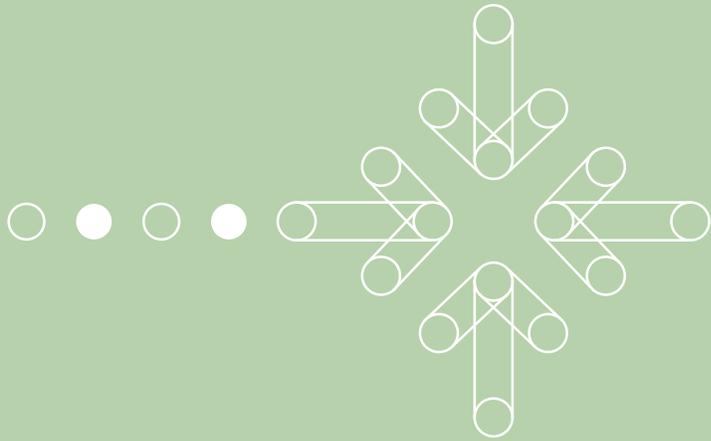


CAREER-TECHNICAL EDUCATION
DATA PROFILE



SUMMER 2006



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Career-Technical Education

DATA PROFILE

Summer 2006

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Career-Technical Education in North Carolina

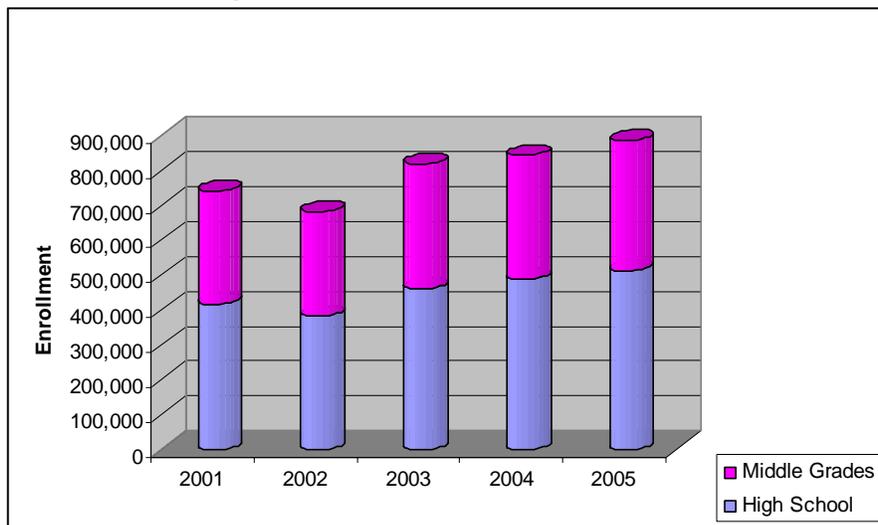
Hundreds of thousands of North Carolina young people get their start each year in exciting and rewarding careers through secondary Career-Technical Education (CTE) courses. Whether students plan to further their education in community colleges, technical schools, or four-year colleges and universities, receive on-the-job training, or pursue careers in the military, secondary Career-Technical Education can be the first step in a pathway toward productive employment and citizenship.

The mission of Career-Technical Education is to help empower students for effective participation in an international economy as world-class workers and citizens. Programs in Career-Technical Education are designed to contribute to the broad educational achievement of students, including basic skills such as reading, writing and mathematics, as well as their ability to work independently and as part of a team, think creatively and solve problems, and utilize technology.

Enrollment Trends

Overall CTE enrollment has increased steadily over the past several years. Since 2000-2001, CTE enrollment increased 19.5 percent, from 739,665 to 883,709. Note that a change in data collection method in 2001-2002 may partly account for the drop in enrollment shown that year. Figure 1 illustrates changes in enrollment in middle grades and high school CTE courses between 2001 and 2005.

Figure 1. 2001-2005 CTE Enrollment



Source: NC CTE Performance Data, 2001-2005

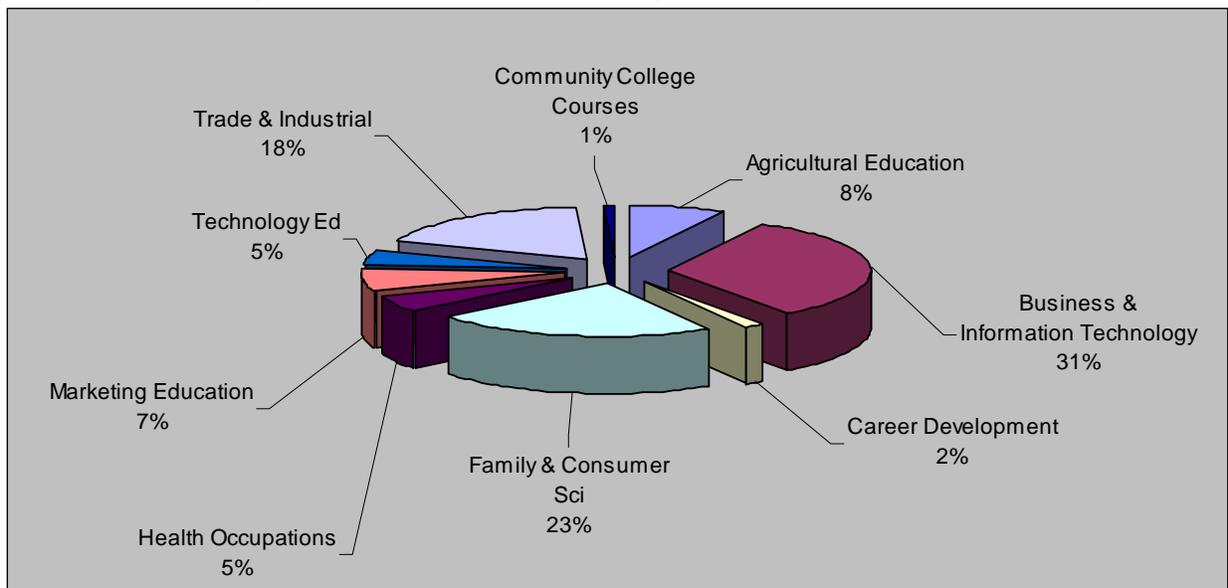
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In 2004-2005, there were 129 CTE courses available for students in grades 6 through 12 in North Carolina. The program begins with exploratory courses in the middle grades and leads to specialized classroom instruction in grades 11 and 12. These courses are taught by more than 5,300 teachers with the assistance of over 530 support personnel in special populations and career development.

High school enrollment has increased slightly as a percentage of the total. In 2005, 58.1 percent of the students in CTE, 513,011 young people, were enrolled in high school courses and 41.9 percent in middle grades. This is a slight increase over 2001, when 56.3 percent of the students were enrolled in high school courses.

Figure 2 shows 2005 high school enrollment by program area. The largest area is Business and Information Technology Education, with 31 percent of the total high school enrollment. The smallest area is Career Development, with only 2 percent. Courses identified as community college courses were coded using generic community college course codes and cannot be assigned to a specific program area.

Figure 2. 2005 Enrollment in High School Courses in CTE



Source: NC CTE Performance Data, 2001-2005.

Special Populations Enrollment

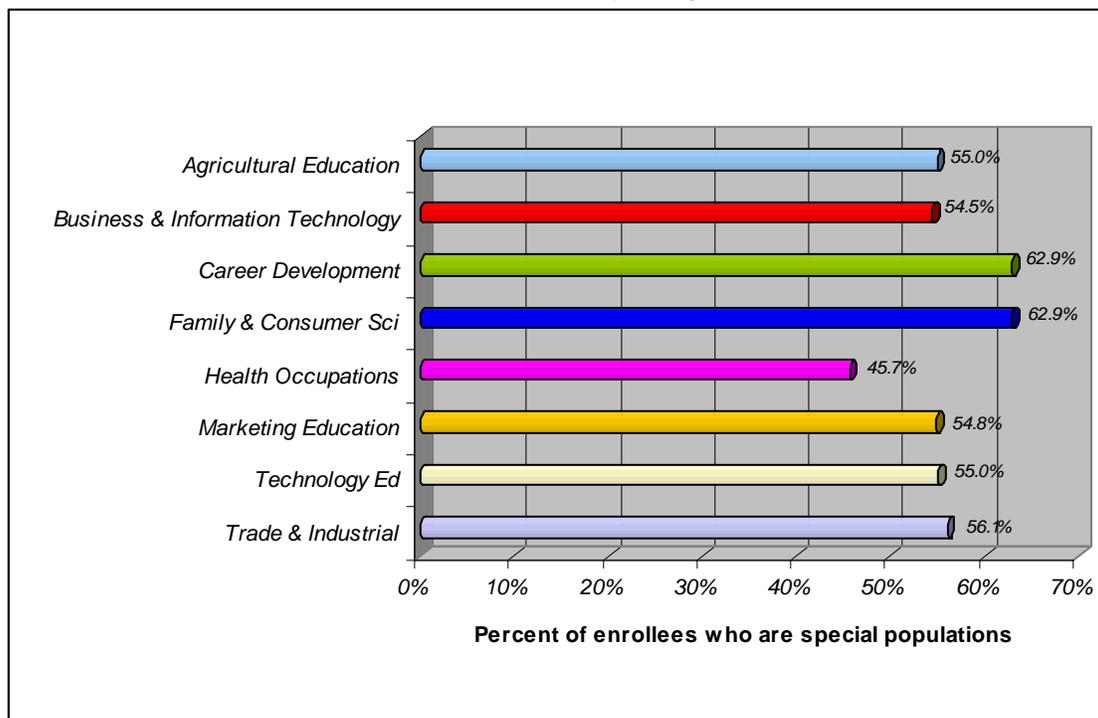
One of the most dramatic trends in CTE enrollment in recent years is the increase in the number of students identified as members of special populations. Special populations students are those who need special services or accommodations to succeed. Students identified as special populations include those with handicapping conditions and those who are at-risk due to academic or economic disadvantages. The number of students identified as special populations has increased from 270,505 in 2000-2001 to 373,874 in 2004-2005. In high school CTE courses, more than half of the enrollees – 56.1 percent – were identified as members of one or more of the special populations groups. Although the percent of students in middle grades CTE courses who have been identified as special populations is much lower than for high school, this may be due to difficulties in coding rather than an actual difference in enrollment patterns.

CAREER-TECHNICAL EDUCATION DATA PROFILE

Overall, in 2004-2005, special populations students accounted for 42.3 percent of the total enrollment in CTE courses. This is an increase from 2000-2001, when 36.6 percent of the students enrolled in CTE courses were members of special populations.

Figure 3 provides information about special populations high school enrollment by program area. The program area with the largest number of special populations students is Family and Consumer Sciences Education, with 68,352 or 62.9 percent of their total enrollment. The program area with the smallest number of special populations students is Career Development Education, with 10,781 students, interestingly also 62.9 percent of the program area overall enrollment.

Figure 3. 2005 Special Populations Enrollment as a Percent of Overall Enrollment by Program Area



Source: NC CTE Performance Data, 2001-2005

Detailed enrollment data for 2000-2001, 2001-2002, 2002-2003, 2003-2004, and 2004-2005 are presented in Charts 1 and 2. Data are not yet available for 2005-2006.

Data on Student Attainment of Academic and Technical Competencies

As part of the agreement providing North Carolina \$32 million annually for Career-Technical Education, data on academic and technical attainment are reported each year. Complete information on academic and technical attainment by school system can be viewed at <http://wdeppms.dpi.state.nc.us/wdeppms.nsf>. Detailed reports by program area and other categories for 2000-2001, 2001-2002, 2002-2003, 2003-2004, and 2004-2005 are presented in Charts 3 and 4. Information is not yet available for 2005-2006.

Academic Attainment

The measure of academic attainment used in North Carolina is performance on ASSET or ACCUPLACER, two national standardized examinations that are also used by community colleges to

CAREER-TECHNICAL EDUCATION DATA PROFILE

Chart 1. Enrollment by Program Area

Program area	Overall Enrollment					Special Populations Enrollment				
	00-01	01-02	02-03	03-04	04-05	00-01	01-02	02-03	03-04	04-05
Agricultural Education	32,558	27,996	32,143	34,181	37,822	15,952	13,759	17,024	18,554	20,789
Business & Information Technology	134,318	127,408	155,818	163,116	160,543	57,389	55,956	77,554	85,078	87,493
Career Development	6,338	4,605	7,659	9,467	17,149	3,381	2,811	4,721	6,099	10,781
Family & Consumer Sci	93,900	84,588	100,740	103,994	108,720	50,163	45,697	59,185	62,267	68,352
Health Occupations	21,583	22,110	27,311	30,784	34,112	7,822	8,164	11,112	13,304	15,582
Marketing Education	28,326	24,399	29,633	32,534	35,893	14,354	12,070	15,681	18,007	19,683
Technology Ed	20,234	18,198	21,770	24,933	22,818	8,763	8,059	10,827	13,095	12,557
Trade & Industrial	76,094	68,680	80,200	83,405	89,130	36,555	33,212	42,653	45,341	49,962
Community College Courses	3,309	4,084	5,557	6,127	6,824	1,159	1,483	2,355	2,704	3,421
High School Total	416,660	382,068	460,831	488,541	513,011	195,538	181,211	241,112	264,449	288,620
Middle Grades Total	323,005	299,257	355,985	353,166	370,698	74,967	68,230	87,141	82,491	85,254
Total	739,665	681,325	816,816	841,707	883,709	270,505	249,441	328,253	346,940	373,874

SOURCE: CTE Performance Data, 2001-2005

Chart 2. Middle Grades Enrollment by Course

Course	Overall Enrollment					Special Populations Enrollment				
	00-01	01-02	02-03	03-04	04-05	00-01	01-02	02-03	03-04	04-05
6828 Exploring Biotechnology	9,164	7,899	9,409	8,502	6,884	1,842	1,481	1,939	1,545	1,339
6208 Exploring Business Technologies	38,546	35,513	45,728	46,187	43,596	8,144	7,478	9,681	8,764	9,566
6400 Business Computer Technology	32,523	35,623	43,820	50,598	58,421	8,004	9,438	12,039	14,184	15,895
6511 Keyboarding MG	66,522	62,040	76,768	76,854	86,502	17,728	16,241	22,378	21,158	21,484
6158 Exploring Career Decisions	81,329	68,049	70,248	64,190	69,471	18,710	14,243	16,027	13,612	15,295
7018 Exploring Life Skills	47,646	44,706	54,131	50,194	48,732	10,604	9,910	12,623	11,196	9,683
8108 Exploring Technology Systems	47,275	45,427	55,881	56,641	57,092	9,935	9,439	12,454	12,032	11,992
Total	323005	299257	355985	353166	370698	74967	68230	87141	82491	85254

SOURCE: CTE Performance Data, 2001-2005

CAREER-TECHNICAL EDUCATION DATA PROFILE

Chart 3. Academic Attainment Data by Category*

Category	2000-2001	2002-2002	2002-2003	2003-2004	2004-2005
All Students					
Reading	50.6	48.3	51.8	47.7	47.2
Writing	56.3	51.2	53.4	51.1	50.9
Numerical Skills	50.0	51.1	52.7	51.4	50.2
Elementary Algebra	68.6	65.8	67.6	68.0	67.8
Combined	56.4	54.1	56.4	54.4	54.3
Special Populations					
Reading	38.7	36.1	38.5	34.4	34.0
Writing	43.5	38.5	39.9	37.3	37.3
Numerical Skills	35.9	37.7	38.5	38.3	36.7
Elementary Algebra	59.3	55.8	56.1	57.8	57.6
Combined	44.3	42.0	43.2	42.0	41.4
Nontraditional					
Reading	55.6	55.3	57.8	51.7	54.7
Writing	59.1	59.3	59.0	55.2	57.3
Numerical Skills	47.8	55.2	54.8	51.4	53.1
Elementary Algebra	68.8	72.2	70.6	69.7	70.8
Combined	57.8	60.5	60.5	57.0	59.0
Academically Disadvantaged					
Reading	34.7	29.3	30.7	27.0	27.0
Writing	40.3	32.4	33.1	30.6	30.7
Numerical Skills	28.6	29.7	29.9	31.0	29.1
Elementary Algebra	54.0	48.3	47.4	50.0	50.3
Combined	39.4	34.9	35.3	34.1	34.1
Economically Disadvantaged					
Reading	45.9	45.2	41.5	35.4	34.0
Writing	51.2	47.8	43.6	38.5	38.3
Numerical Skills	44.9	44.4	40.7	40.0	38.1
Elementary Algebra	69.2	67.0	61.8	62.0	61.0
Combined	52.8	51.1	46.9	42.6	42.9
Limited English Proficient					
Reading	28.3	28.9	29.5	22.2	16.9
Writing	28.3	24.1	28.4	23.2	21.0
Numerical Skills	52.8	47.0	48.9	41.1	32.4
Elementary Algebra	77.4	65.1	68.4	66.4	61.3
Combined	46.7	41.3	43.8	37.8	32.2
Exceptional Children					
Reading	21.4	19.4	25.7	20.8	20.1
Writing	19.7	17.9	18.3	18.5	18.2
Numerical Skills	28.8	28.2	28.6	26.1	25.2
Elementary Algebra	43.2	38.7	36.3	42.0	41.6
Combined	28.3	26.1	27.2	25.5	25.6
College Tech Prep					
Reading	33.7	33.4	56.6	50.5	49.7
Writing	40.1	33.9	58.9	54.5	53.7
Numerical Skills	37.0	35.5	58.1	54.8	53.1
Elementary Algebra	51.4	48.3	74.3	71.7	71.0
Combined	40.6	37.8	62.0	57.8	57.3

* Percentage of CTE Concentrators that met or exceeded the national average on each of the four ASSET/ACCUPLACER Subtests. For the combined category, the numbers of students meeting or exceeding the national average were added and then calculated as a percentage of total test takers.
 SOURCE: CTE Performance Data, 2001-2005

CAREER-TECHNICAL EDUCATION DATA PROFILE

Chart 4. Academic Attainment Data by Program Area*

	2000-01	2001-02	2002-03	2003-04	2004-05
Reading	50.6	48.3	51.8	47.7	47.2
Agriculture	44.5	43.9	45.8	44.4	44.9
Business	54.0	52.0	55.6	52.0	50.1
Health Occupations	59.8	56.5	60.4	56.0	56.4
Marketing	48.4	48.2	49.1	45.8	45.7
Family & Consumer Sciences	38.4	41.2	41.5	34.8	35.4
Trade & Industrial	44.4	45.3	49.4	45.0	46.6
Technology	45.4	45.8	51.8	48.1	49.5
Writing	56.3	51.2	53.4	51.1	50.9
Agriculture	47.4	41.7	44.4	43.9	45.4
Business	60.9	58.3	58.0	55.4	54.6
Health Occupations	66.1	62.2	63.9	62.9	64.0
Marketing	51.5	50.1	50.9	49.5	49.3
Family & Consumer Sciences	46.5	46.6	46.8	42.5	40.5
Trade & Industrial	48.6	45.6	49.4	46.5	47.7
Technology	42.6	43.5	52.9	50.5	49.2
Numerical Skills	50.0	51.1	52.7	51.4	50.2
Agriculture	49.6	45.0	49.1	50.5	50.0
Business	55.3	54.7	54.0	53.5	52.3
Health Occupations	51.0	53.4	54.3	53.9	55.3
Marketing	43.9	48.0	49.0	46.8	46.8
Family & Consumer Sciences	31.3	36.8	36.1	35.0	33.9
Trade & Industrial	52.5	55.4	56.9	55.2	56.2
Technology	58.3	55.5	59.1	57.0	55.5
Elementary Algebra	68.6	65.8	67.6	68.0	67.8
Agriculture	57.1	55.6	58.5	61.1	62.6
Business	75.0	73.4	72.4	72.7	71.5
Health Occupations	74.7	75.7	77.5	77.5	77.9
Marketing	63.4	63.1	64.9	64.7	63.7
Family & Consumer Sciences	57.1	58.8	57.9	58.7	58.7
Trade & Industrial	62.7	62.3	64.5	65.2	66.9
Technology	65.7	65.9	67.8	67.0	66.8
Combined Scores	56.4	54.1	56.4	54.4	54.3
Agriculture	49.6	46.6	49.4	50.0	50.7
Business	61.3	59.6	60.0	58.4	57.1
Health Occupations	62.9	62.0	64.0	62.6	63.4
Marketing	51.8	52.4	53.5	51.7	51.4
Family & Consumer Sciences	43.3	45.8	45.6	42.8	42.1
Trade & Industrial	52.0	52.2	55.1	53.0	54.3
Technology	53.0	52.7	57.9	55.6	55.3

* Percentage of CTE Concentrators that met or exceeded the national average on each of the four ASSET/ACCUPLACER Subtests. For the combined category, the number of students meeting or exceeding the national average were added and then calculated as a percentage of total test takers.
 SOURCE: CTE Performance Data, 2001-2005

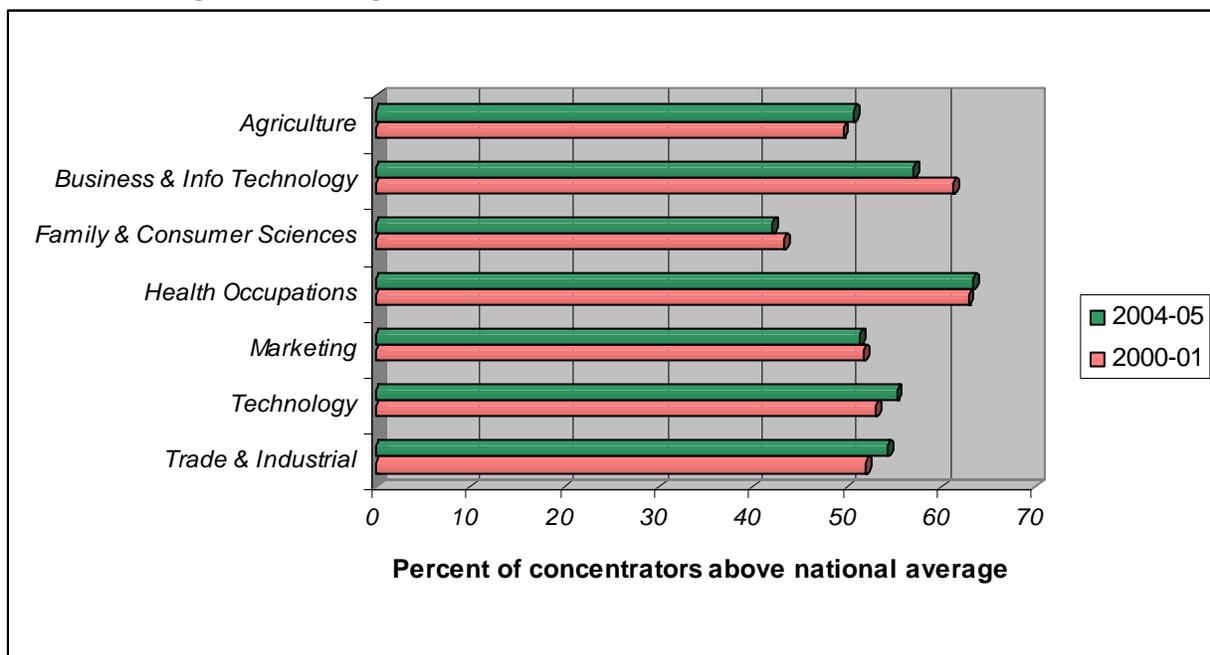
CAREER-TECHNICAL EDUCATION DATA PROFILE

determine student placement. CTE concentrators¹ take four ASSET or ACCUPLACER subtests: numerical skills, elementary algebra, writing, and reading. Targets are set for each subtest and for a combined measure, for all students and disaggregated by special category and by program area. For the combined category, the numbers of students meeting or exceeding the national average on each subtest were added and then calculated as a percentage of total test takers.

Performance on the academic attainment measure continues to be a significant concern in NC CTE. The combined category target for 2004-2005 was for 60.8 percent of concentrators to score at or above the national average on each of the four subtests. Performance fell far short of that target with only 54.3 percent meeting the goal. Performance on each of the four subtests fell similarly short of the target. Performance disaggregated by special category also fell below the targets in all areas except for students who have identified themselves as working toward the College Tech Prep course of study.

Figure 4 illustrates the performance of CTE concentrators on the academic attainment combined measure.

Figure 4. Change in Academic Attainment between 2001 and 2005



Source: NC CTE Performance Data, 2001-2005

In each of the five years for which data are available, a higher percentage of CTE concentrators exceeded the national average on the elementary algebra subtest than on any of the other three tests. For example, in 2004-05 in CTE as a whole, 47.2 percent of concentrators exceeded the national average in reading; in writing, 50.9 percent; in numerical skills, 50.2 percent; and in elementary algebra, 67.8 percent. The highest percentage of students exceeded the national average on the elementary algebra subtest in each of the program areas as well, although the percentages varied widely from area to area.

Between 2001-2002 and 2002-2003, CTE concentrators made modest gains on all four of the subtests. However, there was a small decline in the scores of three subtests during 2003-2004 and on all four subtests in 2004-2005. Analysis continues to try to determine the reason for this drop.

¹ Concentrators are current year high school graduates who have received at least four credits in a career pathway, at least one of which must be a capstone course.

CAREER-TECHNICAL EDUCATION DATA PROFILE

Technical Attainment

The measure used for technical attainment is performance of all CTE enrollees on standardized postassessments given at the conclusion of each course. Tests typically contain 100 multiple-choice questions. They are developed in North Carolina and are based upon course blueprints that list specific course objectives with respective weights of each objective. The examinations are assessed for validity and reliability prior to use in statewide accountability. The 2004-2005 target was for 59.3 percent of enrollees to reach at least Level III proficiency on the postassessments. To reach Level III proficiency, students must score 65 percent correct or better on the examination.

Since 2000-2001, the percentage of CTE enrollees who reached at least Level III proficiency increased from 54.8 percent to 65.5 percent, a 10.7 percentage point gain. Special populations students also showed an increase: from 41.8 percent at or above Level III in 2000-2001 to 55.9 percent in 2004-2005, an increase of 14.1 percentage points.

Chart 5 provides technical attainment information for all categories for which results are reported to the U.S. Department of Education and all program areas. Specific results by course are reported in program area sections of this document.

Chart 5. Technical Attainment Data for Career-Technical Education*

	2000-01	2001-02	2002-03	2003-04	2004-05
Overall	54.8	59.6	61.0	65.0	65.5
Special Populations	41.8	47.4	45.9	54.5	55.9
Nontraditional	54.5	62.6	64.7	61.0	69.1
Academically Disadvantaged	36.0	40.6	40.4	45.1	45.6
Economically Disadvantaged	51.8	58.5	49.6	54.6	53.4
Limited English Proficiency	36.3	45.6	37.6	36.2	34.1
Exceptional Children	26.5	32.1	34.4	38.0	38.2
College Tech Prep	46.4	50.8	52.8	59.8	60.9
Agriculture	33.8	45.1	60.0	59.3	68.3
Business	65.3	71.4	71.2	70.6	69.1
Career Development	41.4	44.9	52.5	56.2	60.0
Family & Consumer Sciences	61.8	63.7	55.6	71.5	67.0
Health Occupations	50.5	52.0	55.3	69.9	74.9
Marketing	44.4	52.6	56.2	55.2	56.7
Technology	41.1	47.5	45.9	48.0	50.6
Trade & Industrial	42.4	45.5	48.8	48.3	59.0

SOURCE: CTE Performance Data, 2001-2005

Followup Data on CTE Concentrators

Each year, Career-Technical Education also surveys students who graduated the previous year and met the qualifications for concentrators. Concentrators are graduates who earned four or more credits in a career pathway, at least one of which was in a capstone, or second level, course. This annual survey asks graduates about their experiences in Career-Technical Education, how well these courses prepared graduates for work or for further education or training, and their current educational and employment status.

The 2006 survey, which studied graduates nine months to one year after they completed high school, found more than three-fourths of the former students pursuing further education or postsecondary training, including on-the-job training. By program area, graduates pursuing further education or training ranged from 73.6 percent in Agricultural Education to 87.3 percent in Health Occupations Education. Statewide, 78.5 percent of the concentrators were in some sort of postsecondary education or training.

CAREER-TECHNICAL EDUCATION DATA PROFILE

Chart 6 shows graduate education status as of the time the survey was conducted.

Chart 6. 2005 Concentrator (Surveyed in 2006) Education Status

	Postsecondary Education	Four-Year College or University	On-the-Job Training	Total in postsecondary education and training
Agricultural Education	45.7	21.0	6.9	73.6
Business and Information Technology	40.1	35.5	4.9	80.5
Family and Consumer Sciences	46.4	23.5	4.0	73.9
Health Occupations	40.4	44.8	2.1	87.3
Marketing Education	38.2	32.0	4.6	74.9
Technology Education	35.5	30.6	9.7	75.9
Trade & Industrial	41.0	25.2	9.8	76.0
TOTAL	41.5	31.3	5.6	78.5

SOURCE: CTE Performance Data, 2001-2005

Only 4.0 percent of the concentrators reported they were unemployed and seeking full-time work at the time of the survey. This contrasts sharply to the North Carolina Youth Unemployment Rate of 21.4 percent.

The study also found that graduates reported that the availability of Career-Technical Education courses was one main reason they stayed in high school, a finding that has been consistent through the years the study has been done. More than half of the concentrators statewide – 53.4 percent – credited their Career-Technical Education courses as being a deciding factor in keeping them in school.

Complete results of the 2006 Followup Study as well as disaggregated data by course, program area, and local school system can be found on the Planning and Performance Management site:

<http://wdeppms.dpi.state.nc.us/wdeppms.nsf>.

How To Use This Information

Teachers can work with CTE Administrators and VoCATS Coordinators to obtain data on each of these measures for the school system and even down to the individual classroom. VoCATS Coordinators can also generate reports that highlight the performance by objective of students in individual classrooms. For additional details about this publication, contact vocats@dpi.state.nc.us or the program area consultant.

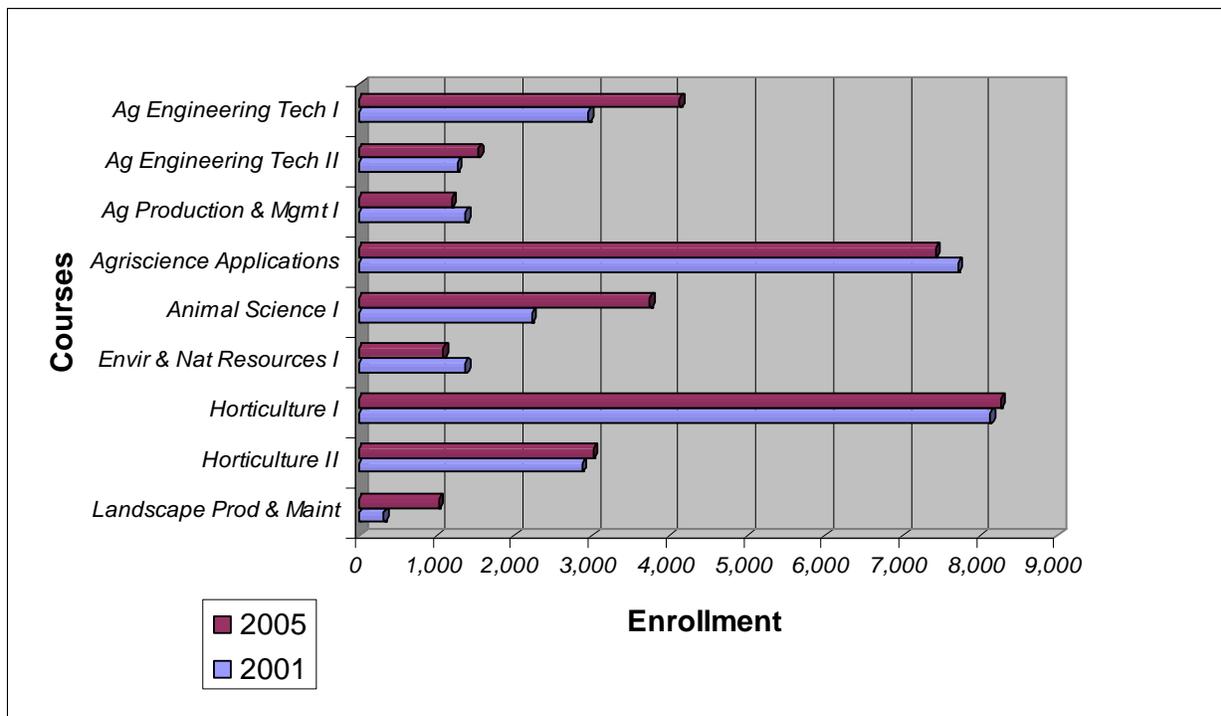
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Agricultural Education

Agricultural Education provides students with the opportunity to participate in coordinated group and individual instructional activities that are focused on preparation for future careers in agriculture. The agricultural education program is designed to develop technical, leadership, and management expertise needed by middle and high school students preparing for careers in agricultural occupations and to further education in an agriculturally-related field.

The Agricultural Education curriculum in North Carolina includes 18 high school courses and one middle grades course, Exploring Biotechnology. For 2004-2005, 6,884 students were enrolled in Exploring Biotechnology while 37,383 students were enrolled in the high school programs. Figure 5 illustrates the enrollment for selected courses for Agricultural Education, grades 9-12, between 2001 and 2005.

Figure 5. Changes in Enrollment in Selected High School Agricultural Education Courses between 2001 and 2005



Source: NC CTE Performance Data, 2001-2005

CAREER-TECHNICAL EDUCATION DATA PROFILE

Overall enrollment by course for Agricultural Education is presented in Chart 7. Enrollment by course for Special Populations in Agricultural Education is presented in Chart 8.

Chart 7. Overall Enrollment by Course for Agricultural Education

	00-01	01-02	02-03	03-04	04-05
6809 Local option/pilot courses	667	327	394	574	444
6810 Agriscience Applications	7,712	6,285	6,611	7,457	7,428
6811 Ag Production & Mgmt I	1,376	1,175	1,290	1,088	1,190
6812 Ag Production & Mgmt II	675	487	576	542	564
6821 Animal Science I	2,226	2,161	2,796	2,936	3,749
6822 Animal Science II	464	655	908	1,236	1,137
6825 Equine Science I	0	0	0	0	418
6826 Equine Science II	0	0	0	0	64
6831 Ag Engineering Tech I	2,960	2,607	2,882	3,101	4,129
6832 Ag Engineering Tech II	1,265	1,264	1,474	1,557	1,539
6841 Horticulture I	8,126	6,486	7,697	7,962	8,268
6842 Horticulture II	2,866	2,512	3,016	3,121	3,013
6843 Horticulture II	407	323	312	315	377
6851 Envir & Nat Resources I	1,364	1,183	1,198	1,039	1,086
6852 Envir & Nat Resources II	437	421	292	343	405
6882 Landscape Prod & Maint	317	552	762	860	1,021
6899 Advanced Studies	463	418	533	718	856
Other High School Courses	820	726	898	904	1,695
6828 Exploring Biotechnology (Ag)	9,164	7,899	9,409	8,502	6,884
	41,309	35,481	41,048	42,255	44,267

SOURCE: CTE Performance Data, 2001-2005

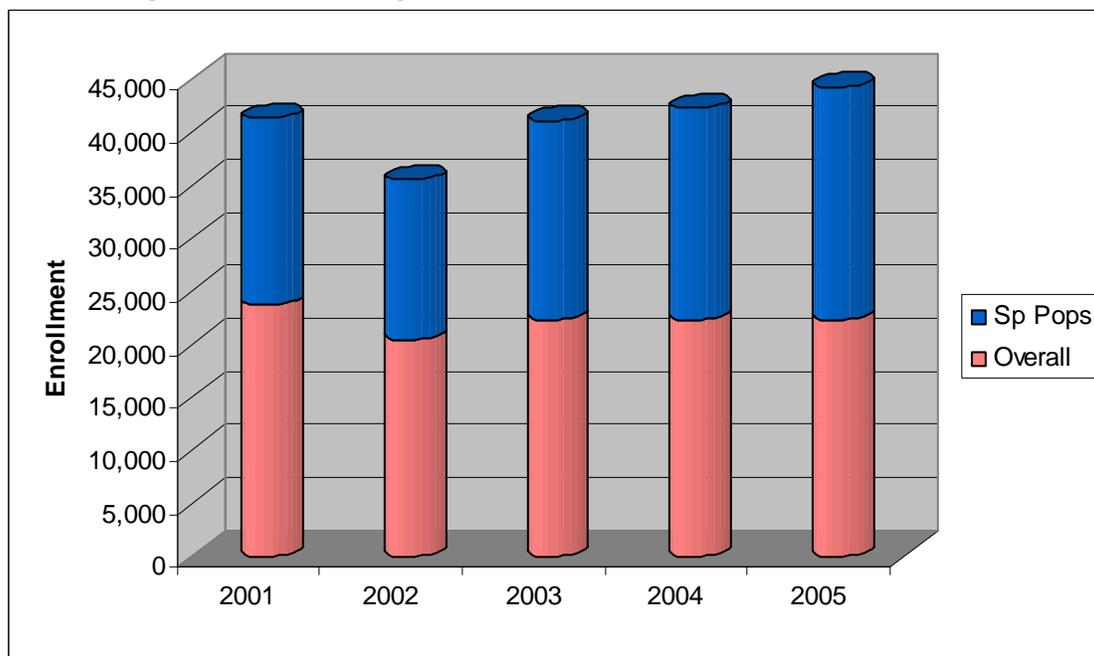
The overall enrollment in Agricultural Education has increased steadily over the past several years. Since 2000-2001, Agricultural Education enrollment increased by more than 1,000 students, from 41,309 to 44,267. Of the high school enrollment, 55.0 percent are identified as special populations, indicating special services or accommodations are needed to help these students succeed. Figure 6 illustrates the trend in Agricultural Education enrollment since 2001. Chart 8 shows more detail about special populations enrollment.

Chart 8. Special Populations Enrollment for Agricultural Education

Course	Special Populations Enrollment				
	00-01	01-02	02-03	03-04	04-05
6809 Local option/pilot courses	310	154	166	290	222
6810 Agriscience Applications	3,747	3,206	3,521	4,129	4,143
6811 Ag Production & Mgmt I	665	600	690	608	656
6812 Ag Production & Mgmt II	283	223	290	275	316
6821 Animal Science I	890	918	1,266	1,386	1,884
6822 Animal Science II	150	246	394	535	548
6825 Equine Science I	0	0	0	0	156
6826 Equine Science II	0	0	0	0	17
6831 Ag Engineering Tech I	1,543	1,355	1,608	1,721	2,399
6832 Ag Engineering Tech II	595	598	786	884	863
6841 Horticulture I	4,433	3,531	4,538	4,744	4,925
6842 Horticulture II	1,465	1,258	1,644	1,803	1,738
6843 Horticulture II	150	132	150	161	205
6851 Envir & Nat Resources I	685	563	626	592	584
6852 Envir & Nat Resources II	203	170	126	184	215
6882 Landscape Prod & Maint	140	233	400	410	533
6899 Advanced Studies	198	170	221	301	369
Other High School Courses	324	257	382	366	823
6828 Exploring Biotechnology (Ag)	1,842	1,481	1,939	1,545	1,339
	17,623	15,095	18,747	19,934	21,935

SOURCE: CTE Performance Data, 2001-2005

Figure 6. Trend in Agricultural Education Enrollment, 2001-2005



Source: NC CTE Performance Data, 2001-2005

CAREER-TECHNICAL EDUCATION DATA PROFILE

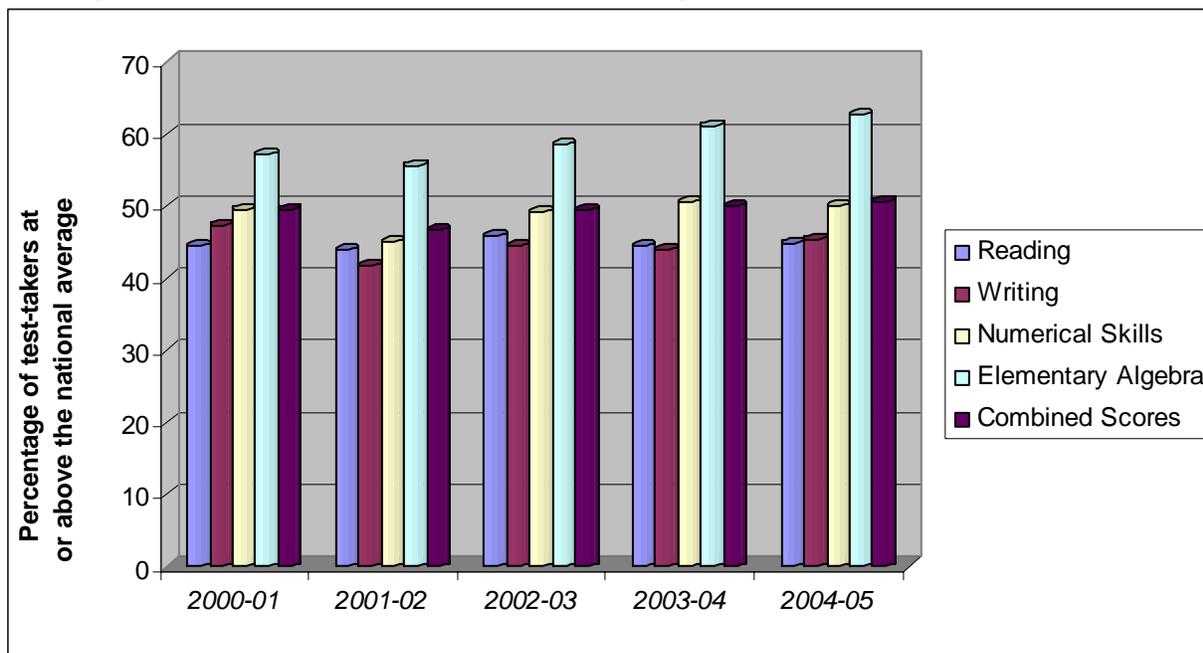
Data on Student Attainment of Academic and Technical Competencies

As part of the agreement providing North Carolina \$32 million annually for Career-Technical Education, data on academic and technical attainment are reported each year. Complete information on academic and technical attainment by school system can be viewed at <http://wdeppms.dpi.state.nc.us/wdeppms.nsf>.

Academic Attainment

The measure of academic attainment used in North Carolina is performance on ASSET or ACCUPLACER, two national standardized examinations that are also used by community colleges to determine student placement. CTE concentrators take four ASSET or ACCUPLACER subtests: basic math skills, elementary algebra, writing, and reading. Targets are set for each subtest and for a combined measure, for all students and disaggregated by special category and by program area. For the combined category, the numbers of students meeting or exceeding the national average on each subtest were added and then calculated as a percentage of total test takers. The targets for 2004-2005 for Agricultural Education concentrators were reading, 50.0 percent of test-takers at or above the national average; writing, 52.7 percent; numerical skills, 54.6 percent; elementary Algebra, 61.4 percent; and combined, 54.6 percent. Figure 7 and Chart 9 illustrate the performance of concentrators in Agricultural Education on the academic attainment measure.

Figure 7. Academic Attainment Scores for Agricultural Education Concentrators



Source: NC CTE Performance Data, 2001-2005

Chart 9. Academic Attainment

Subtest	Academic Year				
	2000-01	2001-02	2002-03	2003-04	2004-05
Reading	44.5	43.9	45.8	44.4	44.9
Writing	47.4	41.7	44.4	43.9	45.4
Numerical Skills	49.6	45.0	49.1	50.5	50.0
Elementary Algebra	57.1	55.6	58.5	61.1	62.6
Combined Scores	49.6	46.6	49.4	50.0	50.7

SOURCE: CTE Performance Data, 2001-2005

CAREER-TECHNICAL EDUCATION DATA PROFILE

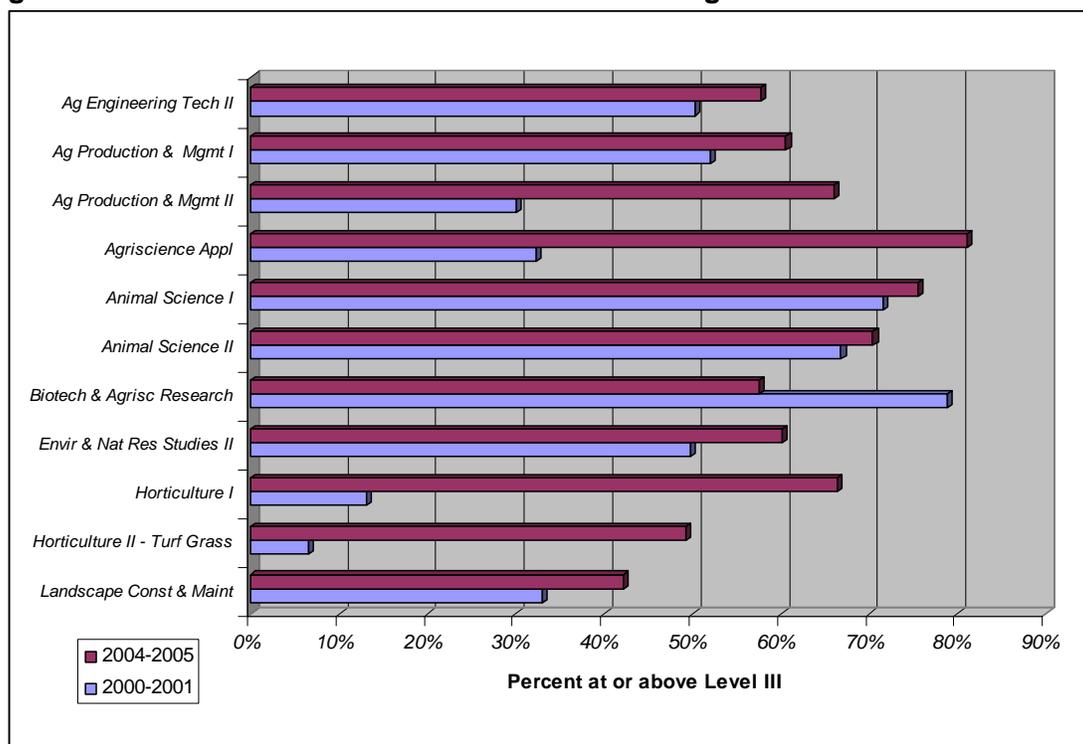
In each of the four years for which data are available, a higher percentage of Agricultural Education concentrators exceeded the national average on the elementary algebra subtest than on any of the other three tests. This same pattern is also found with Career-Technical Education concentrators as a whole. For example, in 2004-2005, among Agricultural Education concentrators, 44.9 percent of concentrators exceeded the national average in reading; in writing, 45.4 percent; in numerical skills, 50.0 percent; and in elementary algebra, 62.6. The greatest increase among Agricultural Education concentrators was for the reading and elementary algebra subtests, which each increased 1.5 percent from its 2003-2004 level.

Technical Attainment

The measure used for technical attainment is performance of all enrollees in Career-Technical Education courses on standardized postassessments given at the conclusion of each course. The examinations typically contain 100 multiple-choice questions. They are developed in North Carolina and are based upon course blueprints that list specific course objectives with respective weights of each objective. The examinations are assessed for validity and reliability prior to use in statewide accountability. The 2004-2005 target was for 40.4 percent of Agricultural Education enrollees to reach at least Level III proficiency on the postassessments. To reach Level III proficiency, students must score 65 percent correct or better on the examination.

Figure 8 illustrates Agricultural Education students' performance on the technical attainment measure since 2000-2001. Details about overall and special populations technical attainment appear in Chart 10. Since 2000-2001, the percentage of Agricultural Education enrollees who reached at least Level III proficiency increased from 33.7 percent to 68.3 percent, a gain of 29.6 percentage points. Special populations students also showed a significant increase: from 21.9 percent at or

Figure 8. Technical Attainment Scores in Selected Agricultural Education Courses



Source: NC CTE Performance Data, 2001-2005

CAREER-TECHNICAL EDUCATION DATA PROFILE

Chart 10. Technical Attainment in Agricultural Education Courses, 2001-2005

	2000-2001		2001-2002		2002-2003		2003-2004		2004-2005	
	Overall	Sp Pops								
6810 Agriscience Applications	32.3%	17.8%	51.7%	36.4%	73.3%	55.1%	77.0%	63.8%	81.1%	68.5%
6811 Agricultural Production and Management I	52.0%	42.7%	55.2%	46.3%	46.2%	33.9%	47.5%	39.9%	60.6%	52.1%
6812 Agricultural Production and Management II	30.1%	24.0%	33.6%	26.2%	56.8%	43.6%	49.6%	39.5%	66.1%	59.9%
6821 Animal Science I	71.6%	54.7%	60.4%	41.4%			69.3%	54.3%	75.6%	61.1%
6822 Animal Science II	66.8%	42.9%	55.2%	34.4%			67.0%	48.3%	70.4%	54.9%
6825 Equine Science I									92.7%	85.0%
6831 Agricultural Engineering Tech I	53.6%	40.2%	57.9%	43.5%	61.3%	44.6%	60.6%	49.5%		
6832 Agricultural Engineering Tech II	50.3%	37.7%	47.5%	37.1%	53.1%	39.0%	48.7%	36.4%	57.7%	46.7%
6841 Horticulture I	13.1%	9.8%	29.0%	23.0%			41.5%	34.2%	66.3%	59.1%
6842 Horticulture II	6.5%	4.2%	32.1%	26.3%	45.5%	31.5%			49.2%	41.9%
6843 Horticulture II - Turf Grass									56.8%	38.8%
6851 Environmental & Natural Resources Studies I	45.8%	37.4%	51.6%	43.9%	42.9%	28.0%	55.9%	48.2%		
6852 Environmental & Natural Resources Studies II	49.8%	32.9%	46.2%	34.2%	48.6%	38.9%	66.3%	57.5%	60.1%	50.2%
6872 Biotechnology & Agriscience Research	78.9%	100.0%	72.3%	60.0%	79.4%	51.6%	84.9%	61.9%	57.5%	40.5%
6882 Landscape Construction & Maintenance	32.9%	23.7%	42.5%	27.1%	49.4%	34.4%	55.4%	39.1%	42.2%	24.7%
Total	33.7%	21.9%	45.1%	32.8%	60.0%	42.7%	59.3%	46.2%	68.3%	56.9%
CTE Total	54.8%	41.9	59.6%	47.4%	61.0%	45.9%	65.0%	54.5%	65.5%	55.9%

SOURCE: CTE Performance Data, 2001-2005

CAREER-TECHNICAL EDUCATION DATA PROFILE

above Level III in 2000-2001 to 56.9 percent in 2004-2005, a gain of 35.0 percentage points. The Agricultural Education course with the highest performance on the technical attainment measure statewide was Biotechnology and Agriscience Research, where during 2004-2005, 92.7 percent of the enrollees scored at or above Level III.

Chart 11 shows the average score by course in Agricultural Education. All Agricultural Education courses except one – Agricultural Production and Management I – showed an increase in their state averages between 2002 (the first year this information was available) and 2005.

Note that gaps in the charts are likely due to introduction of new curriculum. When a new curriculum is introduced, there is a year gap in reporting testing data during which updated test items are validated and reliability is determined.

Chart 11. Average Score by Course

Course		Academic Year			
		2001-02	2002-03	2003-04	2004-05
6810	Agriscience Applications	63.9	72.2	73.5	76.4
6811	Agricultural Production and Management I	65.1	62.1	63.2	67.1
6812	Agricultural Production and Management II	58.2	64.8	63.9	68.7
6821	Animal Science I	66.7	*	70.0	73.2
6822	Animal Science II	65.1	*	68.9	70.1
6825	Equine Science I				83.0
6831	Agricultural Engineering Tech I	65.9	67.2	66.9	
6832	Agricultural Engineering Tech II	63.2	64.8	63.8	66.6
6841	Horticulture I	55.0	0.0	60.0	69.6
6842	Horticulture II	57.3	61.6	*	62.3
6843	Horticulture II – Turf Grass				64.6
6851	Environmental & Natural Resources Studies I	64.1	60.9	64.9	
6852	Environmental & Natural Resources Studies II	63.4	63.1	69.4	67.7
6872	Biotechnology & Agriscience Research	69.7	73.9	78.6	65.9
6882	Landscape Construction & Maintenance	60.1	63.1	65.0	60.6

SOURCE: CTE Performance Data, 2001-2005

For more information

For more information, contact your Career-Technical Education Administrator or the North Carolina State University Agricultural Education Staff, 919-515-4206.

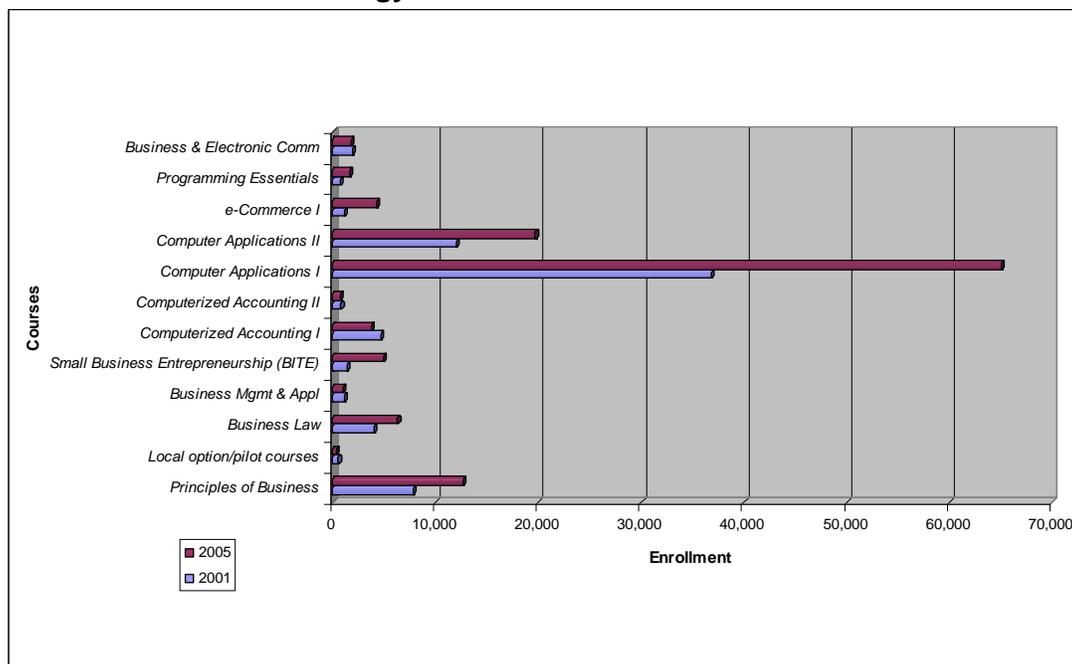
CAREER-TECHNICAL EDUCATION DATA PROFILE

Business and Information Technology Education

Business and Information Technology Education is a broad, comprehensive curriculum at the middle and high school levels that provides students with meaningful instruction for and about business. Instruction in Business and Information Technology Education encompasses business skills and techniques, an understanding of basic economics, and business attitudes essential to participate in the international marketplace as productive workers and consumers.

The Business and Information Technology Education curriculum in North Carolina includes 29 high school and three middle grades courses, Exploring Business Technologies, Business Computer Technology, and Keyboarding. For 2004-2005, 188,519 students were enrolled in the three middle grades courses. While 160,543 students were enrolled in the high school courses, 52.8 percent of these – nearly 85,000 students – were in the two largest enrollment courses: Computer Applications I and Computer Applications II. Figure 9 illustrates the enrollment for selected courses for Business and Information Technology Education, grades 9-12, between 2001 and 2005.

Figure 9. Changes in Enrollment in Selected High School Business and Information Technology Education Courses between 2001 and 2005



Source: NC CTE Performance Data, 2001-2005

CAREER-TECHNICAL EDUCATION DATA PROFILE

Overall enrollment by course for Business and Information Technology Education is presented in Chart 12. Enrollment by course for Special Populations in Business and Information Technology Education is presented in Chart 13.

Chart 12. Overall Enrollment by Course for Business and Information Technology Education

Course	Overall Enrollment				
	00-01	01-02	02-03	03-04	04-05
6200 Principles of Business	7,879	6,517	8,973	9,742	12,734
6209 Local option/pilot courses	544	417	636	2,287	367
6215 Business Law	4,021	3,416	4,609	5,282	6,324
6225 Business Mgmt & Appl	1,109	527	572	714	1,020
6235 Small Business Entrepreneurship (BITE)	1,373	3,080	4,142	3,545	4,974
6311 Computerized Accounting I	4,651	3,692	4,023	3,794	3,732
6312 Computerized Accounting II	805	613	705	835	792
6331 Business & Financial Mgmt I	1,295	753	842	432	0
6332 Business & Financial Mgmt II	90	61	102	109	0
6340 Networking I (BITE)	0	0	0	0	251
6341 Network Administration I	705	814	669	773	605
6342 Network Administration II (discontinued)	363	350	297	280	0
6343 Network Administration II (discontinued)	0	0	5	42	0
6345 Network Administration II – Linux	0	0	0	0	35
6346 Network Administration II – Novell	0	0	0	0	91
6347 Network Administration II – Microsoft	0	0	0	0	194
6411 Computer Applications I	36,876	34,580	44,342	49,810	65,070
6412 Computer Applications II	12,011	11,276	14,953	18,137	19,721
6415 e-Commerce I	1,167	1,710	2,429	2,980	4,268
6416 e-Commerce II	0	0	0	0	244
6421 Computer Programming I	743	761	1,058	1,231	1,655
6422 Computer Programming II	0	0	0	0	329
6512 Keyboarding HS (discontinued)	57,459	56,595	65,204	61,317	0
6514 Digital Communication Systems	0	0	0	0	34,594
6535 Business & Electronic Comm	1,956	1,353	1,007	786	1,814
6599 Advanced Studies	346	268	355	512	656
Other High School Courses	925	625	895	508	1,073
6208 Exploring Business Technologies	38,546	35,513	45,728	46,187	43,596
6400 Business Computer Technology	32,523	35,623	43,820	50,598	58,421
6511 Keyboarding MG	66,522	62,040	76,768	76,854	86,502
	271,909	260,584	322,134	336,755	349,062

SOURCE: CTE Performance Data, 2001-2005

The overall enrollment in Business and Information Technology Education has increased steadily over the past several years. Since 2000-2001, Business and Information Technology Education enrollment increased by more than 77,000 students, from 271,909 to 349,062. Of the high school enrollment, 54.5 percent are identified as special populations, indicating special services or accommodations are needed to help these students succeed. Figure 10 illustrates patterns in Business and Information Technology Education enrollment since 2001. Chart 13 provides additional details about special populations enrollment.

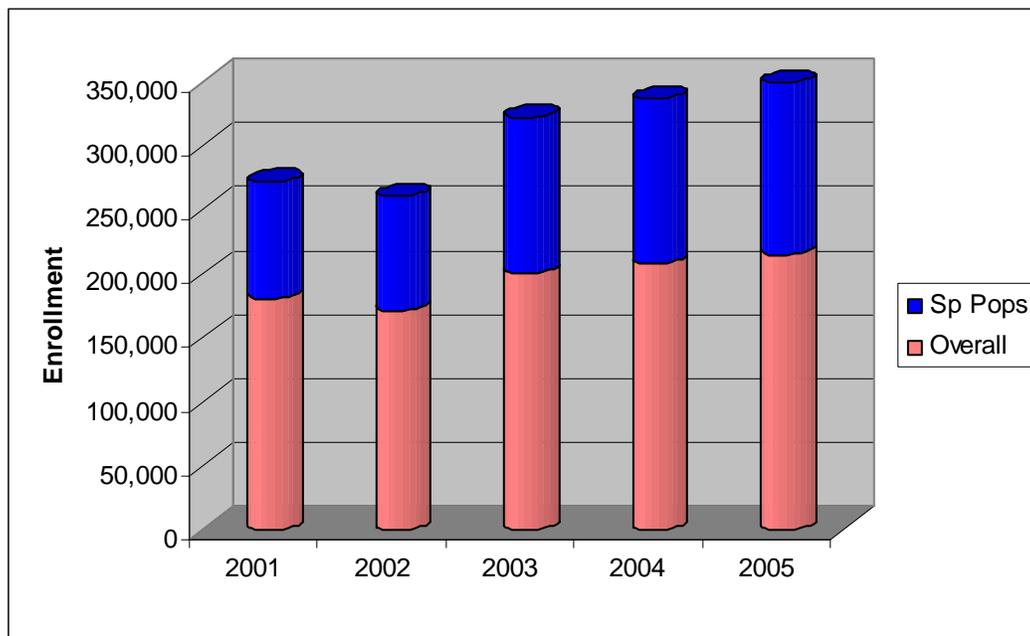
CAREER-TECHNICAL EDUCATION DATA PROFILE

**Chart 13. Special Populations Enrollment by Course
for Business and Information Technology Education**

Course		Special Populations Enrollment				
		00-01	01-02	02-03	03-04	04-05
6200	Principles of Business	3,438	2,864	4,226	5,026	7,018
6209	Local option/pilot courses	176	159	213	1,088	162
6215	Business Law	1,817	1,524	2,279	2,824	3,490
6225	Business Mgmt & Appl	538	235	270	396	593
6235	Small Business Entrepreneurship	580	1,895	2,829	2,254	3,040
6311	Computerized Accounting I	1,772	1,505	1,785	1,809	1,812
6312	Computerized Accounting II	319	255	324	394	383
6331	Business & Financial Mgmt I	476	325	388	179	0
6332	Business & Financial Mgmt II	47	32	57	53	0
6340	Networking I (BITE)	0	0	0	0	220
6341	Network Administration I	190	246	252	312	339
6342	Network Administration II (discontinued)	78	83	101	70	0
6343	Network Administration II (discontinued)	0	0	1	1	0
6345	Network Administration II – Linux	0	0	0	0	4
6346	Network Administration II – Novell	0	0	0	0	44
6347	Network Administration II – Microsoft	0	0	0	0	98
6411	Computer Applications I	14,400	13,859	21,299	25,633	35,608
6412	Computer Applications II	4,422	4,323	6,659	9,142	10,598
6415	e-Commerce I	367	489	882	1,244	2,027
6416	e-Commerce II	0	0	0	0	89
6421	Computer Programming I	195	278	397	456	683
6422	Computer Programming II	0	0	0	0	150
6512	Keyboarding HS (discontinued)	27,277	26,951	34,524	33,300	0
6514	Digital Communication Systems	0	0	0	0	19,225
6535	Business & Electronic Comm	840	588	534	480	1,145
6599	Advanced Studies	90	72	100	203	301
Other High School Courses		367	273	434	214	464
6208	Exploring Business Technologies	8,144	7,478	9,681	8,764	9,566
6400	Business Computer Technology	8,004	9,438	12,039	14,184	15,895
6511	Keyboarding MG	17,728	16,241	22,378	21,158	21,484
		91,265	89,113	121,652	129,184	134,438

SOURCE: CTE Performance Data, 2001-2005

Figure 10. Trends in Business and Information Technology Education Enrollment, 2001-2005



Source: NC CTE Performance Data, 2001-2005

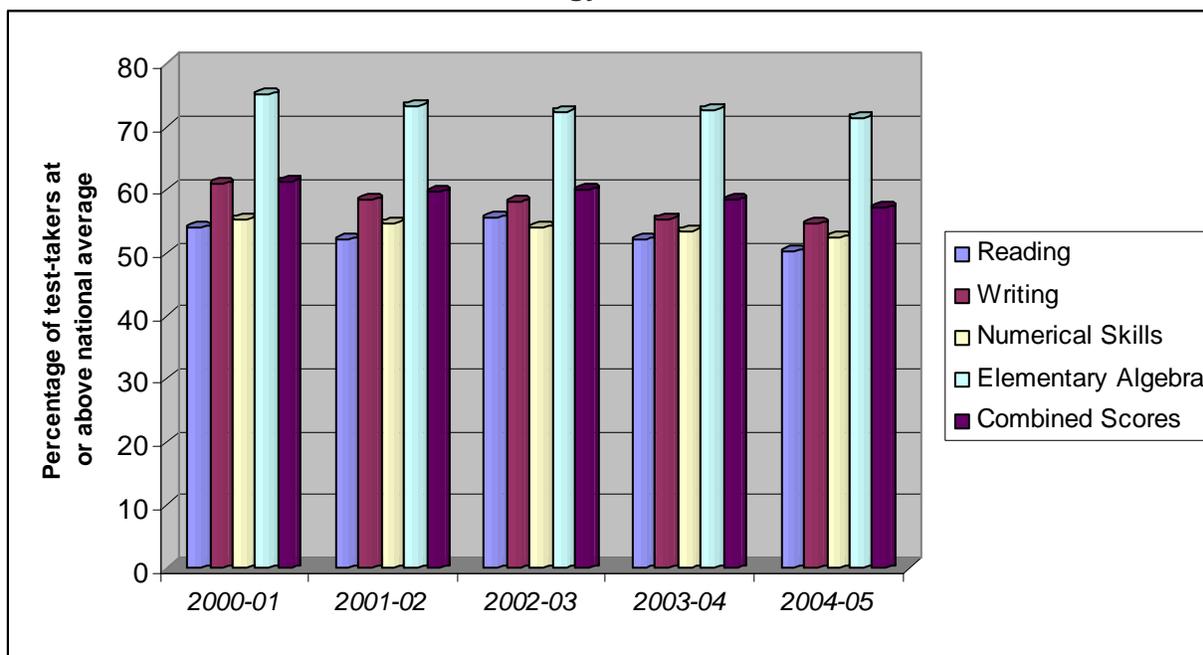
Data on Student Attainment of Academic and Technical Competencies

As part of the agreement providing North Carolina \$32 million annually for Career-Technical Education, data on academic and technical attainment are reported each year. Complete information on academic and technical attainment by school system can be viewed at <http://wdeppms.dpi.state.nc.us/wdeppms.nsf>.

Academic Attainment

The measure of academic attainment used in North Carolina is performance on ASSET or ACCUPLACER, two national standardized examinations that are also used by community colleges to determine student placement. CTE concentrators take four ASSET or ACCUPLACER subtests: basic math skills, elementary algebra, writing, and reading. Targets are set for each subtest and for a combined measure, for all students and disaggregated by special category and by program area. For the combined category, the numbers of students meeting or exceeding the national average on each subtest were added and then calculated as a percentage of total test takers. The targets for 2004-2005 for Business and Information Technology Education concentrators were reading, 58.6 percent of test-takers at or above the national average; writing, 64.8 percent; numerical skills, 59.8 percent; elementary algebra, 77.5 percent; and combined, 65.2 percent. Figure 11 and Chart 14 illustrate the performance of concentrators in Business and Information Technology Education on the academic attainment measure.

Figure 11. Academic Attainment Scores for Business and Information Technology Education Concentrators



Source: NC CTE Performance Data, 2001-2005

Chart 14. Academic Attainment

Subtest	Academic Year				
	2000-01	2001-02	2002-03	2003-04	2004-05
Reading	54.0	52.0	55.6	52.0	50.1
Writing	60.9	58.3	58.0	55.4	54.6
Numerical Skills	55.3	54.7	54.0	53.5	52.3
Elementary Algebra	75.0	73.4	72.4	72.7	71.5
Combined Scores	61.3	59.6	60.0	58.4	57.1

SOURCE: CTE Performance Data, 2001-2005

In each of the four years for which data are available, a higher percentage of Business and Information Technology Education concentrators exceeded the national average on the elementary algebra subtest than on any of the other three tests. This same pattern is also found with Career-Technical Education concentrators as a whole. For example, in 2004-2005, among Business and Information Technology Education concentrators, 50.1 percent of concentrators exceeded the national average in reading; in writing, 54.6 percent; in numerical skills, 52.3 percent; and in elementary algebra, 71.5. Performance of Business and Information Technology Education concentrators decreased slightly between 2003-2004 and 2004-2005.

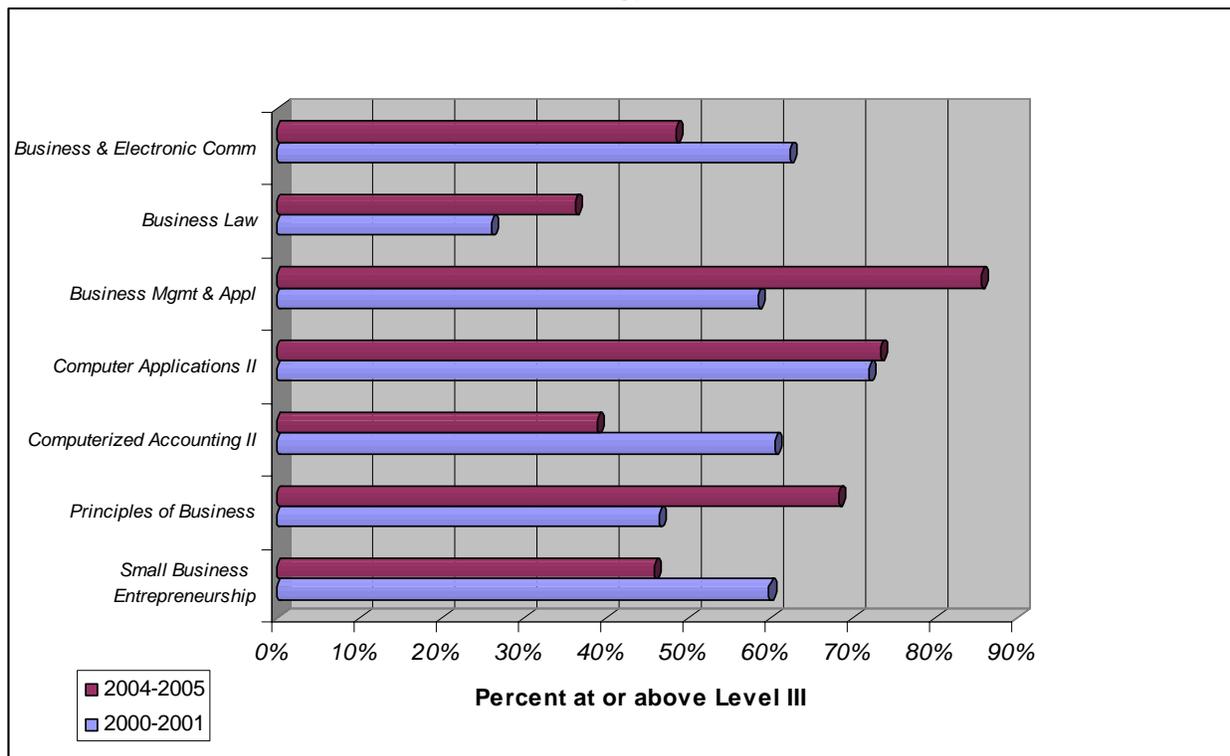
Technical Attainment

The measure used for technical attainment is performance of all enrollees in Career-Technical Education courses on standardized postassessments given at the conclusion of each course. The examinations typically contain 100 multiple-choice questions. They are developed in North Carolina and are based upon course blueprints that list specific course objectives with respective weights of each objective. The examinations are assessed for validity and reliability prior to use in statewide accountability. The 2004-2005 target was for 68.8 percent of Business and Information Technology Education enrollees to reach at least Level III proficiency on the postassessments. To reach Level III proficiency, students must score 65 percent correct or better on the examination.

CAREER-TECHNICAL EDUCATION DATA PROFILE

Figure 12 illustrates Business and Information Technology Education students' performance on the technical attainment measure since 2000-2001. Details about overall and special populations technical attainment appear in Chart 15. Since 2000-2001, the percentage of Business and Information Technology Education enrollees who reached at least Level III proficiency increased from 65.4 percent to 69.1 percent. Special populations students also showed a significant increase: from 52.7 percent at or above Level III in 2000-2001 to 62.2 percent in 2004-2005, an increase of 9.5 percentage points. The Business and Information Technology Education course with the highest performance on the technical attainment measure statewide was Computer Applications II, where during 2004-2005, 85.5 percent of the enrollees scored at or above Level III.

Figure 12. Technical Attainment Scores in Selected Business and Information Technology Education Courses



Source: NC CTE Performance Data, 2001-2005

Chart 16 shows the average score by course in Business and Information Technology Education.

Note that gaps in the charts are likely due to introduction of new curriculum. When a new curriculum is introduced, there is a year gap in reporting testing data during which updated test items are validated and reliability is determined.

For more information

For more information, contact your Career-Technical Education Administrator or North Carolina Business and Information Technology Education (BusinessandITeducation@dpi.state.nc.us).

CAREER-TECHNICAL EDUCATION DATA PROFILE

Chart 15. Technical Attainment in Business and Information Technology Education Courses, 2001-2005

	2000-2001		2001-2002		2002-2003		2003-2004		2004-2005	
	Overall	Sp Pop								
6200 Principles of Business - BE	59.8%	38.2%	61.2%	42.7%	65.8%	44.6%			45.8%	30.7%
6215 Business Law	46.4%	27.0%	49.2%	31.6%	57.4%	41.7%	63.2%	51.2%	68.2%	57.8%
6225 Business Management & Applications	42.5%	37.9%	44.3%	42.9%	54.8%	48.4%				
6235 Small Business/Entrepreneurship	60.5%	45.4%	61.0%	47.6%	62.2%	44.5%			38.8%	24.5%
6311 Computerized Accounting I	44.4%	39.3%	45.9%	42.1%	49.7%	40.0%	49.3%	44.9%		
6312 Computerized Accounting II	33.3%	21.1%	35.3%	20.0%	44.7%	26.8%	41.7%	28.3%		
6411 Computer Applications I	71.9%	65.8%	79.6%	74.7%	72.9%	60.5%	67.4%	61.6%	73.3%	68.0%
6412 Computer Applications II	58.4%	39.2%	75.3%	57.9%	80.0%	64.1%	79.5%	67.8%	85.5%	76.3%
6415 e-Commerce I	26.0%	13.3%	57.4%	40.2%	63.8%	41.7%			36.2%	20.2%
6535 Business & Electronic Communications	62.4%	56.7%	63.5%	56.1%	61.4%	45.9%	61.0%	54.8%	48.5%	43.5%
Total	65.4%	52.7%	71.4%	60.2%	71.2%	55.1%	70.7%	60.5%	69.1%	62.2%
CTE Total	54.8%	41.9	59.6%	47.4%	61.0%	45.9%	65.0%	54.5%	65.5%	55.9%

SOURCE: CTE Performance Data, 2001-2005

Chart 16. Average Score by Course

	Academic Year			
	2001-02	2002-03	2003-04	2004-05
6200 Principles of Business - BE	66.8	68.6	*	62.2
6215 Business Law	63.7	66.8	69.6	71.4
6225 Business Management & Applications	61.6	64.9	*	
6235 Small Business Entrepreneurship	66.4	66.7	*	58.7
6311 Computerized Accounting I	62.4	63.7	64.3	
6312 Computerized Accounting II	59.3	63.3	61.4	
6411 Computer Applications I	73.1	70.9	69.3	71.0
6412 Computer Applications II	71.5	73.3	73.4	76.3
6413 E-Commerce	66.7	68.5	*	59.2
6535 Business & Electronic Communications	66.3	66.4	66.2	61.5

SOURCE: CTE Performance Data, 2001-2005

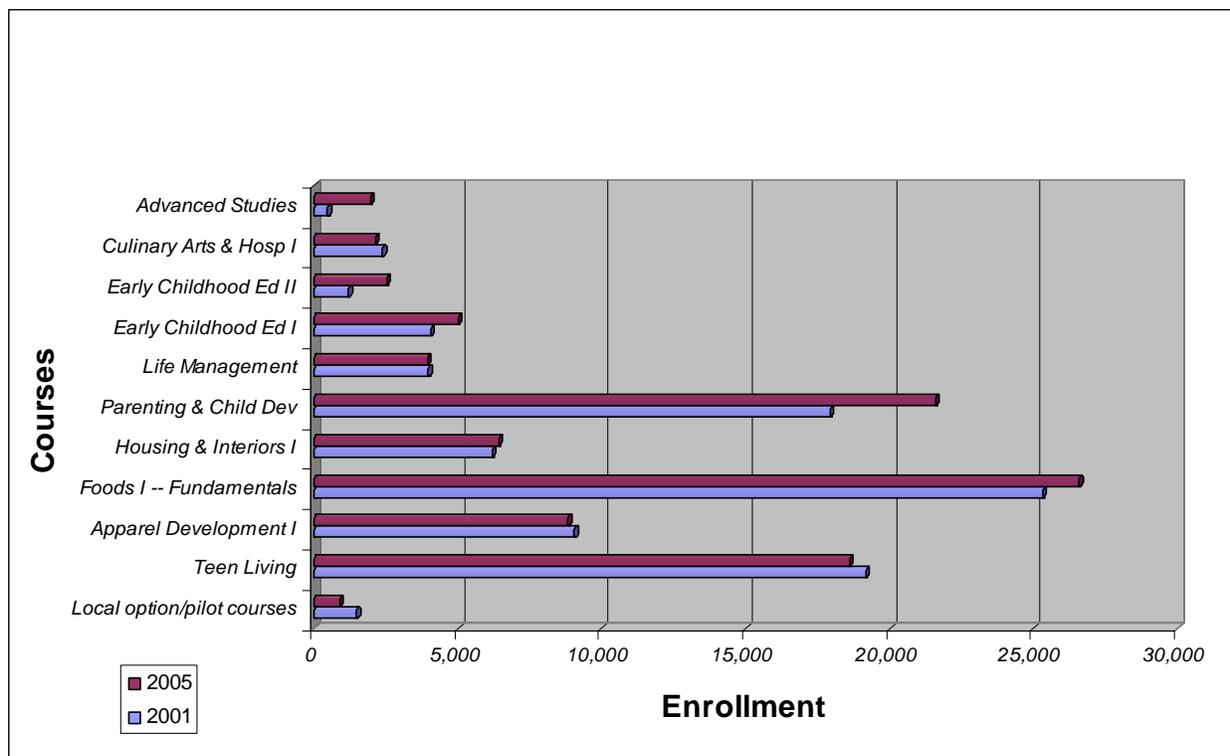
CAREER-TECHNICAL EDUCATION DATA PROFILE

Family and Consumer Sciences Education

Family and Consumer Sciences Education prepares for careers working with individuals and families, as well as for competence in the work of their own families. The concept of work, whether in a family or career, is central to the program area. The program's unique focus is on families, work, and their interrelationships. Family and Consumer Sciences Education prepares individuals for family and career.

The Family and Consumer Sciences Education curriculum in North Carolina includes 15 courses. For 2003-2004, 48,732 students were enrolled in the middle grades course, Exploring Life Skills, while 109,246 students were enrolled in the high school courses. Figure 13 illustrates the enrollment for selected courses for Family and Consumer Sciences Education, grades 9-12, between 2001 and 2005.

Figure 13. Changes in Enrollment in Selected High School Family and Consumer Sciences Education Courses between 2001 and 2005



Source: NC CTE Performance Data, 2001-2005

Overall enrollment by course for Family and Consumer Sciences Education is presented in Chart 17. Enrollment by course for Special Populations in Family and Consumer Sciences Education is presented in Chart 18.

Chart 17. Overall Enrollment by Course for Family and Consumer Sciences Education

Course	Overall Enrollment				
	00-01	01-02	02-03	03-04	04-05
7009 Local option/pilot courses	1,492	2,739	3,787	5,298	890
7015 Teen Living	19,167	16,729	19,525	18,233	18,621
7035 Apparel Development I	9,059	8,484	10,247	10,488	8,829
7036 Apparel Development II	0	0	0	0	1,954
7045 Foods I -- Fundamentals	25,331	22,403	25,279	25,880	26,589
7046 Foods II -- Advanced	0	0	0	0	6,459
7055 Housing & Interiors I	6,187	5,050	6,043	6,423	6,413
7056 Housing & Interiors II	0	0	0	0	346
7065 Parenting & Child Dev	17,923	16,072	19,324	21,136	21,584
7075 Foods II -- Food Science	552	273	114	192	44
7085 Life Management	3,977	3,284	4,179	3,513	3,937
7111 Early Childh Education I	4,045	3,501	4,621	4,457	5,008
7112 Early Childh Education II	1,208	1,196	1,439	2,154	2,533
7121 Culinary Arts & Hosp I	2,386	2,299	2,594	2,212	2,154
7122 Culinary Arts & Hosp II	644	657	875	1,019	853
7199 Advanced Studies	481	566	1,176	1,962	1,980
Other High School Courses	1,448	1,335	1,537	1,027	526
7018 Exploring Life Skills	47,646	44,706	54,131	50,194	48,732
	141,546	129,294	154,871	154,188	157,452

SOURCE: CTE Performance Data, 2001-2005

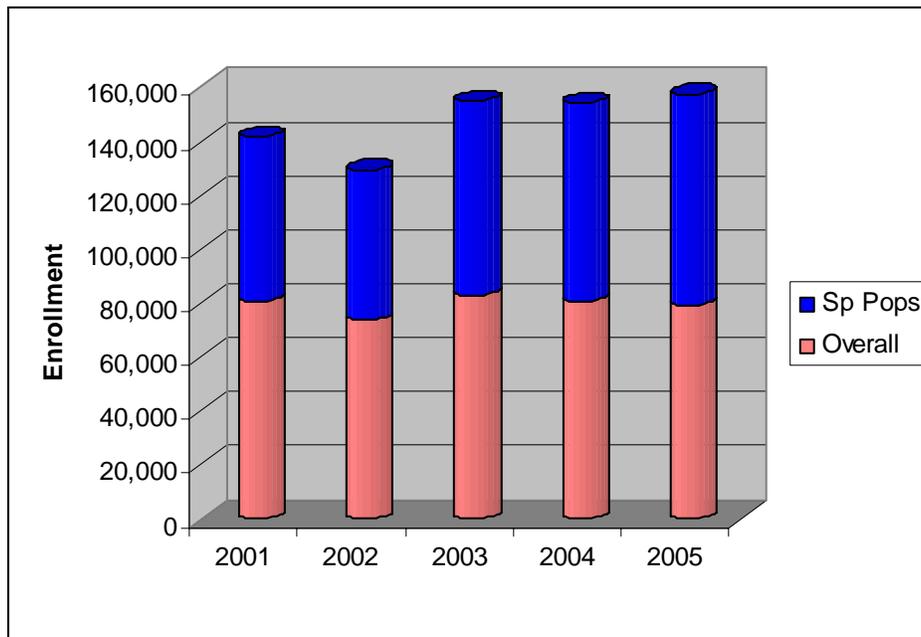
The overall enrollment in Family and Consumer Sciences Education has increased steadily over the past several years. Since 2000-2001, Family and Consumer Sciences Education enrollment increased by more than 15,906 students, from 141,546 to 157,452. Of the high school enrollment, 62.9 percent are identified as special populations, indicating special services or accommodations are needed to help these students succeed. Figure 14 illustrates patterns in Family and Consumer Sciences Education enrollment since 2001. Chart 19 shows special populations enrollment.

Chart 18. Special Populations Enrollment by Course for Family and Consumer Sciences Education

Course	Special Populations Enrollment				
	00-01	01-02	02-03	03-04	04-05
7009 Local option/pilot courses	593	1,146	1,978	3,242	488
7015 Teen Living	9,943	9,145	11,660	10,830	11,552
7035 Apparel Development I	4,644	4,364	5,893	5,966	5,017
7036 Apparel Development II	0	0	0	0	1,200
7045 Foods I – Fundamentals	13,395	11,994	14,644	15,235	16,682
7046 Foods II – Advanced	0	0	0	0	4,288
7055 Housing & Interiors I	2,923	2,436	3,020	3,052	3,540
7056 Housing & Interiors II	0	0	0	0	204
7065 Parenting & Child Dev	10,224	9,238	12,022	13,406	14,012
7075 Foods II – Food Science	300	192	74	98	32
7085 Life Management	2,343	1,943	2,650	2,096	2,692
7111 Early Childh Education I	2,235	1,921	2,915	2,899	3,371
7112 Early Childh Education II	676	630	793	1,412	1,703
7121 Culinary Arts & Hosp I	1,429	1,412	1,654	1,460	1,443
7122 Culinary Arts & Hosp II	430	409	591	713	606
7199 Advanced Studies	269	301	660	1,287	1,293
Other High School Courses	759	566	631	571	229
7018 Exploring Life Skills	10,604	9,910	12,623	11,196	9,683
	60,767	55,607	71,808	73,463	78,035

SOURCE: CTE Performance Data, 2001-2005.

Figure 14. Trends in Family and Consumer Sciences Education Enrollment, 2001-2005



Source: NC CTE Performance Data, 2001-2005

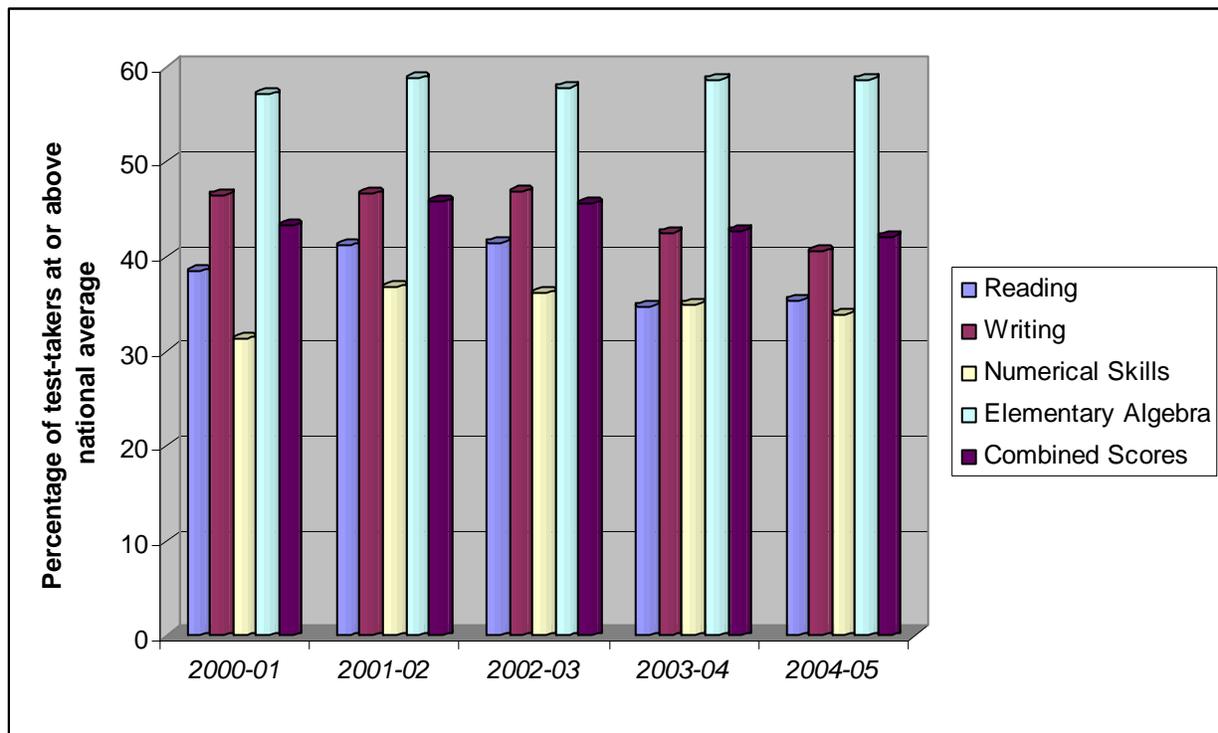
Data on Student Attainment of Academic and Technical Competencies

As part of the agreement providing North Carolina \$32 million annually for Career-Technical Education, data on academic and technical attainment are reported each year. Complete information on academic and technical attainment by school system can be viewed at <http://wdeppms.dpi.state.nc.us/wdeppms.nsf>.

Academic Attainment

The measure of academic attainment used in North Carolina is performance on ASSET or ACCUPLACER, two national standardized examinations that are also used by community colleges to determine student placement. CTE concentrators take four ASSET or ACCUPLACER subtests: basic math skills, elementary algebra, writing, and reading. Targets are set for each subtest and for a combined measure, for all students and disaggregated by special category and by program area. For the combined category, the numbers of students meeting or exceeding the national average on each subtest were added and then calculated as a percentage of total test takers. The targets for 2004-2005 for Family and Consumer Sciences Education concentrators were reading, 58.6 percent of test-takers at or above the national average; writing, 64.8 percent; numerical skills, 59.8 percent; elementary algebra, 77.5 percent; and combined, 65.2 percent. Figure 15 and Chart 19 illustrate the performance of concentrators in Family and Consumer Sciences Education on the academic attainment measure.

Figure 15. Academic Attainment Scores for Family and Consumer Sciences Education Concentrators



Source: NC CTE Performance Data, 2001-2005

Chart 19. Academic Attainment

Subtests	Academic Year				
	2000-01	2001-02	2002-03	2003-04	2004-05
Reading	38.4	41.2	41.5	34.8	35.4
Writing	46.5	46.6	46.8	42.5	40.5
Numerical Skills	31.3	36.8	36.1	35.0	33.9
Elementary Algebra	57.1	58.8	57.9	58.7	58.7
Combined Scores	43.3	45.8	45.6	42.8	42.1

SOURCE: CTE Performance Data, 2001-2005

In each of the four years for which data are available, a higher percentage of Family and Consumer Sciences Education concentrators exceeded the national average on the elementary algebra subtest than on any of the other three tests. This same pattern is also found with Career-Technical Education concentrators as a whole. For example, in 2004-2005, among Family and Consumer Sciences Education concentrators, 35.4 percent of concentrators exceeded the national average in reading; in writing, 40.5 percent; in numerical skills, 33.9 percent; and in elementary algebra, 58.7. Performance of Family and Consumer Sciences Education concentrators on this assessment decreased slightly between 2003-2004 and 2004-2005.

Technical Attainment

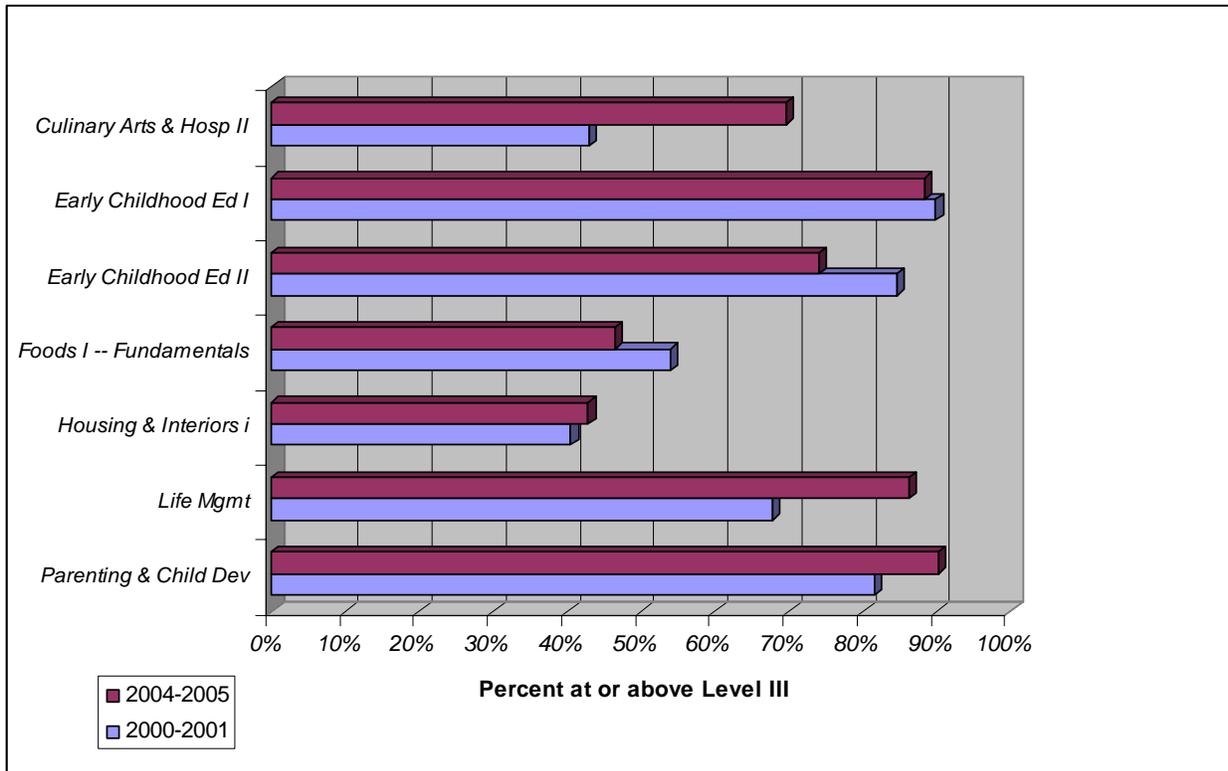
The measure used for technical attainment is performance of all enrollees in Career-Technical Education courses on standardized postassessments given at the conclusion of each course. The examinations typically contain 100 multiple-choice questions. They are developed in North Carolina and are based upon course blueprints that list specific course objectives with respective weights of each objective. The examinations are assessed for validity and reliability prior to use in statewide accountability. The 2004-2005 target was for 65.6 percent of Family and Consumer Sciences Education enrollees to reach at least Level III proficiency on the postassessments. To reach Level III proficiency, students must score a 65 or better on the examination.

Figure 16 illustrates Family and Consumer Sciences Education students' performance on the technical attainment measure since 2000-2001. Details about overall and special populations technical attainment appear in Chart 20. Since 2000-2001, the percentage of Family and Consumer Sciences Education enrollees who reached at least Level III proficiency increased from 61.9 percent to 67.0 percent, a gain of 5.1 percentage points. Special populations students also showed a significant increase: from 49.8 percent at or above Level III in 2000-2001 to 58.7 percent in 2004-2005, an increase of 8.9 percentage points. The Family and Consumer Sciences Education course with the highest performance on the technical attainment measure statewide was Parenting and Child Development, where during 2004-2005, 90.3% percent of the enrollees scored at or above Level III.

Chart 21 shows the average score by course in Family and Consumer Sciences Education.

Note that gaps in the charts are likely due to introduction of new curriculum. When a new curriculum is introduced, there is a year gap in reporting testing data during which updated test items are validated and reliability is determined.

Figure 16. Technical Attainment Scores in Selected Family and Consumer Sciences Education Courses



Source: NC CTE Performance Data, 2001-2005

For more information

For more information, contact your Career-Technical Education Administrator or North Carolina Family and Consumer Sciences Education (Faceducation@dpi.state.nc.us).

Chart 20. Technical Attainment in Family and Consumer Sciences Education Courses, 2001-2005

Course	2000-2001		2001-2002		2002-2003		2003-2004		2004-2005	
	Overall	Sp Pops	Overall	Sp Pops	Overall	Sp Pops	Overall	Sp Pops	Overall	Sp Pops
7015 Teen Living	77.0%	64.2%	70.1%	57.0%	74.4%	57.7%	79.4%	69.9%		
7035 Clothing Design	15.7%	5.2%	23.1%	9.9%	25.0%	9.6%	24.5%	10.6%		
7045 Foods I - Fundamentals	53.9%	37.1%			21.8%	9.7%			46.5%	33.4%
7055 Housing & Interiors I	40.5%	24.1%	43.0%	24.3%	42.4%	20.9%	47.9%	27.8%	42.9%	25.7%
7065 Parenting and Child Development	81.5%	72.4%	79.5%	70.6%	86.2%	76.5%	91.6%	87.7%	90.3%	86.1%
7075 Foods II - Food Science	11.7%	10.9%	11.4%	5.6%	27.0%	21.9%	41.2%	30.0%		
7085 Life Management	67.8%	55.5%	79.3%	70.5%	78.6%	64.5%	78.9%	69.1%	86.3%	80.2%
7111 Early Childhood Education I	89.9%	83.3%	85.8%	77.6%	89.7%	81.8%	91.8%	87.8%	88.3%	83.1%
7112 Early Childhood Education II	84.7%	76.8%	76.3%	64.5%	84.0%	73.6%	82.1%	76.4%	74.1%	65.8%
7121 Culinary Arts and Hospitality I			55.4%	48.1%	67.2%	56.3%	66.4%	60.4%	58.9%	51.8%
7122 Culinary Arts and Hospitality II	43.0%	38.6%	61.5%	53.8%	56.9%	48.0%	55.0%	49.3%	69.6%	64.9%
7151 Interior Design Services I	20.8%	21.0%	38.1%	38.1%	31.9%	26.4%	30.1%	29.5%		
7152 Interior Design Services II	15.6%	15.9%	10.3%	10.3%	13.6%	10.0%	25.7%	25.7%		
Total	61.8%	49.8%	63.7%	53.0%	55.6%	43.7%	71.5%	64.2%	67.0%	58.7%
CTE Total	54.8%	41.9	59.6%	47.4%	61.0%	45.9%	65.0%	54.5%	65.5%	55.9%

SOURCE: CTE Performance Data, 2001-2005

Chart 21. Average Score by Course

Course		Academic Year			
		2001-02	2002-03	2003-04	2004-05
7015	Teen Living	69.6	71.0	72.6	
7035	Clothing Design	55.2	55.3	55.3	
7045	Foods and Nutrition		54.6		62.6
7055	Interior Design and Housing	61.0	61.1	63.2	61.6
7065	Parenting and Child Development	71.3	76.1	79.3	79.5
7075	Food Science	49.2	48.2	60.3	
7085	Life Management	73.4	73.4	73.2	76.9
7111	Early Childhood Education I	76.0	77.4	78.2	77.3
7112	Early Childhood Education II	71.2	74.7	74.7	71.1
7121	Culinary Arts and Hospitality I	64.8	69.5	68.9	66.4
7122	Culinary Arts and Hospitality II	67.3	66.0	65.8	69.2
7151	Interior Design Services I	59.6	58.5	57.1	
7152	Interior Design Services II	48.1	53.5	54.9	

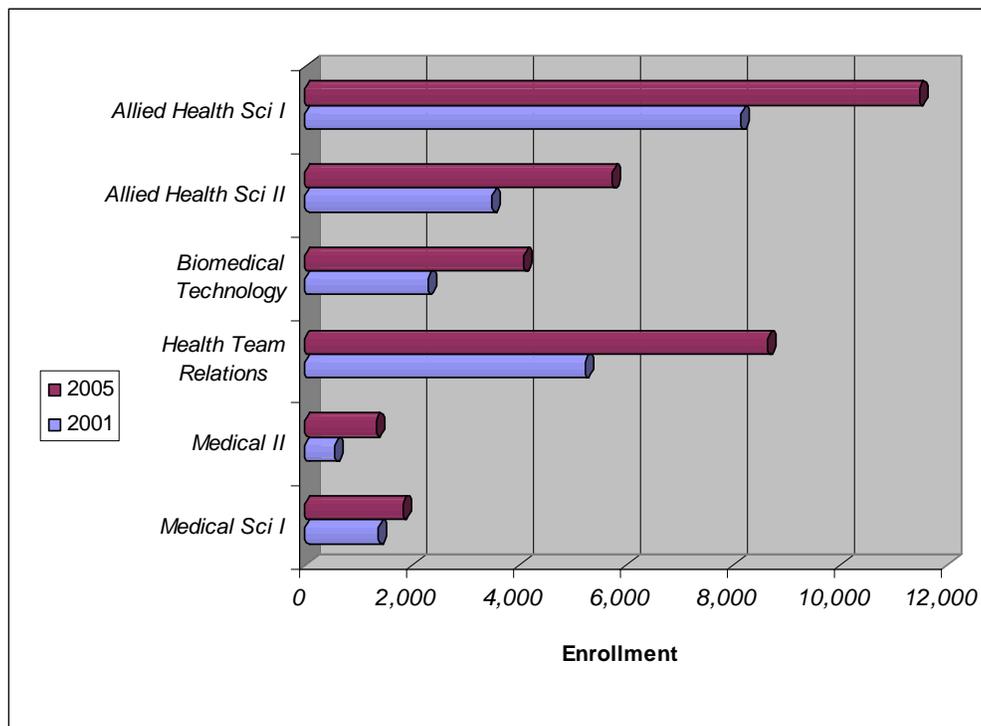
SOURCE: CTE Performance Data, 2001-2005

Health Occupations Education

Based on natural and social sciences, the humanities, and a researched body of knowledge, the Health Occupations Education curriculum is designed to offer a foundation of knowledge and skills necessary to health career preparation. Curriculum concepts incorporate technological advances related to the health care delivery system, including ethics, professionalism, prevention (wellness), patient/client diagnosis, treatment, care, and rehabilitation as a result of disease/disorders. Teaching/learning strategies integrate appropriate workplace basic skills that assist students to use resources and technologies, function as effective members within a complex system, and to access and use appropriate information/data.

The Health Occupations Education curriculum in North Carolina includes eight courses. For 2004-2005, 34,112 students were enrolled in Health Occupations Education courses. Figure 17 illustrates the enrollment for selected courses for Health Occupations Education, grades 9-12, between 2001 and 2005.

Figure 17. Changes in Enrollment in Selected High School Health Occupations Education Courses between 2001 and 2005



Source: NC CTE Performance Data, 2001-2005

Overall enrollment by course for Health Occupations Education is presented in Chart 22. Enrollment by course for Special Populations in Health Occupations Education is presented in Chart 23.

Chart 22. Overall Enrollment by Course for Health Occupations Education

Course	Overall Enrollment				
	00-01	01-02	02-03	03-04	04-05
7200 Biomedical Technology	2,297	2,671	3,230	2,928	4,086
7209 Local option/pilot courses	18	16	0	567	109
7210 Health Team Relations	5,231	5,460	6,652	8,104	8,644
7211 Allied Health Sci I	8,136	8,199	9,871	10,177	11,459
7212 Allied Health Sci II	3,498	3,390	4,447	5,178	5,742
7221 Medical Sci I	1,372	1,292	1,745	1,796	1,826
7222 Medical II	569	589	707	1,105	1,337
7299 Advanced Studies	142	270	318	610	568
Other High School	320	223	341	319	341
	21,583	22,110	27,311	30,784	34,112

SOURCE: CTE Performance Data, 2001-2005

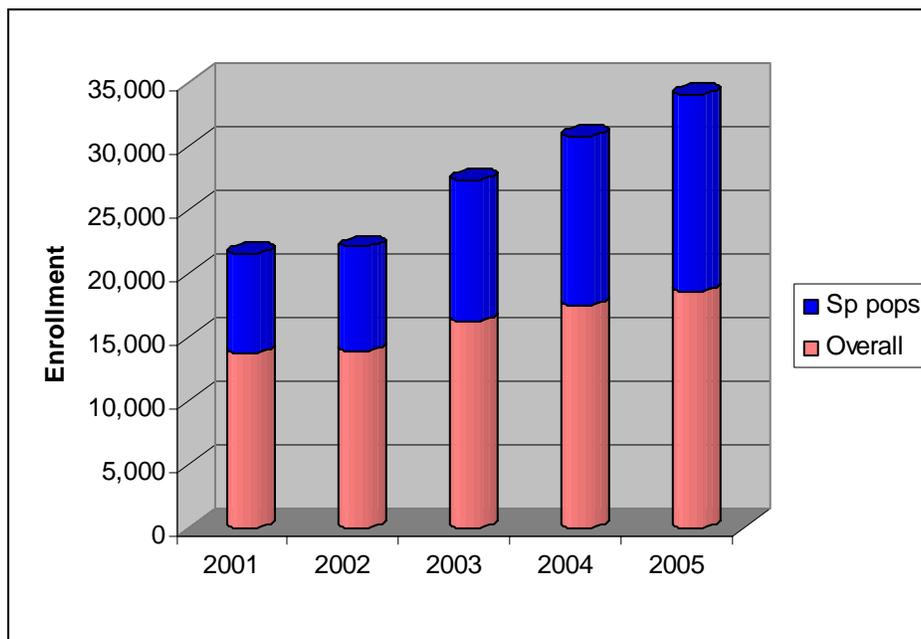
The overall enrollment in Health Occupations Education has increased steadily over the past several years. Since 2000-2001, Health Occupations Education enrollment increased by more than 12,529 students, from 21,583 to 34,112. Of the high school enrollment, 45.7 percent are identified as special populations, indicating special services or accommodations are needed to help these students succeed. Figure 18 illustrates patterns in Health Occupations Education enrollment since 2001. Chart 23 provides more details about special populations enrollment.

Chart 23. Special Populations Enrollment by Course for Health Occupations Education

Course	Special Populations Enrollment				
	00-01	01-02	02-03	03-04	04-05
7200 Biomedical Technology	731	946	1,358	1,249	1,844
7209 Local option/pilot courses	2	6	0	285	61
7210 Health Team Relations	2,119	2,249	2,905	3,942	4,339
7211 Allied Health Sci I	3,010	3,004	4,192	4,420	5,325
7212 Allied Health Sci II	1,164	1,163	1,646	2,037	2,408
7221 Medical Sci I	495	478	605	670	799
7222 Medical II	183	196	227	364	491
7299 Advanced Studies	30	68	85	238	218
Other High School	88	54	94	99	97
	7,822	8,164	11,112	13,304	15,582

SOURCE: CTE Performance Data, 2001-2005

Figure 18. Trends in Health Occupations Education Enrollment, 2001-2005



Source: NC CTE Performance Data, 2001-2005

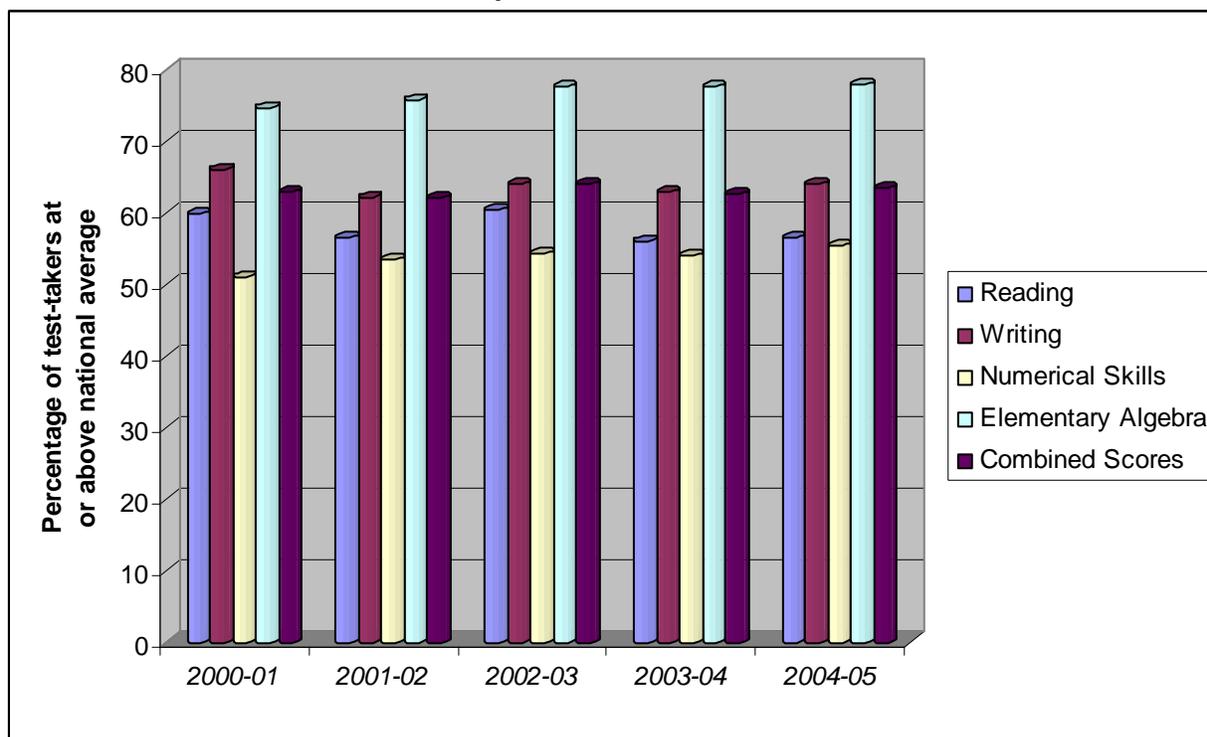
Data on Student Attainment of Academic and Technical Competencies

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Academic Attainment

The measure of academic attainment used in North Carolina is performance on ASSET or ACCUPLACER, two national standardized examinations that are also used by community colleges to determine student placement. CTE concentrators take four ASSET or ACCUPLACER subtests: basic math skills, elementary algebra, writing, and reading. Targets are set for each subtest and for a combined measure, for all students and disaggregated by special category and by program area. For the combined category, the numbers of students meeting or exceeding the national average on each subtest were added and then calculated as a percentage of total test takers. The targets for 2004-2005 for Health Occupations Education concentrators were reading, 63.8 percent of test-takers at or above the national average; writing, 69.5 percent; numerical skills, 55.9 percent; elementary algebra, 77.2 percent; and combined, 66.6 percent. Figure 19 and Chart 24 illustrate the performance of concentrators in Health Occupations Education on the academic attainment measure.

**Figure 19. Academic Attainment Scores
for Health Occupations Education Concentrators**



Source: NC CTE Performance Data, 2001-2005

Chart 24. Academic Attainment

Subtests	Academic Year				
	2000-01	2001-02	2002-03	2003-04	2004-05
Reading	59.8	56.5	60.4	56.0	56.4
Writing	66.1	62.2	63.9	62.9	64.0
Numerical Skills	51.0	53.4	54.3	53.9	55.3
Elementary Algebra	74.7	75.7	77.5	77.5	77.9
Combined Scores	62.9	62.0	64.0	62.6	63.4

SOURCE: CTE Performance Data, 2001-2005

In each of the four years for which data are available, a higher percentage of Health Occupations Education concentrators exceeded the national average on the elementary algebra subtest than on any of the other three tests. This same pattern is also found with Career-Technical Education concentrators as a whole. For example, in 2004-2005, among Health Occupations Education concentrators, 56.4 percent of concentrators exceeded the national average in reading; in writing, 64.0 percent; in numerical skills, 55.3 percent; and in elementary algebra, 77.9. Performance of Health Occupations Education concentrators on this assessment increased slightly between 2003-2004 and 2004-2005.

Technical Attainment

The measure used for technical attainment is performance of all enrollees in Career-Technical Education courses on standardized postassessments given at the conclusion of each course. The examinations typically contain 100 multiple-choice questions. They are developed in North Carolina and are based upon course blueprints that list specific course objectives with respective weights of each objective. The examinations are assessed for validity and reliability prior to use in statewide accountability. The 2004-2005 target was for 55.4 percent of Health Occupations Education enrollees to reach at least Level III

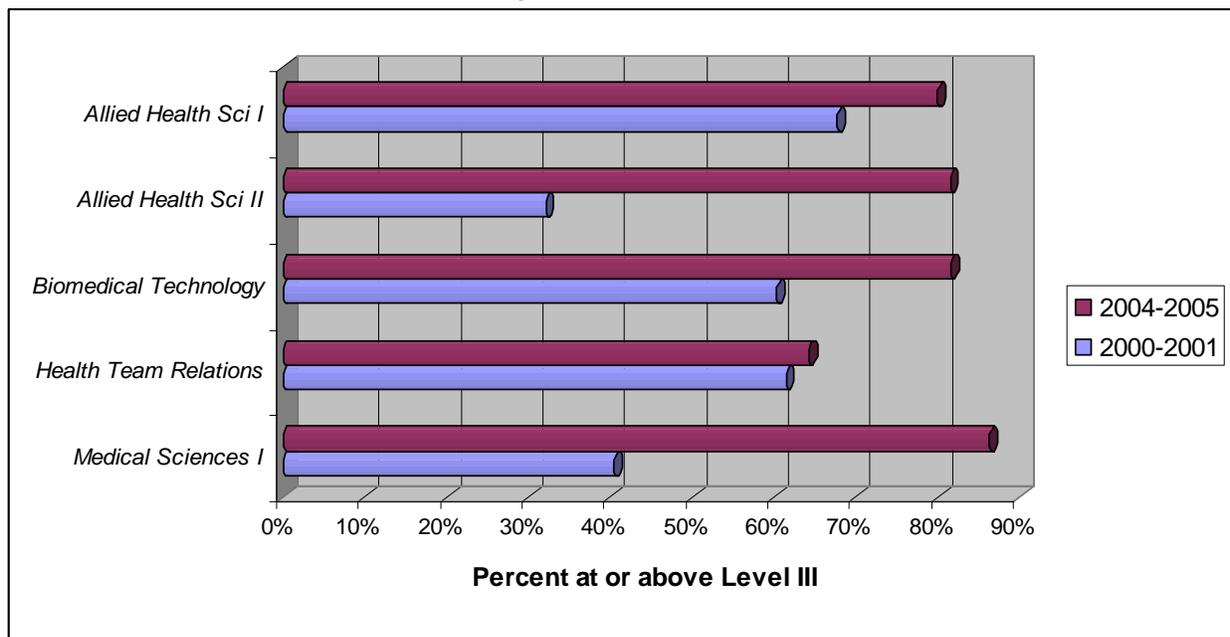
proficiency on the postassessments. To reach Level III proficiency, students must score a 65 or better on the examination.

Figure 20 illustrates Health Occupations Education students' performance on the technical attainment measure since 2000-2001. Details about overall and special populations technical attainment appear in Chart 25. Since 2000-2001, the percentage of Health Occupations Education enrollees who reached at least Level III proficiency increased from 50.7 percent to 74.9 percent, a gain of 24.2 percentage points. Special populations students also showed a significant increase: from 35.8 percent at or above Level III in 2000-2001 to 64.4 percent in 2004-2005, an increase of 28.6 percentage points. The Health Occupations Education course with the highest performance on the technical attainment measure statewide was Medical Sciences I, where during 2004-2005, 86.4 percent of the enrollees scored at or above Level III.

Chart 26 shows the average score by course in Health Occupations Education.

Note that gaps in the charts are likely due to introduction of new curriculum. When a new curriculum is introduced, there is a year gap in reporting testing data during which updated test items are validated and reliability is determined.

Figure 20. Technical Attainment Scores in Selected Health Occupations Education Courses



Source: NC CTE Performance Data, 2001-2005

For more information

For more information, contact your Career-Technical Education Administrator or North Carolina Health Occupations Education (Healthoccupations@dpi.state.nc.us).

Chart 25. Technical Attainment in Health Occupations Education Courses, 2001-2005

Course	2000-2001		2001-2002		2002-2003		2003-2004		2004-2005	
	Overall	Sp Pops	Overall	Sp Pops	Overall	Sp Pops	Overall	Sp Pops	Overall	Sp Pops
7221 Medical Sciences I	40.5%	31.5%	33.7%	25.9%	43.2%	30.3%			86.4%	78.9%
7210 Health Team Relations	61.5%	40.0%	61.9%	43.2%	69.7%	46.8%	66.8%	51.6%	64.3%	53.6%
7200 Biomedical Technology	60.4%	37.6%	59.4%	35.3%	59.4%	35.8%	59.0%	42.8%	81.6%	70.7%
7211 Allied Health Sciences I	32.1%	22.7%	34.6%	24.4%	36.3%	25.0%			81.6%	72.4%
7212 Allied Health Sciences II	67.8%	55.6%	72.9%	61.3%	77.3%	62.6%	80.5%	69.8%	80.0%	72.5%
7222 Medical Sciences II	88.9%	82.2%	88.9%	82.9%						
Total	50.7%	35.8%	52.0%	37.2%	55.3%	37.6%	69.9%	55.9%	74.9%	64.4%
CTE Total	54.8%	41.9	59.6%	47.4%	61.0%	45.9%	65.0%	54.5%	65.5%	55.9%

SOURCE: CTE Performance Data, 2001-2005

Chart 26. Average Score by Course

		2001-02	2002-03	2003-04	2004-05
7200	Biomedical Technology	66.4	66.8	66.7	
7210	Health Team Relations	67.5	70.1	68.8	75.6
7211	Allied Health Sciences I	59.2	60.0		69.1
7212	Allied Health Sciences II	69.5	71.4	73.1	72.8
7221	Medical Sciences I	58.8	61.5		75.3
7222	Medical Sciences II	77.6			74.8

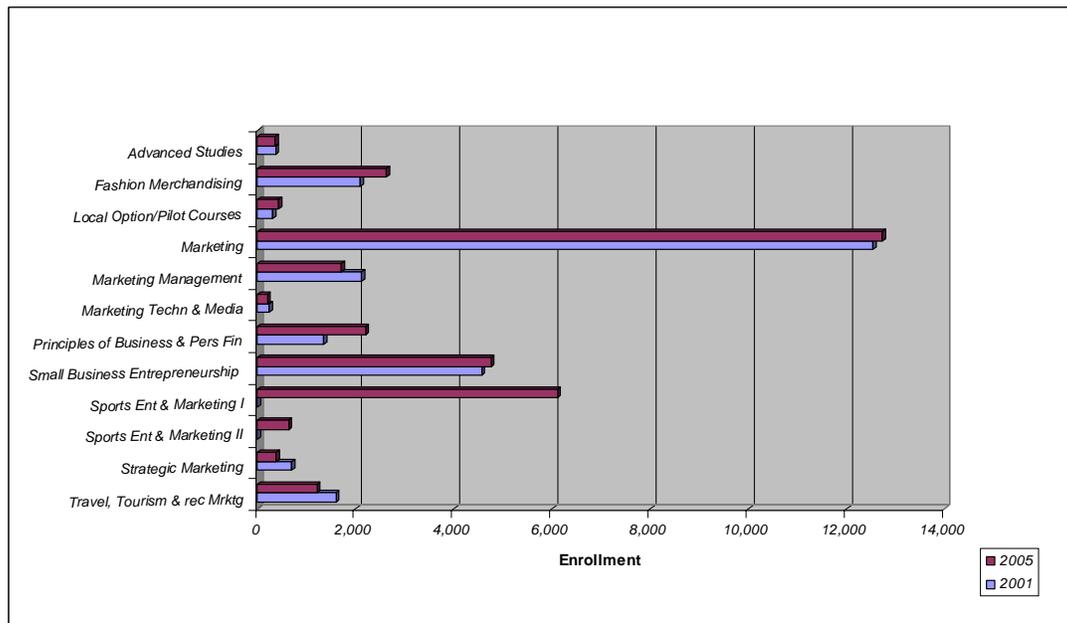
SOURCE: CTE Performance Data, 2001-2005

Marketing Education

The purpose of the Marketing Education instructional program is to prepare students for advancement in marketing and management careers and/or future studies in two-year technical/community colleges or four-year colleges or universities. Marketing is a vast and diverse discipline. It encompasses activities within production, as well as aspects of consumption. It is as specific as procedures for inventory control and, at the same time, as general as the creativity needed in effective promotion. The function of marketing occurs in all industries. Application of skills in reading, writing, mathematics, problem-solving, and critical thinking are found throughout the curriculum.

The Marketing Education curriculum in North Carolina includes 12 courses. For 2003-2004, 33,567 students were enrolled in the Marketing Education in North Carolina. Figure 21 illustrates the enrollment for selected courses for Marketing Education, grades 9-12, between 2001 and 2005.

Figure 21. Changes in Enrollment in Selected High School Marketing Education Courses between 2001 and 2005



Source: NC CTE Performance Data, 2001-2005

Overall enrollment by course for Marketing Education is presented in Chart 27. Enrollment by course for Special Populations in Marketing Education is presented in Chart 28.

The overall enrollment in Marketing Education has increased steadily over the past several years. Since 2000-2001, Marketing Education enrollment increased by more than 7,500 students, from 28,326 to 35,893. Of the total enrollment, 54.8 percent are identified as special populations, indicating special services or accommodations are needed to help these students succeed. Figure 22 illustrates patterns in Marketing Education enrollment since 2001. Chart 28 provides more details about special populations enrollment.

Chart 27. Overall Enrollment by Course for Marketing Education

Course	Overall Enrollment				
	00-01	01-02	02-03	03-04	04-05
6600 Principles of Business & Personal Finance	1,344	1,845	2,289	2,711	2,197
6609 Local Option/Pilot Courses	311	100	942	2,598	431
6615 Small Business Entrepreneurship	4,569	2,598	3,709	4,715	4,754
6621 Marketing	12,528	10,881	13,054	13,160	12,733
6622 Marketing Management	2,115	1,576	1,800	2,006	1,713
6626 Strategic Marketing	696	448	603	337	385
6631 Fashion Merchandising	2,097	1,871	1,923	2,228	2,625
6645 Travel, Tourism & rec Mrktg	1,599	1,292	1,443	1,388	1,216
6665 Marketing Techn & Media	240	188	255	204	196
6670 Sports Ent & Marketing I	0	0	0	0	6,112
6671 Sports Ent & Marketing II	0	0	0	0	637
6699 Advanced Studies	368	156	186	395	359
Other High School	2,459	3,444	3,429	2,792	2,535
	28,326	24,399	29,633	32,534	35,893

SOURCE: CTE Performance Data, 2001-2005

Data on Student Attainment of Academic and Technical Competencies

As part of the agreement providing North Carolina \$32 million annually for Career-Technical Education, data on academic and technical attainment are reported each year. Complete information on academic and technical attainment by school system can be viewed at <http://wdeppms.dpi.state.nc.us/wdeppms.nsf>.

Academic Attainment

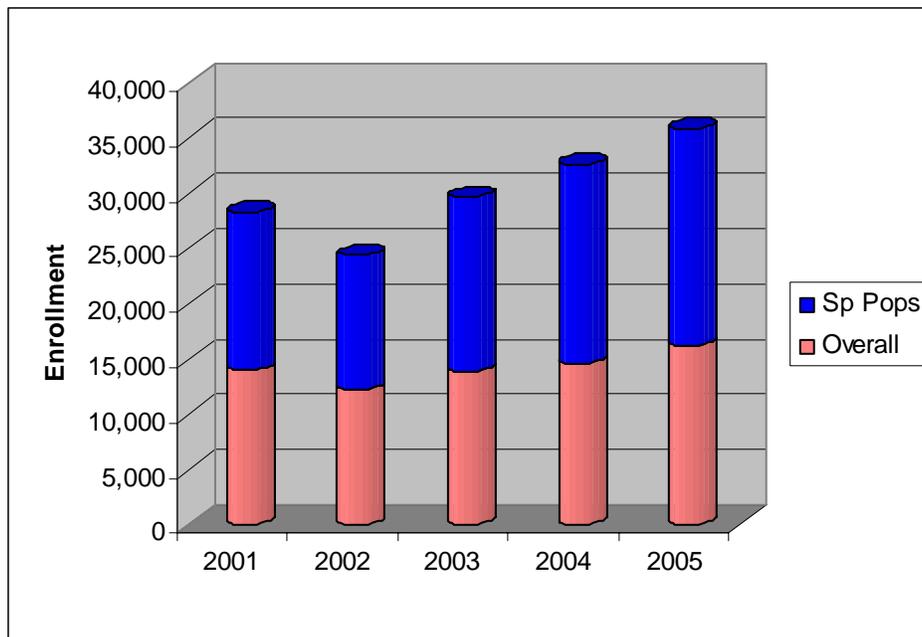
The measure of academic attainment used in North Carolina is performance on ASSET or ACCUPLACER, two national standardized examinations that are also used by community colleges to determine student placement. CTE concentrators take four ASSET or ACCUPLACER subtests: basic math skills, elementary algebra, writing, and reading. Targets are set for each subtest and for a combined measure, for all students and disaggregated by special category and by program area. For the combined category, the numbers of students meeting or exceeding the national average on each subtest were added and then calculated as a percentage of total test takers. The targets for 2004-2005 for Marketing Education concentrators were reading, 53.6 percent of test-takers at or above the national average; writing, 56.4 percent; numerical skills, 49.5 percent; elementary algebra, 63.7 percent; and combined, 56.6 percent. Figure 23 and Chart 29 illustrate the performance of concentrators in Marketing Education on the academic attainment measure.

Chart 28. Special Populations Enrollment by Course for Marketing Education

Course	Special Populations Enrollment				
	00-01	01-02	02-03	03-04	04-05
6600 Principles of Business & Personal Finance	623	903	1,205	1,554	1,018
6609 Local Option/Pilot Courses	88	30	526	1,418	195
6615 Small Business Entrepreneurship	2,622	1,121	1,855	2,588	2,713
6621 Marketing	6,247	5,466	6,905	7,194	7,266
6622 Marketing Management	1,047	745	895	1,150	1,009
6626 Strategic Marketing	304	190	278	159	233
6631 Fashion Merchandising	1,240	1,054	1,205	1,421	1,655
6645 Travel, Tourism & rec Mrktg	691	626	680	765	669
6665 Marketing Techn & Media	99	72	118	84	111
6670 Sports Ent & Marketing I	0	0	0	0	2,975
6671 Sports Ent & Marketing II	0	0	0	0	363
6699 Advanced Studies	234	37	48	159	158
Other High School Courses	1,159	1,826	1,966	1,515	1318
	14,354	12,070	15,681	18,007	19683

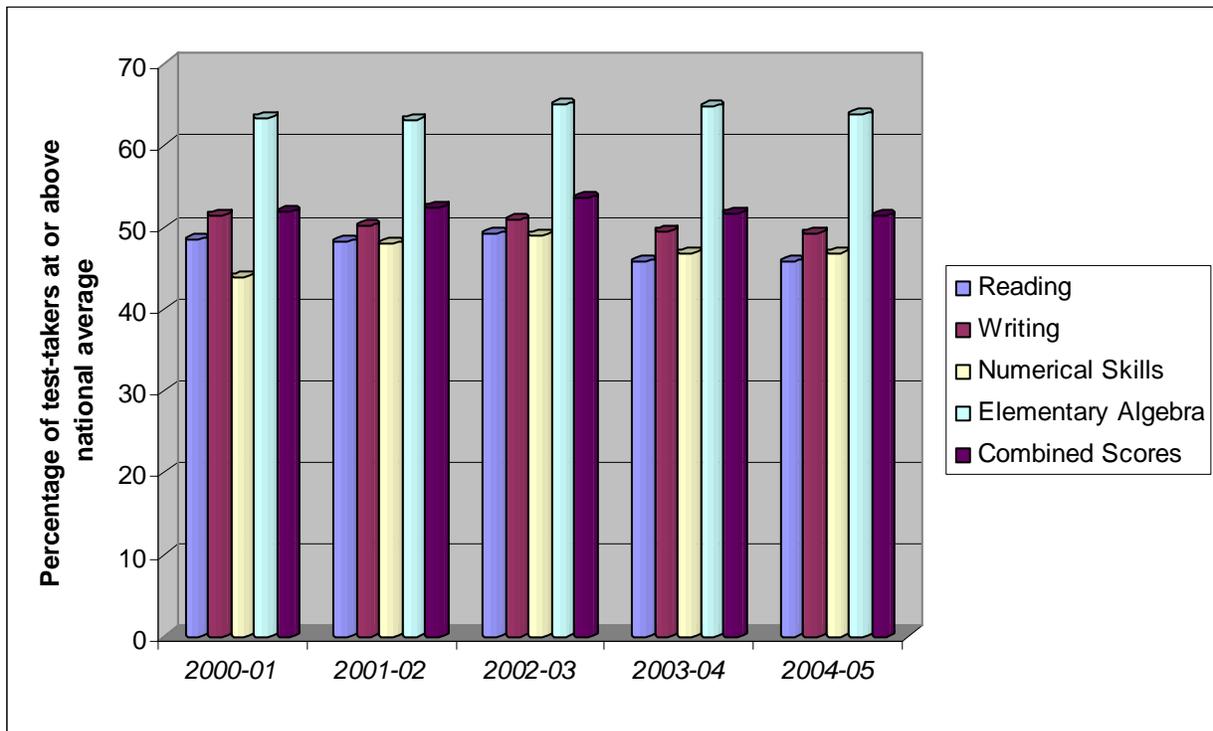
SOURCE: CTE Performance Data, 2001-2005

Figure 22. Trends in Marketing Education Enrollment, 2001-2005



Source: NC CTE Performance Data, 2001-2005

Figure 23. Academic Attainment Scores for Marketing Education Concentrators



Source: NC CTE Performance Data, 2001-2005

Chart 29. Academic Attainment

Subtest	Academic Year				
	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005
Reading	48.4	48.2	49.1	45.8	45.7
Writing	51.5	50.1	50.9	49.5	49.3
Numerical Skills	43.9	48.0	49.0	46.8	46.8
Elementary Algebra	63.4	63.1	64.9	64.7	63.7
Combined Scores	51.8	52.4	53.5	51.7	51.4

SOURCE: CTE Performance Data, 2001-2005

In each of the four years for which data are available, a higher percentage of Marketing Education concentrators exceeded the national average on the elementary algebra subtest than on any of the other three tests. This same pattern is also found with Career-Technical Education concentrators as a whole. For example, in 2004-2005, among Marketing Education concentrators, 45.7 percent of concentrators exceeded the national average in reading; in writing, 49.3 percent; in numerical skills, 46.8 percent; and in elementary algebra 63.7. Performance of Marketing Education concentrators on this assessment increased slightly between 2003-2004 and 2004-2005.

Technical Attainment

The measure used for technical attainment is performance of all enrollees in Career-Technical Education courses on standardized postassessments given at the conclusion of each course. The examinations typically contain 100 multiple-choice questions. They are developed in North Carolina and are based upon course blueprints that list specific course objectives with respective weights of each objective. The examinations are assessed for validity and reliability prior to use in statewide accountability. The 2004-2005 target was for 50.0 percent of Marketing Education enrollees to reach at least Level III proficiency

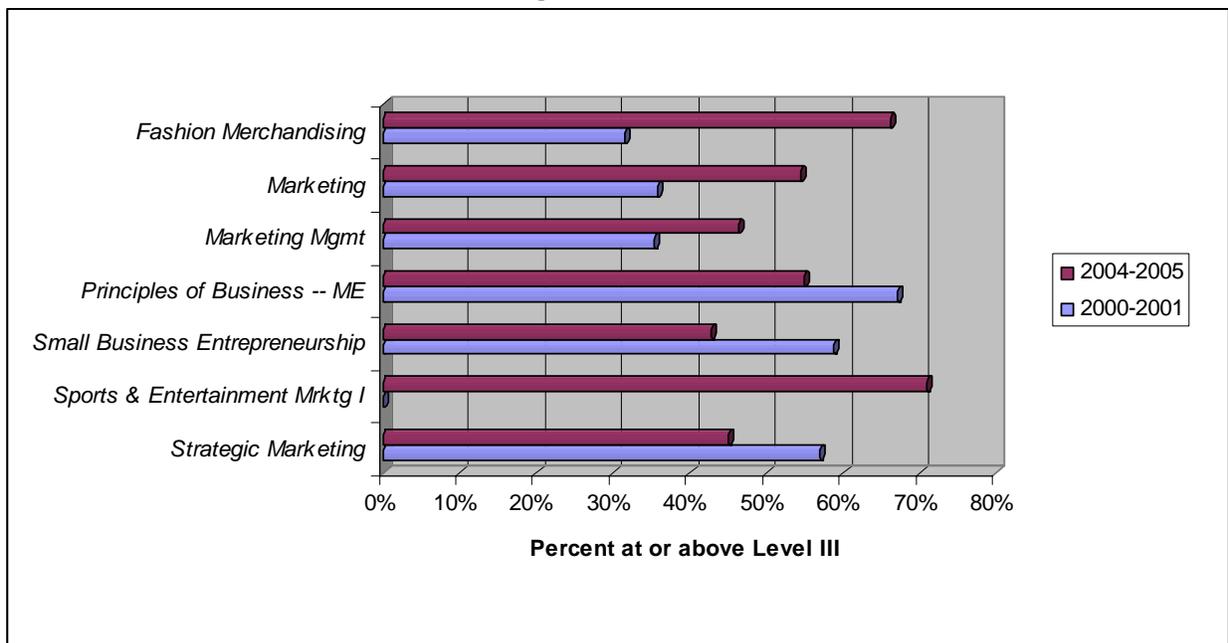
on the postassessments. To reach Level III proficiency, students must score a 65 or better on the examination.

Figure 24 illustrates Marketing Education students' performance on the technical attainment measure since 2000-2001. Details about overall and special populations technical attainment appear in Chart 30. Since 2000-2001, the percentage of Marketing Education enrollees who reached at least Level III proficiency increased from 44.4 percent to 56.7 percent, a gain of 12.3 percentage points. Special populations students also showed a significant increase: from 28.9 percent at or above Level III in 2000-2001 to 39.8 percent in 2004-2005, an increase of 10.9 percentage points. The Marketing Education course with the highest performance on the technical attainment measure statewide was Sports Entertainment and Marketing I, where during 2004-2005, 71.0 percent of the enrollees scored at or above Level III.

Chart 31 shows the average score by course in Marketing Education.

Note that gaps in the charts are likely due to introduction of new curriculum. When a new curriculum is introduced, there is a year gap in reporting testing data during which updated test items are validated and reliability is determined.

Figure 24. Technical Attainment Scores in Selected Marketing Education Courses



Source: NC CTE Performance Data, 2001-2005

For more information

For more information, contact your Career-Technical Education Administrator or North Carolina Marketing Education (Marketingeducation@dpi.state.nc.us).

Chart 30. Technical Attainment in Marketing Education Courses, 2001-2005

Course	2000-2001		2001-2002		2002-2003		2003-2004		2004-2005	
	Overall	Sp Pops	Overall	Sp Pops	Overall	Sp Pops	Overall	Sp Pops	Overall	Sp Pops
6600 Principles of Business - ME	67.2%	49.4%	59.8%	41.9%	67.1%	45.5%			54.9%	34.2%
6615 Small Bus/Entrepreneurship	58.8%	44.4%	67.9%	52.1%	68.4%	51.7%			42.9%	29.6%
6621 Marketing	35.8%	20.3%	47.6%	30.9%	53.0%	33.1%	55.2%	38.1%	54.5%	37.3%
6622 Marketing Management	35.4%	20.2%	39.3%	25.5%	39.3%	22.9%	44.3%	29.7%	46.3%	35.7%
6626 Strategic Marketing	57.0%	37.4%	52.9%	37.8%	41.7%	21.4%	46.5%	25.9%	45.1%	31.4%
6631 Fashion Merchandising	31.5%	15.8%	47.7%	29.8%	56.2%	37.4%	58.4%	43.5%	66.1%	51.8%
6645 Travel/Tourism & Recreation	75.9%	61.0%	78.3%	65.7%	65.7%	48.4%	65.0%	54.3%		
6670 Sports & Entertainment Marketing I									71.0%	52.1%
	44.4%	28.9%	52.6%	35.9%	56.2%	37.1%	55.2%	39.0%	56.7%	39.8%
CTE Total	54.8%	41.9	59.6%	47.4%	61.0%	45.9%	65.0%	54.5%	65.5%	55.9%

SOURCE: CTE Performance Data, 2001-2005

Chart 31. Average Score by Course

		2001-02	2002-03	2003-04	2004-05
6600	Principles of Business - ME	65.8	68.7	*	64.9
6615	Small Business/Entrepreneurship - ME	68.7	68.7	*	60.8
6621	Marketing	62.4	64.2	64.6	64.4
6622	Marketing Management	59.9	60.4	61.9	62.0
6626	Strategic Marketing	63.5	60.7	60.5	62.3
6631	Fashion Merchandising	62.2	65.0	66.3	68.8
6645	Travel/Tourism & Recreation	72.6	69.4	68.7	

SOURCE: CTE Performance Data, 2001-2005

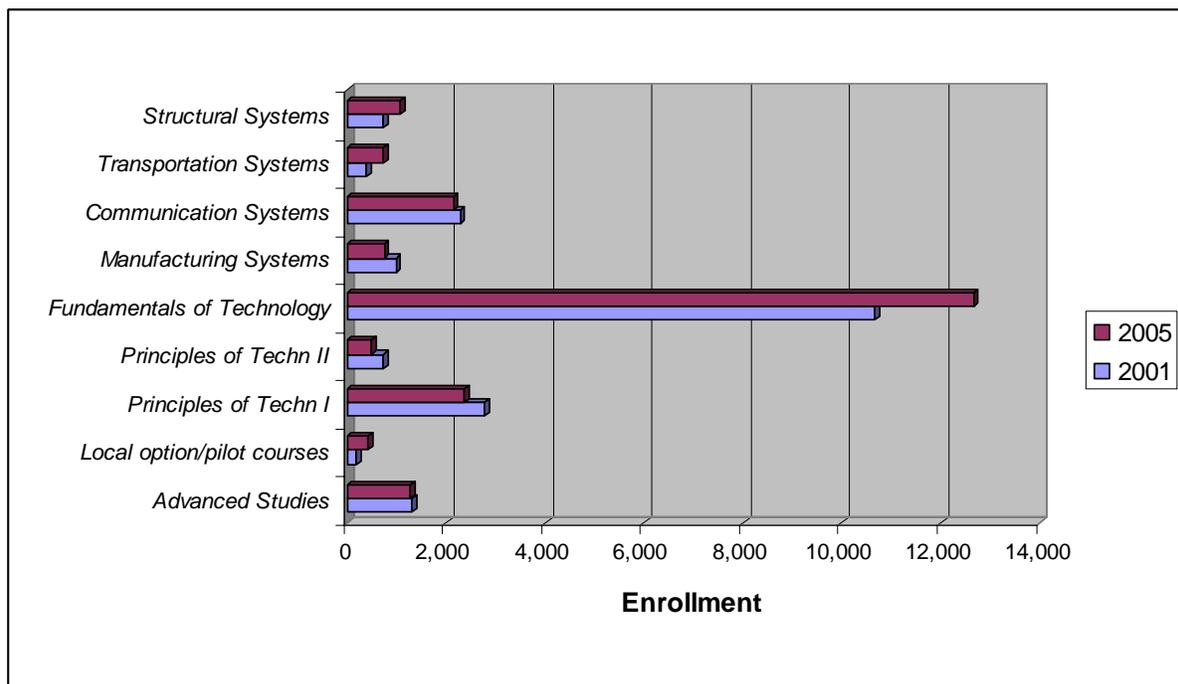
Technology Education

The purpose of Technology Education is to prepare technologically literate students for success in an ever-changing technological workplace. Technology Education helps students:

- Better understand complex technologies through the use of the systems approach to problem solving
- Apply design, problem solving, and leadership skills
- Assess the implications of technology upon society, the economy, and the environment
- Become more knowledgeable citizens and consumers regarding issues of technology
- Make wise career decisions

The Technology Education curriculum in North Carolina includes 11 courses. For 2003-2004, 57,092 students were enrolled in the Middle Grades course, Exploring Technology Systems, while 22,818 students were enrolled in the 10 high school courses Figure 25 illustrates the enrollment for selected courses for Technology Education, grades 9-12, between 2001 and 2005.

Figure 25. Changes in Enrollment in Selected High School Technology Education Courses between 2001 and 2005



Source: NC CTE Performance Data, 2001-2005

Overall enrollment by course for Technology Education is presented in Chart 32. Enrollment by course for Special Populations in Technology Education is presented in Chart 33.

The overall enrollment in Technology Education has increased steadily over the past several years. Since 2000-2001, Technology Education enrollment increased by more than 12,000 students, from 67,509 to 79,910. Of the total enrollment, 55.0 percent are identified as special populations, indicating special services or accommodations are needed to help these students succeed. Figure 26 illustrates patterns in Technology Education enrollment since 2001. Chart 33 provides more details about special populations enrollment.

Chart 32. Overall Enrollment by Course for Technology Education

Course	Overall Enrollment				
	00-01	01-02	02-03	03-04	04-05
8005 Advanced Studies	1,312	1,152	1,372	1,321	1,268
8009 Local option/pilot courses	199	262	465	2,699	436
8011 Principles of Techn I	2,774	2,291	2,779	3,029	2,377
8012 Principles of Techn II	730	630	749	864	491
8110 Fundamentals of Technology	10,681	10,265	12,175	12,297	12,665
8115 Manufacturing Systems	993	714	634	832	753
125 Communication Systems	2,290	1,578	1,993	1,878	2,153
8126 Transportation Systems	407	473	666	917	739
8141 Structural Systems	748	766	889	904	1,070
Other High School Courses	100	67	48	192	866
8108 Exploring Technology Systems	47,275	45,427	55,881	56,641	57,092
	67,509	63,625	77,651	81,574	79,910

SOURCE: CTE Performance Data, 2001-2005

Data on Student Attainment of Academic and Technical Competencies

As part of the agreement providing North Carolina \$32 million annually for Career-Technical Education, data on academic and technical attainment are reported each year. Complete information on academic and technical attainment by school system can be viewed at <http://wdeppms.dpi.state.nc.us/wdeppms.nsf>.

Academic Attainment

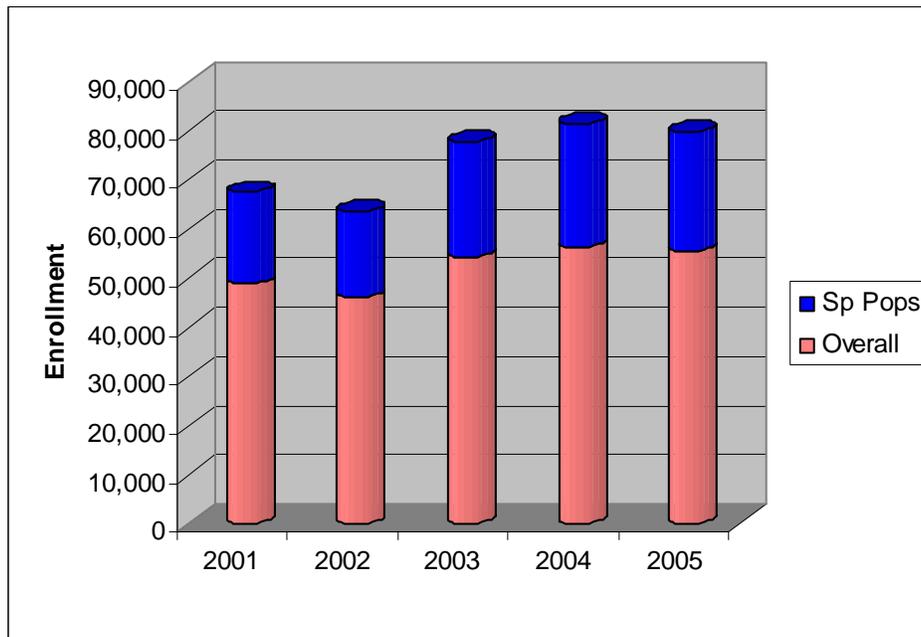
The measure of academic attainment used in North Carolina is performance on ASSET or ACCUPLACER, two national standardized examinations that are also used by community colleges to determine student placement. CTE concentrators take four ASSET or ACCUPLACER subtests: basic math skills, elementary algebra, writing, and reading. Targets are set for each subtest and for a combined measure, for all students and disaggregated by special category and by program area. For the combined category, the numbers of students meeting or exceeding the national average on each subtest were added and then calculated as a percentage of total test takers. The targets for 2004-2005 for Technology Education concentrators were reading, 50.9 percent of test-takers at or above the national average; writing, 48.3 percent; numerical skills, 62.5 percent; elementary algebra, 69.1 percent; and combined, 57.7 percent. Figure 27 and Chart 34 illustrate the performance of concentrators in Technology Education on the academic attainment measure.

Chart 33. Special Populations Enrollment by Course for Technology Education

Course	Special Populations Enrollment				
	00-01	01-02	02-03	03-04	04-05
8005 Advanced Studies	405	336	390	285	375
8009 Local option/pilot courses	59	93	197	1,701	164
8011 Principles of Techn I	1,243	967	1,420	1,681	1,325
8012 Principles of Techn II	300	241	324	427	275
8110 Fundamentals of Technology	4,919	4,797	6,412	6,519	7,334
8115 Manufacturing Systems	534	401	363	486	455
8125 Communication Systems	795	653	868	952	1,178
8126 Transportation Systems	180	209	371	506	423
8141 Structural Systems	302	343	469	471	625
Other High School Courses	100	26	19	13	67
8108 Exploring Technology Systems	9,935	9,439	12,454	12,032	11,992
	18,698	17,498	23,281	25,127	24,549

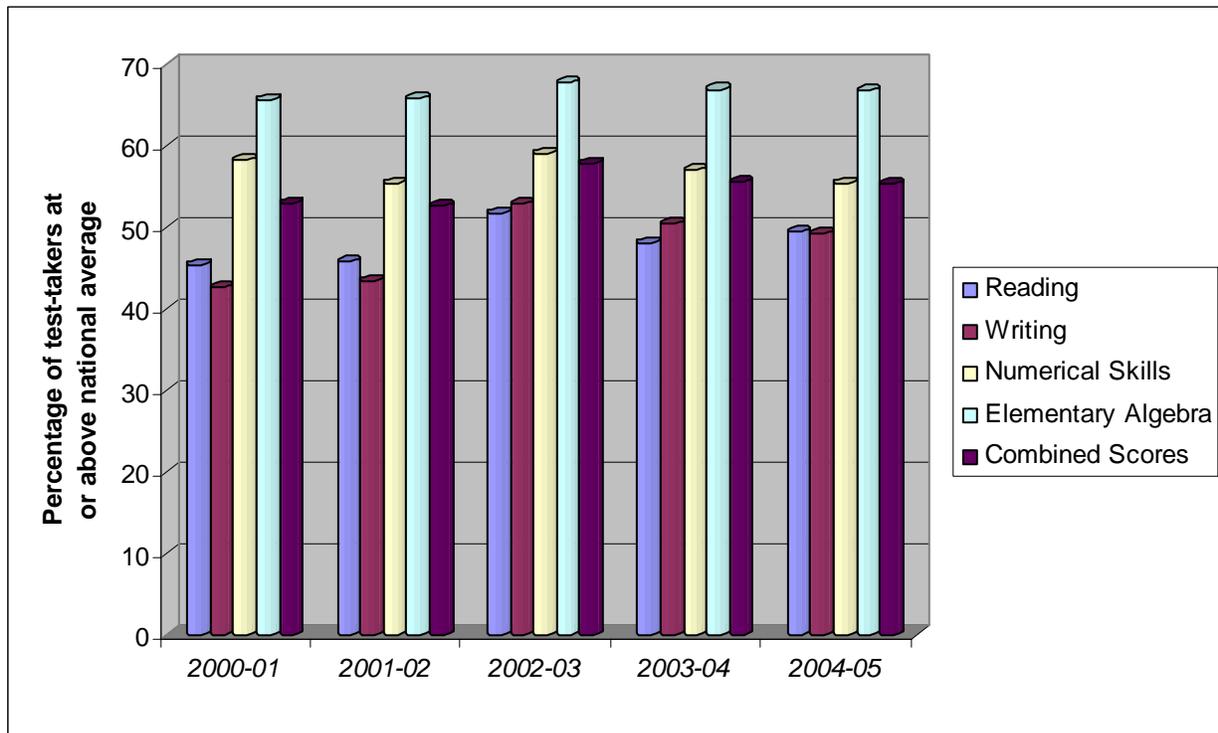
SOURCE: CTE Performance Data, 2001-2005

Figure 26. Trends in Technology Education Enrollment, 2001-2005



Source: NC CTE Performance Data, 2001-2005

Figure 27. Academic Attainment Scores for Technology Education Concentrators



Source: NC CTE Performance Data, 2001-2005

Chart 34. Academic Attainment

Subtest	Academic Year				
	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005
Reading	45.4	45.8	51.8	48.1	49.5
Writing	42.6	43.5	52.9	50.5	49.2
Numerical Skills	58.3	55.5	59.1	57.0	55.5
Elementary Algebra	65.7	65.9	67.8	67.0	66.8
Combined Scores	53.0	52.7	57.9	55.6	55.3

SOURCE: CTE Performance Data, 2001-2005

In each of the four years for which data are available, a higher percentage of Technology Education concentrators exceeded the national average on the elementary algebra subtest than on any of the other three tests. This same pattern is also found with Career-Technical Education concentrators as a whole. For example, in 2004-2005, among Technology Education concentrators, 49.5 percent of concentrators exceeded the national average in reading; in writing, 49.2 percent; in numerical skills, 55.5 percent; and in elementary algebra 66.6. Performance of Technology Education concentrators on this assessment declined slightly between 2003-2004 and 2004-2005.

Technical Attainment

The measure used for technical attainment is performance of all enrollees in Career Technical Education courses on standardized postassessments given at the conclusion of each course. The examinations typically contain 100 multiple-choice questions. They are developed in North Carolina and are based upon course blueprints that list specific course objectives with respective weights of each objective. The examinations are assessed for validity and reliability prior to use in statewide accountability. The 2004-2005 target was for 47.0 percent of Technology Education enrollees to reach at least Level III proficiency

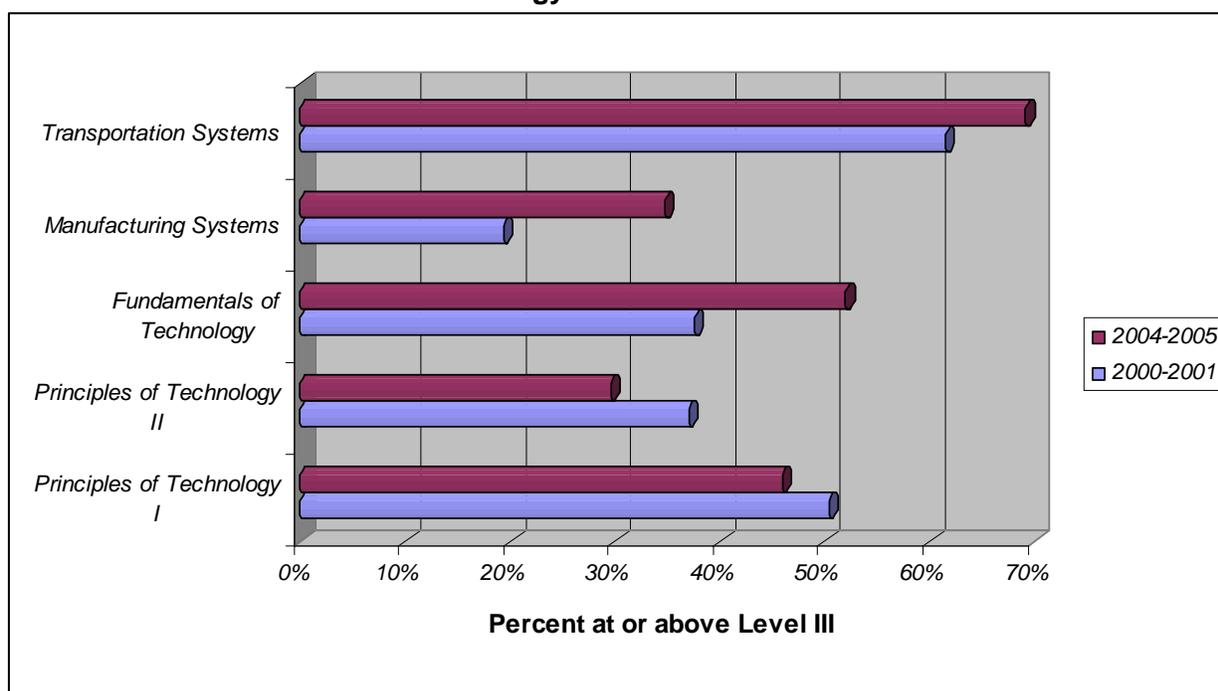
on the postassessments. To reach Level III proficiency, students must score a 65 or better on the examination.

Figure 28 illustrates Technology Education students' performance on the technical attainment measure since 2000-2001. Details about overall and special populations technical attainment appear in Chart 35. Since 2000-2001, the percentage of Technology Education enrollees who reached at least Level III proficiency increased from 41.0 percent to 50.6 percent, a gain of 9.6 percentage points. Special populations students also showed a significant increase: from 27.2 percent at or above Level III in 2000-2001 to 39.8 percent in 2004-2005, an increase of 2.6 percentage points. The Technology Education course with the highest performance on the technical attainment measure statewide was Transportation Systems, where during 2004-2005, 69.2 percent of the enrollees scored at or above Level III.

Chart 36 shows the average score by course in Technology Education.

Note that gaps in the charts are likely due to introduction of new curriculum. When a new curriculum is introduced, there is a year gap in reporting testing data during which updated test items are validated and reliability is determined.

Figure 28. Technical Attainment Scores in Selected Technology Education Courses



Source: NC CTE Performance Data, 2001-2005

For more information

For more information, contact your Career-Technical Education Administrator or North Carolina Technology Education (teched@dpi.state.nc.us).

Chart 35. Technical Attainment in Technology Education Courses, 2001-2005

Course	2000-2001		2001-2002		2002-2003		2003-2004		2004-2005	
	Overall	Sp Pops	Overall	Sp Pops	Overall	Sp Pops	Overall	Sp Pops	Overall	Sp Pops
8011 Principles of Technology I	50.4%	36.1%	48.8%	34.2%	46.2%	27.7%	41.0%	26.3%	45.9%	34.2%
8012 Principles of Technology II	37.0%	25.6%	35.3%	22.2%	35.6%	18.4%	34.6%	20.0%	29.6%	29.6%
8110 Fundamentals of Technology	37.6%	22.4%	48.6%	32.3%			51.5%	37.0%	52.0%	37.3%
8115 Manufacturing Systems	19.4%	11.5%	25.2%	13.7%	28.3%	14.4%	26.6%	17.6%	34.8%	35.7%
8125 Communications Systems	54.7%	46.3%	54.6%	42.8%	58.7%	44.4%	56.3%	45.2%		51.8%
8126 Transportation Systems	61.5%	41.6%	66.7%	51.3%	51.7%	45.6%	58.1%	50.0%	69.2%	
8141 Structural Systems	31.7%	21.5%	32.7%	21.4%	33.2%	19.5%	28.9%	20.2%		52.1%
	41.0%	27.2%	47.5%	32.4%	45.9%	31.2%	48.0%	34.7%	50.6%	39.8%
CTE Total	54.8%	41.9	59.6%	47.4%	61.0%	45.9%	65.0%	54.5%	65.5%	55.9%

SOURCE: CTE Performance Data, 2001-2005

Chart 36. Average Score by Course

		2001-02	2002-03	2003-04	2004-05
8011	Principles of Technology I	63.1	62.6	60.1	61.9
8012	Principles of Technology II	57.1	57.2	57.2	55.9
8110	Fundamentals of Technology	62.2	*	62.6	62.8
8115	Manufacturing Systems	54.6	56.3	55.0	56.8
8125	Communications Systems	64.8	66.2	65.4	
8126	Transportation Systems	69.1	64.8	66.4	70.3
8141	Structural Systems	56.8	56.7	56.8	

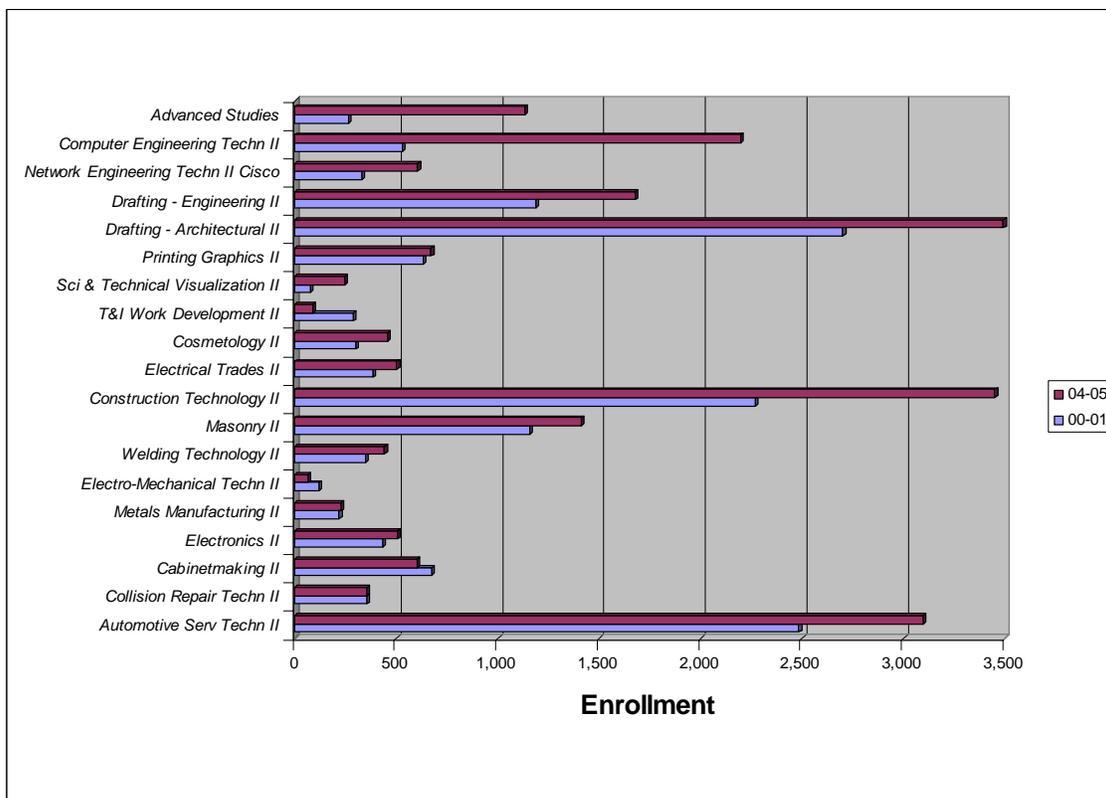
SOURCE: CTE Performance Data, 2001-2005

Trade and Industrial Education

Trade and Industrial Education is a secondary program designed to prepare students for careers in public service, industry, and the trade occupations through a sequence of learning experiences. Instructional units are provided in the use of layout, design, production, processes, assembly, quality control, maintenance, and service of industrial, commercial, and residential goods and products.

The Trade and Industrial Education curriculum in North Carolina includes 47 courses. For 2004-2005, 89,130 students were enrolled in T&I courses. Figure 29 illustrates the enrollment for selected courses for Trade and Industrial Education, grades 9-12, between 2001 and 2005.

Figure 29. Changes in Enrollment in Selected Level II High School Trade and Industrial Education Courses between 2001 and 2005



Source: NC CTE Performance Data, 2001-2005

Overall enrollment by course for Trade and Industrial Education is presented in Chart 37. Enrollment by course for Special Populations in Trade and Industrial Education is presented in Chart 38.

The overall enrollment in Trade and Industrial Education has increased steadily over the past several years. Since 2000-2001, Trade and Industrial Education enrollment increased by more than 13,000 students, from 76,094 to 89,130. Of the total enrollment, 52.5 percent are identified as special populations, indicating special services or accommodations are needed to help these students succeed. Figure 30 illustrates patterns in Trade and Industrial Education enrollment since 2001. Chart 38 provides more details about special populations enrollment.

Data on Student Attainment of Academic and Technical Competencies

As part of the agreement providing North Carolina \$32 million annually for Career-Technical Education, data on academic and technical attainment are reported each year. Complete information on academic and technical attainment by school system can be viewed at <http://wdeppms.dpi.state.nc.us/wdeppms.nsf>.

Academic Attainment

The measure of academic attainment used in North Carolina is performance on ASSET or ACCUPLACER, two national standardized examinations that are also used by community colleges to determine student placement. CTE concentrators take four ASSET or ACCUPLACER subtests: basic math skills, elementary algebra, writing, and reading. Targets are set for each subtest and for a combined measure, for all students and disaggregated by special category and by program area. For the combined category, the numbers of students meeting or exceeding the national average on each subtest were added and then calculated as a percentage of total test takers. The targets for 2004-2005 for Trade and Industrial Education concentrators were reading, 50.0 percent of test-takers at or above the national average; writing, 53.7 percent; numerical skills, 57.2 percent; elementary algebra, 66.4 percent; and combined, 56.8 percent. Figure 31 and Chart 39 illustrate the performance of concentrators in Trade and Industrial Education on the academic attainment measure.

In each of the four years for which data are available, a higher percentage of Trade and Industrial Education concentrators exceeded the national average on the elementary algebra subtest than on any of the other three tests. This same pattern is also found with Career-Technical Education concentrators as a whole. For example, in 2004-2005, among Trade and Industrial Education concentrators, 46.6 percent of concentrators exceeded the national average in reading; in writing, 47.7 percent; in numerical skills, 56.2 percent; and in elementary algebra, 66.9. Performance of Trade and Industrial Education concentrators on this assessment increased slightly between 2003-2004 and 2004-2005.

Technical Attainment

The measure used for technical attainment is performance of all enrollees in Career-Technical Education courses on standardized postassessments given at the conclusion of each course. The examinations typically contain 100 multiple-choice questions. They are developed in North Carolina and are based upon course blueprints that list specific course objectives with respective weights of each objective. The examinations are assessed for validity and reliability prior to use in statewide accountability. The 2004-2005 target was for 48.2 percent of Trade and Industrial Education enrollees to reach at least Level III proficiency on the postassessments. To reach Level III proficiency, students must score a 65 or better on the examination.

Chart 37. Overall Enrollment by Course for Trade and Industrial Education

Course	Overall Enrollment				
	00-01	01-02	02-03	03-04	04-05
7400 Introduction to T&I	6,223	4,375	4,394	4,613	6,572
7409 Local option/pilot courses	6,214	5,134	6,778	7,536	7,020
7511 Automotive Serv Techn I	7,716	6,088	7,620	7,391	7,888
7512 Automotive Serv Techn II	2,484	2,358	2,525	2,965	3,096
7521 Collision Repair Techn I	0	0	0	0	736
7522 Collision Repair Techn II	355	350	364	504	353
7621 Cabinetmaking I	0	0	0	0	1,518
7622 Cabinetmaking II	674	660	745	735	602
7631 Electronics I	1,974	1,670	1,835	1,891	1,990
7632 Electronics II	431	388	442	480	504
7641 Metals Manufacturing I	774	628	753	807	810
7642 Metals Manufacturing II	219	269	236	213	227
7651 Electro-Mechanical Techn I	384	297	349	290	105
7652 Electro-Mechanical Techn II	117	139	100	86	66
7661 Welding Technology I	931	790	1,002	869	1,017
7662 Welding Technology II	347	344	351	357	442
7711 Masonry I	2,762	2,226	2,923	3,342	3,496
7712 Masonry II	1,159	932	1,055	1,255	1,411
7721 Construction Technology I	6,907	5,992	7,548	8,298	8,887
7722 Construction Technology II	2,270	1,721	2,269	2,780	3,450
7741 Electrical Trades I	1,055	1,056	1,109	1,348	1,371
7742 Electrical Trades II	386	307	412	413	503
7811 Cosmetology I	572	581	619	676	750
7812 Cosmetology II	300	265	326	355	457
7821 T&I Work Development I	828	642	571	315	302
7822 T&I Work Development II	289	191	238	177	89
7901 Sci & Technical Visualization I	438	803	844	953	704
7902 Sci & Technical Visualization II	78	107	222	347	245
7911 Printing Graphics I	2,746	2,524	2,584	2,535	2,549
7912 Printing Graphics II	631	654	692	682	672
7921 Drafting I	9,907	9,073	10,795	11,095	11,940
7962 Drafting - Architectural II	2,701	2,724	3,186	3,662	3,493
7963 Drafting - Architectural III	968	894	1,095	1,188	1,101
7972 Drafting - Engineering II	1,190	1,068	1,305	1,418	1,677
7973 Drafting - Engineering III	353	313	337	313	349
7980 Networking I	1,223	1,239	1,159	1,317	1,356
7981 Network Engineering Techn II Cisco	330	552	558	479	605
7982 Network Engineering Techn II Cisco	0	0	0	0	229
7983 Network Engineering Techn II Nortel	0	0	0	0	20
7984 Network Engineering Techn III - Nortel	0	0	0	0	0
7991 Computer Engineering Techn I	2,449	2,631	3,624	3,747	3,772
7992 Computer Engineering Techn II	530	901	1,375	1,901	2,198
7999 Advanced Studies	264	334	576	772	1,134
Other High School Courses	6,915	7,460	7,284	5,300	3,424
	76,094	68,680	80,200	83,405	89,130

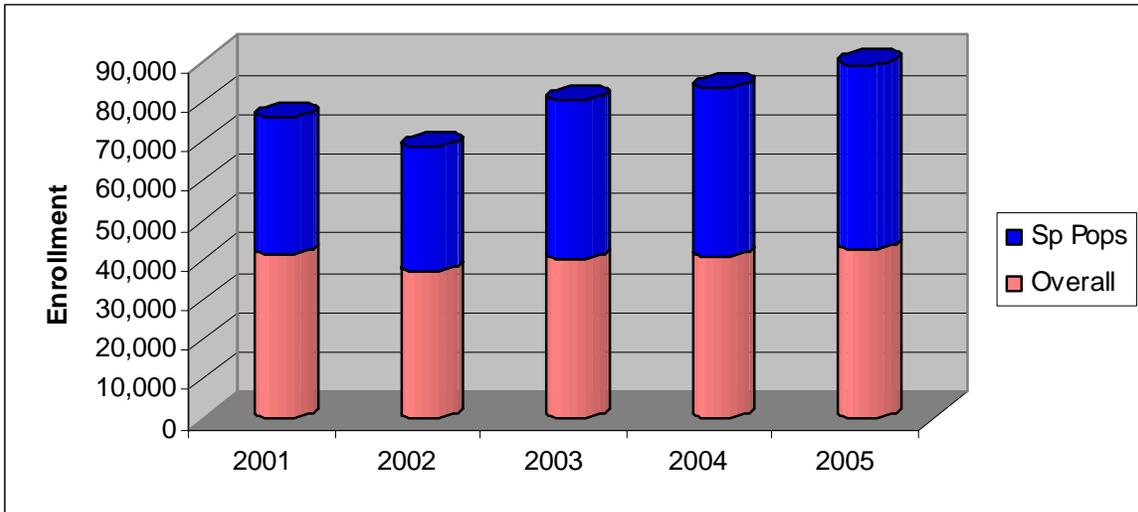
SOURCE: CTE Performance Data, 2001-2005

Chart 38. Special Populations Enrollment by Course for Trade and Industrial Education

Course	Special Populations Enrollment				
	00-01	01-02	02-03	03-04	04-05
7400 Introduction to T&I	2,962	2,152	2,454	2,572	3,526
7409 Local option/pilot courses	1,367	774	1,116	1,224	682
7511 Automotive Serv Techn I	4,276	3,536	4,602	4,519	4,905
7512 Automotive Serv Techn II	1,376	1,319	1,547	1,937	2,030
7521 Collision Repair Techn I	0	0	0	0	435
7522 Collision Repair Techn II	183	165	243	316	209
7621 Cabinetmaking I	0	0	0	0	941
7622 Cabinetmaking II	319	331	464	466	364
7631 Electronics I	905	742	950	974	1,193
7632 Electronics II	180	164	212	213	279
7641 Metals Manufacturing I	469	401	502	500	484
7642 Metals Manufacturing II	114	149	157	136	130
7651 Electro-Mechanical Techn I	204	166	226	205	44
7652 Electro-Mechanical Techn II	59	75	64	66	46
7661 Welding Technology I	574	504	697	586	683
7662 Welding Technology II	174	211	231	232	305
7711 Masonry I	1,768	1,497	2,105	2,444	2,468
7712 Masonry II	735	593	747	939	1,059
7721 Construction Technology I	3,934	3,451	4,750	5,282	5,873
7722 Construction Technology II	1,317	1,034	1,404	1,820	2,307
7741 Electrical Trades I	578	601	698	812	887
7742 Electrical Trades II	198	180	214	261	338
7811 Cosmetology I	341	326	384	474	501
7812 Cosmetology II	146	163	190	229	293
7821 T&I Work Development I	417	333	299	164	167
7822 T&I Work Development II	167	100	126	106	57
7901 Sci & Technical Visualization I	149	242	310	325	282
7902 Sci & Technical Visualization II	16	26	73	92	93
7911 Printing Graphics I	1,231	1,230	1,298	1,274	1,367
7912 Printing Graphics II	289	286	360	384	361
7921 Drafting I	3,774	3,425	4,703	5,023	5,464
7962 Drafting - Architectural II	881	863	1,175	1,530	1,472
7963 Drafting - Architectural III	283	250	377	415	387
7972 Drafting - Engineering II	326	336	387	483	572
7973 Drafting - Engineering III	92	94	109	93	103
7980 Networking I	335	335	439	483	629
7981 Network Engineering Techn II Cisco	77	136	177	163	240
7982 Network Engineering Techn II Cisco	0	0	0	0	76
7983 Network Engineering Techn II Nortel	0	0	0	0	9
7984 Network Engineering Techn III - Nortel	0	0	0	0	0
7991 Computer Engineering Techn I	918	1,011	1,594	1,724	1,971
7992 Computer Engineering Techn II	164	336	584	817	1,125
7999 Advanced Studies	88	136	256	363	534
Other High School Courses	3,485	3,959	4,157	2,998	1,911
	34,871	31,632	40,381	42,644	46,802

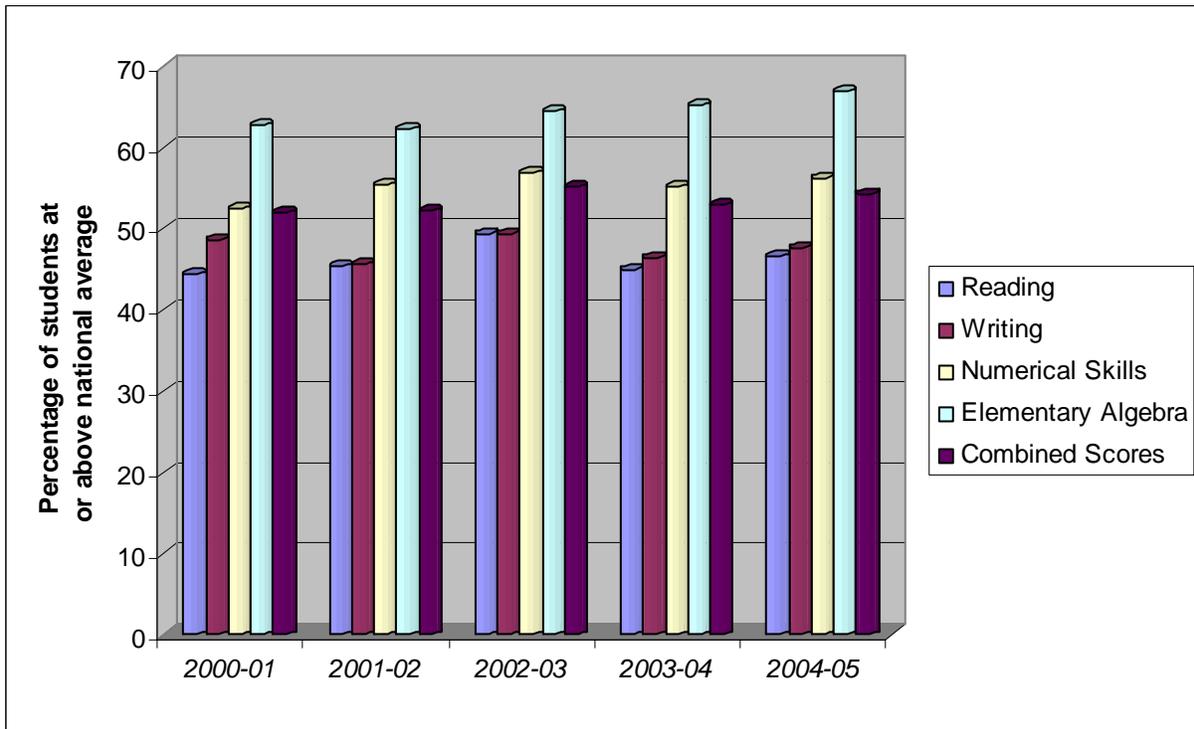
SOURCE: CTE Performance Data, 2001-2005

Figure 30. Trends in Trade and Industrial Education Enrollment, 2001-2005



Source: NC CTE Performance Data, 2001-2005.

Figure 31. Academic Attainment Scores for Trade and Industrial Education Concentrators



Source: NC CTE Performance Data, 2001-2005

Chart 39. Academic Attainment

Subtest	Academic Year				
	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005
Reading	44.4	45.3	49.4	45.0	46.6
Writing	48.6	45.6	49.4	46.5	47.7
Numerical Skills	52.5	55.4	56.9	55.2	56.2
Elementary Algebra	62.7	62.3	64.5	65.2	66.9
Combined Scores	52.0	52.2	55.1	53.0	54.3

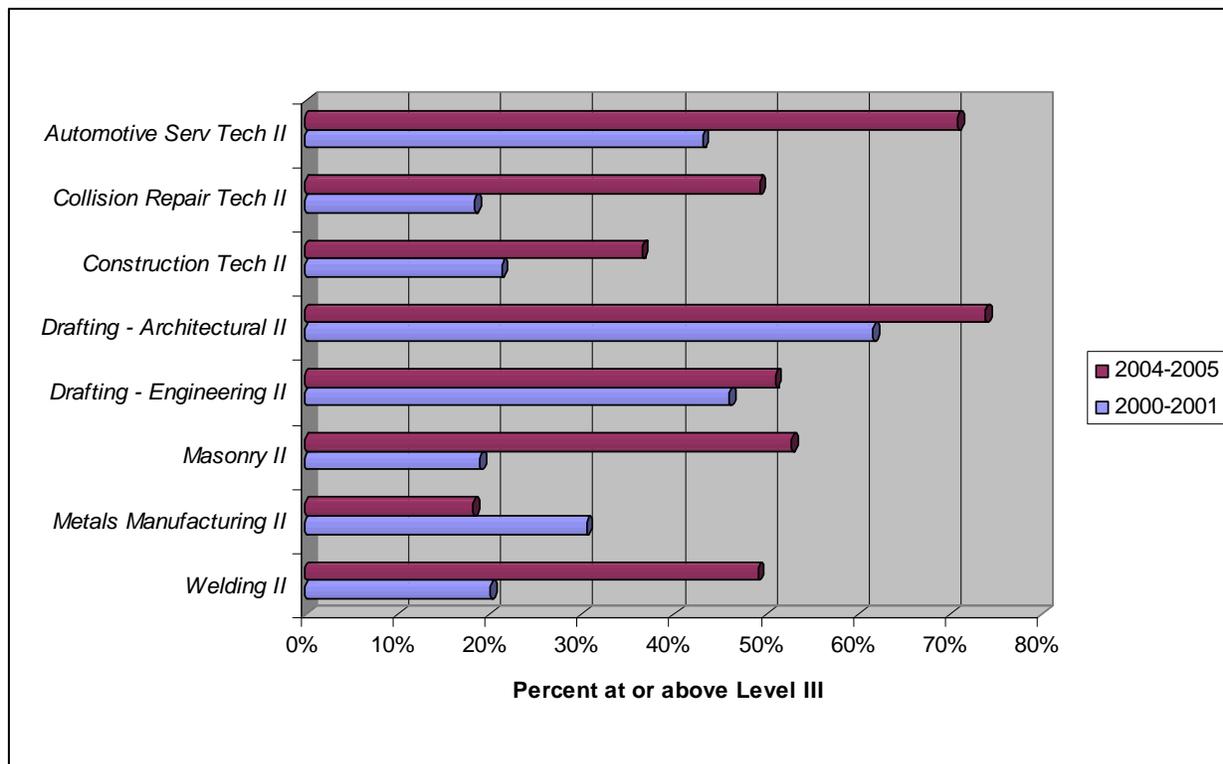
SOURCE: CTE Performance Data, 2001-2005

Figure 32 illustrates Trade and Industrial Education students’ performance on the technical attainment measure since 2000-2001. Details about overall and special populations technical attainment appear in Chart 40. Since 2000-2001, the percentage of Trade and Industrial Education enrollees who reached at least Level III proficiency increased from 42.5 percent to 59.0 percent, a gain of 13.5 percentage points. Special populations students also showed a significant increase: from 27.9 percent at or above Level III in 2000-2001 to 46.7 percent in 2004-2005, an increase of 18.8 percentage points. The Trade and Industrial Education course with the highest performance on the technical attainment measure statewide was Drafting – Architectural II, where during 2004-2005, 73.9 percent of the enrollees scored at or above Level III.

Chart 41 shows the average score by course in Trade and Industrial Education.

Note that gaps in the charts are likely due to introduction of new curriculum. When a new curriculum is introduced, there is a year gap in reporting testing data during which updated test items are validated and reliability is determined.

Figure 32. Technical Attainment Scores in Selected Level II Trade and Industrial Education Courses



Source: NC CTE Performance Data, 2001-2005.

Chart 40. Technical Attainment in Trade and Industrial Education Courses, 2001-2005

Course	2000-2001		2001-2002		2002-2003		2003-2004		2004-2005	
	Overall	Sp Pops								
7511 Automotive Service Technology I	44.6%	32.7%	52.9%	41.8%	50.5%	35.4%	49.4%	40.6%	53.7%	44.4%
7512 Automotive Service Technology II	43.1%	33.3%	63.2%	52.3%			66.3%	57.3%	70.9%	64.2%
7513 Automotive Service Technology III	47.1%	39.0%	62.7%	51.2%			46.1%	32.5%	63.1%	52.5%
7521 Collision Repair Technology I									42.6%	33.0%
7522 Collision Repair Technology II	18.4%	17.7%	28.5%	28.8%	42.4%	34.5%	53.5%	45.0%	49.3%	34.8%
7523 Collision Repair Technology III	16.5%	6.0%	14.9%	0.0%	43.1%	41.7%	47.3%	43.6%		
7622 Cabinetmaking II	51.2%	41.1%	48.7%	35.8%	34.5%	19.7%	39.8%	27.1%		
7623 Cabinetmaking III	43.8%	37.0%	49.7%	40.0%	30.1%	17.4%	45.6%	23.7%		
7631 Electronics I	34.4%	19.7%	43.3%	25.6%	41.4%	25.0%	37.7%	21.9%		
7632 Electronics II	23.0%	19.2%	28.8%	20.3%	26.7%	16.2%	32.3%	23.3%		
7633 Electronics III	44.9%	27.8%	30.4%	15.8%	28.8%	20.0%	47.4%	22.2%		
7641 Metals Manufacturing I	20.4%	17.9%	10.9%	4.7%					35.4%	24.4%
7642 Metals Manufacturing II	30.5%	25.6%	7.6%	5.6%					18.2%	12.7%
7643 Metals Manufacturing III	18.2%	4.0%	18.5%	25.0%						
7661 Welding Technology I	43.7%	36.0%	55.0%	42.9%	46.4%	30.1%	53.5%	43.2%	49.3%	38.0%
7662 Welding Technology II	20.1%	14.8%	34.9%	27.0%	38.1%	21.7%	47.8%	36.4%	49.1%	38.2%
7663 Welding Technology III	38.9%	21.1%	44.0%	20.0%	71.7%	46.2%	68.4%	57.7%	66.7%	-1.0%
7711 Masonry I	22.6%	14.6%	29.7%	24.0%	43.3%	31.0%			61.5%	54.2%
7712 Masonry II	19.0%	13.1%	19.8%	13.9%	17.8%	13.5%			52.7%	46.5%
7720 Construction Core	43.4%	30.4%	47.7%	35.5%	52.8%	36.2%	59.6%	45.5%		
7721 Construction Technology I	30.8%	20.8%	30.8%	21.0%	33.2%	22.2%			62.6%	53.2%
7722 Construction Technology II	21.3%	13.3%	26.5%	17.6%	16.2%	9.7%			36.5%	28.3%
7741 Electrical Trades I	17.8%	7.2%	22.7%	14.9%	18.0%	9.4%				
7742 Electrical Trades II	15.0%	7.3%	29.2%	17.4%	7.6%	6.5%				

Course		2000-2001		2001-2002		2002-2003		2003-2004		2004-2005	
		Overall	Sp Pops								
7811	Cosmetology I	62.7%	58.6%	60.9%	51.0%	81.5%	73.6%	69.7%	61.7%		
7812	Cosmetology II	51.2%	39.2%	45.7%	40.9%	83.8%	72.3%	82.7%	80.4%		
7821	Trade & Industrial Work Development I	80.5%	69.3%	78.9%	70.2%	78.7%	67.3%	88.3%	81.8%		
7822	Trade & Industrial Work Development II	63.4%	52.0%	53.6%	47.0%	53.6%	38.7%	46.5%	39.1%		
7911	Printing Graphics I	31.8%	14.0%	30.6%	15.3%	32.4%	14.2%	32.2%	14.4%		
7912	Printing Graphics II	20.0%	11.4%	21.7%	6.6%	20.6%	8.6%	18.9%	8.5%		
7921	Drafting I	64.3%	42.3%	65.1%	43.8%	65.3%	41.8%			64.2%	44.8%
7962	Drafting - Architectural II	61.6%	45.1%	74.6%	60.7%	75.6%	59.1%	77.2%	61.9%	73.9%	58.3%
7963	Drafting - Architectural III	51.9%	30.4%	56.2%	34.9%	53.2%	34.9%	54.4%	32.5%	57.8%	39.7%
7972	Drafting - Engineering II	46.0%	24.6%	49.5%	28.8%	55.6%	33.9%	53.5%	32.8%	51.0%	30.6%
7973	Drafting - Engineering III	32.8%	14.6%	34.9%	21.1%	30.9%	15.8%	34.8%	11.4%	36.3%	22.4%
		42.5%	27.9%	45.5%	31.2%	48.9%	31.3%	48.3%	36.4%	59.0%	46.7%
CTE Total		54.8%	41.9%	59.6%	47.4%	61.0%	45.9%	65.0%	54.5%	65.5%	55.9%

SOURCE: CTE Performance Data, 2001-2005.

For more information

For more information, contact your Career-Technical Education Administrator or North Carolina Trade and Industrial Education (tandieducation@dpi.state.nc.us).

Chart 41. Average Score by Course

		2001-02	2002-03	2003-04	2004-05
7511	Automotive Service Technology I	64.3	63.8	63.2	64.8
7512	Automotive Service Technology II	67.2		68.3	70.0
7513	Automotive Service Technology III	65.8		62.7	68.3
7522	Collision Repair Technology II	52.5	60.4	64.4	60.7
7523	Collision Repair Technology III	47.4	58.8	61.2	62.1
7622	Cabinetmaking II	62.0	59.3	59.8	
7623	Cabinetmaking III	64.3	59.0	62.5	
7631	Electronics I	61.0	58.7	57.1	
7632	Electronics II	53.8	54.4	55.7	
7633	Electronics III	54.0	53.9	62.7	
7641	Metals Manufacturing I	47.0			58.1
7642	Metals Manufacturing II	42.3			49.4
7643	Metals Manufacturing III	47.4			
7651	Electro-Mechanical Technology I	48.5	47.5	48.2	
7652	Electro-Mechanical Technology II	44.5	44.4	40.2	
7653	Electro-Mechanical Technology III	52.9	51.9	55.2	
7661	Welding Technology I	65.0	63.0	65.2	63.5
7662	Welding Technology II	57.1	58.3	61.5	62.6
7663	Welding Technology III	61.4	71.3	67.7	62.4
7711	Masonry I	56.2	59.9		67.1
7712	Masonry II	53.1	50.9		63.1
7713	Masonry III	56.7	52.1		
7720	Construction Core	61.8	63.6	66.2	
7721	Construction Technology I	56.7	57.7		66.6
7722	Construction Technology II	54.0	49.9		59.3
7723	Construction Technology III	54.5	51.5		
7741	Electrical Trades I	53.0	52.6		
7742	Electrical Trades II	55.9	46.1		
7743	Electrical Trades III	44.0	54.1		
7811	Cosmetology I	67.8	73.2	70.3	
7812	Cosmetology II	64.3	73.6	74.7	
7821	Trade & Industrial Work Development I	71.4	72.2	75.4	
7822	Trade & Industrial Work Development II	65.1	65.7	63.7	
7901	Scientific & Technical Visualization I	62.4	65.7		
7902	Scientific & Technical Visualization II	62.5	66.8		
7911	Printing Graphics I	56.1	56.4	56.4	
7912	Printing Graphics II	54.1	50.3	50.9	
7913	Printing Graphics III	47.1			
7921	Drafting I	68.6	68.8		68.3
7962	Drafting - Architectural II	72.9	73.1	73.0	72.8
7963	Drafting - Architectural III	64.9	64.4	64.5	65.5
7972	Drafting - Engineering II	63.4	64.8	64.4	63.5
7973	Drafting - Engineering III	58.7	56.2	57.5	59.1
7980	Network Engineering Technology I	56.9			
7981	Network Engineering Technology II	62.2			
7991	Computer Engineering Technology I	56.1	58.6	56.5	
7992	Computer Engineering Technology II	52.0	55.3	54.9	

SOURCE: CTE Performance Data, 2001-2005

