

THE STATE OF

K-12 EDUCATION

Are we adequately preparing our children to become contributing members in a knowledge-driven society?

ew things are more important to adults in Hampton Roads than the quality of their K-12 schools. These schools, and the students within their classrooms, represent the fondest hopes of this generation for a prosperous future. Many citizens and parents are willing to expend countless hours helping to maintain the quality of their schools and, to the extent they are able, make them even better. Pity the political leader who comes to be viewed as "anti-education." From the latest related statewide initiatives to more localized concerns, K-12 schools are always a focal point of the news in Hampton Roads.

Virginia, like many other states, has implemented standards-based curricula and high-stakes testing to counter widespread criticism of its schools. The public has voiced concerns that today's students are unprepared for a world transformed by technological advances, globalization and a groundswell of new knowledge about virtually every area of life. The Hampton Roads public is no exception. The advent of sophisticated technologies in business, health, the military, maritime and other industries in this region has brought us to a point at which skills in problem-solving, logical reasoning and critical analysis are mandated by employers in all fields. Are our local K-12 schools adequately preparing students to assume their place as contributing members of such a rapidly evolving, knowledge-driven society?

To answer that question, we need to focus on *teachers* (their training and competence, salaries, and supply and demand), *students* (enrollments and teacher/student ratio, SOL curriculum standards and student performance on standardized tests) and *issues confronting our schools* (for example, funding and resources, buildings, busing and redistricting, and time usage – including controversies over recess).

Teachers

recent National Center for Education Statistics report sums up the challenges facing teachers throughout Virginia and nationwide: "At the core of educational reforms to raise standards, reshape curricula and restructure the way schools operate is the call to reconceptualize the practice of teaching. Teachers are being asked to learn new methods of teaching, while at the same time they are facing the greater challenges of rapidly increasing technological changes and greater diversity in the classroom."

TEACHER LICENSURE

The Virginia State Board of Education was aware of such challenges when, in 1995, it adopted new Standards of Learning (SOL) outlining "what teachers need to teach and students need to learn." At the same time, the board recognized that new, more demanding licensure regulations would be necessary if teachers were to "have the background needed to facilitate student achievement of these rigorous standards." By July 1, 1998, school divisions were required to implement the new licensure regulations, with July 1, 2000, set as the implementation date for teacher education programs in institutions of higher learning.

The basic path to licensure in Virginia is the completion of a bachelor's degree in a content area; completion of professional education course work; completion of pre- and post-clinical experiences; and fulfilling teacher testing requirements in reading, writing and mathematics (Praxis I) and in the content area (Praxis II). Reciprocity with other states that have a comparable teaching endorsement is another path to a state teaching license.

However, since the demand for teachers in certain subject areas may exceed the supply, alternative routes to licensure are also

available, namely a conditional license in special education, a technical professional license and an alternative three-year non-renewable provisional license available through an arrangement with the school division or nonpublic school where the individual is employed. In addition, a one-year state licensure arrangement for individuals switching from another field of work to classroom teaching became available the summer of 2000.

Because of its continuing effort toward reform and its commitment to teacher excellence, Virginia requires high scores on the Praxis I and II tests, which teachers must pass before they can be licensed. In fact, Virginia's cutoff scores are the highest of any state in the nation.

NATIONAL BOARD CERTIFICATION

Another way Virginia promotes teacher excellence is by encouraging teachers to seek National Board certification through the National Board for Professional Teaching Standards. This independent, nonprofit organization has developed rigorous standards against which teacher performance may be measured as part of its effort to bring greater respect and recognition to teaching as a profession. As of November 1999, 64 teachers in Virginia had achieved National Board certification. Of these, at least five teach in school systems in Hampton Roads.

In 1999, the Virginia General Assembly passed legislation to provide a National Teacher Certification Incentive Reward to those teachers who become Board certified. The state incentives include financial assistance with the \$2,000 application fee for National Board certification, as well as other monetary awards. Many local school divisions offer additional financial incentives.

TEACHER SALARIES

There is little doubt that financial rewards are important in attracting and retaining proficient teachers. Yet, salaries for teachers are low compared to other professions requiring the degree of training and expertise expected of teachers. Not surprisingly, the issue of salaries is a popular topic of discussion in Hampton Roads. Salary was a major reason that nearly 200 Hampton Roads teachers switched to other schools for the 1999-2000 school year. The Portsmouth school district, which pays its teachers the lowest salaries in the region and has a less-than-desirable benefits package, lost 54 teachers to other school divisions. Chesapeake, with its newer, better-equipped and air-conditioned school buildings, drew the most teachers from other Hampton Roads school districts. If they are not able to increase salaries, some school divisions have been using various other enticements to attract teachers. Virginia Beach offers generous sign-up bonuses, and Norfolk has begun offering to reimburse teachers for six college credits per year – twice as many as before.

Table 1 shows the minimum and maximum salaries paid to teachers in Hampton Roads school districts at the bachelor's and master's degree levels. In addition to the figures listed, most of the region's school districts provide salary supplements to teachers who successfully complete advanced course work.

		TA	BLE 1			
	1999	Teacher Salary Ra	inges and Percen	t Increases		
School Division	Bachelor's Degree Salaries		Master's Degree Salaries		Percent Salary Increase Over Previous Year	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
Virginia Average	\$25,813	\$40,581	\$27,733	\$43,115	2.93	1.51
Chesapeake	26,939	45,575	30,139	48,775	1.00	3.00
Hampton	27,300	42,750	29,100	44,550	1.11	0.99
Newport News	27,383	42,890	28,126	46,220	1.20	1.23
Norfolk	26,900	44,100	29,040	46,240	0.37	2.80
Portsmouth	26,416	40,421	28,479	47,511	0.00	0.00
Suffolk	27,110	41,007	28,865	43,362	3.20	2.43
Virginia Beach	26,910	47,109	29,410	49,609	0.13	0.00

States vary greatly in the average salary paid to teachers. The average nationally for the 1998-99 school year was \$40,574. Virginia, with its overall average of \$37,709, ranked 24th among the states. Among neighboring states, the average teacher salary in Maryland was \$42,514 (14th); in North Carolina, \$36,883 (26th); in the District of Columbia, \$48,275 (7th); and in West Virginia, \$34,248 (38th). New Jersey had the highest average teacher salary (\$51,692), and South Dakota, the lowest (\$28,386).

Students

early 235,000 students are enrolled in Hampton Roads schools. Table 2 lists the number of students in each school system as well as the students-to-teacher ratio. Caution must be exercised in interpreting these ratios, however, because the figures do not show precisely the number of students per class-room teacher, but include other school personnel as well (guidance counselors and librarians, for example).

School Division

Total Student

Student-to-Teacher

The students-to-teacher ratio for the United States as a whole is 16.2. The average for Virginia is 14.2, making it one of the states with the lowest ratios. A number of states report a ratio of more than 20: Arizona, California, Oregon, Utah and Washington. California's is 21, and Utah has a ratio of 22.4

Accountability and Standardized Tests

TABLE 2 Student Enrollment and Student-to-Teacher Ratios, 1999			
School Division	Total Student Enrollment	Student-to-Teacher Ratios	
Chesapeake	36,362	15.5	
Hampton	23,661	14.0	
Newport News	31,927	15.3	
Norfolk	36,606	14.0	
Portsmouth	17,687	13.5	
Suffolk	10,836	14.7	
Virginia Beach	77,521	14.9	
Source: Based on information from 1998-99 Salary Schedules for Teachers. Virginia			

ince a major concern in American education today is accountability, student performance on standardized tests has become the accepted, albeit controversial, way of measuring accountability. Student performance is used as the gauge to determine how well teachers are teaching, how well students are learning and how effectively school administrators are carrying out their responsibilities. Three major tests, each with a different purpose, are used to measure student performance.

THE STANFORD 9

The Stanford Achievement Test Series, Ninth Edition ("Stanford 9") is part of the Virginia State Assessment Program administered by the Virginia Department of Education in compliance with the Standards of Quality, which requires that nationally normed tests be used to measure the educational progress of students. The resultant scores show the progress of students in reading, mathematics and language (writing) in grades 4, 6 and 9, as compared to students in the Stanford 9 national norm groups who took the same tests at the same time of year and under identical conditions. (Some students are exempted from the tests, mainly because of either disabilities or limited proficiency in English.) Table 3 shows how students in Hampton Roads and in the Commonwealth of Virginia as a whole performed on the Stanford 9. A 50th percentile rank indicates an average performance, based on comparison with the national norm group.

TABLE 3 Stanford 9 Test Results for Hampton Roads Schools, Fall 1999

Grade 4		Percentile Rank			
School Division	% Students Taking Test	Total Reading	Total Math	Language	Partial Battery
Virginia	96	52	57	57	56
Chesapeake	96	53	59	63	58
Hampton	95	42	52	47	48
Newport News	96	41	45	43	44
Norfolk	95	38	45	47	44
Portsmouth	95	33	32	43	37
Suffolk	95	39	46	49	45
Virginia Beach	98	49	59	58	55
Grade 6					
School Division	% Students Taking Test	Total Reading	Total Math	Language	Partial Battery
Virginia	95	59	62	53	60
Chesapeake	95	57	59	54	58
Hampton	97	49	54	45	51
Newport News	96	50	54	44	52
Norfolk	89	44	48	36	46
Portsmouth	94	39	34	39	39
Suffolk	94	49	57	49	53
Virginia Beach	98	59	61	52	59
Grade 9					
School Division	% Students Taking Test	Total Reading	Total Math	Language	Partial Battery
Virginia	92	60	65	50	56
Chesapeake	91	59	51	51	54
Hampton	92	57	48	48	52
Newport News	94	51	44	40	47
Norfolk	73	42	33	34	38
Portsmouth	87	43	36	37	41
Suffolk	87	42	35	32	39
Virginia Beach	95	60	55	49	56

Source: Based on data from the Virginia State Assessment Program, 1999 Detail Report, Table B, Stanford 9, Fall 1999 Division Results—National Percentile Ratings, Virginia Department of Education. Available on the World Wide Web:

http://www.pen.k12.va.us/VDOE/Assessment/VSAPreport/1999/

SCHOLASTIC APTITUDE TEST (SAT)

The Scholastic Aptitude Test, which tests math reasoning and verbal achievement skills, is sometimes referred to as the college entrance examination. Institutions of higher learning utilize SAT scores to help ascertain whether a student is prepared for success at the collegiate level. Table 4 shows the SAT scores for Hampton Roads.

The combined SAT scores of all the Hampton Roads school systems which reported data for 1999 are below the national average of 1016. (It should be noted that the highest Scholastic Aptitude Test scores possible on each portion of the test is 800.) Three school systems – Chesapeake, Hampton and Virginia Beach – reported average SAT scores above the Virginia average. However, none of the average Hampton Roads school systems' SAT scores are impressive, especially when many college admissions criteria include minimum SAT scores of 1100 (combined verbal and math) for regular admission as a freshman. At some schools, the criteria include a minimum 1400 SAT score and a GPA of 3.5 or higher.

Many students discover that they have to settle for their second or third choice of a college or university. Moreover, some four-year institutions are increasing their minimum SAT admission criterion, which further disadvantages a number of Hampton Roads students who are seeking college admission. In addition to the overall SAT averages reported by the Hampton Roads school systems, the average SAT scores for minority students must also be considered for this discussion. The average scores that were available show no distinction between caucasian and minority students. Nationally, SAT scores for students of color tend to be below those of white students, with one exception: Asian-American students tend to have higher scores on the math portion of the SAT than all other groups of students. It has been reported, however, that over the past 20 years, the average scores for all minority students has increased. For example, the average verbal scores for African-American students have increased 24 points and the average math scores have shown a 34-point

STANDARDS OF LEARNING (SOL) TESTS

increase.

The Standards of Learning Tests, more than any other standardized tests, have stirred up considerable controversy in Hampton Roads. Parents and students complain about the pressure and great anxiety the tests produce because so much depends upon their outcome. Teachers complain about loss of time for creative student projects and the necessity of requiring too much memorization. Many teachers say the mandate to focus their instruction almost exclusively on the SOL causes them to forgo their most creative teaching approaches in order to "teach to the test." They also report a fear of job loss in view of high pressure from administrators to make sure that all students pass.

Another oft-heard criticism is the lack of student readiness for a particular grade level's requirements and its effect on student motivation. Also, many students believe the teacher has to rush through material to cover everything required for the test and is not able to allow time for interaction on topics of interest. In *The Virginian-Pilot's* annual survey of more than 1,200 high school seniors in the spring of 2000, more than three-fourths said the SOLs hindered rather than helped their education, and reduced classroom creativity.

SAI Scores for Hampton Roads, 1999			
School System	Verbal	Math	
Chesapeake	485	472	
Hampton	474	457	
Newport News	n.a.	n.a.	
Norfolk	446	436	
Portsmouth	n.a.	n.a.	
Suffolk	455	419	
Virginia Beach	504	493	
State Average	508	499	
National Average	505	511	

TABLE 4

Sources: The Virginian-Pilot, "Average SAT scores for Virginia students show little change," September 1, 1999, p. A3. "Hampton SAT scores on the rise." Retrieved July 4, 2000, from the World Wide Web: http://www.sbo.hampton.k12.va.us/Whywerethe1stChoice/ontherise.htm Virginia Beach information based on data from Tables 2.19 and 2.20 "Scholastic Assessment Test (SAT I)," Office of Accountability, Virginia Beach City Public Schools. Retrieved from the World Wide Web: http://www.vbcps.k12.va.us/satschoo.pdf

Of the four areas of SOL exams (English, Mathematics, History-and-Social Science, and Science), the percentage of students who pass the History SOL Tests in all grade levels is consistently less than the percentage of students who pass the SOL Tests in the other three content areas. Whereas the Science and Mathematics SOLs have been touted as consistent with current scientific and mathematical knowledge and are balanced in the presentation of factual information, problem-solving, reasoning, investigating and understanding appropriate to students' developmental stages, the History SOL has been criticized for being too focused on the memorization of unrelated facts and too removed from the developmental stages of children. The criticism has especially been voiced with regard to requirements and expectations for students in grades 1 to 5. In response to such criticisms, the Virginia Board of Education announced that it will be revising the Standards of Learning for Social Studies in October or November 2000.

As Table 5 shows, in all grades, the Hampton Roads school divisions which had the highest percentage of students who passed the SOL Tests in 1999 were Virginia Beach, Chesapeake and Newport News. Of these three school divisions, Virginia Beach had the highest percentage of students who passed in all grade levels.

It should be noted that by the 2006-07 school year, a public school in which a Virginia Board of Education-specified percentage of students do not pass the SOL Tests may be denied accreditation. And while that deadline remains, the Virginia Department of Education made certain changes in late July 2000 which will allow some flexibility in how the accreditation requirements are met.

TABLE 5
Students Who Passed the Standards of Learning Tests, 1999

Adjusted	Rates	(percent)

Grade 3 School Division English Mathematics History Virginia 61.10 67.62 62.11 Chesapeake 61.62 71.25 52.92 Hampton 50.06 58.17 45.92 Newport News 54.20 60.63 59.00 Norfolk 50.38 56.28 46.23 Portsmouth 48.80 46.54 42.07 Suffolk 44.00 57.69 58.81 Virginia Beach 67.06 73.85 66.18 Grade 5 School Division English Mathematics History Virginia 75.08 50.85 45.87 Chesapeake 75.46 52.09 45.07 Hampton 68.83 42.55 26.58 Newport News 70.57 47.95 46.51 Norfolk 68.43 39.76 37.24 Portsmouth 62.12 22.86 25.50 Suffolk 70.49 42.76	Science 68.34 67.98 55.84 63.61 54.55 47.64 53.32 69.17 Science 67.27 65.97 57.17 61.83
Virginia 61.10 67.62 62.11 Chesapeake 61.62 71.25 52.92 Hampton 50.06 58.17 45.92 Newport News 54.20 60.63 59.00 Norfolk 50.38 56.28 46.23 Portsmouth 48.80 46.54 42.07 Suffolk 44.00 57.69 58.81 Virginia Beach 67.06 73.85 66.18 Grade 5 School Division English Mathematics History Virginia 75.08 50.85 45.87 Chesapeake 75.46 52.09 45.07 Hampton 68.83 42.55 26.58 Newport News 70.57 47.95 46.51 Norfolk 68.43 39.76 37.24 Portsmouth 62.12 22.86 25.50 Suffolk 70.49 42.76 31.27	68.34 67.98 55.84 63.61 54.55 47.64 53.32 69.17 Science 67.27 65.97 57.17 61.83
Chesapeake 61.62 71.25 52.92 Hampton 50.06 58.17 45.92 Newport News 54.20 60.63 59.00 Norfolk 50.38 56.28 46.23 Portsmouth 48.80 46.54 42.07 Suffolk 44.00 57.69 58.81 Virginia Beach 67.06 73.85 66.18 Grade 5 School Division English Mathematics History Virginia 75.08 50.85 45.87 Chesapeake 75.46 52.09 45.07 Hampton 68.83 42.55 26.58 Newport News 70.57 47.95 46.51 Norfolk 68.43 39.76 37.24 Portsmouth 62.12 22.86 25.50 Suffolk 70.49 42.76 31.27	67.98 55.84 63.61 54.55 47.64 53.32 69.17 Science 67.27 65.97 57.17 61.83
Hampton 50.06 58.17 45.92 Newport News 54.20 60.63 59.00 Norfolk 50.38 56.28 46.23 Portsmouth 48.80 46.54 42.07 Suffolk 44.00 57.69 58.81 Virginia Beach 67.06 73.85 66.18 Grade 5 School Division English Mathematics History Virginia 75.08 50.85 45.87 Chesapeake 75.46 52.09 45.07 Hampton 68.83 42.55 26.58 Newport News 70.57 47.95 46.51 Norfolk 68.43 39.76 37.24 Portsmouth 62.12 22.86 25.50 Suffolk 70.49 42.76 31.27	55.84 63.61 54.55 47.64 53.32 69.17 Science 67.27 65.97 57.17 61.83
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Suffolk 44.00 57.69 58.81 Virginia Beach 67.06 73.85 66.18 Grade 5 School Division English Mathematics History Virginia 75.08 50.85 45.87 Chesapeake 75.46 52.09 45.07 Hampton 68.83 42.55 26.58 Newport News 70.57 47.95 46.51 Norfolk 68.43 39.76 37.24 Portsmouth 62.12 22.86 25.50 Suffolk 70.49 42.76 31.27	53.32 69.17 Science 67.27 65.97 57.17 61.83
Virginia Beach 67.06 73.85 66.18 Grade 5 English Mathematics History Virginia 75.08 50.85 45.87 Chesapeake 75.46 52.09 45.07 Hampton 68.83 42.55 26.58 Newport News 70.57 47.95 46.51 Norfolk 68.43 39.76 37.24 Portsmouth 62.12 22.86 25.50 Suffolk 70.49 42.76 31.27	Science 67.27 65.97 57.17 61.83
Grade 5 School Division English Mathematics History Virginia 75.08 50.85 45.87 Chesapeake 75.46 52.09 45.07 Hampton 68.83 42.55 26.58 Newport News 70.57 47.95 46.51 Norfolk 68.43 39.76 37.24 Portsmouth 62.12 22.86 25.50 Suffolk 70.49 42.76 31.27	Science 67.27 65.97 57.17 61.83
School Division English Mathematics History Virginia 75.08 50.85 45.87 Chesapeake 75.46 52.09 45.07 Hampton 68.83 42.55 26.58 Newport News 70.57 47.95 46.51 Norfolk 68.43 39.76 37.24 Portsmouth 62.12 22.86 25.50 Suffolk 70.49 42.76 31.27	67.27 65.97 57.17 61.83
Virginia 75.08 50.85 45.87 Chesapeake 75.46 52.09 45.07 Hampton 68.83 42.55 26.58 Newport News 70.57 47.95 46.51 Norfolk 68.43 39.76 37.24 Portsmouth 62.12 22.86 25.50 Suffolk 70.49 42.76 31.27	67.27 65.97 57.17 61.83
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	44.81
Virginia Boach 77.83 57.89 51.25	59.24
viiginia beach 77.00 37.07 31.20	68.78
Grade 8	
School Division English Mathematics History	Science
Virginia 68.22 66.08 40.79	77.38
Chesapeake 72.81 67.86 44.17	79.84
Hampton 67.89 66.47 26.78	72.08
Newport News 67.11 68.21 35.97	75.26
Norfolk 51.99 39.78 21.31	61.11
Portsmouth 50.65 31.94 26.62	53.15
Suffolk 56.36 46.17 20.08	70.03
Virginia Beach 73.16 74.15 41.54	84.13
High School End of Course Assessments (SOL)	
School Division English Mathematics History	Science
Virginia 75.69 49.50 44.82	69.34
Chesapeake 69.36 46.64 45.45	66.20
Hampton 74.73 48.81 21.73	63.29
Newport News 78.97 44.61 41.48	64.45
Norfolk 69.40 44.04 31.26	62.26
Portsmouth 59.26 14.52 20.26	45.96
Suffolk 63.36 15.39 28.43	48.16
Virginia Beach 78.90 54.87 28.12	78.27

Source: Based on data from the Virginia Department of Education. Retrieved from the World Wide Web: http://www.pen.k12.va.us/sol99

A major concern voiced over the implementation of the SOLs has centered around children who may be poor, or who are members of minority groups which have been denied many opportunities other children have experienced, or who are immigrants. What if these students cannot meet the standards? The Virginia Department of Education has emphasized its awareness of such concerns and states that the commonwealth is "not going to leave any children behind. Nor do we believe it is right to presume that children cannot achieve to high standards just because they are of a certain race, ethnicity or income level."

In spite of such assurances, however, many Virginia citizens have voiced their fears that some students will not be able to pass, forcing them to go through life without a high school diploma – or that disheartened students will drop out as soon as they are old enough to do so, rather than go through the humiliation of failing the SOL Tests required for graduation. During the summer of 2000, in response to such concerns, state education leaders considered the option of initiating a "basic diploma" in addition to the "standard" and "advanced" high school diplomas. However, employers, educators and civil rights leaders strongly opposed the idea, saying a lowering of standards would not be doing students a favor and would hamper their future in the job market. Officials of the state division of the National Association for the Advancement of Colored People wrote to Virginia's secretary of education opposing the notion of such a diploma.

In the end, the Virginia Department of Education added some flexibility to the diploma requirements, allowing students to earn high school diploma credits through passing certain other approved tests in addition to the SOLs. But the idea of a third less rigorous "basic diploma" for general students was dropped. (The board did, however, create what it calls the "modified standard diploma," which is more academically rigorous than the basic diploma would have been, but which is limited to "students with documented disabilities who are proceeding under a federally mandated Individual Education Program.")

The importance of academic achievement among minorities is much discussed among Virginia's education leaders. Kirk Schroder, president of the Virginia Board of Education, reported in a Virginia Department of Education news release that there is evidence that "Virginia's new academic reforms are raising academic achievement among African-American students." When he and Paul Stapleton, superintendent of public instruction, appeared before the Commission on Educational Accountability in the late summer of 1999, they emphasized that the passing rates of African-American students in Virginia had increased over the year before in 26 of the 27 SOL Tests. Schroder pointed out that in 16 of the 27 subject areas tested in grades 3, 5, 8 and high school, the gains made by African-American students were greater than those made by caucasian students. These education officials considered these gains as evidence that "the gap between African-American and caucasian students' scores has begun to close," while noting at the same time that "we still have a considerable way to go to close the achievement gap completely." But the journey has begun.

SCHOOL FUNDING

Although many people think local property taxes are the major source of revenue for the public schools, a high proportion of school funding is provided by the state and federal governments. State funding, the major source of school revenue, comes from state aid to education, state lottery profits, and state sales and use taxes. However, to the degree that education in Hampton Roads is dependent upon property taxes for a considerable share of funding, school quality will vary according to the property values and non-revenue-producing, tax-exempt properties in different areas.

The latest available statistics for three of the region's school systems illustrate. Virginia Beach, for example, reports that during the 1997-98 school year, 55.1 percent of revenue came from state funds, 38.1 percent came from local sources and 6.9 percent came from federal funds. In Norfolk, the 2001 budget for the city's schools is based on an expectation of 63.6 percent of funding from the state of Virginia, 33.6 percent from the city, 1.9 percent from federal sources and 0.9 percent from other local sources. The school board serving the City of Hampton has prepared its 2002 budget based on an expectation of 64.4 percent in state funds, 34.8 percent in local funds and 0.8 percent in federal funds for Hampton schools.

According to a U.S. Census report issued in May 2000, school revenue for the United States during the 1996-97 fiscal year came from states (48.8 percent), the federal government (6.4 percent) and local sources (44.8 percent). For Virginia, the proportions of school revenue were 40.5 percent from the state, 4.9 percent from federal sources and 54.6 percent from local sources.

States varied greatly in the average dollar amount spent per student. In 1996-97, New Jersey had the highest expenditure per student (\$9,461), and Utah the lowest (\$3,810). The U.S. average was \$5,873 per student. Table 6 shows the per-pupil expenditure for Virginia and the school systems of Hampton Roads.

Cities such as Norfolk and Portsmouth face considerable funding difficulties due to a number of factors that result in lower property tax bases. Both cities, for example, have a lower per capita income level than other Hampton Roads cities. Both cities have been identified through federal government agencies as Economic Empowerment Zones, which denotes their eligibility for federal dollars under a variety of grant programs. However, the federal grant opportunities are highly competitive and are typically awarded to fewer than 15 regions annually. In addition to the lower per capita income levels, Norfolk faces an additional funding burden; that is, the city has a huge nontaxable property base that consists of the Navy base, the port, two universities and one community college, low-income housing and other properties that pay no property tax.

TECHNOLOGY

The importance of technology in the modern world cannot be overemphasized. Computer skills are essential in virtually any field of endeavor, and the Technology Standards of Learning for Students and Technology Standards for Instructional Personnel highlight their critical role. Yet, in Hampton Roads schools, there is no consistency in computer access, even though students are expected to pass examinations showing they have mastered the requirements of the Technology Standards of Learning by the end of grades 5 and 8.

TABLE 6

Per Student Amounts Spent in Public Elementary and Secondary School Systems, Hampton Roads, Va., 1996-97

Area	Total Per Student Expenditure
Virginia	\$5,715
Chesapeake	\$5,257
Hampton	\$4,995
Newport News	\$5,114
Norfolk	\$5,425
Portsmouth	\$5,359
Suffolk	\$4,828
Virginia Beach	\$4,821

Source: Based on data from Table 17, U.S. Census Bureau, Public Education Finances: 1997. Washington, D.C.: U.S. Department of Commerce, Economics and Statistics Administration, U.S. Census Bureau publication GC97(4)-1, Issued May 2000.

In a December 1998 "Report to the Commonwealth of Virginia," the authors of the Milken Exchange on Education Technology raised some disconcerting issues concerning the state of technology in Virginia's schools. Among the findings are the following:

- 1. Virginia's investment in technology for classrooms is evident, especially in the fact that the student-to-computer ratio is 10.9 to 1, which is near the 12 to 1 nationwide ratio.
- 2. Approximately 60 percent of Virginia's schools have at least one Internet-connected computer per classroom. However, many suburban schools have 75 percent of their classrooms wired, while only 36 percent of urban classrooms are wired. A close examination of schools in Hampton Roads reflects this data. Schools in Hampton, Newport News and Virginia Beach are well equipped with classroom computers, while schools in Norfolk and Portsmouth lack the essential education technology to adequately prepare students to meet the Technology SOL competencies.
- 3. Virginia's students and teachers are demonstrating competencies in basic skills; however, educators "are not yet using technology effectively to improve student learning." In the Milken study, many teachers reported that class-room computers are used primarily for remediation and/or independent student projects. Many teachers also reported that their primary computer usage involved word processing of their lesson plans, handouts, quizzes and tests, and spreadsheet management, such as grade and attendance record-keeping.
- 4. While a large number of both teachers and administrators agreed that educational technology should be used effectively "in terms of problem-solving, organization, research skills and taking responsibility for their own learning," the necessary training for teachers has not occurred to effect this higher cognitive and critical thinking levels of intellectual engagement. Moreover, the positive impact on student learning in both subject-area basic skills, as well as critical thinking and analytical skills, has not been realized.
- 5. Most of Virginia's teachers are interested in using education technology in their classrooms, especially to facilitate conditions under which their students will excel. However, many teachers do not know how to integrate essential technology into their classroom curriculum and instruction. Moreover, teachers lack opportunities not only to develop their technology proficiencies but also to redesign their curriculum and instruction to meet the cognitive and analytical skills that students need at higher levels.

It is imperative that teachers in Hampton Roads, as well as throughout Virginia, have access to educational technology and that they receive adequate technological training. School administrators in Virginia must provide opportunities for teachers to be trained in the following areas: (a) high level of education technology usage; (b) redesign of curriculum and instruction that includes a significant integration of computer use in the classroom; and (c) advancement of education technology that includes accountability in the positive impact on PK-12 student learning as measured on standardized achievement tests.

Similar concerns are being voiced on the national level. The U.S. Department of Education's Office of Educational Technology is currently conducting a yearlong review and revision of the national educational technology plan, and as a first step convened a variety of experts for the two-day "Forum on Technology in Education: Envisioning the Future" in December 1999. Emerging priorities were identified and various white papers were commissioned to address the challenges of assuring, among other priorities, that "all teachers will effectively use technology" and that "all students will be technologically literate and responsible cybercitizens."

ISSUES RELATING TO TIME

A number of issues that generate much school-related discussion in Hampton Roads cluster around time to do all that needs to be done and space in which to do it. During the year 2000, some of the time-related issues in the news ranged from debates over a state-required "moment of silence," to parental concerns about recess, to time schedules for mastery of certain subjects.

Recess. Many educators have emphasized the role of play in children's learning and in their development of communication and social skills. Recess was the traditional and time-honored way of providing time for play during the busy school day. However, with the increasing emphasis on accountability and high-stakes standardized testing, many schools began eliminating recess so that more time could be allotted to mastering the requirements of the Standards of Learning. Parents became concerned. After 750 parents signed a petition calling for daily recess, the Chesapeake School Board voted to ensure that elementary school-children will have at least 15 minutes of recess each day of the school week. In late July, the State Board of Education voted to require daily recess in schools throughout the state.

Scheduling time. Schools may want different time arrangements for scheduling fulfillment of certain requirements. Beginning in the fall of 2000, Virginia will require students in grade 11 to pass algebra, along with at least two other equally or more difficult math courses before graduation, or they will not earn their high school diplomas. To give students a longer window of time to fulfill the state math requirement, Portsmouth schools in 1998 instituted a requirement that algebra must be taken and passed by the end of the ninth grade or they will not be promoted to grade 10. Since that time, about half of the ninth-graders have not been promoted. This has not only caused problems for the students, but also has resulted in problems for the administration, such as class scheduling.

Pointing out that the math requirement was largely to blame, the school superintendent requested that Portsmouth students be given "a gift of time" with the passing requirement moved to the end of the 10th grade for a temporary period while textbook and other changes were being implemented. However, the Portsmouth School Board feared the change would be a disservice to the students by not holding them to the highest academic standards.

Other schools have had other kinds of time-related problems. Suffolk was forced to cancel 10 summer school classes, and Chesapeake had to close its summer school registration early. Time for required courses that many students expected to take in the summer will now have to be crowded into the fall schedule. Students most affected are seniors needing certain courses before graduation or students who had failed courses and hoped to repeat them over the summer months. The main reason for the dearth of summer school classes is a teacher shortage. Teachers reportedly feel the pay is too low to give up their time in the summer, and many say they are exhausted from the school year and need time to restore energy and enthusiasm.

Space Issues

Buildings. School buildings in Hampton Roads range from new state-of-the-art structures (with air conditioning, carpeting and an infrastructure for computer networking systems) to school buildings constructed 50 or more years ago and lacking these and other amenities. The region has experienced controversy between those who want to preserve old school buildings as part of the area's history and those who wish to demolish them and put in their place new school buildings more in keeping with the needs and standards of today's world. The remodeling vs. demolishing controversy over Norfolk's Taylor Elementary School (which was torn down) and Blair Middle School (now under discussion) are examples.

School capacity and redistricting. Overcrowding is a problem in many school districts, which has led to the use of portable classrooms. A number of elementary, middle and high school students attend schools where enrollments exceed 100 percent capacity. One school in Chesapeake, for example, is at 138.4 percent capacity and has 28 portable classrooms. At the same time, other schools are below capacity, some as low as 60 percent.

These facts lead to the question of redistricting, another often controversial matter. Redistricting is necessary when a neighborhood or designated school area either grows or shrinks in its population of school-age and younger children. If the school population diminishes, there is room in that school for students from an overcrowded district. If the population grows, students may be bused to another area; or another school may be built.

The number of students in a class is critical to success, and classrooms must be kept at optimal size. The average class size in the first grade is 21 in Norfolk, 22 in Chesapeake, 24 in Portsmouth and 22 in Virginia Beach. But in high school math, the numbers are generally higher. For example, a high school math class in Norfolk has an average of 26 students. In Chesapeake, the number ranges from 20 to 30. Twenty-six is the average in Portsmouth, and in Virginia Beach the average is 25 to 30.

School boards often clash with parents over redistricting plans. Some parents may have moved to a particular area specifically because of the reputation of the schools their children would be attending, only to have the district change shortly after they purchased a home in that area. In some cases, parents are concerned about their children being forced to attend a school far away from their neighborhood, which means long-distance busing. Virginia Beach recently faced controversies over redistricting, and the Ocean View area of Norfolk was the center of a debate over cross-city busing. The latter debate also brought up issues of busing for racial balance, causing Norfolk to re-examine its policy on busing and look for ways to shorten the time on bus routes without compromising integration.

Issues Still Needing Exploration

t is impossible, in this space, to cover all the issues of K-12 education in Hampton Roads. Issues such as the charter school movement, demographics, the degree of parental involvement, efforts to prevent school violence and the special programs available to students are only a few of the additional topics that could be examined. Suffice it to say that K-12 education in Hampton Roads is dynamic rather than static. Our schools and school boards are working to produce a well-equipped population of future decision-makers and problem-solvers, even as they work to meet their own challenges, seek answers to their own questions and resolve their own problems.