoning and problem solving involving geometry, algebra, and beginning statistics and probability (.2 percent nationally).

The results of Advanced Placement exams in biology, chemistry, physics, computer science and calculus indicate that scores of Iowa test-takers were above the national average in all but chemistry and advanced calculus, where scores were slightly lower than the national average. Again, however, very few of the students who were eligible participated in the Advanced Placement Program.

In addition, the Iowa Testing Program provides information on student achievement in mathematics and science. Total mathematics skills scores on the ITBS for grades 3 through 8 indicate generally steady improvement between 1985 and 1990. Average scores for students in grades 9, 10, and 11 on the quantitative thinking and natural science subtests of the ITED reflect general improvement between 1988 and 1990.

Goal 5: *By the year 2000, every adult American will be literate and will possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship.*

The National Education Goals Panel highlighted two major complications associated with measuring progress toward this goal. First, there is no common definition or single measure of "literacy" generally accepted by the educational community. Second, continuing educational opportunities are offered through multiple private and public sources and at multiple levels. Because of these complicating factors, the Goals Panel recommended using a wide variety of measures; however, the measures were not available for the first report. Some state level data were reported.

Results of a follow-up study of high school graduates one year after graduation demonstrate a steady increase in the percentage of respondents enrolled in college and an overall increase in those enrolled in other educational or training opportunities. Decreases in the percentages of graduates entering the job market or identifying some other alternative and a consistent percentage of students entering the military suggest that more graduates are seeking some form of formal postsecondary education.

Historical trends in enrollment at postsecondary educational institutions indicate that significant increases occurred among undergraduate enrollment between 1975 and 1980 (11.52 percent) and between 1980 and 1982 (5.93 percent). Less remarkable but steady increases occurred between 1984 and 1989. Graduate enrollment also experienced steady increases. As a result, the 1989 enrollment represents an increase of 31.52 percent over the enrollment for 1975.

Increases in enrollment were also evident in Adult Basic Education programs between 1989 and 1990. The percentage of Iowans who attempted and passed the General Educational Development tests increased through the beginning of the 1980s, peaked in 1984, and decreased markedly in subsequent years. The greatest percentage of persons receiving GED certificates were 21 to 30 years of age.

Iowa will participate in the National Adult Literacy Study sponsored by the federal government. The study is an attempt to establish baseline data on various dimensions of literacy among adults ages 16-64. The sampling design ensures that the people who participate will represent the nation as a whole. However, Iowa is among the states who have agreed to "oversample" to obtain data representative specifically of this state. The Department of Education is coordinating the study and will be collecting data between February and June 1992. Final reports should be available the following year.

Goal 6: *By the year 2000, every school in America will be free of drugs and violence and will offer a disciplined environment conducive to learning.*

States and the National Goals Panel must rely on limited data to assess student use of illicit drugs and discipline problems. Results of a national survey are reported in the national goals report. Iowa data are based primarily on the *1987-88 Iowa Study of Alcohol and Drug Behavior and Attitudes Among Youth* (1989).

APPENDIX B

Regular use of alcohol increased from 2.8 percent in grade 6 to 38.3 percent in grade 12 and was higher for each successively higher grade level. The percentage of nonuse increased from 1984 to 1987 and generally all use of alcohol was lower in 1987 than in 1984. The percentage of students reporting regular use of tobacco was 2.1 percent for the total sample, up from 1.5 percent in 1984. A greater percentage of 10th and 12th grade students considered themselves to be heavy users of tobacco than either casual or regular users in 1987 compared to 1984. In general, tobacco use in 1987 appeared to be higher than in 1984. Overall, nonuse and regular use of marijuana was down from 1984, while casual and heavy use increased slightly from 1984 to 1987. In general, use of other drugs (depressants, stimulants, and hallucinogens) among students decreased between 1984 and 1987.

In terms of the total sample, parents and school counselors were considered the most important source of information about substances, with 15 percent of the students choosing each. While peer group approval to use illicit substances appeared to increase with increases in grade level, 46 percent of students indicated they could also get help for a substance abuse problem from a close friend. Only at grade 6 did students indicate parents or guardians, to the same degree as close friends, as a source of help for substance problems. At grade 8, more than four times as many 10th graders and more than five times as many 12th graders reported they would seek help from a close friend as opposed to parents or guardians for substance problems.

Data suggest that school programs had the greatest degree of impact on student decisions not to use marijuana and other drugs, with 41 percent and 44 percent respectively indicating they had decided not to use these substances due to school programs. Relatively few students (5-8 percent), indicated that their schools did not provide an opportunity to talk about the various substances. The two program areas rated either excellent or good by the highest percentage of districts were school policies/rules on alcohol, tobacco and other drugs, and substance education curriculum with combined ratings of 69.2 percent and 48.6 percent respectively. Program areas that rated poor or very poor by the largest percentage of school districts included parent participation (57.5 percent), community participation (54.7 percent) and staff intervention (48.1 percent).

During the 1990-91 school year, 420 of Iowa's 430 school districts were involved in the federal Drug-Free Schools and Communities Program. This federal funding was instrumental in the local adoption of:

- Student Assistance Programs in 224 school districts;
- Peer Helping/Counseling Programs in 220 school districts;
- Drug Abuse Resistance Education (DARE) programs in 100 school districts;
- Quest Skills for Growing programs in 151 districts,
- Quest Skills for Adolescence programs in 300 districts;
- In-school support groups for children of substance abusing families in 74 districts;
- At-Risk student programs in 237 districts; and
- Gang prevention/intervention programs in 27 school districts.