

spotlight

No. 332 – September 13, 2007

READING, WRITING, AND HANDBELLS

Course Enrollment in the Era of No Child Left Behind

KEY FACTS: • **In the era of No Child Left Behind, students have not been discouraged from enrolling in courses other than language arts and mathematics. Both the number of class periods and the number of students enrolled in most courses has increased in concert with enrollment growth. Nevertheless, elementary foreign languages and middle school health and physical education courses have been on the decline.**

- **Between the 2000-01 and 2005-06 school years, the number of total courses offered by N.C. public schools increased from approximately 450 to 500.**
- **New high school courses are not designed to supplement language arts and mathematics instruction. Rather, most new courses allow students to pursue their interests in contemporary issues or enhance technical or vocational skills.**

.....

as state and federal officials increasingly focus on reading and math proficiency, some have argued that the federal No Child Left Behind law has forced public schools to shorten or eliminate arts, science, social studies, physical education, foreign languages, and vocational courses. Nevertheless, fears that policy changes driven by No Child Left Behind would decimate the public-school curriculum in North Carolina appear to be unfounded. That is not to say that there have been no changes. In North Carolina, elementary foreign languages and middle school health and physical education courses have been on the decline over the last five years.

No Child Left Behind

In the fall, Congress will begin its debate over the reauthorization of the Elementary and Secondary Education Act (ESEA), reauthorized last in 2001 as the No Child Left Behind Act of 2001 (NCLB). During this process, there will be a number of important issues on the table, including the design of accountability standards, the amount and direction of funding, and the relationship between state flexibility and federal mandates. Congress will also discuss the effect of NCLB on student coursework, particularly the rigor of current courses

200 W. Morgan, #200
Raleigh, NC 27601
phone: 919-828-3876
fax: 919-821-5117
www.johnlocke.org

The John Locke Foundation is a 501(c)(3) nonprofit, nonpartisan research institute dedicated to improving public policy debate in North Carolina. Viewpoints expressed by authors do not necessarily reflect those of the staff or board of the Locke Foundation.

and types of courses that elementary, middle, and high school students take.

Some have argued that NCLB forced schools to eliminate or reduce time for the arts, physical education, foreign languages, social studies, and science to devote more time to language arts and mathematics, the two subjects that determine Adequate Yearly Progress.¹ A recent study by the Center for Education Policy found that about 62 percent of surveyed districts reported that they have increased time for language arts and/or math in elementary schools since school year 2001-02. Approximately 44 percent of the sample districts reported reducing time for other subjects. This phenomenon declines among middle schools, as only 20 percent of districts reported increasing time for language arts and/or math. The survey found that 26 percent of high schools added one or more semesters of math, but, otherwise, there were no consistent changes to high school curricula.²

Rather than assess time allocation, this study compares course enrollment to student enrollment growth. We would expect course enrollment in core subjects to be comparable to enrollment growth. Enrollment in electives and specialty courses will be more volatile and, thus, only major increases or decreases in course enrollment will be noted.³

Three broad observations related to course offerings and enrollment trends in North Carolina are in order:

1. The number of course offerings, particular specialty courses, have increased between the 2000-01 and 2005-06 school years. In 2000, North Carolina public schools offered approximately 450 course options, while in 2005 the state offered 500 course options. North Carolina's public-school students have more choices today than ever before and they are pursuing their interests accordingly.
2. In the era of NCLB, students have not been discouraged from enrolling in courses outside of language arts and mathematics. Both the number of class periods and the number of students enrolled in most courses have increased in concert with enrollment growth. The slow growth of physical education and health courses, as well as the blending of the two, suggests that these courses may have been affected most by NCLB. There was also a notable decline in elementary-school foreign-language courses between 2000 and 2005, which may have also been a result of federal mandates.
3. Most new high-school courses are not designed to supplement language arts and mathematics instruction. Only a handful of new classes would offer students remediation in reading and mathematics. Instead, most of the new courses allow students to pursue their interests in contemporary issues or enhance technical or vocational skills. For example, current classes that did not exist in 2000 include African American Studies, American Indian Studies, Contemporary Issues in North Carolina, E-Commerce (I and II), Geography in Action, Human Geography, Latino Studies, Middle School Chinese, Network Administration (for Linux, Microsoft, and Novell), Sports and Entertainment Marketing (I and II), and World Religions. While some of the content from these courses may intersect with material from core courses, they are not designed to improve student performance in language arts or mathematics.

No Subject Left Behind

Few North Carolinians are aware that the state's public schools offer a number of specialty courses that have traditionally been outside the purview of elementary, middle, and high schools (see Table 1, next page).⁴ For example, churches, not public schools, were the traditional place to learn how to ring handbells. Likewise, parents and communities, not public schools, would teach folk art or specific cultural traditions to children. For a number of years, only colleges and universities offered courses like Social Problems or Film Production. Needless to say, today's public school systems teach much more than the 3 R's – reading, 'riting, and 'rithmetic.

The increase in course offerings has been impressive. For the 2000-01 school year, North Carolina public schools

offered students over 450 courses. By the 2005-06 school year, the number had climbed to 500 courses. There are many factors accounting for the increase. Online courses have increased the number of courses available to students. Initiatives like the Learn and Earn, International Baccalaureate, and Advanced Placement programs have increased the number of students enrolling in advanced and postsecondary level courses. Furthermore, some public-school systems have responded to the job market by offering courses that meet the changing demands of business, industry, and human services. In addition, thematic and charter schools have multiplied in recent years, and these schools offer students unique class offerings and courses of study. Finally, public schools have complied with interest groups that want to expose children to political or social ideologies.⁵

Table 1. Examples of Specialty Course Enrollment, 2005-06

<i>Specialty Area</i>	<i>No. Courses</i>	<i>Enrollment</i>
African American Studies	122	2,857
American Indian Studies	7	123
Electronic Music	37	418
Film Production	78	1,144
Folk Arts	84	1,885
Geography in Action	32	708
Handbells	40	548
Human Geography	58	1,319
Latino American Studies	2	3
Minority Studies	97	1,788
Social Problems	78	1,439

Elementary School Course Trends

Between the 2000-01 and 2005-06 school years, there was an 8 percent increase in elementary school students. Courses related to the arts (7 percent), sciences (9 percent), and physical education (10 percent) had increases comparable to enrollment growth. There was astounding growth in students taking courses under the “miscellaneous” category. A closer look reveals that one course was responsible for the increase. The number of students enrolled in library/media assistance rose by nearly 350 percent.

At the same time, there were dramatic decreases in elementary student enrollment in language arts (–36 percent) and social studies (–22 percent) courses, as well as a moderate drop in enrollment in mathematics courses (–11 percent). These declines indicate a possible shift in the way elementary-school students take courses, rather than a change in the curriculum. On the elementary level, discrete class periods dedicated to each of these subjects may have given way to instruction by a single teacher that covers a full range of subjects.

On the other hand, the 23 percent drop in elementary students in foreign language classes is a worrisome trend. Even with an increase in English as a Second Language classes, the number of students enrolled in the Elementary School Spanish and Elementary School French courses is nearly half of what it was in 2000. In the place of discrete foreign-language courses, schools are offering an Exploratory Languages course, which has had an enrollment increase of nearly 70 percent in the last six years. Problems with staffing foreign language courses is one possible reason why this shift occurred.

Middle School Course Trends

Between the 2000-01 and 2005-06 school years, there was a 12 percent increase in middle-school students. There were comparable enrollment increases in mathematics (15 percent), social studies (11 percent), and science (14 percent) courses, as one would expect. There was lower than expected growth in foreign-language courses (7 percent) and higher than expected growth in the arts (17 percent).

Table 2. Trends in Courses

		<i>Elementary School</i>		<i>Middle School</i>		<i>High School</i>	
		<i>Classes</i>	<i>Students</i>	<i>Classes</i>	<i>Students</i>	<i>Classes</i>	<i>Students</i>
<i>Combined Courses⁶</i>	2005-06	3,772	72,480	7,138	159,501	20	207
	2000-01	5,923	117,768	5,294	120,459	52	496
	Percent change	-36%	-38%	35%	32%	-62%	-58%
<i>Language Arts</i>	2005-06	3,438	57,887	16,808	348,862	25,035	470,697
	2000-01	5,326	90,398	16,958	356,295	21,254	383,385
	Percent change	-35%	-36%	-1%	-2%	18%	23%
<i>Foreign Languages</i>	2005-06	8,191	116,850	4,805	77,218	12,187	208,866
	2000-01	8,845	152,078	4,351	72,292	8,679	146,446
	Percent change	-7%	-23%	10%	7%	40%	43%
<i>Mathematics</i>	2005-06	1,638	30,674	14,812	328,342	24,617	497,344
	2000-01	1,793	34,433	12,948	286,313	18,599	368,044
	Percent change	-9%	-11%	14%	15%	32%	35%
<i>Computers Skills and Computer Science</i>	2005-06	3,861	78,917	1,061	18,473	323	2,480
	2000-01	3,544	75,197	1,071	19,286	373	4,131
	Percent change	9%	5%	-1%	-4%	-13%	-40%
<i>Sciences</i>	2005-06	2,065	42,864	13,523	313,998	20,231	401,558
	2000-01	1,815	39,325	11,646	276,179	16,453	328,183
	Percent change	14%	9%	16%	14%	23%	22%
<i>Social Studies</i>	2005-06	1,182	23,921	13,748	316,935	21,913	420,076
	2000-01	1,419	30,819	12,049	284,857	17,102	348,090
	Percent change	-17%	-22%	14%	11%	28%	21%
<i>Arts</i>	2005-06	57,101	1,159,465	16,294	331,331	17,071	232,703
	2000-01	49,585	1,079,465	13,669	283,266	12,718	192,477
	Percent change	15%	7%	19%	17%	34%	21%
<i>Career Development, Business, and Computer Applications</i>	2005-06	2	1	13,179	242,527	9,666	168,037
	2000-01	0	0	11,200	198,142	8,265	128,558
	Percent change	N/A	N/A	18%	22%	17%	31%
<i>Marketing</i>	2005-06	0	0	3	27	2,276	38,015
	2000-01	0	0	4	43	1,941	26,739
	Percent change	N/A	N/A	-25%	-37%	17%	42%
<i>Agriculture and Horticulture</i>	2005-06	0	0	422	6,118	2,692	35,019
	2000-01	0	0	486	7,772	2,137	28,690
	Percent change	N/A	N/A	-13%	-21%	26%	22%
<i>Family and Consumer Science and Health Careers</i>	2005-06	0	0	2,374	40,064	9,123	140,648
	2000-01	0	0	2,400	40,176	6,977	107,454
	Percent change	N/A	N/A	-1%	0%	31%	31%
<i>Trade and Industrial Education</i>	2005-06	0	0	2,779	46,089	9,061	107,329
	2000-01	0	0	2,728	43,884	8,315	88,196
	Percent change	N/A	N/A	2%	5%	9%	22%
<i>Physical Education</i>	2005-06	29,337	597,266	10,553	245,895	13,188	266,640
	2000-01	24,526	541,725	10,002	238,626	11,264	228,420
	Percent change	20%	10%	6%	3%	17%	17%
<i>Miscellaneous⁷</i>	2005-06	3,194	64,984	6,180	95,205	14,188	97,720
	2000-01	1,384	29,857	4,345	62,882	12,364	77,151
	Percent change	131%	118%	42%	51%	15%	27%

Occupational courses of study reflect changing priorities of students. Fewer middle-school students are opting for agriculture and horticulture classes (-21 percent), while growth was slow in introductory courses related to health careers and trades. Instead, more and more middle school students are taking career, business, and computer applications courses, especially business computer technology. While traditional vocational course offerings have never been abundant at the middle-school level, the decrease in student interest suggests that they are either waiting until high school to enroll in vocational courses or parents and teachers are encouraging students to choose “21st century” subjects such as computer technology over traditional, vocational courses of study.

The most conspicuous trend in middle-school course enrollment is an increase in combined courses, although most of the increase was due to the 62 percent increase in students taking a combined health and physical education course. Because of time constraints and facilities limitations, fewer middle schools are offering Health Education and Physical Education as discrete courses, so schools are opting to combine the courses.

There was a slight decrease in students taking a discrete language-arts course. A closer examination of the enrollment from 2000 to 2006 shows an increase in middle-school students taking the general language-arts course, but a decrease in the number of students taking Reading, Special Interest English (reading, composition, or literature), and Journalism. In this way, language arts electives in middle schools are on the decline.

Similar to elementary-school trends, there was a surge in the number of students taking a course under the “miscellaneous” category. Unlike elementary-school students, middle-school students flocked to Special Interest Topics or mini-courses. While the content of such courses vary by school, much of the increase is likely the result of additional study skills courses that falls under this category.

High-School Course Trends

Between the 2000-01 and 2005-06 school years, there was a 24 percent increase in high-school students. Language arts (23 percent), science (22 percent), social studies (21 percent), and arts (21 percent) courses all grew at a rate comparable to enrollment growth. Foreign languages (43 percent) and mathematics (35 percent) grew at a rate that exceeded enrollment growth.

Growth among elective courses was nearly the same or better than the overall enrollment growth, with the exception of the sharp drop in the number of students taking a computer skills or computer science course (-40 percent). High-school students have been enrolling in computer courses designed to teach business or technical applications, rather than introductory computer skills and basic operations.

As in middle schools, much of the percentage increase in the “miscellaneous” category was likely a product of student enrollment increases in Special Interest Topics or mini-courses. Again, the proliferation of study skills courses likely accounts for much of the increase. In addition, more high school students are enrolling in community college, university, and virtual school courses.

Conclusion

The state has traditionally taken an active role in shaping the core curriculum for public-school students. In 1898, the state established a standard course of study, and in 1985, the state established the Basic Education Program to ensure that all students have access to a core set of classes. The Basic Education Program describes the education program that must be offered to every child in the North Carolina public schools. This ensures that all students have equal access to the arts, communication skills, physical education and personal health and safety, mathematics, media and computer skills, science, second languages, social studies, and vocational and technical education courses.⁸ Other curricular requirements, such as driver education, have been added throughout the years.⁹

Federal policy changes were perceived to be an affront to the state's long-standing right to establish its own curriculum on its own terms. The expansion of North Carolina's course offerings and the growth of non-math and non-language arts courses suggest that the state is firmly in control of its curriculum. While this may not be a sufficient justification for reauthorizing No Child Left Behind in its current form, it appears that President George W. Bush has achieved his goal of granting curricular flexibility to states under the law.

Terry Stoops is Education Policy Analyst for the John Locke Foundation.

End Notes

1. Adequate Yearly Progress. "All public schools, in North Carolina and throughout the country, must measure and report AYP as outlined in the federal No Child Left Behind law. AYP measures the yearly progress of different groups of students at the school, district and state levels against yearly targets in reading and mathematics. Target goals are set for attendance and graduation rates as well. If a school misses one target, it does not make AYP." North Carolina Department of Public Instruction, www.dpi.state.nc.us/acronyms.
2. Center on Education Policy, "Choices, Changes, and Challenges: Curriculum and Instruction in the NCLB Era," July 2007.
3. This study does not use any statistical test to determine causality or correlation between student enrollment and course enrollment. Therefore, changes in course enrollment may be attributed to other factors, including state-level policy modifications or demographic changes.
4. All curriculum data is taken from the following: N.C. Department of Public Instruction, "Statistical Profile: Course Membership Survey," 2001 and 2006.
5. Currently, specialty course offerings are not distributed evenly among school systems. In general, larger school systems have the resources to offer specialty courses that many parents in urban and suburban areas demand. As students in rural school systems gain greater access to online courses, however, students throughout North Carolina will have access to many of the same course options regardless of where they live. Thus, we are likely to witness continual growth of students enrolling in specialty courses and electives.
6. Includes Language Arts/Physical Education (Health); Language Arts/Math; Language Arts/Math/Science; Language Arts/Math/Social Studies; Language Arts/Science; Language Arts/Social Studies; Math/Science; Math/Physical Education (Health); Science/Physical Education (Health); Social Studies/Math; Social Studies/Math/Science; Social Studies/Science; Social Studies/Science/Health (P.E.); Music/Art; and Health/Physical Education (K-8).
7. Includes JROTC, Religion Related, SAT Preparation, Teacher Cadet, Library/Media Assistance, Special Interest Topics (Mini-Courses), Sports Medicine/Athletic Training, Driver Education, CASEE (Curriculum Assistance & Skills for Employment), Extended Day Diversified Cooperative Training, Career Training for Exceptional Children, Internships, Virtual High School Courses, Community College Courses, and University Courses.
8. NC General Statutes, §115C-81, a1.
9. NC General Statutes, §115C-216.