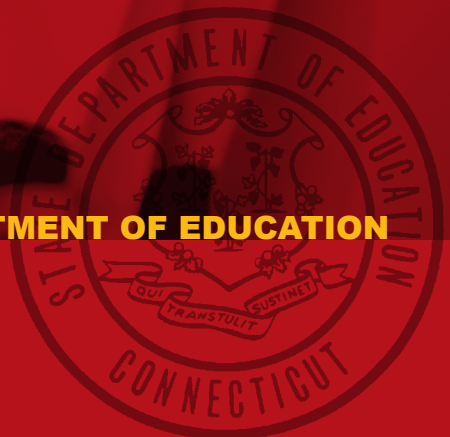


the  
**CONDITION**  
of **EDUCATION**  
in  
**CONNECTICUT**

**CONNECTICUT STATE DEPARTMENT OF EDUCATION**

**August 2006**



# **Connecticut State Department of Education**

Betty J. Sternberg, Commissioner

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**the**  
**CONDITION**  
**of EDUCATION**  
**in**  
**CONNECTICUT**

EDITOR'S NOTE: This publication provides summary data for the 2004-05 school year. Questions about these data should be directed to Raymond Martin at (860) 713-6876.



## FOREWORD

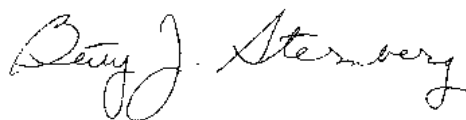
Last year, the Connecticut State Department of Education dramatically changed the format of the annual *Condition of Education* report to present key information more efficiently and effectively. We received a tremendous amount of positive feedback on the new format and have continued to make improvements. This 2004-05 report, in addition to reporting the overall condition of education and the relationship between income and student performance, continues to focus on the areas the State Board of Education has identified as priorities:

- *Who Are We Teaching?*
- *Who Is Teaching?*
- *What And How Are We Teaching?*
- *How Well Are We Teaching?*

Because closing the achievement gaps among groups of students is a fundamental, ongoing goal of the Board, we continue to highlight both resources and achievement using the state's district reference groups. These groups have similar characteristics in the areas of socioeconomic status and size. This type of analysis can provide a wealth of information about where we are and where we need to be going.

Finally, because what we do in the areas of curriculum is fundamentally important, we have added a new feature to the *Condition of Education*. We have decided to focus on one particular curriculum area per year, and this year it is mathematics. In ensuing years, we will select other important curriculum areas.

Please use this information to help you make good decisions to support Connecticut students as they prepare for the successful, rewarding futures they deserve.



Dr. Betty J. Sternberg  
Commissioner of Education



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# **WHO** are we **TEACHING?**



## **PROFILING PUBLIC EDUCATION IN CONNECTICUT**

### **Connecticut State Department of Education**

**Commissioner:** Dr. Betty J. Sternberg

**Address:** P.O. Box 2219, Hartford CT 06145-2219

**Phone:** (860) 713-6500

**Jurisdiction:** 166 local public school districts, 17 regional technical high schools, three endowed and incorporated academies and 14 charter schools

### **Connecticut Facts**

- 2000 state population: **3,405,565**
- Total 2004 public school enrollment: **577,398**
- Percent of students enrolled in public schools: **88.3**
- Public school population as a percentage of state population: **17.0**
- Percent of state population that is nonwhite: **18.4**
- Percent of persons 25 and older who are high school graduates: **84.0**
- Percent of persons 25 and older with a bachelor's degree or higher: **31.4**
- Percent of persons 5 and older with a language other than English spoken at home: **18.3**
- Percent of population that is below poverty level (1999): **7.9**

## PROFILING PUBLIC EDUCATION IN CONNECTICUT

### Connecticut's Public Schools by Type

Elementary schools.....	663
Middle/Jr. high schools .....	172
High schools.....	168
Technical high schools .....	17
Nongraded, prekindergarten schools.....	48
<b>Charter schools:</b>	
Elementary schools .....	6
Middle schools .....	4
High schools .....	4
<b>Full-time magnet schools:</b>	
Elementary schools .....	18
Middle schools .....	6
High schools .....	16
<b>Part-time magnet schools:</b>	
High schools .....	6
<b>Nonpublic schools .....</b>	<b>383</b>
<b>Adult education programs* .....</b>	<b>75</b>

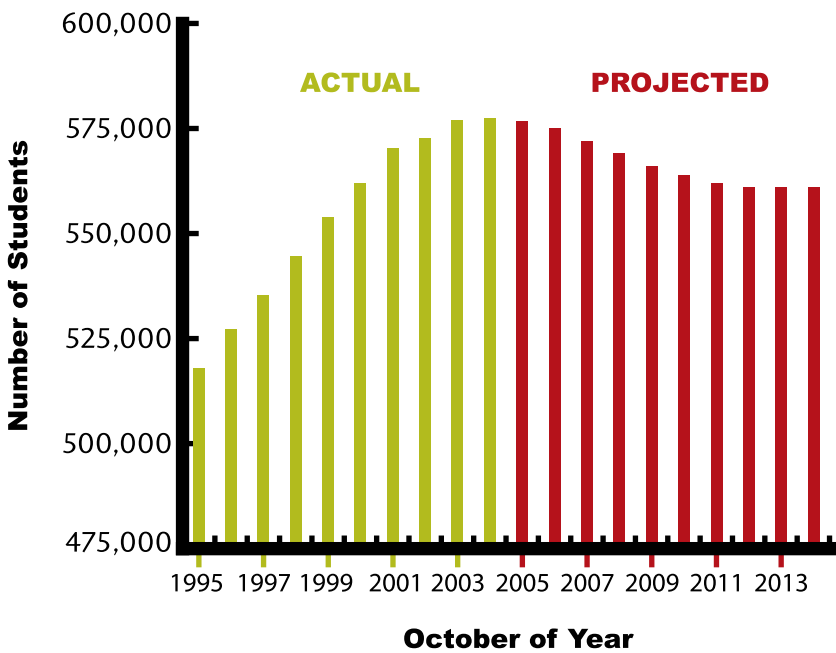
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\* The Adult Education Programs include 48 local school districts and 16 cooperating eligible entities that serve all 169 cities and towns in Connecticut per state statute. Eleven other organizations are funded solely through federal grant initiatives.

## PUBLIC SCHOOL ENROLLMENT

In the past 10 years, public school enrollment grew by 11.5 percent to 577,398 students from 517,887 in 1995. Enrollment began to decline after the 2004-05 school year. By the 2014-15 school year, enrollment is projected to drop to 560,978.

### Public School Enrollment, 1995 to 2014

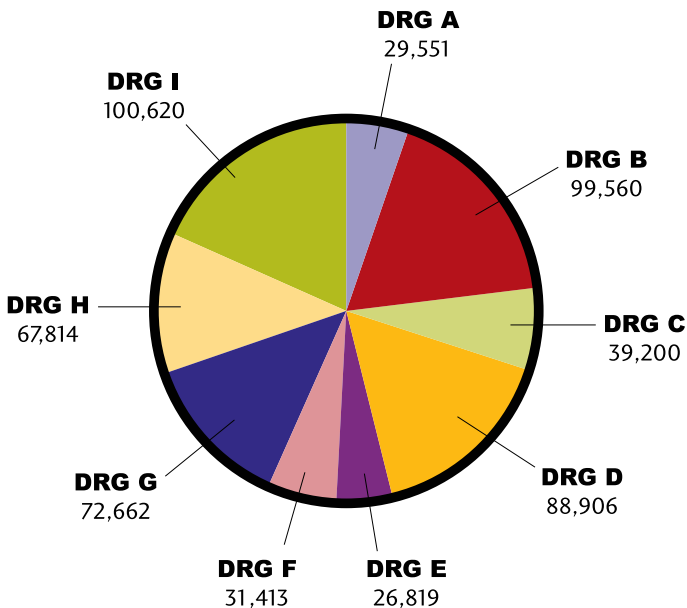


## PUBLIC SCHOOL ENROLLMENT BY DISTRICT REFERENCE GROUP (DRG)

The district reference group system is a classification method in which Connecticut's 166 school districts and three endowed and incorporated academies have been grouped based upon seven variables: family income, parents' education levels, parents' occupations, family poverty, family structure, home language and district enrollment. Grouping like districts is useful for making legitimate comparisons among districts, but should not be construed to imply that all students in a district or reference group have exactly the same characteristics. As the Connecticut State Department of Education believes that all students can achieve at high levels, it does not consider it appropriate to use the reference groups to compare educational outcomes; however they can be useful to compare district demographics and resources. The Department has established nine district reference groups and has labeled them with letters A through I. Reference group A contains the state's most affluent districts, while reference group I contains the state's poorest districts. District reference groups are listed on pages 53 and 54. For more information on Connecticut's district reference groups, please see the State Department of Education's website at [www.csde.state.ct.us/public/cedar/databulletins/index.htm](http://www.csde.state.ct.us/public/cedar/databulletins/index.htm)

The chart below shows how Connecticut's public school students are distributed across the spectrum of district reference groups. While 29 percent of Connecticut's students are in the poorest two reference groups (H and I), 22 percent are in the most affluent reference groups (A and B).

**2004-05 Enrollment by District Reference Group**

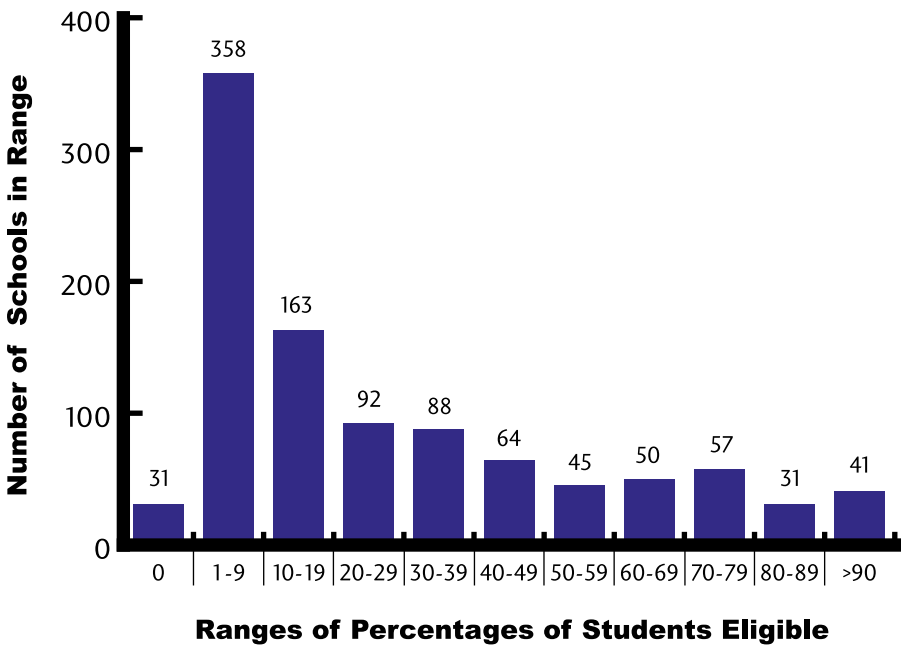


## ECONOMIC NEED

In October 2004, 26.6 percent of all Connecticut students were eligible to receive free or reduced-price meals. This means that approximately one in four Connecticut students come from families poor enough for the students to qualify for free and reduced-price meals. These students are concentrated in the seven districts of district reference group I. As the chart below shows, over half of Connecticut's schools have less than 20 percent of their students eligible for free and reduced-price meals, while 7.1 percent of schools had 80 percent or more of their students eligible.

In 2004-05, a family of four needed to earn less than \$24,505 for a child to receive free meals, and less than \$34,873 to receive reduced-price meals. The Connecticut State Department of Education uses eligibility for free and reduced-price meals as its poverty indicator.

**Free and Reduced-Price Meals 2004-05:  
Number of Schools within Ranges of  
Percentages of Students Eligible**

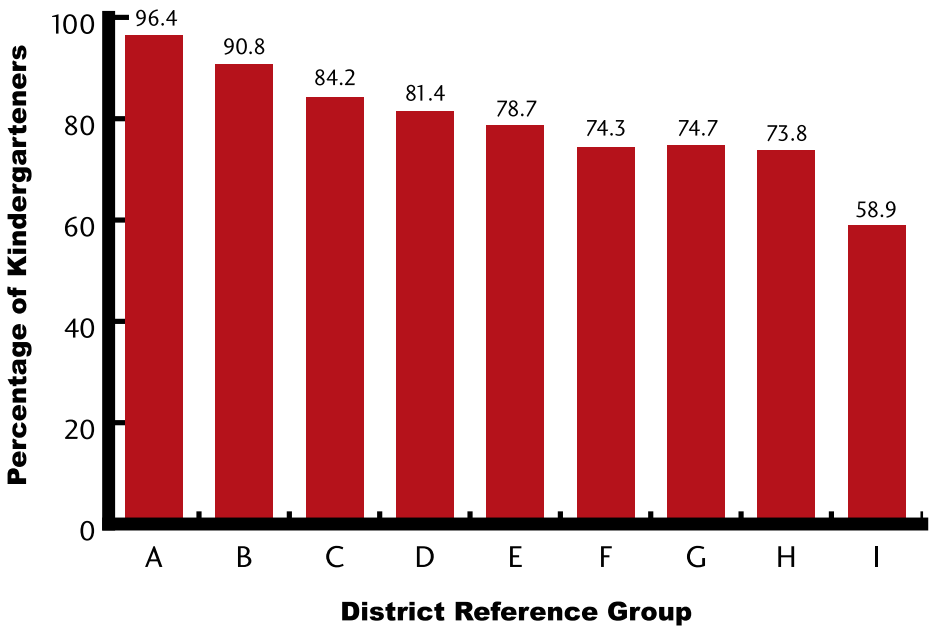


## KINDERGARTENERS WITH PREKINDERGARTEN EXPERIENCE

The Connecticut State Board of Education is committed to ensuring that all of the state's preschool-age children, including children with disabilities, are afforded an opportunity to participate in a high-quality preschool program. Such an experience fosters a child's overall development, including literacy and readiness for the public school kindergarten curriculum. The Board believes that a high-quality preschool education is essential to children's future success both in school and as adults.

In 2004-05, a high percentage of kindergarteners in district reference groups A through H had a prekindergarten experience. Kindergarteners in district reference group I were much less likely to have entered kindergarten with a prekindergarten experience.

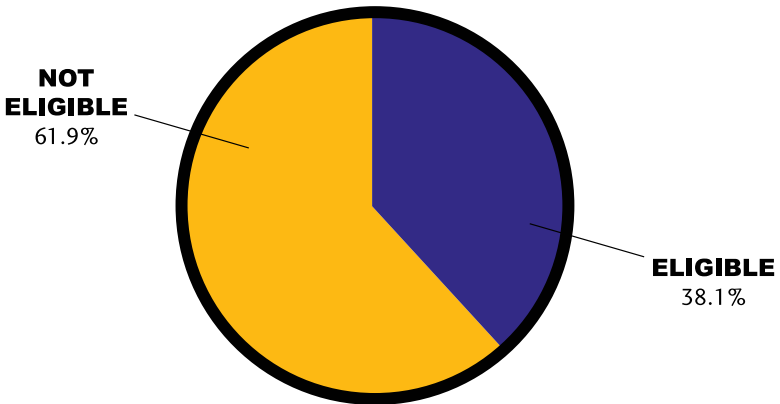
### Kindergarteners with Prekindergarten Experience by District Reference Group



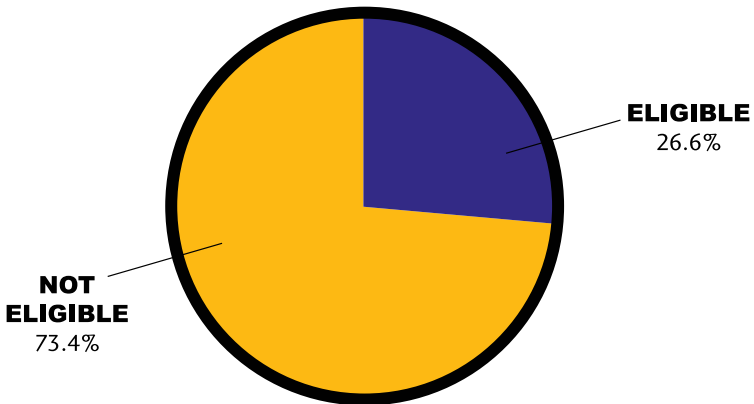
## SPECIAL EDUCATION

In 2004-05, 11.9 percent of Connecticut's public school students required special education services. Over 38 percent of special education students were eligible to receive free or reduced-price meals\*. This means that more than one out of three special education students must deal with the negative effects of poverty, as well as overcoming their disabilities.

### Eligibility for Free and Reduced-Price Meals 2004-05: Special Education Students



### Eligibility for Free and Reduced-Price Meals 2004-05: All Students



\* See page 6 for information on the income requirements for eligibility for free and reduced-price meals.



## ENGLISH LANGUAGE LEARNERS

In 2004-05, 4.9 percent of Connecticut's public school students were English language learners. These 28,070 students spoke 138 different languages, ranging from Spanish and French to the Kirundi language of Burundi and the Sgaw language of Tibet. While most districts only had to accommodate a few languages, one urban district had to provide instruction to students who spoke 49 different languages and one suburban district had to teach students speaking 47 different languages.

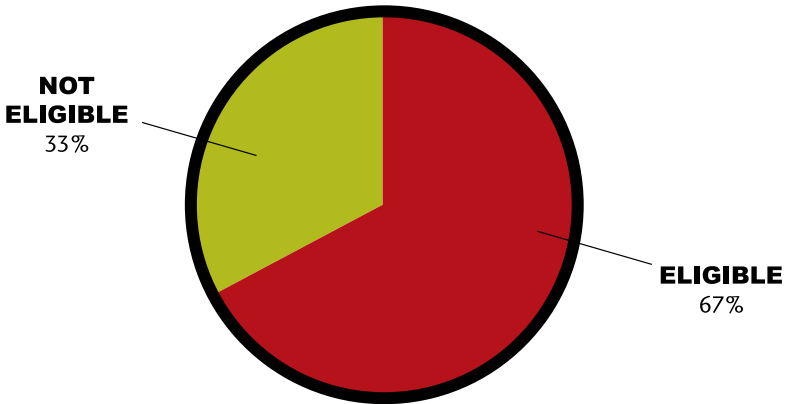
School districts must provide all English language learners with services to help them learn English. Individual schools that have 20 or more students who speak a specific language must provide bilingual instruction to those students.

<b>English Language Learners: Languages Spoken at Home</b>			
<b>Primary Home Language</b>	<b>Student Count</b>	<b>Districts Represented</b>	
		<b>Number</b>	<b>Percentage</b>
Spanish	19,444	114	60.3
Portuguese	1,146	61	32.3
Polish	768	64	33.9
Chinese	654	97	51.3
Creole-Haitian	593	22	11.6
Albanian	540	51	27.0
Serbo-Croatian	501	36	19.0
Vietnamese	410	57	30.2
Urdu	362	60	31.7
Arabic	352	64	33.9
French	289	52	27.5
Korean	286	55	29.1
Russian	239	63	33.3
Japanese	217	24	12.7
Gujarati	208	47	24.9
Turkish	146	38	20.1
Lao	133	32	16.9
Bengali	122	30	15.9
Hindi	107	41	21.7
Khmer (Cambodian)	105	19	10.1
Other (108) languages	1,448	103	54.5
<b>Total</b>	<b>28,070</b>	<b>134</b>	<b>70.9</b>

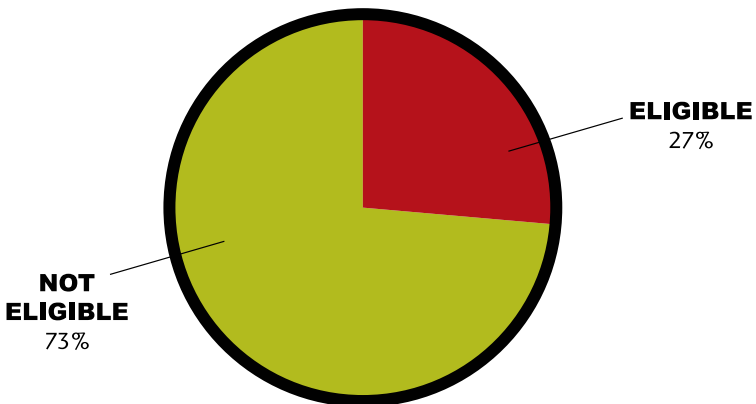
## ENGLISH LANGUAGE LEARNERS AND POVERTY

Over two-thirds of Connecticut's English language learners come from homes with incomes that qualify them for free or reduced-price meals\*. This means that nearly 19,000 students are working to overcome both a language barrier and the detrimental effects of poverty. This compounding of obstacles makes it much more challenging for these students to achieve at high levels and meet the standards set forth in the No Child Left Behind Act of 2001.

### Eligibility for Free and Reduced-Price Meals 2004-05: English Language Learners



### Eligibility for Free and Reduced-Price Meals 2004-05: All Students

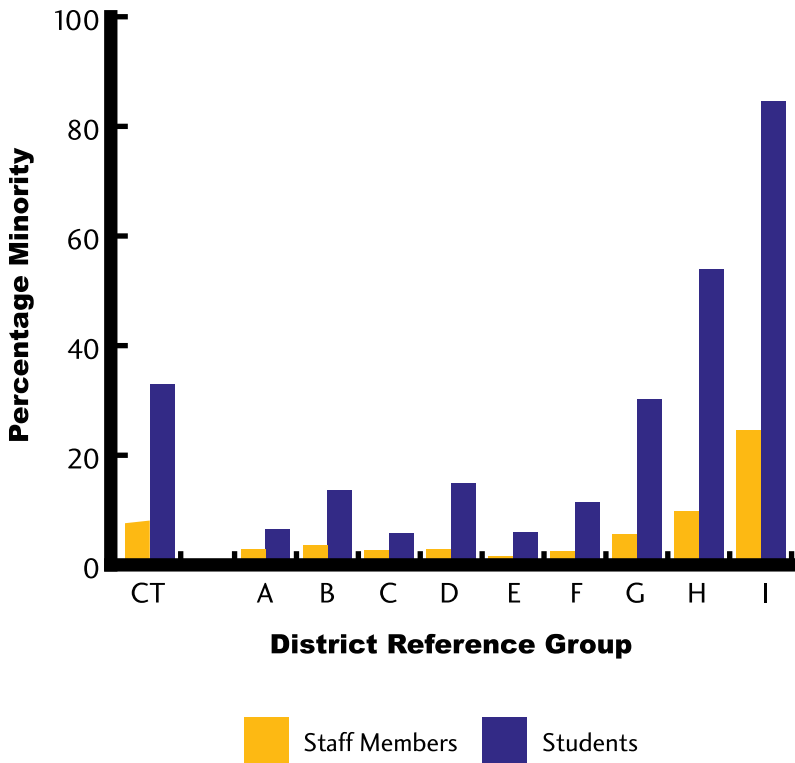


\* See page 6 for information on the income requirements for eligibility for free and reduced-price meals.

## MINORITY STUDENTS AND MINORITY STAFF MEMBERS

In 2004-05, Connecticut continued to have a teaching force that did not reflect the diversity of the student body. While almost one-third of the state’s students were minority, only 7.6 percent of all certified staff members represented a racial or ethnic minority. The fact that Connecticut’s certified staff population does not contain the same diversity as the student population highlights the need for accelerated recruitment of minority candidates into teacher preparation programs.

**Minority Students and Staff Members as a Percentage of All Students and Staff Members**





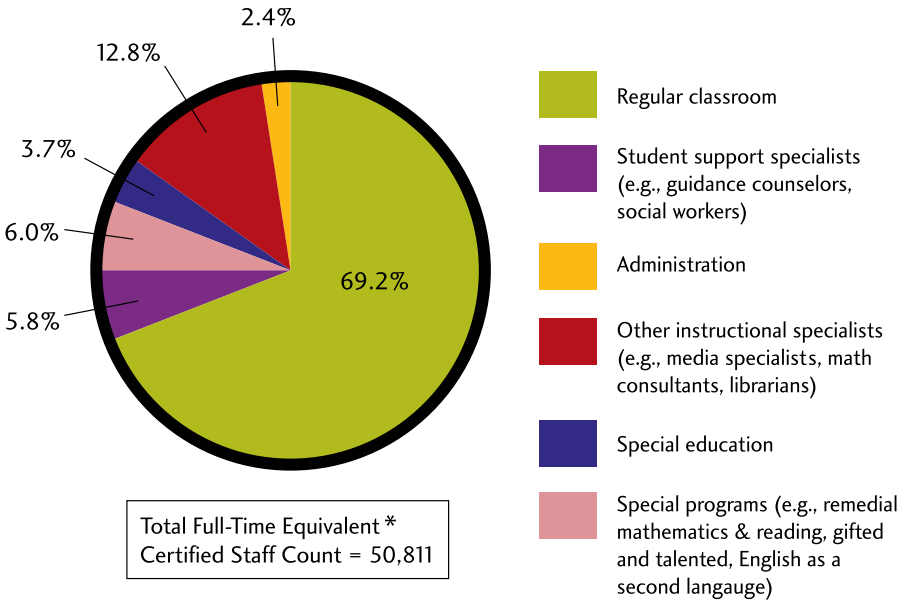
# WHO is TEACHING?



## CERTIFIED STAFF MEMBERS

After dropping slightly in 2003-04, the total number of full-time equivalent\* certified staff members working in Connecticut's public schools increased by 501 to 50,811 in 2004-05. Only 38 percent of this increase was seen in the ranks of regular classroom teachers. The majority of the growth between 2003-04 and 2004-05 was seen in the special education, special program and student support specialist areas.

### 2004-05 Certified Staff Members by Type



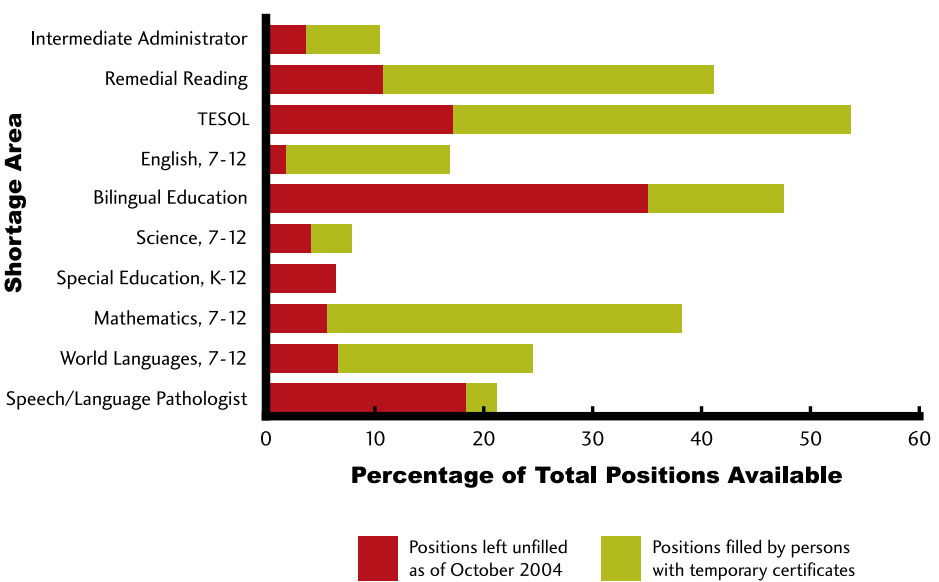
\* Full-time equivalent (FTE) is derived by dividing the amount of time a person works by the time required of a corresponding full-time position. A full-time position is considered to be 1.0 FTE. For example, a teacher who works two of the five days per week would be a .40 FTE (2 days/5 days=.4 of full time or .4 FTE).

## TEACHER SHORTAGES

Before the start of each school year, districts work to fill teaching force vacancies caused by retirements, transfers and people leaving the profession. For the 2004-05 school year, Connecticut's public school districts had just under 4,900 full- and part-time certified staff positions to fill. By October 1, 2004, they had filled all but 268 of these positions. Over half of the positions left unfilled were in subject areas and/or positions in which Connecticut has a history of staffing shortages. The chart below details those shortages and how districts filled the positions in those areas.

Shortages experienced in 2004-05 were not distributed evenly across all districts. The urban districts of district reference group I had only 17.5 percent of the positions that needed to be filled in the state. However, 42 percent of the positions left unfilled were in reference group I. This means that the most needy students in the state were most likely to experience the effects of teacher shortages, including reduced course offerings, courses taught by short-term substitutes, and courses taught by staff members with special temporary shortage-area certificates which require at least 12 college credits in the subject they are teaching and enrollment in a teacher preparation program.

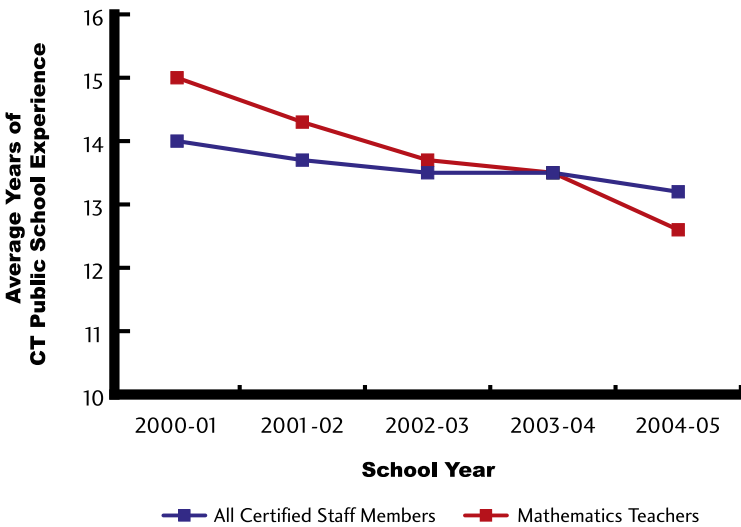
### 2004-05 Certified Staffing Shortage Areas



## STAFFING QUALITY INDICATORS

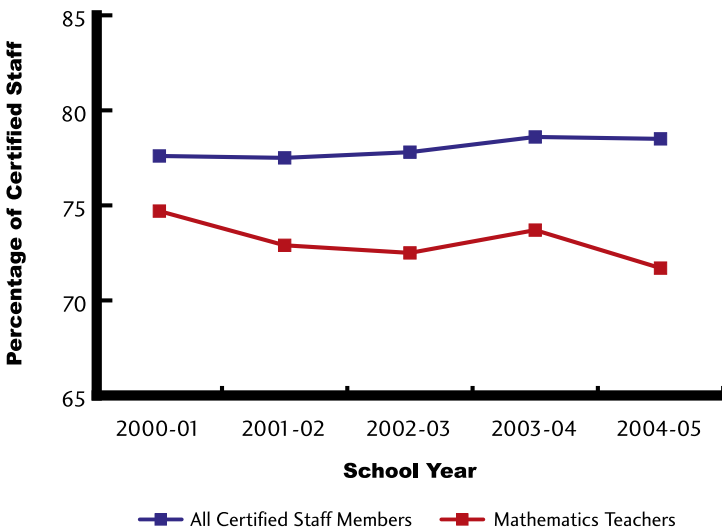
While the overall quality of Connecticut's teaching force remains high, the state has seen a slight reduction in the level of experience of the teaching force. The decrease in the level of experience is more pronounced for mathematics teachers.

### Average Years of Connecticut Public School Experience: All Certified Staff Members and Mathematics Teachers



The percentage of certified staff members with master's degrees has increased from 77.6 percent in 2000-01 to 78.5 percent in 2004-05. Over the same period, the percentage of mathematics teachers who have earned master's or higher degrees has dropped slightly from 74.7 percent in 2000-01 to 71.7 percent in 2004-05.

### Percentage of Staff Members with Master's Degrees or Higher: All Certified Staff Members and Mathematics Teachers



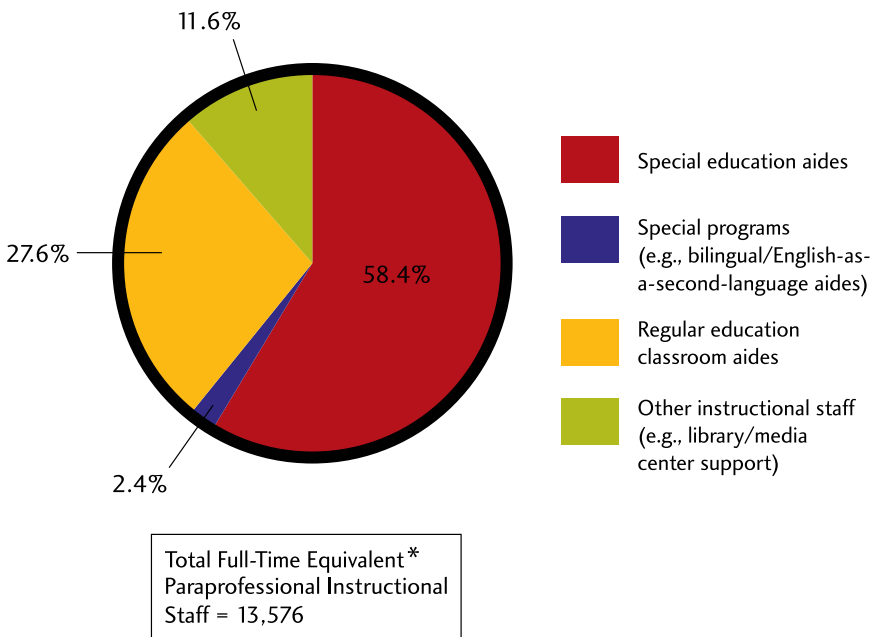


## PARAPROFESSIONAL INSTRUCTIONAL STAFF

Paraprofessional instructional staff members play important roles in many students' educational experiences. Paraprofessionals assist certified teachers, provide tutoring, and perform a variety of other tasks that supplement and enhance the work of certified teachers. A majority of the state's paraprofessional instructional staff works with special education students, helping some of the state's most academically challenged students.

In 2004-05, the 13,576 full-time equivalent (FTE)\* paraprofessional instructional staff members represented 36 percent of the total noncertified school staff members in the state. The other 24,010 FTE noncertified staff members provided nursing, security, administrative support, maintenance and other services.

### 2004-05 Paraprofessional Instructional Staff



\* Full-time equivalent (FTE) is derived by dividing the amount of time a person works by the time required of a corresponding full-time position. A full-time position is considered to be 1.0 FTE. For example, a teacher who works two of the five days per week would be a .40 FTE (2 days/5 days=.4 of full time or .4 FTE).



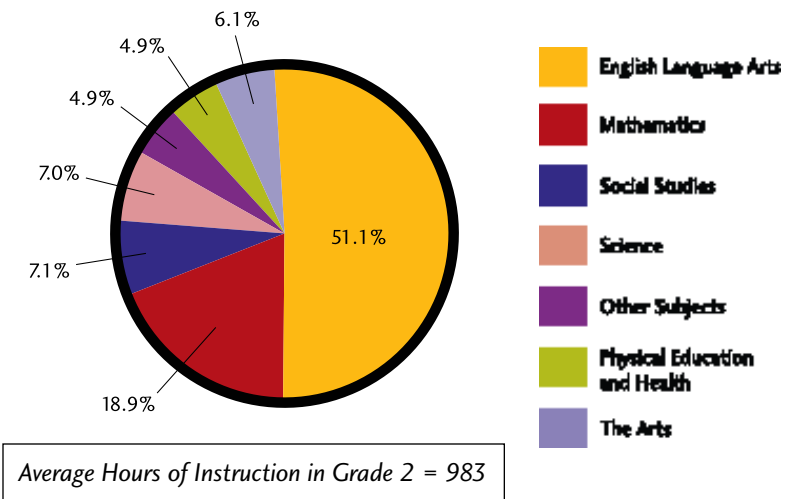
# **WHAT** and **HOW** are we **TEACHING?**



## INSTRUCTIONAL TIME BY SUBJECT

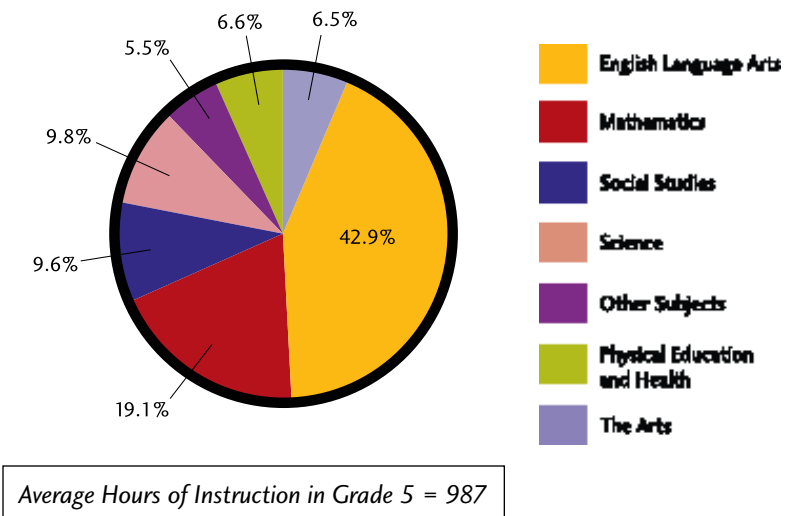
During the 2004-05 school year, Connecticut’s public elementary schools devoted, on average, over 180 hours (or roughly one hour per day) to mathematics instruction in Grade 2. While the time devoted to mathematics was the second highest of any subject, it lagged significantly behind English language arts, which averaged over 500 hours of the 983 hours of instruction in Grade 2.

### Grade 2 Hours of Instruction by Subject



In Grade 5, mathematics was taught essentially the same number of hours as in Grade 2. However, on average, 80 fewer hours of instruction were devoted to English language arts in Grade 5 than in Grade 2. The hours devoted to instruction in science, social studies, the arts and other subjects increased slightly in Grade 5.

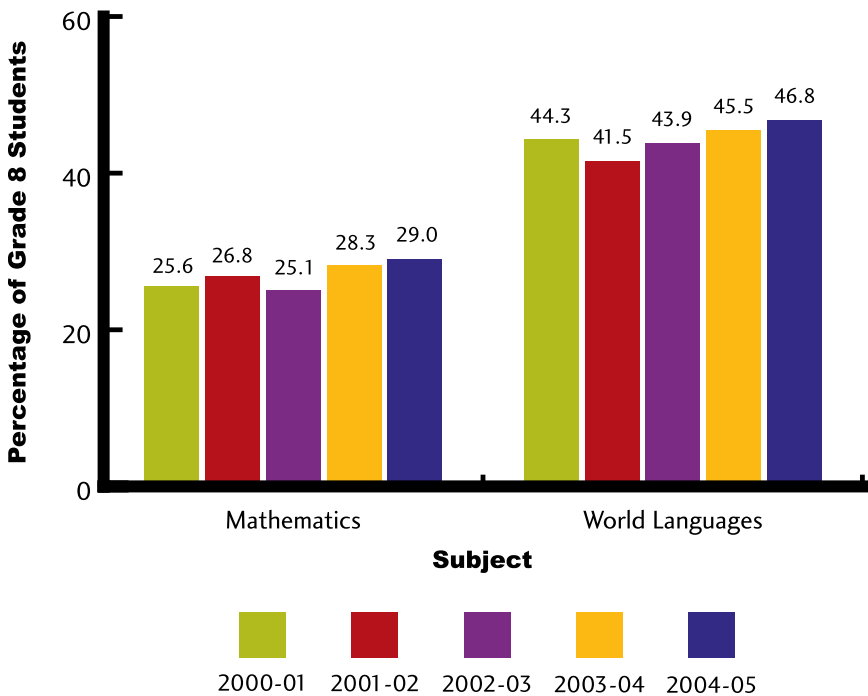
### Grade 5 Hours of Instruction by Subject



## GRADE 8 COURSES FOR HIGH SCHOOL CREDIT

Since the 2000-01 school year, Connecticut has seen a slight increase in the percentage of Grade 8 students taking high-school-level mathematics and world languages. Taking high-school-level courses in Grade 8 can prepare students to take more rigorous courses in high school and provide them with greater opportunities in the future. Algebra is the high-school-level course most often taken in Grade 8, but offerings also can include integrated mathematics and geometry. These courses enable students to take more advanced mathematics when they reach high school.

**Percentage of Grade 8 Students  
Taking Courses for High School Credit  
2000-01 to 2004-05**



## HIGH SCHOOL COURSES FOR COLLEGE CREDIT

Courses that can yield college credit are among the most academically rigorous courses offered at the high school level across the state. While Advanced Placement (AP)\* is the most prevalent form of these courses, several other college credit programs exist (e.g., the UCONN Early College Experience Program, International Baccalaureate and Tech Prep). Many of these courses offer students an opportunity to earn both high school and college credit. Since 2000, enrollment in college credit courses has risen by 28 percent to 38,945 in 2004-05 from 30,415 in 2000-01.

<b>High School Courses for College Credit</b>			
	<b>2004-05 Enrollment in College Credit Courses</b>	<b>Percentage of High Schools Offering</b>	
		<b>Advanced Placement Classes</b>	<b>Other Courses for College Credit</b>
The arts	1,031	37.6	15.7
English	7,113	74.2	39.9
World languages	2,958	55.1	23.6
Mathematics	6,708	69.7	39.3
Science	6,900	65.2	34.8
History and social sciences	9,080	74.2	26.4
Other	5,155	37.1	57.3

\* For more on the Advanced Placement program, please see page 47.

## HIGH SCHOOL CREDITS REQUIRED FOR GRADUATION

Connecticut law requires that high school students complete at least 20 credits\* of course work and receive a minimum number of credits in specific subjects to graduate. In 2004-05, 161 of the 176 high schools that graduated students\*\* required them to complete more than the state minimum 20 credits. Furthermore, most high schools had additional subject-specific requirements that exceeded the state mandates. The table below details the state subject requirements and the number of high schools that require more than the state minimum number of credits in specific subjects. Many Connecticut high school graduates exceed the requirements set by state statutes and local requirements. In fact, even though only five high schools required more than the state-mandated three credits in mathematics, 63 percent of the Class of 2004 graduated with four or more credits in the subject. While only 13 districts required any course work in world languages, 58 percent of the graduates earned three or more credits in a language.

<b>Credits Required for Graduation by Subject</b>		
<b>Subject</b>	<b>State Requirement*</b>	<b>High Schools that Require Credits Beyond the State Minimum</b>
English	4	4
Mathematics	3	5
Social studies	3	24
Science	2	103
World languages	0	13
Art or vocational education	1	63
Physical education	1	73
Health	0	114
Other specific requirements	0	62
Community service	0	5

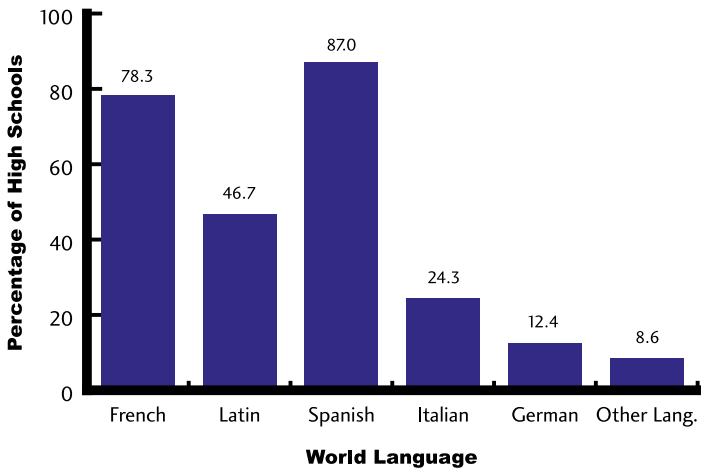
\* Section 10-221a of the Connecticut General Statutes stipulates that a course credit must consist of no less than the equivalent of a 40-minute class period for each day of a school year. For a 180-day school year, that translates to 120 hours of instruction for a full credit and 60 hours for a half-credit.

\*\* A number of high schools did not graduate students in 2004 and, therefore, did not submit data on credits required for graduation. Many of these schools were new magnet schools that had not yet added Grade 12.

## INSTRUCTION IN THE ARTS AND WORLD LANGUAGES

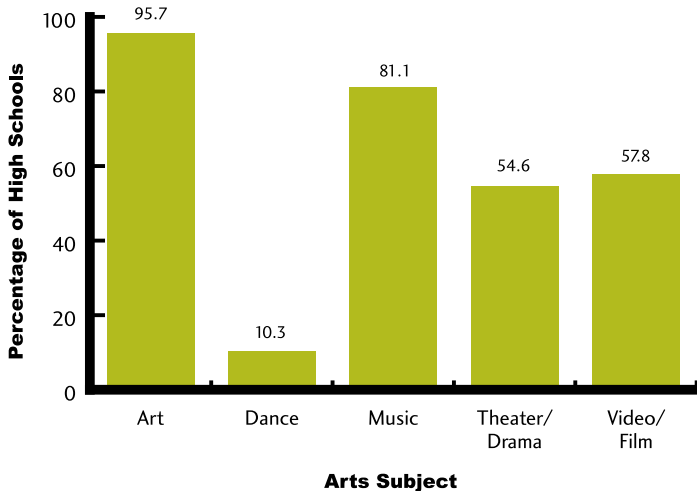
One indicator of the breadth of a high school's educational program is the availability of elective courses. State statutes do not include a graduation requirement in world languages, yet 87 percent of Connecticut's high schools offered at least Spanish. In 2004-05, Connecticut high schools offered instruction in 13 world languages, two more languages than were offered in 2003-04.

### Percentage of High Schools Offering Courses in Selected World Languages, 2004-05



There is a state graduation requirement of one credit in either the arts or vocational education (see page 23 for more on credits and graduation requirements). Almost 100 percent of the high schools offered some form of arts course, and 26 percent of all Connecticut high school students were enrolled in art in 2004-05.

### Percentage of High Schools Offering Courses in the Arts, 2004-05

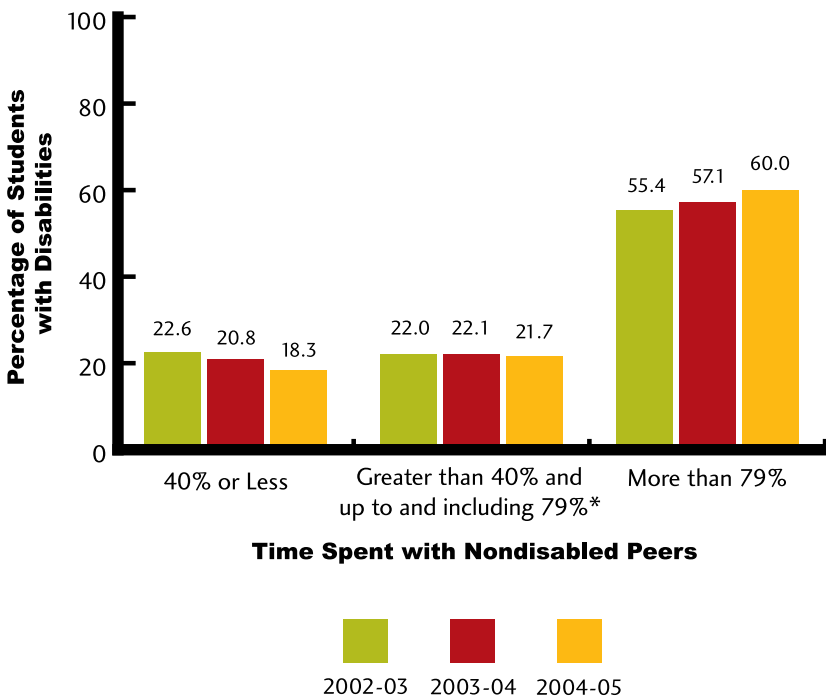




## TIME STUDENTS WITH DISABILITIES SPEND WITH NONDISABLED PEERS

For students with disabilities, time spent with nondisabled peers is an important indicator of access to the general curriculum, as well as a demonstration of compliance with the Individuals with Disabilities Education Act (IDEA) requirement that students with disabilities be educated with their nondisabled peers to the maximum extent appropriate. To monitor this requirement of IDEA, the federal Office of Special Education Programs has established three levels of the time special education students spend with nondisabled peers — 40 percent or less of the students’ time, between 40 percent and up to and including 79 percent of their time, and greater than 79 percent of their time. Over the last three years, Connecticut schools have increased the percentage of students with disabilities who spend 79.1 percent or more of their time with nondisabled peers. Over the same period, the percentage of students who spent 40 percent or less of their time with nondisabled peers has decreased to 18.3 percent from 22.6 percent in 2002-03.

**Percentage of Students with Disabilities by Time Spent with Nondisabled Peers**



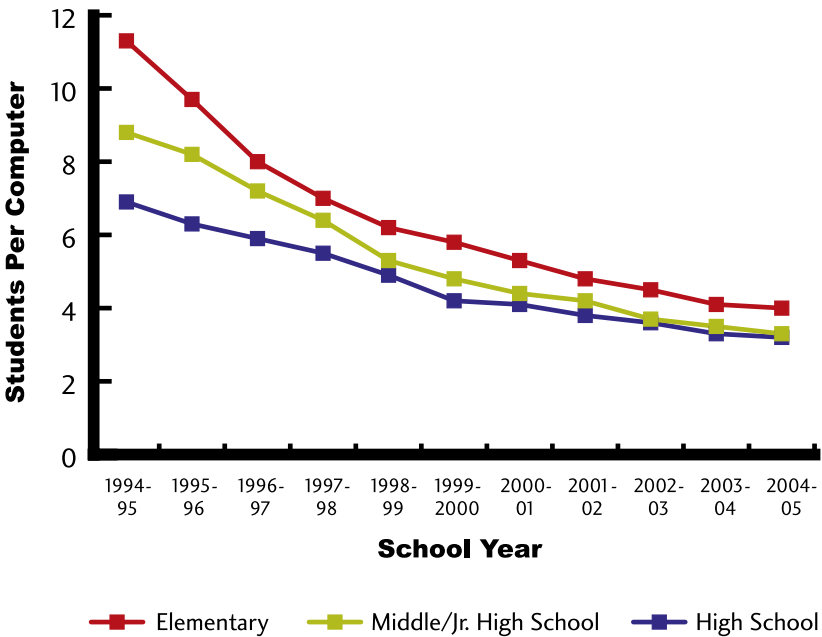
\* The category “Greater than 40% and up to and including 79%” includes students in nonpublic placements.

## STUDENTS PER INSTRUCTIONAL COMPUTER

Over the last decade, computers have become increasingly important instructional tools and access to them has increased. In 1994-95, the ratio of students per instructional computer was 9.4 at all levels statewide and as high as 11.3 at the statewide elementary level. By 2004-05, that figure had dropped to 3.6 students per computer for all levels and 4 students per computer at the elementary level. This means that students have greater access to computers than they had a decade ago.

While computer technology can be relatively expensive, students in the state's poorest districts have essentially the same level of access to computers as students in the state's wealthiest districts. In 2004-05, the urban communities in district reference group I had a students-per-computer ratio of 3.5 — better than half that of the other reference groups — and slightly higher than the affluent districts in reference group A.

**Students Per Instructional Computer**

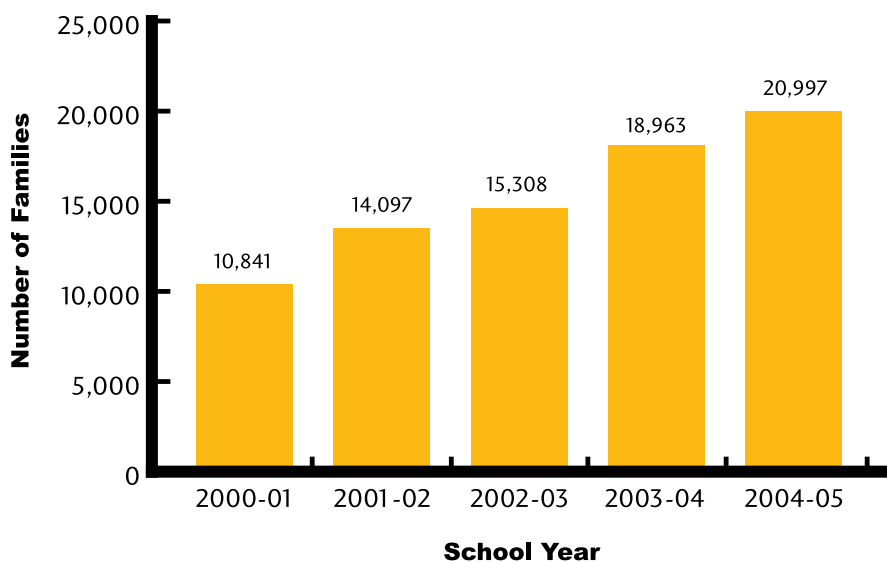


## FAMILY RESOURCE CENTERS

Connecticut Family Resource Centers (FRCs) establish within a community a full continuum of early childhood and family support services that foster the optimal development of the child and family. FRCs help support parents in developing positive parenting skills to give their children a solid foundation for school success. Programs offered by FRCs include early childhood education, parenting classes, adult education, family literacy programs, after school programs and more.

The Connecticut network of 62 FRCs, located in 41 towns and cities, has provided programs and services to an increasing number of families. Twenty of the 62 centers are located in schools in Connecticut’s seven large urban districts.

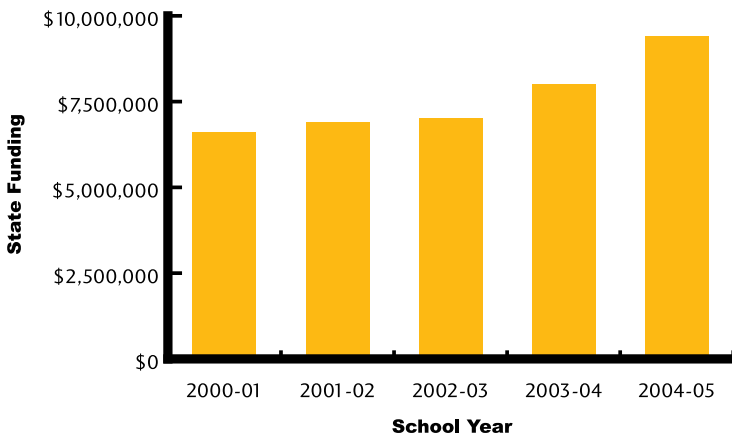
**Number of Families Served  
in Connecticut Family Resource Centers**



## OPEN CHOICE AND INTERDISTRICT MAGNET FUNDING

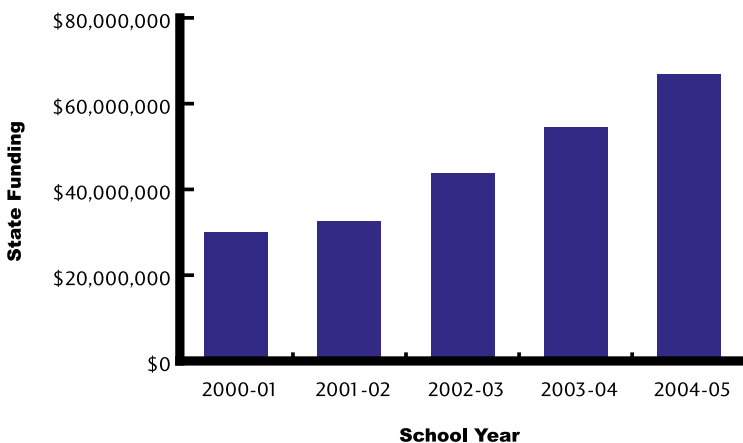
The Open Choice Program provides urban students with an opportunity to attend public schools in nearby suburban school districts on a space-available basis in the Bridgeport, Hartford, New Haven and New London regions. The increase in attendance is due largely to intensive efforts to meet the requirements agreed to in 2003 as a result of the *Sheff v. O'Neill* school desegregation lawsuit. Participation in the Open Choice Program has risen to 1,682 in 2004-05 from 1,477 in 2000-01. Over the same period, state spending on the Open Choice program has increased by \$2,800,000 to \$9,400,000 in 2004-05.

### State Funding for the Open Choice Program



Interdistrict magnet schools receive state support for building construction and operations. Student participation in magnet schools has risen to 13,783 in 2004-05 from 6,394 in 1995-96. State spending on magnet schools has increased by almost 125 percent in the last five years from \$29,900,000 in 2000-01 to \$66,900,000 in 2004-05.

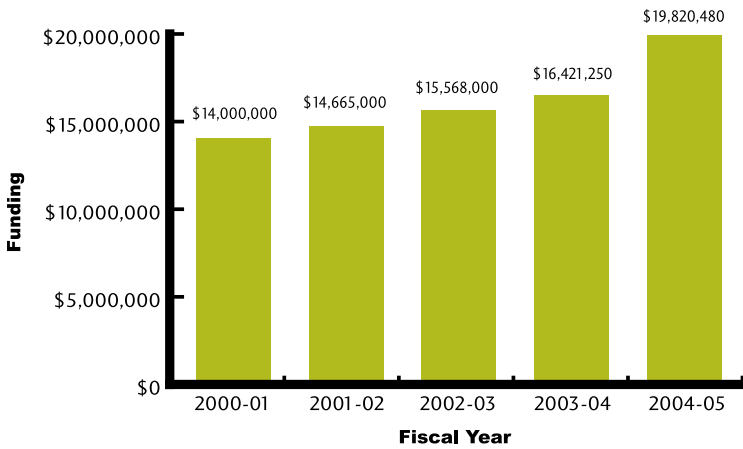
### State Funding for Interdistrict Magnet Schools



## CHARTER SCHOOLS

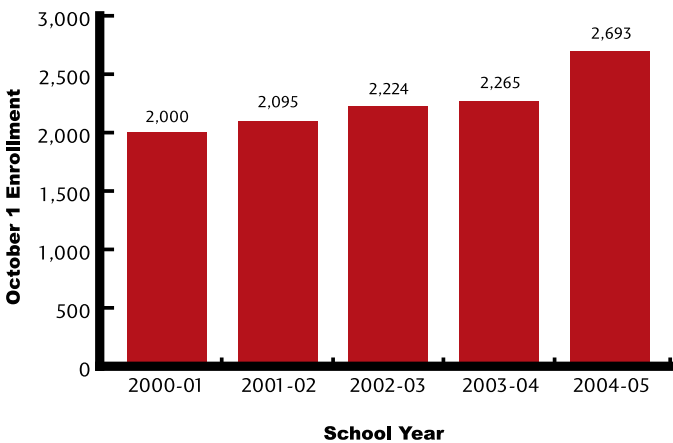
One of the ways in which Connecticut attempts to meet the needs of its students is through charter schools, which operate outside the traditional school district structure. These schools are funded by the state and are given extra operational latitude to create innovative opportunities for improved student learning. While state funding has increased consistently over the last five years, funding increased significantly in 2004-05 with the addition of two new schools. State funding for charter schools increased from \$16,421,250 in 2003-04 to \$19,820,480 in 2004-05. State spending on the two new schools totaled \$1,840,000 in 2004-05.

### Connecticut Charter School Funding



Enrollment in Connecticut’s charter schools also has increased consistently over the last five years from 2,000 in 2000-01 to 2,693 in 2004-05. The two new charter schools accounted for well over 99 percent of the enrollment growth from 2003-04 to 2004-05.

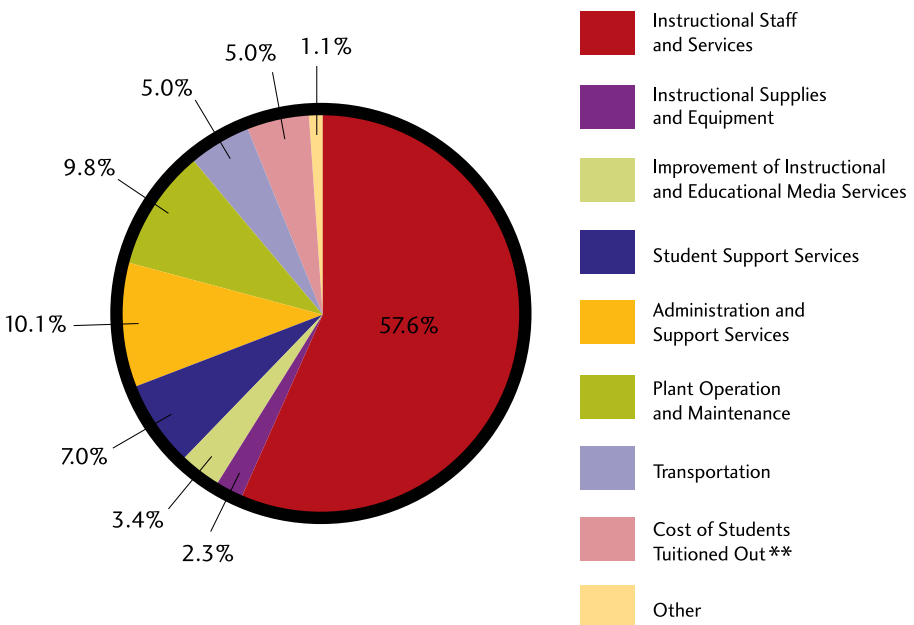
### Charter School Enrollment: 1997-98 to 2004-05



## 2004-05 EXPENDITURE DATA\*

Schools in Connecticut spend billions of dollars each year to educate the state's students. These funds pay for everything from teachers' salaries to computers and textbooks, and from school buses to heat and electricity for school buildings. In 2004-05, the state's overall school expenditures (excluding investments in land, buildings and debt) totaled \$6,317,547,816. Instructional staff and services represented a majority of that total, almost 58 cents out of every education dollar.

### 2004-05 Expenditures\*



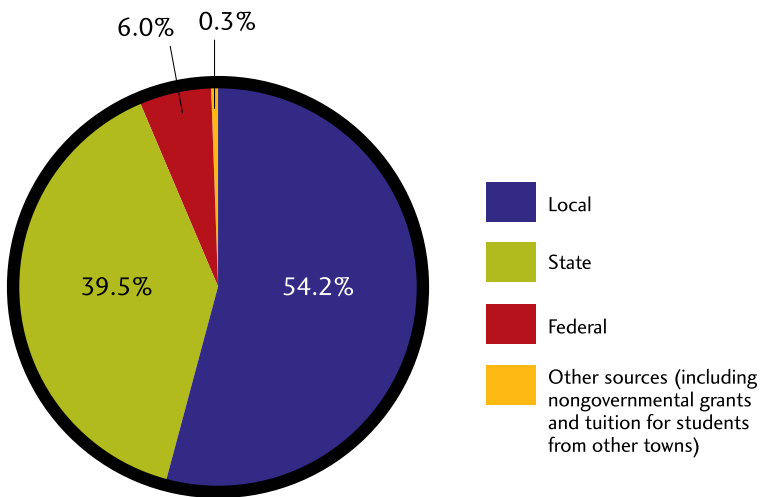
\* These data are preliminary and are subject to change.

\*\* Approximately \$37,500,000 of the cost of students tuitioned out was sent to other Connecticut public school districts and, therefore, is also included under the various expenditure categories.

## 2004-05 REVENUE SOURCES

Connecticut school districts draw their revenue from three main sources: local government, state government and, to a lesser extent, the federal government. Districts receive just under 40 percent of their funds from the state and 6 percent from the federal government. Due to different levels of town need and ability to fund education, the percentage of revenue districts receive from the state ranges widely – from a low of 2.9 percent to a high of 65.7 percent.

**2004-05 Revenue by Source\***



\* Note: Revenue sources do NOT include state-funded Teachers' Retirement Board contributions, Connecticut Technical High School operations, the State Department of Education budgeted costs for salaries and leadership activities, and other state-funded school districts such as the Department of Children and Families and Department of Correction.





# HOW WELL are we TEACHING?



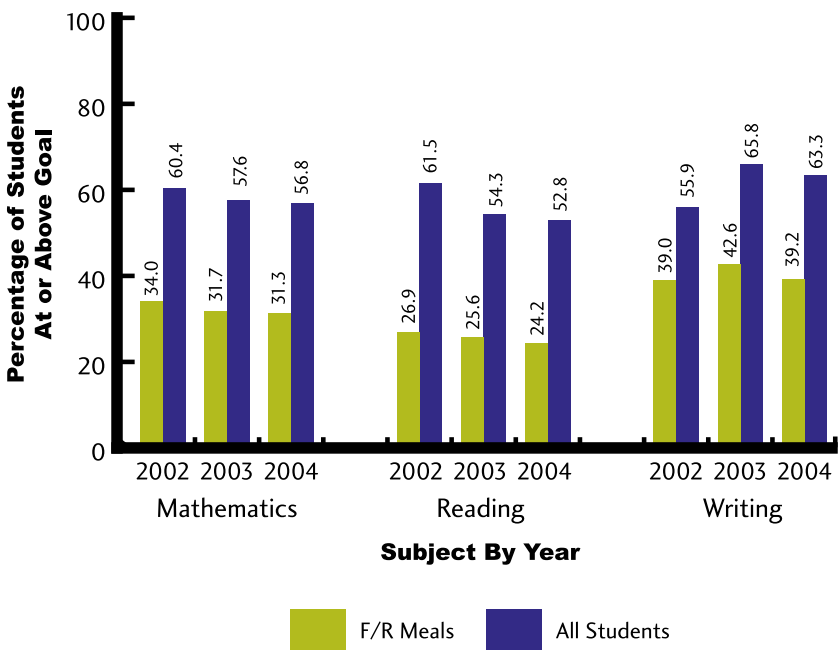
## 2004 CONNECTICUT MASTERY TEST (CMT)

### GRADE 4

The Connecticut Mastery Test (CMT) was developed to provide an accurate assessment of how well students statewide are meeting the standards of achievement that have been established by the State Board of Education in reading, writing and mathematics. Since 1985, students in Grades 4, 6 and 8 have been tested in all three areas on a yearly basis. Test scores are reported for five achievement levels: below basic, basic, proficient, goal and advanced. Connecticut uses the goal level as its standard.

On the fall 2004 administration of the CMT for Grade 4, there continued to be a significant gap in performance between all students and those students who were eligible for free and reduced-price meals. While over 50 percent of the state's Grade 4 students met the goal level for each of the three assessments, on none of the three assessments did those students who are eligible for free and reduced-price meals break the 40 percent mark.

#### CONNECTICUT MASTERY TEST – GRADE 4 Percentage of Students At or Above Goal by Free/Reduced-Price Meal Eligibility

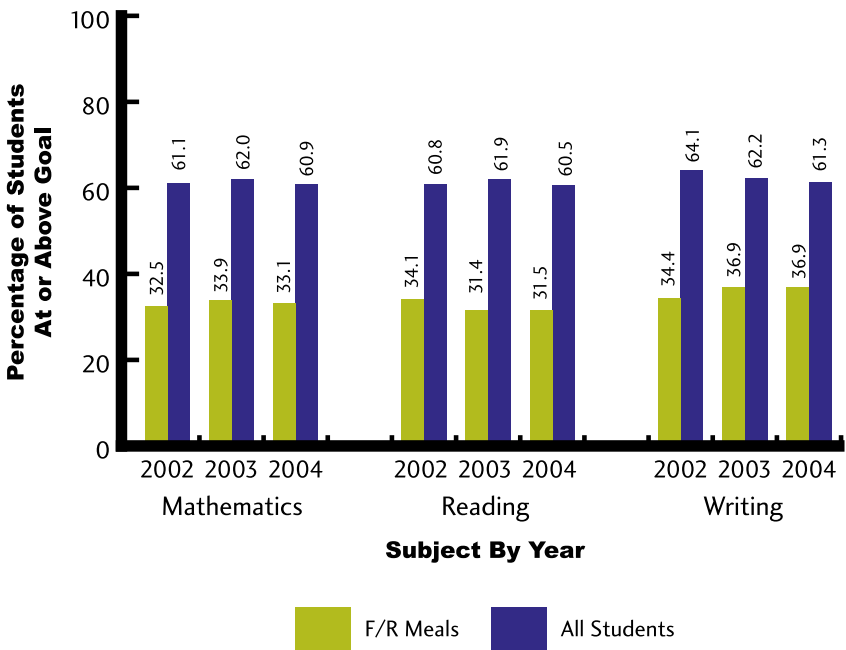


## 2004 CONNECTICUT MASTERY TEST (CMT)

### GRADE 6

On the fall 2004 administration of the Grade 6 CMT, there continued to be a significant gap in performance between all students and those students who were eligible for free and reduced-price meals. Since 2002, the achievement gap in mathematics and reading has remained relatively constant. The gap in writing has decreased slightly over the same period, but over half of the reduction was due to a decline in performance of the state as a whole (“All Students” on the chart below). On all three assessments, students eligible for free and reduced-price meals trail the state overall in the percentage scoring at or above goal by at least 20 percentage points.

**CONNECTICUT MASTERY TEST – GRADE 6**  
**Percentage of Students At or Above Goal**  
**by Free/Reduced-Price Meal Eligibility**

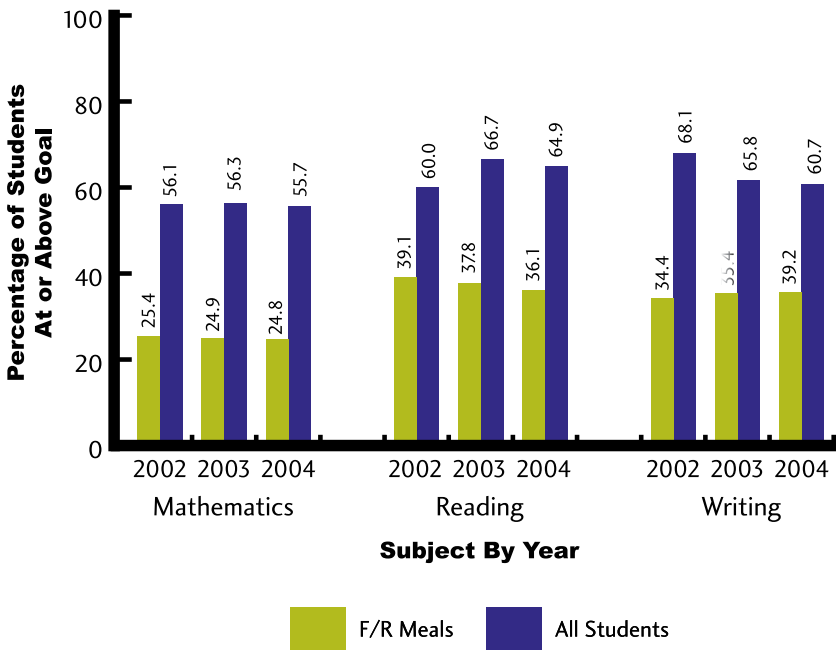


## 2004 CONNECTICUT MASTERY TEST (CMT)

### GRADE 8

On the fall 2004 administration of the Grade 8 CMT, the gap between those students who were eligible for free and reduced-price meals and the state as a whole persisted. While the economically disadvantaged students made modest gains on the writing assessment, their performance on the mathematics assessment was essentially unchanged and their performance on the reading assessment declined. Over the same period, the state as a whole saw gains in reading and a decline in writing. Mathematics scores remained stable at the state level. Overall, at Grade 8, the achievement gap between the poorest students and the state as a whole increased in reading and was relatively constant in mathematics. As in Grade 6, the gap in writing decreased between the 2002 and 2004 assessments due, primarily, to a decline in the performance of the state's Grade 8 students as a whole.

#### CONNECTICUT MASTERY TEST – GRADE 8 Percentage of Students At or Above Goal by Free/Reduced-Price Meal Eligibility



## 2004 CONNECTICUT MASTERY TEST (CMT)

### GRADE 4 MATHEMATICS CONTENT

The CMT tests a variety of mathematical skills and concepts. The content subcategories describe the fundamentals of mathematics and serve as the building blocks for more advanced concepts. A mastery standard has been established for each content subcategory based on the number of subcategory items tested (e.g., four correct answers out of five questions). The table below identifies the percentage of Grade 4 students statewide who mastered the content of each of the subcategories in 2004. Schools, teachers and districts may use the subcategory scores to adjust curriculum, address problems and develop strengths. For example, data from the fall 2004 CMT suggest that “mathematical applications” and “estimating solutions to problems” are content areas that may need further attention.

<b>Mastery of Grade 4 Mathematics Content</b>		
<b>Content Category</b>	<b>Content Subcategory</b>	<b>Percent Mastering</b>
Number sense	Place value	75.4
	Pictorial representation of numbers	96.2
	Order/magnitude/rounding of numbers	93.6
Operations	Models for operations	79.6
	Basic facts	94.5
	Computation w/ whole numbers, decimals	96.1
	Solve word problems	93.5
Estimation and approximation	Numerical estimation strategies	72.0
	Estimating solutions to problems	44.8
Measurement	Time	90.4
	Approximating measures	58.3
	Customary and metric measures	85.2
Spatial relationships and geometry	Geometric shapes and properties	93.1
Probability & statistics	Tables, graphs and charts	90.6
	Probability	80.1
Patterns	Patterns	78.4
Discrete mathematics	Classification and logical reasoning	85.9
Integrated understandings	Mathematical applications	34.6

## 2004 CONNECTICUT MASTERY TEST (CMT)

### GRADE 6 MATHEMATICS CONTENT

In Grade 6, students are expected to have mastered a wider range of mathematics skills and concepts and, therefore, are tested on a greater number of content subcategories than in Grade 4. As in Grade 4, Grade 6 students had the most difficulty mastering “mathematical applications.”

<b>Mastery of Grade 6 Mathematics Content</b>		
<b>Content Category</b>	<b>Content Subcategory</b>	<b>Percent Mastering</b>
Number sense	Place value	91.4
	Pictorial representation of numbers	77.9
	Equiv. fractions/decimals/percents	68.1
	Order/magnitude/rounding of numbers	78.2
Operations	Models for operations	73.4
	Basic facts	87.3
	Computation w/ whole numbers, decimals	73.2
	Computation with fractions	75.2
	Solve word problems	84.0
Estimation and approximation	Numerical estimation strategies	88.1
	Estimating solutions to problems	43.7
Measurement	Time	74.2
	Approximating measures	74.4
	Customary and metric measures	45.7
Spatial relationships and geometry	Geometric shapes and properties	64.3
	Spatial relationships	91.9
Probability & statistics	Tables, graphs and charts	91.5
	Statistics and data analysis	54.8
	Probability	60.4
Patterns	Patterns	79.2
Algebra and functions	Algebraic concepts	90.1
Discrete mathematics	Classification and logical reasoning	76.5
Integrated understandings	Mathematical applications	22.8

## 2004 CONNECTICUT MASTERY TEST (CMT)

### GRADE 8 MATHEMATICS CONTENT

By Grade 8, students are expected to have mastered content from the same number of subcategories as Grade 6, but the types of skills and concepts in Grade 8 differ from those in Grade 6. The content category “ratios, proportions and percents” is added for Grade 8 and the “basic skills” and “time” subcategories are eliminated. While some of the subcategories changed for Grade 8, the area that presented students with the greatest difficulty, “mathematical applications”, remained the same as in Grades 4 and 6.

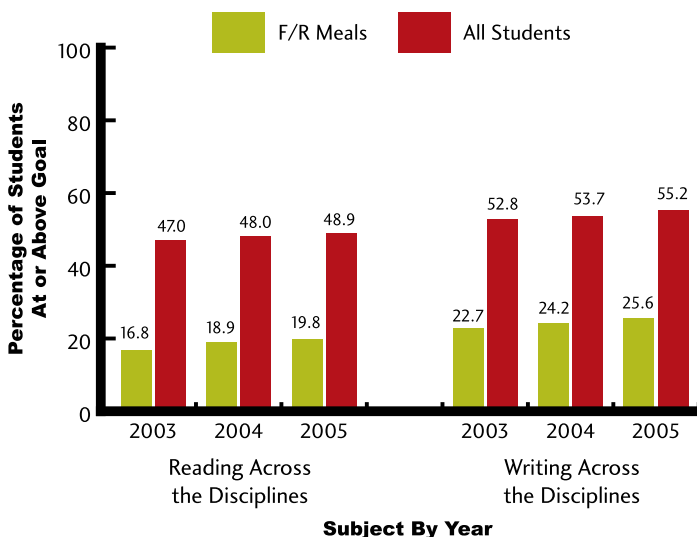
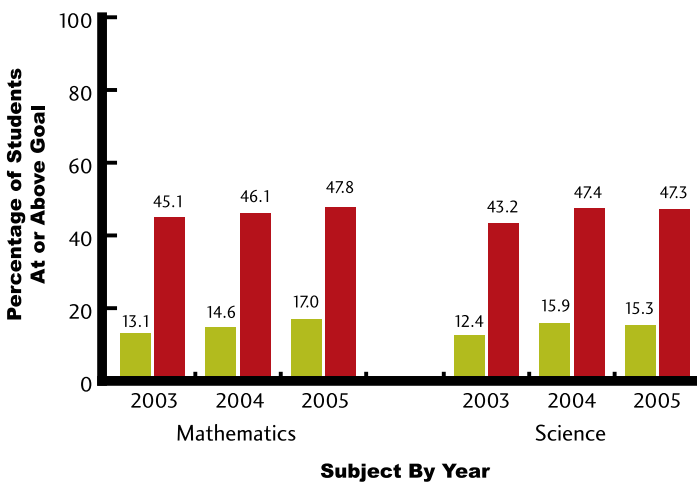
<b>Mastery of Grade 8 Mathematics Content</b>		
<b>Content Category</b>	<b>Content Subcategory</b>	<b>Percent Mastering</b>
Number sense	Place value	55.3
	Pictorial representation of numbers	73.7
	Equiv. fractions/decimals/percents	67.8
	Order/magnitude/rounding of numbers	69.1
Operations	Models for operations	55.4
	Computation w/ whole numbers, decimals	52.4
	Computation with fractions	58.7
	Solve word problems	71.1
Estimation and approximation	Numerical estimation strategies	51.8
	Estimating solutions to problems	68.6
Ratios, proportions and percents	Ratios and proportions	61.1
	Computations with percents	46.3
Measurement	Approximating measures	55.9
	Customary and metric measures	44.6
Spatial relationships and geometry	Geometric shapes and properties	53.4
	Spatial relationships	65.7
Probability & statistics	Tables, graphs and charts	76.4
	Statistics and data analysis	55.7
	Probability	52.8
Patterns	Patterns	59.6
Algebra and functions	Algebraic concepts	49.4
Discrete mathematics	Classification and logical reasoning	74.4
Integrated understandings	Mathematical applications	17.0

## 2004-05 CONNECTICUT ACADEMIC PERFORMANCE TEST (CAPT)

Grade 10 students take the Connecticut Academic Performance Test (CAPT) in the spring. This test assesses student performance in mathematics, science, reading and writing. Like the CMT, CAPT scores are reported for five achievement levels (below basic, basic, proficient, goal and advanced) and the state uses the goal level as its standard.

Over the last three years, the achievement gap between all students and those students eligible for free and reduced-price meals has persisted on all four assessments. Over this period, the gap in the percentage at or above goal between those students eligible for free and reduced-price meals and the entire student population has remained at around 30 percentage points on all four assessments.

### CONNECTICUT ACADEMIC PERFORMANCE TEST Percentage of Students At or Above Goal by Free/Reduced-Price Meal Eligibility



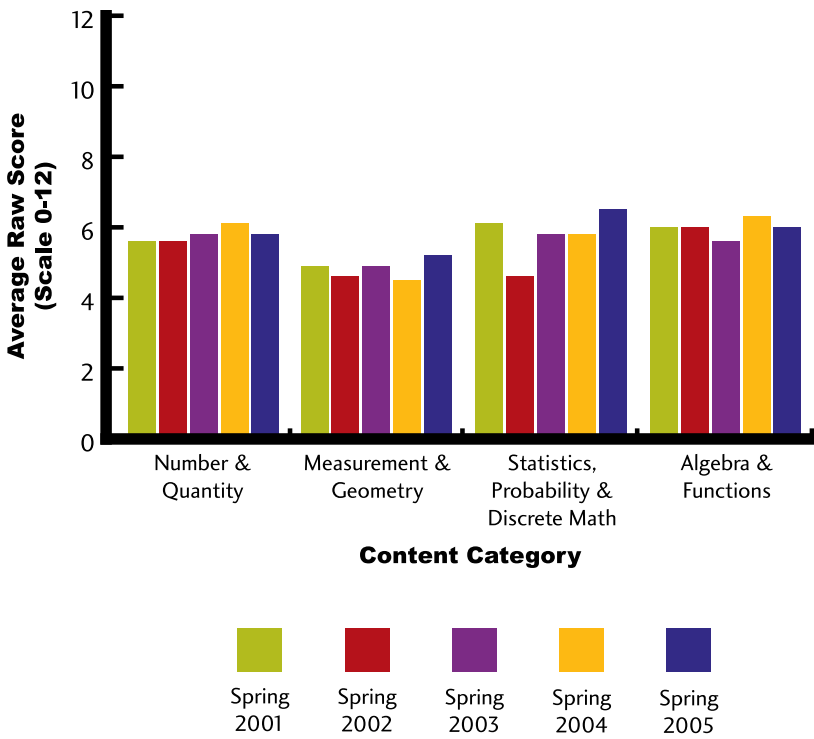


## CONNECTICUT ACADEMIC PERFORMANCE TEST (CAPT)

### MATHEMATICS CONTENT

Like the CMT, the CAPT assesses a variety of mathematics skills and concepts in addition to overall mathematics performance. Unlike the CMT, however, the CAPT focuses more on applications of groups of skills and concepts. Since the 2000-01 school year (spring 2001 assessment), average raw scores for the four content categories have been stable. Over this period, the “measurement and geometry” category has posed the greatest challenge to Connecticut students. In the spring 2005 assessment, however, the average raw score for this category rose from the prior year and was at its highest point for the five-year period.

**Connecticut Academic Performance Test, Mathematics Average Raw Score by Content Category 2001-05**



## NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS (NAEP)

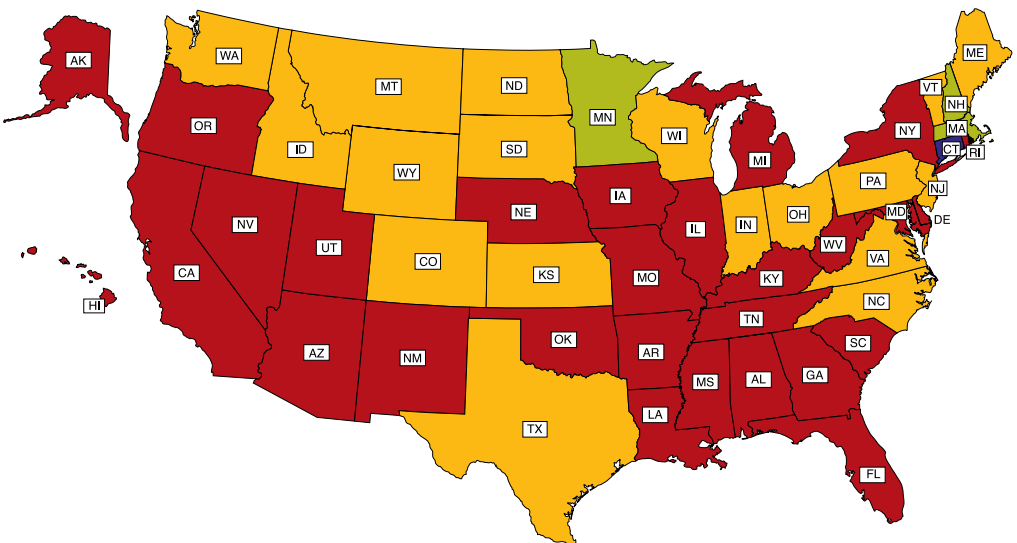
### GRADE 4 MATHEMATICS Percent At or Above Proficient

#### ALL STUDENTS

The National Assessment of Educational Progress (NAEP) is often called the “Nation’s Report Card.” It is a congressionally mandated assessment in various subject areas administered by the National Center for Education Statistics, a branch of the U.S. Department of Education. It is the only nationally representative continuing assessment of what America’s students know and can do in various subject areas.

On the Spring 2005 assessment of mathematics, 43 percent of Connecticut’s Grade 4 students scored at or above the proficient level. This compares favorably to the nation’s score of 35 percent at or above proficient.

For Grade 4, Connecticut outperformed over half of the states and its performance was statistically equal to 18 other states. Only three states performed better than Connecticut.



- Focal state/jurisdiction (Connecticut)
- Has a higher at or above proficient than focal state/jurisdiction
- Is not significantly different from the focal state/jurisdiction
- Has a lower at or above proficient than the focal state/jurisdiction

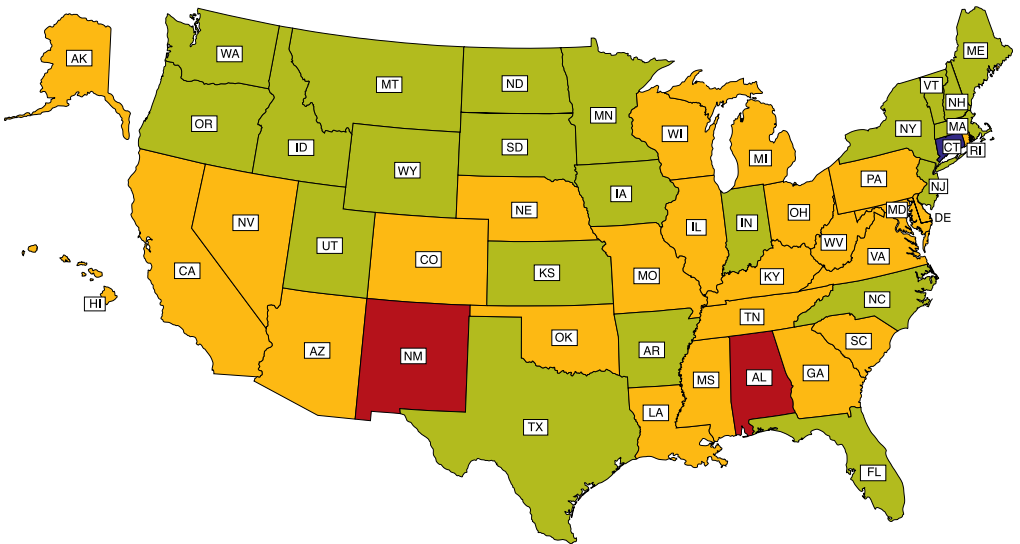
# NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS (NAEP)

GRADE 4 MATHEMATICS  
Percent At or Above Proficient

## STUDENTS ELIGIBLE FOR FREE/REDUCED-PRICE MEALS

While Connecticut’s Grade 4 students did well as a whole, the subset of Grade 4 students who were eligible for free and reduced-price meals performed at lower levels than their counterparts nationally. For this group, only 17 percent of Connecticut’s students scored at the proficient level or above, compared to 19 percent nationally.

When the focus is on Grade 4 students who are eligible for free and reduced-price meals, Connecticut was outperformed in mathematics by 22 states. Twenty-five states performed essentially the same as Connecticut and two states performed at lower levels than Connecticut.



- Focal state/jurisdiction (Connecticut)
- Has a higher at or above proficient than focal state/jurisdiction
- Is not significantly different from the focal state/jurisdiction
- Has a lower at or above proficient than the focal state/jurisdiction

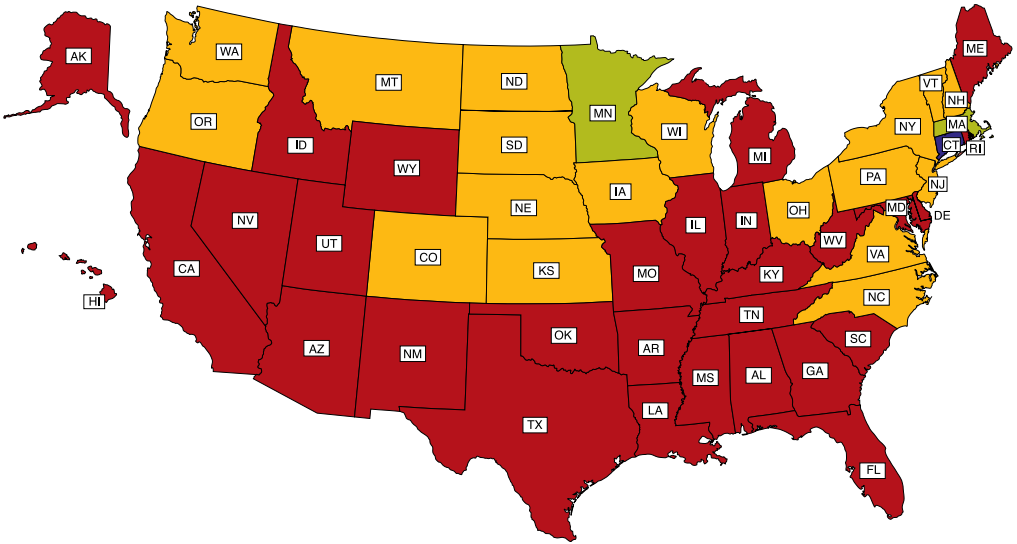
## NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS (NAEP)

GRADE 8 MATHEMATICS  
Percent At or Above Proficient

### ALL STUDENTS

On the spring 2005 Grade 8 NAEP mathematics assessment, 35 percent of Connecticut's Grade 8 students reached the proficient level or above, 6 percentage points higher than the national figure of 29 percent.

Connecticut outperformed 29 states. Minnesota and Massachusetts scored higher than Connecticut. The rest of the states equaled Connecticut's performance.



- Focal state/jurisdiction (Connecticut)
- Has a higher at or above proficient than focal state/jurisdiction
- Is not significantly different from the focal state/jurisdiction
- Has a lower at or above proficient than the focal state/jurisdiction

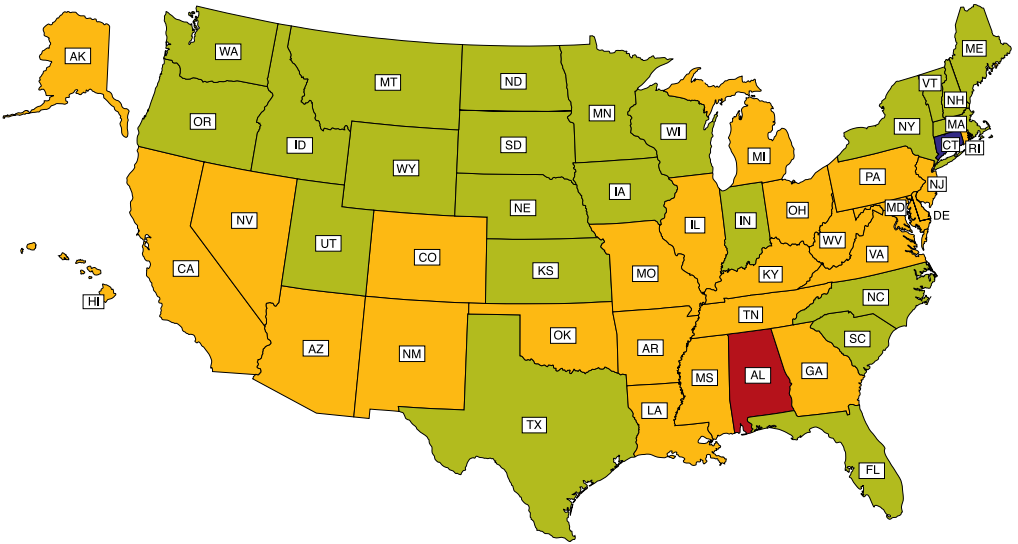
# NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS (NAEP)

GRADE 8 MATHEMATICS  
Percent At or Above Proficient

## STUDENTS ELIGIBLE FOR FREE/REDUCED-PRICE MEALS

Like their Grade 4 counterparts, Connecticut’s Grade 8 students who were eligible for free or reduced-price meals performed below the nation’s impoverished Grade 8 students as a whole. Ten percent of Connecticut’s poor Grade 8 students scored at or above the proficiency level, compared to 13 percent of the nation’s poor Grade 8 students.

When the focus is on Grade 8 students who are eligible for free and reduced-price meals, Connecticut was outperformed in mathematics by students in 22 states. Twenty-six states performed essentially the same as Connecticut and one state performed lower than Connecticut.

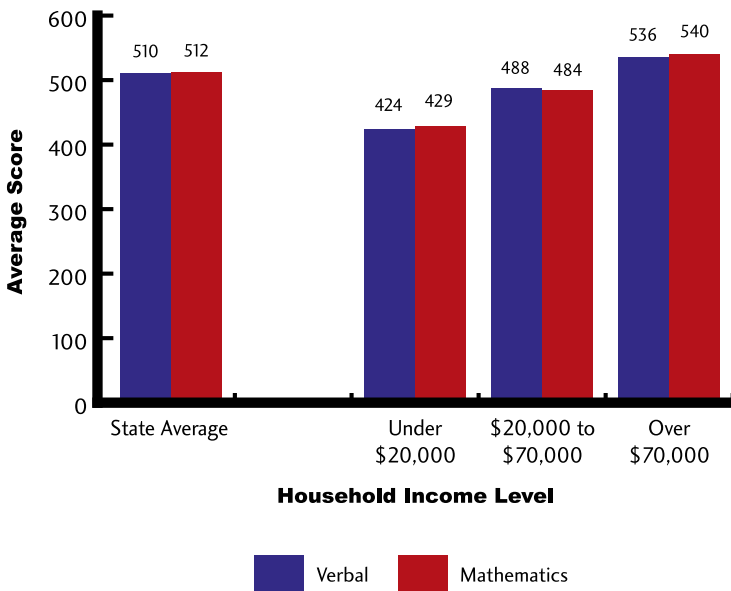


- Focal state/jurisdiction (Connecticut)
- Has a higher at or above proficient than focal state/jurisdiction
- Is not significantly different from the focal state/jurisdiction
- Has a lower at or above proficient than the focal state/jurisdiction

## SAT REASONING TEST

The SAT Reasoning Test is one of the nation's most commonly used college readiness assessments. The test is divided into two sections, verbal and mathematics, which are scored separately on a scale of 200 to 800. In 2005, Connecticut high school students averaged a score of 510 on the verbal test and 512 on the mathematics test, for a combined score of 1022. This figure, however, masks significant differences between the level of achievement of Connecticut's richest and poorest students. As the chart below indicates, there is a direct relationship between income and performance on the SAT. Students reporting family incomes greater than \$70,000 per year scored a combined 223 points more than those reporting household incomes of less than \$20,000 and 104 points higher than students reporting household incomes between \$20,000 and \$70,000.

### SAT Reasoning Test: Results by Income Level\*

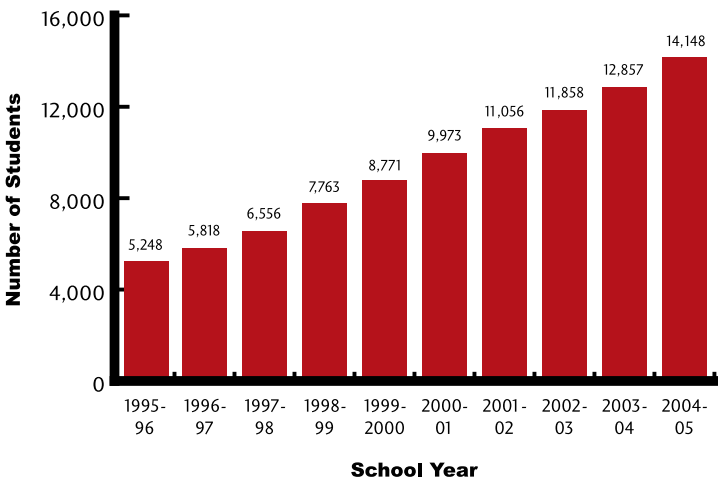


\* Income data represent voluntary, self-reported data submitted by students. Over 62 percent of those tested chose to report their household incomes. Those who chose not to report their household incomes scored an average of 515 on the verbal assessment and an average of 517 on the mathematics assessment. The source for these data is the College Board.

## ADVANCED PLACEMENT

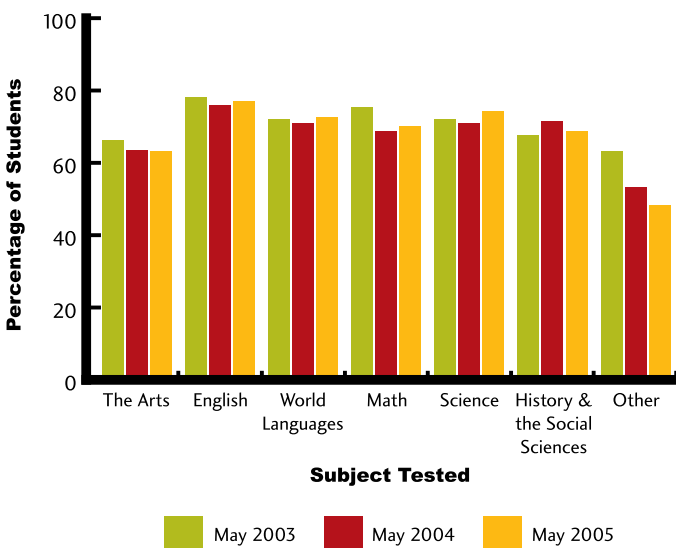
The Advanced Placement (AP) program is a rigorous program of college-level courses and examinations. Connecticut AP exam participation has increased by 170 percent over the last decade. Over the same period total high school enrollment increased by 29.4 percent.

### Number of Students Taking an Advanced Placement Test



With the increased number of students taking AP exams, the percentage of students scoring three or more has remained relatively stable in most subject areas over the last three years. The American Council on Education has established a minimum of a score of three (on a scale of one through five) for a college to award college credit for a student’s achievement on an exam.

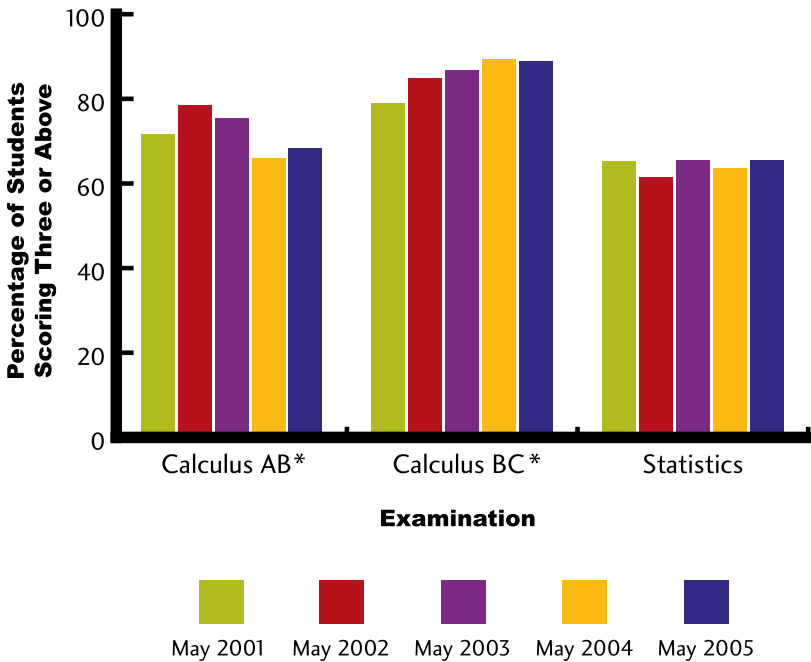
### Advanced Placement Examinations Percentage of Students Scoring Three or Above



## ADVANCED PLACEMENT IN MATHEMATICS

While the overall percentage of students scoring three or more on mathematics AP examinations has remained relatively stable, this has not been the case for all of the mathematics examinations. Over the last five years, the percentage of students scoring three or higher on the Calculus AB\* test has dropped, while the percentage scoring three or higher on the more advanced Calculus BC\* exam has increased. The percentage of students scoring three or higher on the statistics test has remained stable, even though the number of students taking the exam has increased by over 100 percent.

**AP Mathematics Examinations:  
Percentage of Students Scoring Three or Above  
2001-2005**



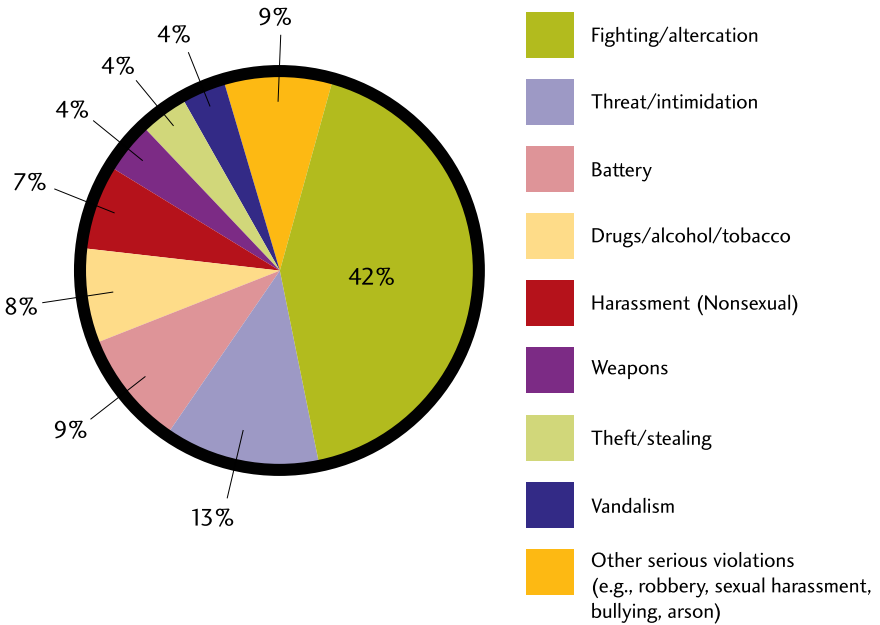
\* According to the College Board, the AP's parent organization, both Calculus AB and Calculus BC are designed to be rigorous and challenging. The difference between the courses is that Calculus AB covers concepts that students are expected to have mastered before taking Calculus BC. Calculus BC contains more advanced topics and concepts than the Calculus AB course.



## SCHOOL DISCIPLINE

To perform at their best, students need a safe learning environment. In 2004-05, there were over 35,000 serious offenses that resulted in a suspension and/or expulsion in Connecticut public schools. These offenses resulted in 1,245 expulsions, an increase of 24 percent over 2003-04. Serious offenses do not include minor violations of school policy, such as skipping class, insubordination and dress code violations. Those violations resulted in an additional 40,734 incidents.

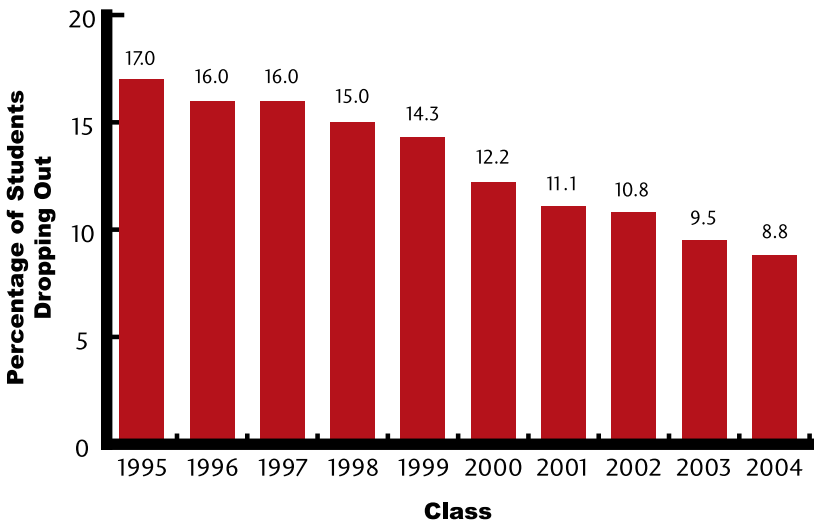
**Serious Offenses Resulting in Suspension or Expulsion, 2004-05**



## CUMULATIVE FOUR-YEAR HIGH SCHOOL DROPOUT RATE

Since the Class of 1995, Connecticut's cumulative four-year percentage of high school dropouts has been consistently declining. Over this period, the cumulative dropout rate has decreased to 8.8 percent for the Class of 2004 from 17 percent for the Class of 1995. This reduction means that almost 2,000 fewer Connecticut high school students dropped out of school in 2004 compared with 1995.

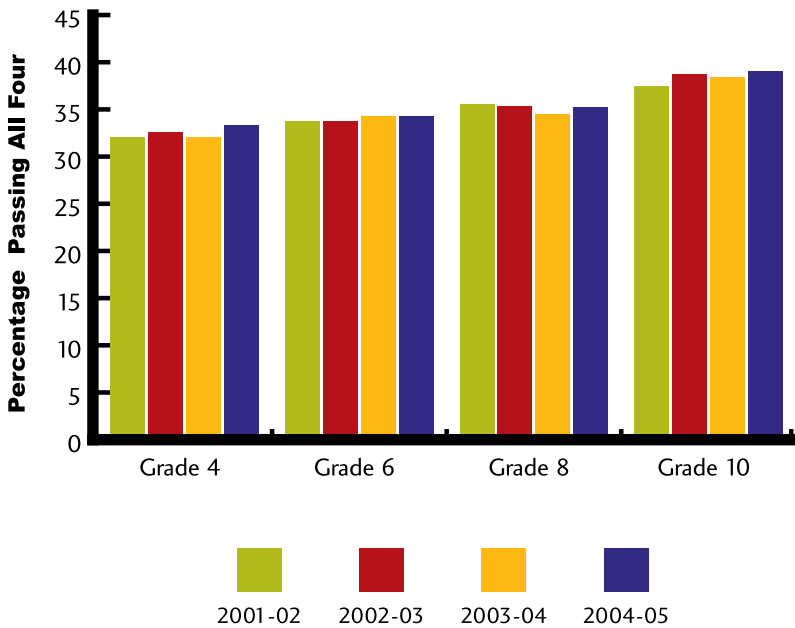
### Cumulative Four-Year High School Dropout Rate



## CONNECTICUT PHYSICAL FITNESS ASSESSMENT

Across all grades statewide, results of the Connecticut Physical Fitness Assessment have remained relatively constant for the last four years. For all four grades tested, between 30 and 40 percent of students passed all four assessments in each of the last four years. The Connecticut Physical Fitness Assessment contains four separate assessments that test flexibility, abdominal strength and endurance, upper-body strength, and aerobic endurance.

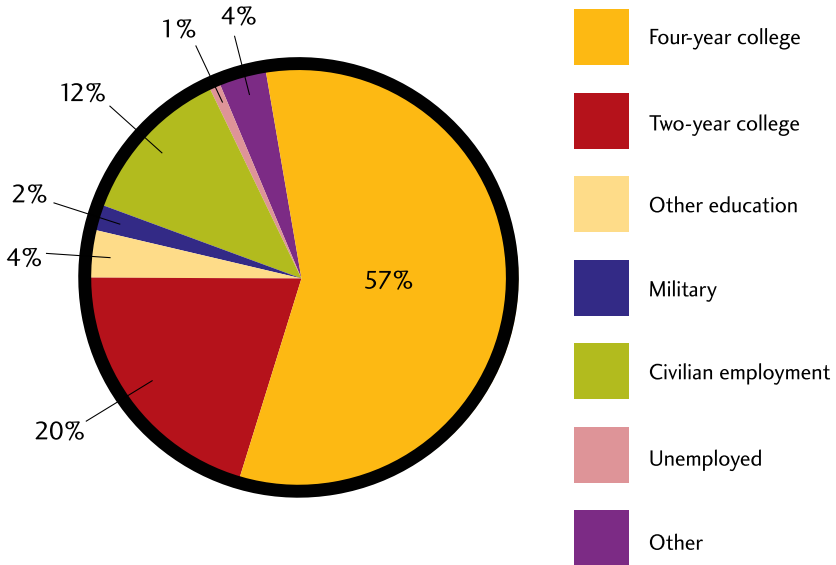
**Percentage Passing All Four Physical Fitness Assessments By Grade, 2001-02 to 2004-05**



## ACTIVITIES OF SPRING 2004 CONNECTICUT PUBLIC HIGH SCHOOL GRADUATES

In the spring of 2004, 35,538 students graduated with diplomas from Connecticut high schools. Three out of four of those graduates pursued a college education, most attending four-year institutions. Of the graduates who did not go to college, over half were engaged in civilian employment. In all, over 95 percent of the 2004 graduates were either furthering their education or engaged in military or civilian employment.

**Activities of Spring 2004 Graduates**



## DISTRICT REFERENCE GROUPS

The table below and on page 54 lists Connecticut school districts by district reference group assignment. See page 5 for information on district reference groups.

District Reference Group A		
Darien Easton New Canaan	Redding Ridgefield Weston	Westport Wilton Region 9
District Reference Group B		
Avon Brookfield Cheshire Fairfield Farmington Glastonbury Granby	Greenwich Guilford Madison Monroe New Fairfield Newtown Orange	Simsbury South Windsor Trumbull West Hartford Woodbridge Region 5 Region 15
District Reference Group C		
Andover Barkhamsted Bethany Bolton Canton Columbia Cornwall Ellington Essex Hebron	Mansfield Marlborough New Hartford Oxford Pomfret Salem Sherman Somers Suffield Tolland	Region 4 Region 7 Region 8 Region 10 Region 12 Region 13 Region 14 Region 17 Region 18 Region 19
District Reference Group D		
Berlin Bethel Branford Clinton Colchester Cromwell East Granby East Hampton	East Lyme Ledyard Milford Newington New Milford North Haven Old Saybrook Rocky Hill	Shelton Southington Stonington Wallingford Waterford Watertown Wethersfield Windsor

(continued)

## DISTRICT REFERENCE GROUPS continued

District Reference Group E		
Ashford Bozrah Brooklyn Canaan Chaplin Chester Colebrook Coventry Deep River Eastford East Haddam Franklin	Hampton Hartland Kent Lebanon Lisbon Litchfield Norfolk North Branford North Stonington Portland Preston Salisbury	Scotland Sharon Thomaston Union Westbrook Willington Woodstock Region 1 Region 6 Region 16 Woodstock Acad.
District Reference Group F		
Canterbury East Windsor Enfield Griswold Montville North Canaan	Plainville Plymouth Seymour Sprague Stafford Sterling	Thompson Voluntown Windsor Locks Wolcott Region 11
District Reference Group G		
Bloomfield Bristol East Haven Groton Hamden Killingly	Manchester Middletown Naugatuck Plainfield Putnam Stratford	Torrington Vernon Winchester Gilbert School Norwich Free Acad.
District Reference Group H		
Ansonia Danbury Derby	East Hartford Meriden Norwalk	Norwich Stamford West Haven
District Reference Group I		
Bridgeport Hartford New Britain	New Haven New London	Waterbury Windham

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