This paper offers unconventional and innovative ideas for school planning and construction in North Carolina for creating smaller and safer community schools in response to rising enrollment, tight budgets, and dwindling school space. Often using examples from across the country, the paper discusses school construction costs and economy of scale possibilities, explores revising the assumptions about school space, examines private ownership and outsourcing ownership and management, and reviews using schools in the workplace. Also addressed are the information age's influence on providing traditional education without the need for free-standing, publicly owned and maintained buildings; and fundraising by selling naming rights to sports facilities. Attached is a North Carolina case study of Wake County's approach to building smaller, more efficient public schools. (Contains 47 references.) (GR)
There Are Better Ways

New ideas for school construction in North Carolina and a model for implementation
by Doug Haynes and John Hood

Building Smaller, Safer, Effective and Efficient Public Schools

This much is undeniably true: There aren't enough classrooms in North Carolina. School enrollment in North Carolina declined throughout the 1980s and then began to rise during the 1990s.

This trend is projected to continue for a number of years, and birth rates are augmented by the state's appeal to newcomers. However, the capacity needs for schools in the next few years may very well not be the same 25 or 30 years from now (much less the 50 or 60 years for which most public schools today are built). It would be wise and prudent to consider flexible strategies that allow for change as our space needs and methods of schooling change in the next few decades.

We also must be willing to admit that traditional ways of thinking about schools and construction cannot solve the "crisis." Even if taxpayers could foot the bill for the grandiose building wish lists of many school districts, which they cannot (and increasingly will not), there aren't enough contractors or laborers to handle the work without bidding up the cost of construction in every market.

It is easy to take at face value what consultants or school construction managers recommend. But it is much tougher to ask fundamentally different questions that will lead to unconventional, innovative solutions that provide children what they need to learn. It is time to think about learning in new ways.

Smaller, Safer, Effective and Efficient Community Schools

School construction is big business in North Carolina. It is highly coveted by architects, engineers and contractors. Consultants travel the country, charging multi-million dollar fees, to tell school boards how much money they need to raise and how it should be spent. Most large school districts now employ entire construction management departments to oversee the projects. Meanwhile, the cost of school construction has skyrocketed. Many new public schools resemble and cost what not too long ago would have been a small college campus. The price tag of the average school in Wake County's recent proposal was more than $20 million. Most elementary schools in the state begin around $8 million, and some high schools exceed $40 million. Lost in this pursuit of design awards, fancy stone and brick work, "open space" and rolling campus settings (complete with irrigation systems) is one fundamental question: how can we maximize learning for our children while minimizing cost to taxpayers?

Understanding the politics of this balance, school leaders and consultants have convinced lawmakers that school costs compare favorably with commercial construction when considered by cost-per-square foot. Often this is true (although not in the case of Wake County's plan, the cost of which exceeded state, regional, and national norms, as the above table reveals). But what they don't say, and sometimes simply don't realize, is that school construction is best judged by cost-per-student. It's the only reasonable way.
Here's why. Under current bidding requirements, contractors are forced to compete for bids and drive square footage cost as low as possible. They do their job for the taxpayers. Yet what good is that if schools continue to increase in size and amenities? Total costs end up higher, and schools end up larger, particularly in the area of non-classroom space.

When viewed strictly by building construction cost, there is a case for the argument that schools can achieve economies of scale—to a point. But at the same time there is a growing body of evidence clearly showing that smaller schools are safer and more academically effective. In the aftermath of the Columbine tragedy, Governor Jim Hunt publicly stated that we should search for ways to build smaller schools. Even North Carolina's Department of Public Instruction suggests that the ideal school size for academic and safety reasons is no more than 400 elementary students or 800 high school students.4

For years, school boards have been closing and consolidating community schools to achieve what they perceived as economies of scale, for construction and sports programs. Were they wrong? At the time, maybe not. But now there are serious reasons for school boards to question this strategy. A 1996 study on high school size found that the promised savings of school consolidation have not materialized. Instead, it discovered diseconomies of scale, or penalties, because "large schools need more layers of support and administrative staff to handle the increased bureaucratic demand."5 Another study suggested that large schools "function like bureaucracies, small schools more like communities." The study concluded that large schools generally "correlate with inefficiency, institutional bureaucracy, and personal loneliness."6

Smaller schools require smaller common areas, which cost less money to build. They need less administrative staff. In some parts of the country, several small schools are operated within larger facilities as "schools within schools" or as "multiplex" or "scatterplex" schools, where one single principal may manage several small schools in the same building or nearby areas.7

It is time to move toward smaller, safer community schools. In the 21st century, community can be defined in many ways. In this case, it is not synonymous with "neighborhood" schools. Neighborhood schools are viewed by some as the panacea for public education, where children can walk and ride their bikes to school, as though today's housing patterns and real estate availability would ever make that possible. The truth is, the location of a school has nothing to do with its quality. While forced busing for racial equality may be wrong and not a priority for the majority of white and black parents,8 voluntary busing for academic quality is another matter entirely.

A community is a group of people who have something in common. It exists in many places -- in a neighborhood, at an office, church, museum, civic organization, or even on the Internet. A community school, then, should be defined as students, parents and educators uniting around a common educational mission and common values rather than a simple, geographic assignment. Even the size of smaller schools gives them a greater sense of community for students, parents and educators. Parents of students in independent public schools, sometimes called "charter" schools, have judged this form of community education to be fair and efficient and have chosen educational quality over expensive facilities in large numbers.

We can and must build smaller, safer community schools. Our children need them. But we can only afford them if we change our priorities in thinking about and building schools -- or even whether, because of technological advances, we have to build them at all.

COST COMPARISON: WAKE PROPOSALS, NATIONAL & REGIONAL MEDIANS, OTHER SCHOOLS
<table>
<thead>
<tr>
<th></th>
<th># Students</th>
<th>Sq. Ft./Student</th>
<th>Construction Cost**</th>
<th>Cost Per Student</th>
</tr>
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<tbody>
<tr>
<td>Wake Public School Proposal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary</td>
<td>638</td>
<td>130.5</td>
<td>$8,200,390</td>
<td>$12,853</td>
</tr>
<tr>
<td>Middle</td>
<td>923</td>
<td>188.3</td>
<td>$17,792,383</td>
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<tr>
<td>High</td>
<td>1560</td>
<td>174.4</td>
<td>$32,258,584</td>
<td>$20,679</td>
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<tr>
<td>National Median (1998)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary</td>
<td>550</td>
<td>119.0</td>
<td>$6,285,950</td>
<td>$11,429</td>
</tr>
<tr>
<td>Middle</td>
<td>709</td>
<td>145.9</td>
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<td>$14,286</td>
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<tr>
<td>High</td>
<td>762</td>
<td>184.8</td>
<td>$12,856,464</td>
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<td>Regional Median -- NC, SC, TN, KY (1998)</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Elementary</td>
<td>581</td>
<td>130.0</td>
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<tr>
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<td>700</td>
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<tr>
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<td>896</td>
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<tr>
<td>Public School Projects (1998)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Elementary</td>
<td>705</td>
<td>113.6</td>
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<tr>
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<td>681</td>
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<tr>
<td>High</td>
<td>1388</td>
<td>155.5</td>
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<td>$15,127</td>
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<tr>
<td>Catholic Diocese of Raleigh (1998-99)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary/Middle</td>
<td>504</td>
<td>NA</td>
<td>$5,400,000</td>
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</tr>
<tr>
<td>High</td>
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<td>$13,600,000</td>
<td>$15,111</td>
</tr>
<tr>
<td>Selected N.C. Charter Projects (1998-99)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary</td>
<td>337</td>
<td>NA</td>
<td>$1,420,000</td>
<td>$4,214</td>
</tr>
<tr>
<td>Middle/High</td>
<td>380</td>
<td>NA</td>
<td>$1,980,000</td>
<td>$5,211</td>
</tr>
</tbody>
</table>

** For district schools, does not include price of land, furnishings, or equipment; land is included for charter and Catholic schools.


**Instilling Discipline for Functional, Frugal Construction**

In the world of multi-million dollar school construction budgets, what are the incentives to minimize costs
to taxpayers? Florida may have one of the nation's best and most innovative methods to instill discipline in the process of building schools in a rapidly growing state. In its second year, the SMART Schools program aims to stretch construction dollars as far as possible by rewarding schools for frugal construction. Not related to the North Carolina Alliance for Smart Schools, Florida's SMART Schools is an acronym for "Soundly-Made, Accountable, Reasonable and Thrifty" Schools.9

In announcing the program, Florida's Speaker of the House, Daniel Webster, cited "run-away costs and wildly-fluctuating numbers" as symptoms that the state's school construction crisis "goes beyond the surface need for more funding and points to a deeper need for a commitment to functional, frugal facilities." By "functional and frugal," Webster says, "we do not mean poor quality or shoddy construction, but rather solid, cost-effective facilities designed for efficiency while avoiding unnecessary architectural slopes, angles or frills."10

Webster made clear that solutions must "go beyond the convenient but short-sighted fix of additional tax dollars," and he established as a key principle that there be no tax increases of any kind. "It is time that we ask hard questions of school districts that are experiencing major shortfalls in order to find out if they are making wise use of the resources they already have," he said, "and to determine if a genuine effort has been made at the local level to keep pace with growth and expansion."

The program targets waste and mismanagement by giving a bonus to school districts for doing an efficient job in managing individual school projects. The bonus is based on a formula that factors in the combined costs of administrative and legal, architectural and engineering, site improvement, construction cost, fixtures, furniture and equipment. The formula sets a target amount each project on a per-student basis, and it adjusts each year with the Consumer Price Index. For the school year 1997-98, Florida's SMART Schools target was $11,600 per student station for elementary schools, $13,300 for middle schools and $17,600 for high schools. Charter school targets were half these amounts.11 For each project that beats the targets, the state sends a bonus check to the district for half the savings if the school district is judged to have demonstrated its own commitment to construction funding. The money for the awards comes from a school construction bonus pool established by the legislature and can be used for any capital expenditure outlay on completely new schools.

By all accounts, the program has been highly successful. "Nobody was willing to tighten their belt," said Spessard Boatright, executive director of the SMART Schools program, who reports to a 5-member board appointed by the governor and legislature. "This forces districts to think different and to leave off things like clock towers and crazy designs. It's really a matter of changing attitudes."12

In North Carolina, a similar approach should be adopted by county governments or the state as a way to constrain construction costs.

Revising Assumptions About Space

Fast-growing states such as Florida offer other clues to efficient school construction. A big part of the answer is questioning and changing traditional assumptions. In recent years, Florida has pared the minimum requirements for classrooms and common rooms and offered other innovative solutions. It has liberalized the state school building code in favor of more lenient national codes, eliminating requirements for dedicated, attached restrooms in kindergarten through third grade classrooms and encouraging more two-story structures, which are cheaper to build and take up less space.13

One of the state's new prototype elementary schools set a construction target of $2.5 million versus the average $8.3 million. It was designed to save money by reducing school capacity to 500 students, almost 200 below the state's average new elementary school, thereby downsizing common areas and grounds. The
school has no kitchen, opting to prepare meals in an off-site satellite facility. The size of the library was cut by putting technology in every classroom instead of a common area. Classrooms were built for 25 students with 800 square feet, compared with the average of 1,000 square feet in other schools. Finally, a modular construction plan was used to allow for easy addition of permanent classrooms.

The State of North Carolina still offers guidelines on the size and parameters of classrooms, grounds and amenities, but they are no longer regulations. Counties do not have to follow them. The state recommends that classrooms for grades 1-3 be 1,000 to 1,200 square feet, with a minimum site of 10 acres plus one acre for every 100 students. High schools are recommended to have 30 acres plus one acre for every 100 students. By contrast, the Catholic school system in eastern North Carolina uses a standard of 950 square feet for the same number of students in grades 1-3. They target building at least one playing field, and "whatever land we can get." Building standards in Canada call for just 900 square feet per classroom.

One other assumption that should be challenged is that schools can more efficiently build new buildings than renovate existing structures, including commercial real estate. In Pamona, Calif., the school district bought a failing shopping mall, turned half the mall into a school and renovated the other half for retail stores. Total cost was about $8 million, compared to the district's estimate of buying land for and building a similar-sized school of $37 million. The new Sugar Creek Charter School in Charlotte, founded by former mayor Richard Vinroot, will open this fall with more than 500 elementary students in an abandoned K-Mart on North Tryon Street. A sister school, managed by the same education management company, opened in an old Rocky Mount shopping mall two years ago.

Most new public schools have separate cafeterias, gyms and auditoriums, which are the most expensive rooms to build. However, some public schools and virtually all private schools and public charter schools seek more multi-functional uses for these spaces. Often, one room is used for all three purposes, in some cases using partitions to separate the space. Some do not have a gym or library, opting to locate their school in or near local YMCAs, churches or public facilities like museums and libraries. Others use warming kitchens to warm food prepared off-site and feed lunch to children at the same time in their classrooms, like schools in Japan and other countries.

Such strategies are unconventional for most public schools and would force educators to rethink instructional schedules. But many of the schools using these approaches have developed instructional solutions like whole-school curriculum and scheduling where every student in the school learns subjects like reading or math at the same time. Widespread research has proved several such whole-school designs as more effective academically.

### Comparing Classroom Space Assumptions in Square Feet

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>Wake Co. Plan</th>
<th>State Guidelines</th>
<th>N.C. Catholic Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kindergarten</td>
<td>1200</td>
<td>1200</td>
<td>1000</td>
</tr>
<tr>
<td>1st-3rd Grade</td>
<td>1000</td>
<td>1000-1200</td>
<td>950</td>
</tr>
<tr>
<td>4th-5th Grade</td>
<td>1000</td>
<td>850-1000</td>
<td>900</td>
</tr>
<tr>
<td>6th-8th Grade</td>
<td>1000</td>
<td>850-1000</td>
<td>NA</td>
</tr>
<tr>
<td>9th-12th Grade</td>
<td>900</td>
<td>750-800</td>
<td>NA</td>
</tr>
<tr>
<td>Principal Office</td>
<td>225</td>
<td>200</td>
<td>NA</td>
</tr>
</tbody>
</table>

**Sources:** Wake County Public Schools, N.C. DPI, Catholic Schools -- Raleigh Diocese
Permanent Modular Construction

One method rarely discussed in building schools is modular construction, a technique that has improved dramatically through technology in the last 15 years. It is commonly used as a quality, but quicker -- and often less expensive -- solution in many industries outside of public education.

The term "modular" does not mean "portable" or "trailer." Modular construction refers to the method by which non-combustible steel and concrete buildings are constructed off-site in a factory with a controlled environment. These buildings are built to the same building codes and standards as traditional site-built structures. They are separated into modules at the factory, shipped on flatbed trucks and assembled on-site. The factory can complete between 60 percent and 98 percent of the total job at the same time site work is underway.

Today's modular buildings often use exterior finishes like brick, with concrete subfloors and masonry block walls. They can be built up to seven stories high. Additions can be designed to match and fit existing structures. In most cases, no one can tell the difference.

Thus far, very few public schools use modular construction. However, a growing number of states, including Florida, New Jersey, Massachusetts and Arizona, are using modular construction for schools and community colleges because of the high degree of control and flexibility it entails. Even the elite private Greensboro Day School in our state used modular construction for one of its additions several years ago, as have a number of charter schools.

Modular construction is not necessarily less expensive. But it often is, especially in growing cities where labor and material costs are higher. Here are the benefits of modular construction:

- **Rapid Construction** -- By handling most of the work at the factory, modular construction cuts as much as 50 percent off a conventional construction schedule. On-site work like footings and foundations can happen at the same time the building is being completed. Simple, noncustomized modular buildings have been provided to some charter schools in a matter of weeks.

- **Fixed-price Construction** -- The planning and control of the process eliminates last-minute changes and minimizes cost overruns.

- **Controlled Construction Environment** -- Labor and material waste is eliminated and weather delays are minimized.

- **Customized Use of Standard Building Materials** -- There is complete flexibility in choosing interior and exterior materials.

- **Steel-framed Construction** -- Long-lasting construction meets all mandated fire and building codes for traditional structures.

One other potential advantage in using modular construction for schools is that most modular contractors offer third-party financing so buildings can be provided with a lease-purchase option, typically including a five-year lease with a balloon payment that transfers ownership to the county.

Private Ownership of New Public School Buildings
Counties and school boards don't have to use modular construction to get someone else's capital to build schools. There are many examples of schools in other states and nations getting out of the facilities business entirely by partnering with the private sector. A recent study by the Heritage Foundation found that by leasing buildings built or renovated and owned by private companies, schools can save taxpayers 25 percent to 30 percent.22

In Canada's province of Nova Scotia, an economic downturn prompted schools to create a Public Private Partnership, or P3, program in 1997. In just over a year, 41 new schools were either completed or approved for construction and another 12 proposed for approval. According to the province's Ministry of Finance, "The key objective is to enable Nova Scotia taxpayers to get better value for their tax dollars by shifting the responsibility for the operation and/or financing of non-core activities to the private sector."23

In Scotland, a similar program is underway. Glasgow's City Council has signed a 30-year contract with a construction company to improve and manage all the city's schools. Under the plan, the city expects that all schools will be upgraded within 3 years, compared to an estimated 15 years under the previous government-run system, at a savings of an estimated 30 percent.24

In Florida and Arizona, private developers are constructing buildings for school tenants. In the Phoenix area, for example, homebuilders are donating land or building public schools with their capital as added attractions to their subdivisions and leasing them to school districts or charter school operators. As an incentive for this type of development, both states provide capital dollars to public charter schools.25

North Carolina's own chartered public schools have made extensive use of leased facilities, primarily because they have no capital of their own. Schools have opened in converted mills and warehouses, shopping malls, retail centers, churches, museums, and even an historic car dealership building. Typically, renovation and upfitting has cost less than half of traditional school construction on a per-student basis, and the schools usually did not have to use their own capital.

The public-private partnership strategy works because private companies have an incentive to build quality schools faster and cheaper than public authorities. They often retain the rights to lease space before and after school, ensuring their profit while providing space for needed community services such as corporate and nonprofit meetings and before- and after- school day care. Many contracts call for developers to build, renovate and maintain schools, upgrade telecommunications and information technology, and provide desks, blackboards and computers in exchange for a 20-year lease. (North Carolina's charter schools have a more challenging financial situation because of their limited charter period of only 5 years.)

One other leasing advantage is the understanding that communities and their needs change over a 20-year period. A community that once housed many children may have few children in 20 years. Thus, leasing puts the risk on developers while reducing the need for the public sector to raise capital.

Contracting Out Ownership and Management

Another private-ownership option is to contract out the ownership and/or management of entire schools, a concept advocated by Paul Hill, director of the Center for Reinventing Public Education at the University of Washington.26 This method requires school boards to set performance benchmarks for new or existing public schools and sign management contracts with community groups or private management companies to operate and/or build the school. School boards would be prohibited from most of the political micromanagement in which they typically participate.

These "contract" schools essentially operate like independent public, or charter, schools. Most of the rules and regulations required by states or local districts are waived in exchange for a performance contract. The
per-pupil operating dollars for the children who choose to enroll in the school go directly to the school, bypassing the central office.

While the number of charter public schools in North Carolina is restricted to 100, a cap that will be reached this year, it is possible for local districts to create an unlimited number of contract public schools. Through new flexibility from the state's ABC program, requests for (routinely granted) waivers from the state board and their own willingness to give up power and control in exchange for accountability, local school boards can create their own independent public schools. Most have chosen not to deregulate their school districts for political reasons. But The Edison Project, the nation's leading for-profit education management company, is operating the Carver Heights Edison Public School in Goldsboro this year and has a contract to operate an existing public school in Nash County next year.

In both cases, Edison's contracts include an agreement by the district to pay a negotiated per-student fee comparable to the average per-student expenditure for each county. While Edison prefers not to build or own buildings, the company provides computers as part of its education design. Its also delivers a highly successful education program that guarantees accelerated academic progress or the company can be fired. In exchange, Edison receives freedom to implement its educational program and managing the school and staff as it sees fit. Like chartered public schools, parents have a choice to attend an Edison public school.

Other education management companies get more heavily involved in the real estate side of school management, including constructing and maintaining facilities. Thus far, most have concentrated exclusively on the public charter school market because of the freedom guaranteed by strong charter school laws. However, these companies may be open to contract management with public school districts if districts are willing to give them the freedom the companies' investors require. The advantage of involving contractors like these is that they bring strong academic programs, private sector management practices, private investment capital and contracts for results.

One example from North Carolina's emerging charter school movement is National Heritage Academies, a Michigan-based education provider opening two charter schools in the Triad this fall. The company, which operates 12 public academies in Michigan (the term for charter schools there), provides an education program that is currently averaging academic growth rates 40 percent above the national average on nationally standardized tests. Using a unique modified post-frame construction method, its schools in Greensboro and Winston-Salem will be completed in 90 to 120 days by the company's own real estate arm and paid for from per-pupil operating dollars. Their standard functional, but attractive and sturdy, design will cost about $55 per square foot, excluding site preparation -- significantly below traditional public school construction. Students will eat lunch in their rooms with meals catered by a private food company. Furnishings will be leased.

By thinking outside the box and crafting appropriate contracts, school districts and the state could hire leading education management companies to add multiple new schools without expending any public capital. Or, as an added incentive to insure development in locations of the greatest need (high growth or inner city areas), districts could provide up to half the capital normally required for building or renovating a school. This would build new schools at a 50 percent savings to taxpayers while securing guaranteed contracts for outstanding academic performance in return. That cannot be done under the current system.

While some of these new facilities might not have all the amenities of the huge government-built structures, parents would not have reason to complain. That's because they would have the choice to select these new schools based on their academic program, staff and parental involvement.
As the streets of North Carolina's major cities continue to clog, and as the frenzied pace of life makes it harder for parents to share family time with children, why not take schools to the workplace? Another innovative idea in Florida is a concept called satellite schools, or "Schools In the Workplace." The idea started in Dade County in 1987 when American Bankers Insurance Group opened the nation's first satellite learning center with 25 kindergarten students. Today, the school houses more than 225 students (children of employees) from kindergarten through fifth grade. The company has spent $2.4 million to construct the school buildings and will pay $146,000 in 1998-99 toward operating expenses, including utilities, grounds, maintenance, janitorial and furniture. The Miami Airport has spent more than $700,000 for facilities to house nearly 150 students. With four of these centers, Dade County has saved more than $7 million in capital costs, plus more than $500,000 per year in operating expenses. The school district supplies teachers, textbooks and everything else.

At least 30 of these work-site elementary schools have opened across the country in recent years in partnership with major companies like Hewlett-Packard Co. in Santa Rosa, Calif., 3M and Target Corp. in Minneapolis, Bank of America in Jacksonville, Fla., Florida Power & Light in Miami, the Radisson Twin Towers Hotel in Orlando and Orlando Regional Healthcare Systems. The biggest concentration of work-site schools is in Florida, where retirees have balked at funding school construction but where student population continues to grow. "We know it's a retention tool for us, and a great recruitment tool," said Bank of America project manager Stephanie Priede, who has turned down several job offers for higher pay because she wants to work near her children. "(The school) is the whole reason I stay at the bank." Education officials are enthusiastic about the programs, especially because they allow parents to get more involved with their children's school. "It's been an overwhelming, unqualified success," said Judy Poppell, director of academic programs for Duval County Public Schools.

Last year, Florida expanded satellite learning centers through its "Schools in the Workplace" charter school program, becoming the first state to write legislation that allows charter public schools to target enrollment at businesses. Under this law, companies that choose to open a school on site are exempted from paying property taxes on the portion of their facility used for the school. Students are selected from a random lottery of company employees. If additional slots are available, other students from the community can apply. There is a provision for racial and ethnic balance, although a strong case was made that such a provision was unnecessary because businesses are far more diverse than most neighborhoods.

The first company to participate in the new program is Ryder Systems, the world's largest truck leasing and rental company, which will open a 300 student public charter school for kindergarten through 3rd grade at its Miami headquarters this fall. The school, which will be managed by an education management company, Charter Schools USA, will eventually grow to 500 students by adding 4th and 5th grades.

Virtual Schools on the Web

In the information age, schooling should not be limited by our traditional paradigm of requiring a free-standing, publicly owned and maintained building in order to have a public school.

The Choice 2000 Charter School in Perris, Calif., is the nation's first public school operating entirely on the Internet. The design of the school for grades 7-12 is an academically effective and cost-effective way to take learning to students at home. Classes are held in a teleconference format similar to an Internet chat-room, where more than 40 students can attend. Students use a home computer and modem to connect with a Web server and bulletin board service adapted for school use, giving them a virtual way to attend class, receive assignments, turn in homework and socialize with friends with email.

Teachers present information, hold discussions and answer student questions online from a small office or from their homes. They have many school activities where they get together for field trips, picnics, dances...
and other social activities. Students are not just technology whiz kids. Some are gifted and felt "held back" by traditional school programs. Others have physical or mental impairments that make it hard to go to a school away from home for several hours a day. Some were afraid of violence at their old school or simply didn't want to ride a bus every day. "People think our students are computer nerds sitting in dark rooms with glowing computer monitors," said Choice 2000 principal Myque Jeffers. "But that's not true. For instance, our valedictorian last year was on the Junior Olympics team for karate."33

The school is beginning its fifth year and has been accredited by the Western Association of Schools and Colleges. Students provide their own computers, and budget surpluses are used to help students who can't keep up with the latest technology (California allows charter schools to carry unspent money into future years if they are frugal with current-year money.)

Higher education institutions like the University of Phoenix, now the nation's second-largest university, have already proved that distance learning works at the college level. Now programs like CHOICE 2000 show that it will also work for middle and high school. Closer to home, SAS Institute in Cary is already marketing a virtual curriculum modeled after its exclusive Cary Academy program to public school districts. Why not begin to experiment with virtual high schools in North Carolina?

Sell Naming Rights to Sports Facilities

One popular fundraising idea at the professional and college sports level is selling the rights to name sports stadiums and arenas. The trend is now arriving at the high school level, and North Carolina schools could use this strategy to save money on expensive new athletic facilities.

In 1995 in Clermont County, Ohio, about 20 miles east of Cincinnati, Batavia High School's athletic director got the idea of selling naming rights to its new football stadium by watching the Olympics. Dennis Wells initially set the selling price at $300,000, but after no takers for a year, he lowered the price and approached the Holman family, who were alumni, long-time sports boosters and owners of a car dealership. The final deal gave the schools' athletic program $25,000 upfront and a commitment for $5,000 per year for the next 10 years. There are no tacky logos or slogans on the stadium: just "Holman Stadium." So far, the money has been used to pay for baseball dugouts, a storage barn, athletic equipment and banners.34

Not too far away, Lakota West High School athletic boosters are mounting a campaign to raise $600,000 to pay for a new fieldhouse by selling rights to the stadium name. The superintendent says they aren't selling their soul to do it. "The board has to okay any corporation selected," said Superintendent Kathleen Klink. "It's not like we're abdicating our responsibility. We still maintain control and have to be comfortable with whatever deal is made." In Wisconsin last year, a new $3 million ice arena opened named after a long-time area resident and business leader whose company donated the money in his honor.35

Next: Setting Renovation Priorities and Improving Maintenance

Notes


10. From letter posted on Speaker Webster's web site.


23. Ibid.

24. Ibid.


30. Ibid.


35. Ibid.

*Haynes is director of the N.C. Alliance for Smart Schools. Hood is president of the John Locke Foundation.*
A Model for Implementation: Wake County

The decisive defeat of a $650 million school bond in Wake County in early June reflected a combination of factors and voter sentiments. But pre-election polls and other evidence suggest that Wake residents saw the school-construction package and the resulting property tax increase as excessive. They favored taking action to improve their schools and accommodate rapid growth in student enrollment, but believed the plan offered to them by county leaders was too big, too costly, and too far removed from the schools' core mission of educating the children of Wake County.

As other school systems across North Carolina study the Wake debacle and rethink their own approaches to school construction and finance, it may be helpful to consider how the principles outlined earlier might have generated a different result in Wake County. Indeed, any future solution in Wake County consistent with the strong public sentiments expressed in the June election will require an application of these ideas.

The following discussion presents two options for building the same number of new student slots in Wake County over the next five years that the defeated plan would have built. It also assumes no increase either in property tax rates or the value of the property tax base through revaluation.

Public School Option 1: Build Smaller, More Efficient Schools and Focus on Classrooms First

The defeated Wake school construction package would have spent $938 million on new schools, renovations, technology additions, and other support facilities. It would have been financed by a $650 million bond issue and $288 million in pay-as-you-go financing. The planned new schools were significantly more expensive per-student than state, regional, and national norms, reflecting both a larger size (in square footage per student) and higher costs per foot. At the same time, much of the $372 million in renovation projects was dedicated to non-classroom facilities. The $158 million in planned spending for computers and other technology reflected a poor set of priorities -- particularly in the installation of new computers in elementary schools where their effective use is limited -- as did other non-school facility projects.

Option 1 reflects a fundamental rethinking of needs and priorities (see chart). The budget for new school construction is reduced by one-third to reflect a lower per-pupil benchmark for school construction. In the renovation budget, including only projects that will add additional classroom space results in a far smaller expenditure. Computers and non-school projects are also substantially reduced, reflecting the top priority of accommodating rapid student enrollment growth. The total cost of the redesigned construction program is...
$434 million, less than half the defeated plan. It can be fully funded without a tax increase with a combination of a $325 million bond issue and $109 million in pay-as-you-go financing. It reflects no other changes in school system or county policies regarding contract management of schools, privatization, or increases in the share of students attending independent public schools with state or local charters.

REDESIGNING WAKE COUNTY’S SCHOOL PLAN: OPTION 1

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<td>Other Items</td>
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Wake's original plan would have required a $650 million bond issue and a nearly 40 percent property tax hike over four years; Option 1 would allow same student growth with a $325 million bond issue and no tax increase.

Public School Option 2: Make Greater Use of Community Groups and Private Sector in Public Schools

This option reflects the cost-savings approach of Option 1 but adds two additional ideas. First, the county would develop a system to attract additional community groups, parents, educators, and private firms to operate independent public schools. Currently, groups seeking charters to operate public schools receive a per-pupil allotment for operations but no public money for capital needs. This creates a significant barrier to some individuals and groups in the community with an interest in public education but few financial resources to spend or borrow against to build school facilities.

As stated earlier, Wake County already saves many millions of dollars a year because of the existence of chartered public schools. In 1999-2000, according to the Wake County Public Schools, chartered public schools will absorb 900 Wake students who would otherwise have attended district-run schools, representing a reduction of 25 percent in enrollment growth for 1999-2000. This comes to about $18 million in construction costs borne by chartered schools rather than the school system. Assuming this trend was to continue over the next five years, the Wake public school system will save more than $100 million in capital costs because of the existence of chartered public schools.

The county can do more to encourage the formation of new public schools operated by charter or contract. Option 2 assumes that the county makes available up to half of the school system's per-pupil capital allotment to organizations or companies that offer to create and operate new public schools in Wake County. These would include groups seeking charters, private management companies that might operate traditional public schools, or local employers who may wish to house satellite public schools at or near their workplaces. A conservative estimate would be that such a program of capital assistance would
increase independent public school enrollment by 1,000 students a year over the next five years, reducing enrollment growth in the district-run schools by one-third. This would be a win-win situation. More Wake parents would enjoy choice among public schools. The resulting competition would help improve the quality of all education in Wake County. And by housing one-third of enrollment growth in independent public schools at half the cost of district schools, taxpayers would save an additional $39 million.

The second cost-savings approach in Option 2 assumes expanded use of privatization and other efficiency gains within the school system. These might include contracting out school bus transportation, food service, custodial services, data processing, management, or specialized instructional services. It might also involve transferring some support services, such as custodial and maintenance, to the county. A conservative estimate would be to save $40 million in county spending for school operations over five years, or an average $8 million a year. This represents a savings of only 10 percent in county funding for school support services, or 1 percent of the total operating budget for 1999-2000 ($595.7 million). Option 2 assumes that the total savings ($40 million) would be devoted to additional renovation projects.

The school construction package in Option 2 is the same ($434 million) as in Option 1, but is divided and funded differently (see chart). It would be paid for by a $260 million bond issue, $40 million in efficiency gains, and $134 million in pay-as-you-go financing. Neither of these options is unrealistic or a radical change in school organization, operations, and finance. No assumption is made that state funding policies will be changed to allow Wake County better use of its existing dollars. Nor are private educational alternatives or ideas for expanded choice included.

**REDESIGNING WAKE COUNTY'S SCHOOL PLAN: OPTION 2**

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<td>Other Items</td>
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Wake County Plan: Option 2 would allow same student growth with a $260 million bond issue and no tax increase.

**County Funding Option 1: Devote Most of Projected Revenue Growth to Schools**

Over the past three fiscal years, tax revenues in Wake County have grown at an average annual rate of 8.7 percent. Tax collections expected in the FY 1998-99 county budget total $335.2 million, an increase of 9 percent from FY 1997-98.

Obviously, Wake County tax revenues have skyrocketed in recent years. It would be unwise to base
funding decisions on a continuation of this growth rate. On the other hand, the "problem' of growth in student population over the next five years is simply the flip-side of expected growth in the tax base as the population of Wake County grows, buys homes, purchases retail goods, and expands the local economy. It is reasonable to project continued high rates of revenue growth. This option assumes an annual growth rate of 6.7 percent -- 2 points below the recent average -- through FY 2003-2004. This is, by the way, the average tax revenue growth rate in Wake County during the 1990s.

As the nearby chart reveals, revenue growth over the next five years would approach $300 million in cumulative terms given the above assumption. That is more than enough revenue to cover the bond finance and pay-as-you-go elements of either School Option 1 or School Option 2 while allowing additional local revenue growth to provide county employee pay raises or meet other county priorities.

County Funding Option 2: Seek Efficiencies in County Operations to Further Reduce Taxpayer Cost

In FY 1998-99, Wake County spent a little more than half its budget, or $259 million, on non-public school expenditures. If, through competitive contracting and other efficiency gains, the county reduced its non-public school expenditures by only 3 percent, the resulting cumulative savings to taxpayers would be $50 million from FY 1999-2000 to FY 2003-2004. If used to help pay for school capital needs, that would free up even more of the projected revenue surplus for other county needs, including tax relief.

FUNDING A REDESIGNED WAKE PLAN: TWO OPTIONS

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<td>Fund Option 1</td>
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</tr>
<tr>
<td>Fund Option 2</td>
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</table>

At a tax revenue growth rate of 6.7% through 2004, Wake can afford either school option without raising tax rates. Funding schools totally out of revenue growth would leave $65 million over five years for other needs. Funding $50 million of school needs with county efficiency gains would leave $115 million on the table. NOTE: Spending and funding numbers are five-year cumulative totals.

Conclusion

North Carolina school districts, county commissioners, and other local leaders need to think creatively about how best to reconcile the need for increased school capacity and the widespread sentiment of voters against ever-higher tax burdens. The ideas presented here -- and, no doubt, many other innovative approaches we have yet to encounter -- offer policymakers an opportunity to fashion a solution to the problem that does not divide their community or sacrifice the needs of either schoolchildren or taxpayers.
Notes


*Haynes is director of the N.C. Alliance for Smart Schools. Hood is president of the John Locke Foundation.*
NEW IDEAS

Number 1 -- June 17, 1999

There Are Better Ways

New ideas for school construction in North Carolina and a model for implementation
by Doug Haynes and John Hood*

Setting Renovation Priorities and Improving Maintenance

Much of the facility needs identified by school systems across North Carolina involve not just the construction of schools to accommodate student enrollment growth but also the repair and renovation of existing school buildings. The defeated Wake County construction plan, for example, dedicated only about 37 percent of the total $938 million package to new school construction while directing a larger amount, $372 million, to improvements at 58 existing public schools. The new schools were designed to accommodate an additional 13,000 students into the Wake schools by the 2003-04 school year, while the renovations were to add only 2,000 student slots.36

One tack taken by bond opponents, echoing a similar sentiment among local taxpayers that helped defeat a 1996 school bond referendum in Charlotte, was to question why public school systems with ever-increasing budgets for operations had done such a poor job of maintaining their existing physical plant. After all, both state and local dollars are directed each year to custodial, maintenance, and school facility management. To request hundreds of millions of dollars to cope with "deferred maintenance" and building code violations is to admit, at least implicitly, that previous investments in public schools had been poorly managed and maintained. For example, one problem listed by proponents of the defeated Wake school bond was leaky roofs. But many school systems treat the replacement of roofing as an on-going maintenance expense rather than letting the problem deteriorate and then asking for bonds to re-roof.37

Also seized upon by bond opponents in Wake County was the fact that a major portion of the proposed renovation budget was dedicated to non-classroom facilities such as multipurpose rooms, auditoriums, gymnasiums, and ball fields. If the major problem facing the county was student enrollment growth, opponents asked, why spend $8.1 million at an Apex high school to build a new auditorium, renovate the existing one, and upgrade the school’s ball fields and stadium? Why spend $11.6 million at Raleigh’s Broughton High School when the net result was a loss of three classrooms?38 Similar details about Wake’s renovation program struck many critics as evidence of placing too much emphasis on athletic, performing arts, and support facilities at the expense of classroom space and the county budget.

Of course, older schools do require repair and renovation. High schools do need space for arts education and an athletic program. The question is one of priorities. A school construction package sold primarily as a means of coping with growth cannot simultaneously direct much of its funding to other goals. The likely result, as it was in Wake County, is a negative reaction from disaffected taxpayers.

Part of the problem with school maintenance, as with other public school issues, is the governance and finance structure. Unlike most states, North Carolina primarily funds the operation of public schools from
state taxes, with local taxes serving as a supplement and covering most of the cost of construction. How does the maintenance and repair of existing buildings fit into this division of labor? Not well. Because of limitations on how state money can be spent, local public schools cannot always make the best decision about how to deploy their resources. Managing growth or maintaining older buildings may be a priority in a particular community; nevertheless, its school system is not allowed to transfer state dollars earmarked for other items to help defray the costs.

Independent public schools, or charter schools, on the other hand, can and often do redirect money for operations to capital needs. Furthermore, if charter schools find ways to deliver instructional or non-instructional services at a lower cost, they can use the savings to upgrade physical plant. Traditional public schools cannot do so, thus reducing their incentive to seek out operating efficiencies. Charter schools have not just an incentive but an imperative to innovate -- they get no supplemental local dollars for capital needs and must pay for facilities out of their per-student operating allotment.

Local school districts have very real problems to deal with in school renovation and maintenance, but there are solutions to these problems. They include:

1. **Focus scarce renovation dollars on projects that add classroom space.** Local officials must make decisions about priorities and stick with them. If the policy focus is accommodating growth, then so should be the budget focus. It is true that parents with students in existing, older school buildings often feel left out when construction programs consist mainly of new school buildings. Renovations are sometimes used to placate voters who see little benefit from new schools. But even these renovations should reflect the overall priorities of the county: upgrading and expanding classroom space.

It is important to note that many charter schools across North Carolina have attracted more applications than they can handle even with less expensive and spacious facilities and, frequently, the use of renovated office or commercial space instead of a brand-new school building on a green field. There are many parents in North Carolina -- one might even suggest a majority of them -- whose priorities are classrooms and the learning environment, not support services and athletic facilities.

2. **Demand greater authority from the state legislature to manage per-pupil allotments and reinvest savings from efficiency gains.** Public school districts should seek the same kind of budget flexibility that independent public schools already enjoy, as long as they are willing to accept the same level of accountability for results -- either fixed-term charters or voluntary student enrollment or both. For example, state operating dollars could be sent to local public schools as per-pupil block grants. If a district wished to spend less on one line-item and more on repair and maintenance of physical plant, it should be allowed to do so. Another approach would be to allow school districts to retain any unspent state funds at the end of the year and use them for whatever local educational purpose the districts wish. Finally, if immediate relief from state mandates was not forthcoming, public school districts should consider chartering their own independent public schools to escape burdensome state funding mandates and allow for better use of scarce dollars.

3. **Find more efficient ways to deliver services and reinvest the savings in repair and maintenance.** Regardless of whether legislative relief in the form of block grants or budgetary flexibility is on the horizon, local school districts can and should seek out better ways of purchasing services such as building maintenance, data processing, student transportation, food service, and even specialized instruction such as foreign language, advanced math, or vocational education. Schools across the United States have realized significant savings from contracting out services formerly delivered by school employees.

For example, the school system in Madeira, Ohio has contracted out most of its non-instructional support services. A private company transports students to and from school. Another company provides food
service, which is now supported entirely by receipts. Still another provides custodial service. The system has saved hundreds of thousands of dollars as a result. "We're in business to educate children," said Madeira school superintendent Steve Kramer. "We were trying to find professionals who were in the business of transporting children and feeding children. We were able to do that."39

North Carolina school systems have also been experimenting with support service contracts in recent years. The Chapel Hill-Carrboro City Schools hired Sodexho Marriott Management to run its food service program starting in 1995-96. Offering more meal selections at better prices, Marriott has turned a program subsidized by taxpayers into a money-maker.40 Overall, according to a recent study by the Washington University in St. Louis, contracting out support services can reduce costs for the average school district by 10 percent, with larger savings for urban districts with high enrollments.41

Setting Better Local Priorities with County Dollars

Although North Carolina primarily funds the operation of its public schools with state dollars, local government still supplies a significant share of operations and most funding for capital needs. This isn't going to change, even though the state has created several streams of school-facility funds during the past two decades. Given the fact that counties (and, in a few cases, cities) will continue to play a major role in school finance, it is important for local leaders to set firm priorities and stick to them.

Education will, presumably, top the priority list in many communities. In growing urban and suburban areas where student enrollment is placing a lot of pressure on existing school facilities, the construction or renovation of schools will necessarily supplant other local expenditures -- unless, of course, taxpayers can be persuaded to accept higher taxes. There is little evidence that such a trend is likely. In April, the John Locke Foundation published a report examining total local tax burdens in North Carolina. From 1992 to 1997, the median N.C. county saw its total tax and fee burden rise from 3.88 percent of personal income to 4.59 percent -- an increase of nearly 20 percent in the effective tax burden. Some counties saw even more rapid tax burden growth, while only a few posted a decrease.42

Taxpayers -- aware of this trend toward higher local taxes and paying a total tax bill at all levels of government ranging from a third to half of their income -- will not look favorably on additional tax rate increases in most North Carolina communities. Local leaders need to face this fact squarely.

How can counties fulfill their spending obligations without raising taxes? By setting clear priorities, eliminating unnecessary local expenditures, and pursuing opportunities to contract out services or sell unneeded county assets. Here is a menu of options:

Dedicate most or all of projected revenue growth to school operations and facilities. This reflects the clear priorities of most North Carolina residents. Due to rapid growth in population and continued business vitality, most localities in the state are experiencing healthy annual revenue growth at current rates. Improving education and other services while keeping tax and regulatory burdens low will help to maintain the economic growth necessary to meet local fiscal obligations.

Eliminate unnecessary, wasteful, or counterproductive local spending items. A good example would be taxpayer subsidies for private economic development agencies and other forms of "corporate welfare." Policymakers should focus on attracting new industry and fostering the growth of existing businesses by
delivering high-quality public services at the lowest-possible cost, not by using subsidies, bribes, or special tax breaks to benefit mostly large companies at the expense of small business and taxpayers.

Another example would be taxpayer subsidies for nonprofit organizations that can and should be supported by voluntary contributions and patronage. Many of these groups -- including arts organizations, museums, and recreational associations -- often benefit a relatively small share of local residents at the expense of a less-affluent majority of taxpayers. Residents who use these services should shoulder more of the cost.

Seek opportunities for outsourcing and efficiency gains in local services. Cities and counties across the United States have realized significant operational savings as well as improved service quality by contracting out waste management, data processing, maintenance, child protection and adoption, welfare administration, and other services to private companies or nonprofits. Indianapolis is perhaps the best-known leader in contracting at the local level, having introduced competitive bidding into more than 50 city services and saved $28 million annually. The Indianapolis model demonstrates an important but often misunderstood component of competitive contracting: the private sector need not win for the strategy to work. By responding to competition through innovation and efficient operation, government departments and employees can cut their own costs and win contracts, as have many agencies in Indianapolis.43

In North Carolina, Charlotte has become a leader in local privatization and competition initiatives. Adopting a competitive bidding process in the late 1980s, Charlotte had by 1995 contracted out 84 percent of its engineering and property management needs, half of its internal support services, 71 percent of transportation, 17 percent of finance, and 78 percent of airport operations.44 Mecklenburg and Onslow counties have saved money by hiring a private firm to manage food stamp distribution.45 Home health care services have been contracted out or transferred to private firms and hospitals in at least a dozen N.C. counties.46 Wastewater treatment, landfills, lawn maintenance, and day care operations are also common areas of competitive bidding across the state.

Nationally, studies have shown that competitive bidding and other forms of privatization and competition in local government can reduce operating costs by between 8 percent and 60 percent, depending on the service.47 North Carolina counties that make successful use of these techniques can expect significant savings to taxpayers -- funds that can be redirected toward school facilities in lieu of tax increases.
There ARE Better Ways

1998.


47. Eggers.

*Haynes is director of the N.C. Alliance for Smart Schools. Hood is president of the John Locke Foundation.
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