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On the Cover

Fayetteville Technical Community College's Center for Business and Industry works with individual firms to develop essential employee training programs. Photograph by James M. Carter, FTCC.

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North Carolina's Community College System: Running It and Paying for It

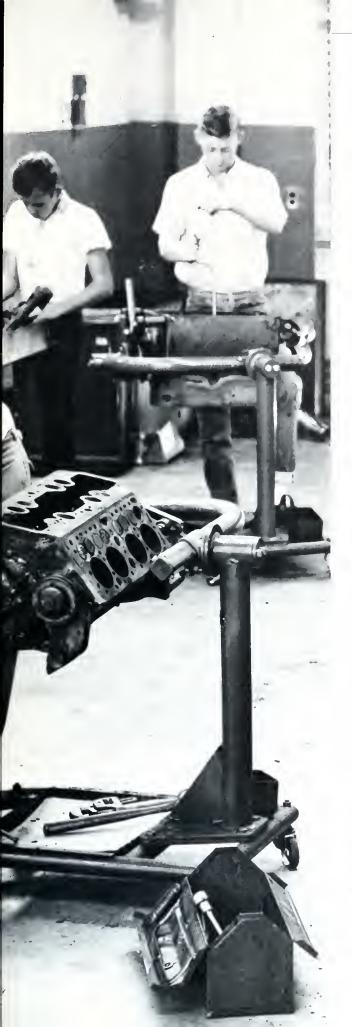
Robert P. Joyce

Each year, one North Carolinian in ten goes to school in the state's community college system. The fifty-eight campuses serve 600,000 students at an annual cost of half a billion dollars.¹ Still, not many people, including leaders in state and local government, understand how the system developed, how it is governed, and how it is paid for.

"Only God and Tom King understand FTE." You can hear that said, for example, on any of the community college campuses. The statement is not literally true. Thomas C. King, Jr., the system's vice president for finance, does understand the concept of full-time equivalent—a notion deeply embedded in the system's budgeting and finance—

The author is an Institute of Government faculty member who specializes in higher education law.





and how 600.000 students become 120.000 FTEs. but so do many others. Nevertheless, the sentiment behind the statement, revealing misperceptions and confusion, is real.

Development of the System

The State Board of Community Colleges in 1986 adopted a logo for use by the system. Three successively larger vertical bars appear to swing out from each side of a central opening, issu-

ing to the viewer a symbolic invitation to enter. This logo is the "open door" that has been the hallmark of the community college system throughout its existence. At an orientation conference in 1964. W. Dallas Herring, chairman of the State Board of Education, which had initial responsibility for community colleges, explained the rationale for this policy:



The only valid philosophy for North Carolina is the philosophy of total education; a belief in the incomparable worth of all human beings, whose claims upon the state are equal before the law and equal before the bar of public opinion; whose talents (however great or however limited or however different from the traditional) the state needs and must develop to the fullest possible degree. That is uchy the doors to the institutions in North Carolina's system of community colleges must never be closed to anyone of suitable age ucho can learn uchat they teach. We must take the people uchere they are and carry them as far as they can go.²

First two-year public colleges

Buncombe Connty Junior College (BuCoJuCo in local parlance) opened. in 1927 in the basement of a public school, as the state's first tuition-free public junior college. It had a broad curriculum that ineluded the regular liberal arts training of a junior college but also included vocational and technical programs in pre-nursing, industrial arts, secretarial science, home economics, and pre-aviation. Shortly afterward, the Asheville board of education started the College of the City of Asheville, also tuition-free and open to any high school graduate in the city. These two colleges anticipated four of the basic features of today's community college system:

- They were *inexpensive*. Tuition was free. Today's community college students pay only \$90 per academic quarter.
- 2) They were conveniently located. These colleges were designed specifically to serve Asheville and Buncombe County students. Today's community college system has the goal of having a school within thirty miles of nearly all potential students.
- 3) They avoided rigorons entrance requirements. The College of Asheville was open to all local high school graduates. Today's "open-door" community colleges welcome high school graduates and those who are of high school graduate age, regardless of their prior academic record.
- 4) Their curriculum was broader than the traditional offering of two-year schools, with an emphasis on occupational training and adult education. Today's community colleges are dedicated to the concept of the *comprehensive curriculum*.

Because of financial woes attending the Great Depression, the two colleges were merged, in effect, into Biltmore Junior College. Under the names Biltmore College and then Asheville-Biltmore College, the institution remained the sole public junior college in North Carolina until 1946.

Returning soldiers and new campuses

With the end of World War II. North Carolina was flooded with former GIs eager for higher education. There was a five-year backlog of collegehungry young men and women along with the regular complement of new eighteen- and nineteenyear-olds. Existing campuses, such as the one at Chapel Hill, were filled past overflowing. In reponse, the extension division of The University of North Carolina at Chapel Hill opened twelve offcampus freshman centers around the state in the fall of 1916.

The Wilmington center served 250 students in that first academic year. When there was no quick decision by state college officials to expand the centers to include sophomore-year study. New Hanover County voters in 1947 imposed a tax on themselves to support and expand the center. Wilmington College was founded, the state's second public junior college. Like Asheville, Wilmington offered two years of liberal arts study but also emphasized vocational and technical training. The 1947 enrollment was 491, and within six years it exceeded 1.000.

The Charlotte center by 1949 had grown to be the largest in the state. Charlotte voters lent their support, as voters in Wilmington had done, and Charlotte College was created. So cramped was the school for space that it could not enroll all interested students in regular day classes: its administrative offices were in the former lost-and-found office of a high school. In 1950 Charlotte founded a companion junior college for African-American students. Carver College, under the same board of trustees.³

The Greensboro center evolved into a municipal "evening college" and in 1953 became a part of Guilford College.

About this time the notion of "community college" was gaining its first acceptance nationally. The Truman Commission.⁴ a national commission on higher education. in 1947 reported that a community college is one that "will provide college education for the youth of the community certainly. so as to remove geographic and economic barriers to educational opportunity and discover and develop individual talents at low cost and easy access. But in addition, the community college will serve as an active center in adult education. It will attempt to meet the total post-high school needs of the community."⁵

"No damn fly-by-night colleges in North Carolina"

In 1950 the state superintendent of public instruction authorized a study of North Carolina's need for community colleges. In 1952 the resulting Hurlburt report (so called for its author. Professor Allan S. Hurlburt of The University of North Carolina at Chapel Hill)⁶ called for the establishment of community colleges and laid out plans for financing and locating the schools. "A community college, tuition free, located near the homes of prospective students, should greatly increase the total number of students who would continue schooling beyond high school." the report concluded.⁷ It even ineluded an ontline of legislation necessary to start a community college system.

State Representative Roy A. Taylor (later a United States congressman), who had been educated at the Asheville junior college, brought these recommendations to the 1953 General Assembly. His bill failed. In the wake of this failure, Governor Luther H. Hodges (1954-61) appointed a Commission on Higher Education, which reported back with a recommendation for creation of a State Board of Higher Education.⁸ The 1955 General Assembly set up the board.⁹ and its first chairman, D. Hiden Ramsey of Asheville, became an ardent supporter of tax-supported junior colleges. He was not, however. a friend of the open door. As Hurlburt later remembered. Ramsey, stressing the need for high admissions standards, said that as far as he was concerned we were "not going to have any damn flyby-night colleges in North Carolina."10

Hand in hand with the insistence on higher admissions standards was the notion that collegetransfer courses and vocational courses should not be mixed in the same school. Although the "comprehensive" eurriculum pioneered in Buncombe County and advocated in the Hurlburt report provided just such a mix, the first full-time director hired by the new state higher education board. Harris Purks of Chapel Hill, said that there was to be no support for "any additional vocational or occupational training program which cannot clearly be defined as higher education." He derided vocational training as "the way to prepare for expected situations" that is "practical [only] if the person has guessed right."¹¹

The first "community college" law

Until 1955. Asheville-Biltmore. Wilmington. Charlotte, and Carver colleges were entirely dependent on local taxes and student tuition (which had been introduced gradually along the way). That year, for the first time, the state appropriated funds to support the schools—a total of \$19,500 per school. Although the General Assembly had passed legislation to permit their existence, there had been no state regulation and no regular state support.

The first comprehensive legislation came in 1957. That year's Community College Act¹² provided funds for public junior colleges to offer a "limited curriculum consisting of courses at the freshman and sophomore levels in liberal arts and sciences....^{*13} The opponents of the "comprehensive curriculum" had won, and the colleges admitted into the new community college system—Asheville, Wilmington, and Charlotte—were to become traditional liberal arts junior colleges.

In exchange for the money, the colleges were required to sever their bonds with the local boards of education that had given them birth and to come under the jurisdiction of the new higher education board. Each school was to have its own board of trustees, appointed jointly by the local eity or county governing board and the local school board. This organization has persisted into today's community college system.

In every other sense, the original Community College Act pushed North Carolina's first public junior colleges away from the model that we now think of as a comprehensive community college (and that the Truman Commission and the Hurlburt Commission both advocated). The vocational and adult education parts of the curriculum faded away. By 1960, tuition charges at Asheville, Wilmington, and Charlotte all exceeded tuition at the state's four-year colleges.¹⁴

Comprehensive community colleges

As the public junior colleges moved away from vocational training, the General Assembly appropriated half a million dollars to create industrial education centers devoted entirely to vocational training. In 1958 the State Board of Education set up such centers in seven cities. Within three years, the Burlington center enrolled 2,400 students, and by 1963, a total of twenty centers enrolled 34,000.¹⁵ The centers were operated as parts of the local school systems and were administered by the local board of education, with an advisory board appointed by the local superintendent. Beginning in 1961, the state board set up extension units in additional areas that could not support a full industrial education center.

To serve the needs of their vocational students, the industrial education centers began offering liberal arts courses in English, mathematics, and the like. As a result, two separate tracks were created—the public junior "community" colleges, which

increasingly resembled liberal arts colleges, and the industrial education centers with liberal arts offerings. And the two tracks operated under separate state authorities (the higher education board and the State Board of Education. respectively). This duplication was part of Governor Terry Sanford's motivation in 1961 to set up a commission to study the entirety of post-high school education in North Carolina. The Governor's Commission on Education Beyond the High School issued a report in 1962 that called for the creation of additional "community colleges" offering not only freshman and sophomore college-level courses, like the public junior colleges, but also technical, vocational, and adulteducation courses for both college and noncollege students. The report identified a convenient way to bring into reality this comprehensive community college: "The combination of industrial education centers with community colleges will potentially more than double the enrollment in comprehensive community colleges, but many students will not be high school graduates and will not be taking college level courses."16

The concept of the community college that we know today—low cost, conveniently located, nonresidential, governed by a local board of trustees, and comprehensive in its curriculum—was presaged by this report and embodied in the final report of the Commission on Education Beyond the High School.¹⁷ And it was the presence, and obvious success, of the industrial education centers that made the creation of the community college system a possibility. Instead of expanding the 1957 version of public junior colleges into true "community colleges" by the addition of vocational and technical elements. North Carolina started from a base of noncollege, industrial training centers and, in effect, transformed them into a college system.

Today's Community College System

In 1963 the General Assembly adopted the recommendations of the Commission on Education Beyond High School almost in their entirety. The most durable part of the commission's proposals dealt with the public two-year institutions. Charlotte, Wilmington, and Asheville-Biltmore colleges were elevated to senior-college status (and, later in the decade, were merged into The University of North Carolina). Their transformation from their early incarnations resembling community junior colleges into more traditional liberal arts institutions was complete. Many other recommendations dealt more generally with The University of North Carolina and the other public senior colleges outside the university system. But the section of the report that contained the most recommendations involved the creation of a system of comprehensive community colleges, low in tuition, broad in emriculum, open to all comers, and close to everybody. The resulting Omnibus Higher Education Act, passed by the General Assembly in 1963.¹⁸ set the stage for the creation of the community college system we know today.

Early years

The Charlotte. Wilmington, and Asheville institutions were lost to the community college system. The only community colleges left in the state were Mecklenburg College (which was the successor to Carver College) and the College of the Albemarle in Elizabeth City (which had been created under the 1957 Community College Act). In addition, at the time of the 1963 act, there were twenty industrial education centers and five extension units of those centers. These twenty-seven institutions became the core of the state's new community college system.

The new system was to be composed of three types of institutions: community colleges (defined to include institutions that offered freshman and sophomore college arts and sciences courses for college transfer in addition to technical, vocational, and adult education), technical institutes (which, in addition to vocational and general adult education, offered curricula for the training of technicians), and industrial education centers (which were limited to vocational and general adult education).¹⁹

Immediately the organization of the new system, inder the State Board of Education, got under way. Mecklenburg College and Charlotte's industrial education center were merged to form Central Piedmont Community College. A new community college. Gaston College, was created and merged with two local technical centers. Within five years, the system comprised thirteen community colleges Colle

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and thirty-seven technical institutes. Of these fifty institutions, twenty had started as industrial education centers, and another lifteen had been extension units of those centers. The remainder were created within the community college system as technical institutes or community colleges. The industrialeducation-center title fell into disuse with the transformation of the centers into technical institutes and was not included in the 1979 recodification of the community college law.²⁰

The first five-year progress report of the system. published by the State Board of Education in 1968,²¹ eited elements of the community college philosophy that sprang from the 1940s Truman report and the 1950s Hurlburt report and that characterize the system today:

- An open door: "The doors of the institution must be open to every adult who shows an interest and who can profit by the instruction offered."²²
- The comprehensive curriculum: "Vocationaltechnical education is an integral part of the total education program, and training programs must fit adults for useful employment in a competitive society."²³
- Low tuition and convenience: It is an objective of the system "[t]o provide relatively inexpensive, nearby educational opportunities for high school graduates, school dropouts, and adults."²¹

Réorganization

A decade after the publication of that first fiveyear progress report. Brunswick Technical Institute became the fifty-eighth, and latest, member of the system. In 1979 its name changed to Brunswick Technical College, and today it is known as Brunswick Community College, with a total enrollment of more than 5,000.

Brunswick's changes reflect changes in the system since 1978. The General Assembly first determined that there was no significant difference between a technical institute and a technical college and then, in 1987, authorized all fifty-eight members to adopt the phrase *community college* in their title.²⁵ All of them have made the change.

When Brunswick first came into the system, the state Department of Community Colleges was still

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Cape Fear Community College is one institution that began as an industrial education center.

under the control of the State Board of Education. It was simply an adjunct of the state's public schools—providing a thirteenth and fourteenth grade, in a sense. But in 1979 the General Assembly established the State Board of Community Colleges and transferred the department to it.²⁶ Today the community college board operates as a third leg of the state's system of public education, along with the State Board of Education and the Board of Governors of The University of North Carolina.

Running the System

In 1980 state control over the community college system shifted from the State Board of Education (which has control over all the public schools of the state) to the new State Board of Community Colleges, composed of the lieutenant governor, the state treasurer, several members appointed by the governor, and several members appointed by the two houses of the General Assembly, with all appointees serving six-year terms.²⁷ By statute, the state board establishes policies, regulations, and standards for the administration and operation of

Morris

Anne

How the System Has Changed

North Carolina's community college system has changed in many ways during its first quarter century of existence. Shifting student demographics, emerging interests and needs for new programs, and expanding contributions to the community—all of these trends reflect the system's vitality and have strengthened its purpose.

Changing Student Mix

The major change in the student population over the past twenty-five years has been a large increase in female enrollment throughout the system. from 35 percent in 1968 to 50 percent in 1978 and to 59 percent in 1988.¹ This increase required adjustments in

Classified advertisements proclaiming the nursing shortage have brought both men and women into the nursing programs available at community colleges. Women, who are enrolling in increasing numbers, are also entering nontraditional fields and finding great success.



the 1970s and 1980s in a system created with a male bias in vocational programming. Expanded female enrollments forced colleges to increase curricula, especially in areas of traditional female careers, such as cosmetology, associate-degree nursing, child development, and human services, as well as college transfer (women accounted for 59 percent of collegetransfer enrollment by 1988).

Nevertheless, a current trend toward two-year technical curricula (associate in applied science degree programs) has created a new programming challenge. Females constituted 40 percent of technical students in 1968, 51 percent in 1978, and an astounding 64 percent in 1988. In contrast, females accounted for a much smaller proportion of vocational students (one-year diploma program): 26 percent in 1968, 30 percent in 1978, and only 33 percent in 1988.

Percentages of female enrollment would have been higher in the 1970s if it had not been for the large number of veterans returning from Vietnam. In the early 1970s more than 33,000 veterans received benefits each year in the community college system. In contrast, the number in the 1988-89 academic year was less than 5.000. The open-ended veterans' law. known as the Post-Vietnam G. I. Bill, provided benefits for all veterans in all previous wars and service periods. Under this lawwhich ended on December 31. 1989. after fourteen vears-veterans received benefits up to \$300 per month as an incentive to go to college with a full load of courses, day or night. As a result, night programs flourished, and one-year vocational programs sustained growing enrollments well into the 19705.

The percentage of minority students in the system also has shown a modest increase overall but a slight

the colleges in the system. It is specifically empowered to approve sites, buildings, building plans, and budgets: to set standards for each college's curriculum, professional personnel, admissions, and graduation: to establish and regulate tuition, fees, and accounting procedures; and to contract with local school boards for the establishment of extension units in counties that do not have a community college.²⁸ The board's policies are administered by the Department of Community Colleges. The department's chief executive officer is the president of the North Carolina system of community decline in the last decade: from 14 percent in 1968 up to 23 percent in 1978, but down to 20 percent in 1988. In fact, there has been a decline in black enrollments in all postsecondary education in the past decade, which most college officials attribute to a decline in available financial aid.

Changing Program Mix

In addition to the changes required by the increase in female enrollments, shifts have occurred in all curricula. College-transfer enrollments have experienced a gradual increase over the past twenty years, rising from 4,900 FTE in 1968 to 7,830 in 1978 and to 11.736 in 1988. The greatest increase in growth has been in technical programs, which have grown from 9,747 FTE in 1968 to 45,211 FTE in 1988. In contrast, vocational programs, which had 7,632 FTE in 1968, grew to 20,309 in 1978 near the end of the veterans' era but then declined to 17,092 in 1988.

Traditionalists continue to voice strong support for one-year vocational programs even though the student base to support those programs has decreased. Equally difficult for vocational advocates to accept is the gradual growth in college-transfer programs for students interested in local, low-cost college education leading to careers in teaching. business, engineering, and medical fields. When the community college system was established, all nineteen founding institutions offered college-transfer programs. By 1989, the number had grown to thirty-four. The 1987 General Assembly approved a name change from "technical" to "community" college for all colleges in the system, and all have changed their names to incorporate the synonym of a college-transfer institution. In addition, twelve have college-transfer agreements with four-year institutions allowing credit earned at a community college to count toward a bachelor's degree.

A Community Institution

The largest area of growth in community service in the last five years has been in the system's literacy program. Robert W. Scott, president of the system of North Carolina community colleges, has taken a leadership role in making literacy a state issue and a high educational priority. The level of expenditure for this program has reached \$20 million per year, and it has become the single, most advanced literacy program in the county. The program offers instruction at all levels through high school completion and has a high enrollment. Last year more than 16.260 individuals received the General Education Diploma or the Adult High School Diploma. And this is only the tip of the iceberg.

North Carolina community colleges also have grown into new service fields as community needs have developed. The Visiting Artist Program has brought a unique resource to all communities. A visiting artist is assigned to each college for a one-year appointment. The artists do not teach community college courses, but they offer free workshops, performances, and showings to the community, primarily through the public schools. Community service programs have reached a large population of the elderly at senior centers and meal sites. Supported by community block grants, these programs provide free, noncredit, enrichment courses in areas such as art. crafts. and foreign languages. Yet another program sponsors instruction through sheltered workshops for the mentally handicapped. The workshops train individuals in menial but constructive tasks and provide industry with low-cost labor.-Joseph W. Grimsley

Notes

1. All statistics presented in this article are taken from N.C. Dept. of Community Colleges, *Annual Statistical Report*, vols. 1–24 (Raleigh, N.C.: 1965–1989).

colleges.²⁹ Since 1983 the president has been Robert W. Scott. former governor (1969–73) of the state.

Under this broad umbrella of state board authority, each college is governed by its own board of trustees. The local board consists of members appointed by the local boards of education in the counties the college serves, members appointed by the boards of commissioners of those counties, and members appointed by the governor.³⁰ The local board owns the land and buildings, enters contracts for the college, chooses the president (subject to the approval of the state board), and hires all other employees upon the recommendation of the president. It also sets the salaries of employees within guidelines adopted by the state board and determines whether employees will be full-time or parttime.³¹

This division of authority between the state board and the local trustee boards reflects the division originating in the 1957 Community College Act. The public junior colleges that existed before 1957 had been strictly local entities, paid for and governed on a local basis. In 1957, authority over their affairs was taken from the local boards of education and divided between the State Board of Higher Education (later abolished) and the local boards of trustees. This organization also mirrors a division that characterizes the governance of the public schools. There the State Board of Education (and the Department of Public Instruction under the superintendent of public instruction) sets broad patterns of control, and the local boards of education implement the state policies at the county or city level.32

Within both the community college system and the public school system, it is not always clear where the boundary is drawn between state power and local power. In the recent controversy between the State Board of Education and several local school boards over contracts to permit the showing of the commercial news operation Channel One in school, the issue is whether the state board has the power to order local units not to permit the teleeasts.³³ No similar, clear-cut issue has divided the state community college board and local boards of trustees yet, but the principles would be quite similar. Although the outcome of the Channel One controversy will likely clarify state-local relations in the governance of the public schools, it is not likely to provide similar clarity with respect to relations within the community college system. There is a fundamental difference between the public school and community college systems. The State Board of Education is established in the state constitution, and the constitution empowers it to "make all needed rules and regulations [for the public schools], subject to laws enacted by the General Assembly."34 The State Board of Community Colleges, on the other hand, is strictly a creation of the General Assembly. Nonetheless, a definitive outcome in the Channel One controversy

will likely set the tone for resolution of similar state-local power questions within the community college system.

Paying for the System

The state and the counties served by a comminity college share the duty of paying for the college. By statute, the state pays for salaries and other costs of administration, instructional services, and support services (called current operations expenses): pays for furniture, equipment, library books: and, when the appropriations are made by the General Assembly, provides matching funds (to be paired with local funds) to buy land and to construct buildings (collectively called the plant fund).³⁵ The counties served by community colleges must pay for maintenance and repairs to buildings and equipment. rent. utilities. costs of custodians. insurance, and legal fees. In addition, acquisition of land, erection and alterations of buildings, purchase and maintenance of vehicles, and maintenance of grounds are local responsibilities.³⁶ The state has, since 1959, spent more than \$200 million on construction in the system in addition to money spent by the counties.³⁷

Full-time equivalent

The General Assembly appropriates funds for the system and distributes them through the Department of Community Colleges to the colleges. How does the General Assembly determine the amount to be appropriated, and how does the department determine the allocation to each college? The key is the FTE.

An FTE is a statistical picture of a "typical" student. This hypothetical student spends sixteen hours in class each week for an eleven-week quarter, totalling 176 hours per quarter and 704 hours for a full school year. Two students who attend eight hours each over the forty-four weeks of the school year together count as one FTE. If a college could offer a one-hour course that was attended by 704 people, that crowd together would generate one FTE.

Calculating FTEs is not as simple as it sounds, however. The community college system's open-door policy makes counting students difficult. To a much greater extent than is typical in noncomprehensive. selective colleges, students drop courses before the end of a term. The system has solved this problem with the "20 percent report date." On the date that a class has met one fifth of the times that it will meet for the quarter, the instructor counts the students who have not withdrawn or been dropped from the course and who have attended at least once. That number multiplied by the number of hours the class meets is the figure used to calculate the course's contribution to the school's FTE total.³⁸

Once the school's FTE grand total is calculated. the budgeting process begins. First, the State Board of Community Colleges calculates the FTE total for all colleges in the system and presents that total to the General Assembly with a request for a certain amount of money per FTE as the state's appropriation for operating expenses.³⁹ In 1989 the General Assembly decided to base the appropriation on either the preceding year's FTE or the average of the preceding two years, whichever is higher, to avoid a harsh budget cut when systemwide enrollment falls. In the spring of each year, the state board notifies each college of the FTE expectation for the coming fiscal year and the college's corresponding state appropriation.

Meanwhile, each college's hoard of trustees makes a budget request to the local board of county commissioners, and the county commissioners make their appropriation to cover the county's responsibilities. On average, about 12 percent of operating expenses are paid from local money (about nine tenths of which goes for utilities and custodial and maintenance workers' salaries), and the remainder comes from state funds. (If the commissioners fail or refuse to provide the required financial support. the state board may withdraw all state support, in effect shutting down the college.)40 The trustees then submit their budget to the state board for approval. Because the state has provided an appropriations estimate and because the school follows a mandated accounting and budgeting system, approval usually follows quickly.

Problems with the FTE

In addition to the difficulty of making the FTE reflect actual enrollment, in practice it has led to a number of problems. Some instructors have reported fictitious students for purposes of increasing the FTE in the course and fraudulently extorting money for instructor salaries. In all instances, it is in the school's interest to have high FTE figures to maximize its allocation of state appropriations, creating a temptation to count students who should not be counted, or to offer courses that will attract FTEs but will not benefit students or the community as much as other courses would. To address the latter problem, the state board has limited the types of courses that count for budgetary FTE purposes to exclude certain "community service" types, such as basket weaving. Auditors from the Department of Community Colleges check regularly for fraudulent or erroneous FTE reporting.

But even on a theoretical level, the FTE is problematical. It costs more to teach a nursing student than to teach a mathematics student, for example, but each student contributes exactly the same to the FTE, hour-for-hour, and draws the same allocation from the state. A college might find it too expensive to add a new section of nursing students because the cost of teaching them is too high compared with the state allocation that will follow them. In addition, some students, by the nature of the subject matter involved, are simply in class longer than students in other courses. They therefore contribute disproportionately to FTE. An automobile mechanics student who must work with the cars in the school's garage, for example, may be in elass significantly longer than a student who can do more of the work independently in the library or away from school. The department is considering ways of addressing these problems, such as weighting different course hours separately. As it is now, each school determines what courses it will teach and its own balance of high-cost and high-yield courses. 🍫

Notes

1. N.C. Dept. of Community Colleges, "Annual Financial Report" (1989).

2. Jon Lee Wiggs, *The Community College System* in North Carolina: A Silver Anniversary History, 1963–1988 (Raleigh, N.C.: Dept. of Community Colleges, 1989), 13 (emphasis added). To carry out this mission, the community college system offers three distinct types of instruction. In college transfer programs, many institutions offer arts and science courses at the freshman and sophomore level. In technical programs, the schools offer two-year degree programs specializing in subject matters such as nursing and computer technology. In vocational programs, one-year programs specialize in plumbing, automobile mechanics, and similar practical training. In addition, the system offers under the rubric general education a variety of programs such as adult literacy and high school GED programs.

3. Carver College was a blacks-only institution, and Charlotte College was predominately white. Carver College eventually evolved into Mecklenhurg College, and that school eventually was merged with a predominately white industrial education center to form Central Piedmont Community College. Central Piedmont was a fully integrated institution from its inception. No institution in the present community college system, which came into being in 1963, has had a racial designation.

4. The official name of the commission was the President's Commission on Higher Education.

5. Higher Education for American Democracy. vol. 1 of Report of the President's Commission on Higher Education (Washington, D.C.: GPO, 1917). 67-68 (emphasis added).

6. Community College Study. Publication no. 285 (Raleigh, N.C.: State Superintendent of Public Instruction, 1952). See discussion in Kenyon Bertel Segner III. A History of the Community College Movement in North Carolina 1927–1963 (Kenansville, N.C.: James Sprunt Press, 1974), 41–51.

7. Hurlburt. Community College Study. 8.

8. State Supported Higher Education in North Carolina: The Report of the Commission on Higher Education. (Raleigh, N.C.: 1955). The State Board of Higher Education existed from 1955 to 1972. After 1955 its duties with respect to community colleges were transferred first to the State Board of Education and then to the State Board of Community Colleges. It was abolished in 1972, and its duties with respect to other colleges and universities in the state were transferred to the Board of Governors.

9. N.C. Gen. Stat. §§ 116-154 through -167.

10. Wiggs. The Community College System. 4.

11. Segner, History of the Community College Movement, 19.

12. 1957 N.C. Sess. Laws ch. 1098. codified at N.C. Gen. Stat. §§ 116-17 through -62.

13. 1957 N.C. Sess. Laws ch. 1098. § 7(a).

14. Segner. History of the Community College Movement, 25.

15. Segner. History of the Community College Movement. 74.

16. C. Horace Hamilton, "Community Colleges for North Carolina: A Study of Need, Location, and Service Areas, for the North Carolina Board of Higher Education and the Governor's Commission on Education Beyond the High School" (1962), 37.

17. The Report of the Governor's Commission on

Education Beyond the High School (Raleigh, N.C.: 1962). See especially pp. 65–76.

18. Codified at N.C. Gen. Stat. Ch. 115A (since replaced by Ch. 115D).

19. N.C. Gen. Stat. § 115A-2 (repealed).

20. 1979 N.C. Sess. Laws ch. 462.

21. Dept. of Community Colleges. State Board of Education. Progress Report of the Community College System of North Carolina: First Five Years 1963–1968 (Raleigh. N.C.: 1969).

22. Dept. of Community Colleges. Progress Report. 8.

23. Dept. of Community Colleges. Progress Report, 8.

24. Dept. of Community Colleges. Progress Report. 12.

25. N.C. Gen. Stat. § 115D-2. See Chapter 564 of the 1987 Session Laws. which eliminated the designation *technical institute*. The designation *industrial education center* was eliminated in 1979 by Chapter 462 of the 1979 Session Laws.

26. This transfer was made with the enactment of Chapter 115D of the General Statutes to replace Chapter 115A. The transfer to the new State Board of Community Colleges became effective July 1, 1980.

27. N.C. Gen. Stat. § 115D-2.1.

28. N.C. Gen. Stat. § 115D-5.

29. N.C. Gen. Stat. § 115D-3.

30. N.C. Gen. Stat. § 115D-12. In several instances, a community college is supported jointly by two or more counties.

31. N.C. Gen. Stat. § 115D-20.

32. See generally N.C. Gen. Stat. Ch. 115C.

33. The Thomasville city board of education has begun an administrative proceeding in the Office of Administrative Hearings, and the State Board of Education has begun a parallel proceeding in the superior court of Wake County.

31. N.C. Const. art. IX, § 5.

35. N.C. Gen. Stat. § 115D-31.

36. N.C. Gen. Stat. § 115D-33.

37. Ben E. Fountain and E. Michael Latta. *The Community College System in North Carolina: A Brief History* (Raleigh, N.C.: State Advisory Council on Vocational Education, 1990). 13.

38. N.C. Admin. Code tit. 23, r. 2D.0323.

39. In 1989 the total was \$2.966 per curriculum FTE. The continuation budget total was \$2.770. The additional money comes from the 6 percent salary increase for state employees, including community college employees, and the distribution of a \$5.000,000 appropriation by the General Assembly in what are referred to as "restoration funds," Restoration funds are designed to bring the North Carolina appropriation per FTE up to the national average of \$1,400. The North Carolina total now (local funds plus state appropriation) is approximately \$3.300 per FTE.

-40. N.C. Gen. Stat. § 115D-6.

Community Colleges: Centrally Positioned to Help the At-Risk Student

Donald W. Bryant

Throughout the history of education, there have been those students who excelled or at least met the requirements for high school graduation, and there have always been those who, for whatever reasons, did not make it through the system. But within the last several years, we have begun to hear much about this latter group, the "at-risk" students. The cries about at-risk students seemed to start with the report A Nation at Risk: The Imperative for Education Reform published in 1983.¹ Since this landmark publication, there have been endless documents all dealing with the same subject. Now educators apparently are faced with the problem of how to deal with a large at-risk population. The purposes of this article are to explore the reasons behind the problem. to show how the nation is still at risk, and to indicate why community colleges are in a pivotal position to make positive changes to alleviate the situation.

Contributing Factors

The problem of at-risk students had existed in the United States for many years. But the Supreme Court's 1957 ruling in *Brown v. Board of Education*, which held that segregation on the basis of race was unconstitutional, helped heighten our awareness of it. As *Brown* opened up more educational opportunities and jobs for minorities, the number of at-risk students increased, and the problem became more visible. For example, scores on the Scholastic Aptitude Test (SAT), widely perceived as the primary indicator of how well schools are performing, bottomed out in 1980 at a mean score of 890 (on a scale of 400 to 1600)—a 4-point drop from the previous year that marked the end of a 90-point catastrophic drop over two decades. The precipitous drop began with demographics of opportunity, and the nation has simply never recovered.

Following recognition of the problem and its extent. public schools, community colleges, and other agencies involved in providing literacy education began to take steps to correct it. However, the long way back was and is not easy. SAT scores began to climb in 1982 and continued to climb until 1988, when they fell a modest 2 points to a 904 average. In more than a decade, however, the country has made a gain of only 14 points on the SAT. and even that slow progress went into an absolute reverse in 1988. As former Secretary of Education William J. Bennett stated in April. 1988, "[T]he absolute level at which our improvements are taking place is unacceptably low."² The bottom line is that the nation is still at risk, and the problem is not likely to correct itself for a number of reasons.

First, the demographics of the work force are being affected by an aging population that lessens

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the availability of a worker pool to fill entry-level and mid-level positions. Between 1980 and 2000, the number of people in the fifteen-to-thirty age bracket, who supply most of the personnel for entry-level jobs, will decrease by 10 percent. The number in the thirty-to-forty-nine age bracket will increase by 10 percent; but these people usually are unsuited for or unwilling to work in entry-level positions. Thus, while the pool of workers for entry-level positions will be declining, the number of vacancies will be increasing.

Second, the nature of work is changing. The complexity of work is eliminating many jobs for the unskilled and creating jobs for those with technical skills. A large majority of positions in all job classifications will require some form of postsecondary education for entry-level work by 1995. However, while the number of workers available to fill those positions is decreasing, the percentage who lack basic literacy skills, much less some form of higher education, is actually increasing.

Third, in the past when one was educated or trained, it was assumed that one was educated or trained for life. This is no longer the case. The accelerating obsolescence of skills is creating a whole new dimension of challenge. It has become necessary to be retrained frequently to stay in step with ever-changing conditions in the workplace. Entire categories of jobs are changing faster than the working life-span of an individual.

Fourth, the schools' clientele has changed drastically. The students to be served will have higher percentages of blacks. Hispanics, and members of other minority groups. Typically, they will be products of inadequate secondary schools and racial prejudice. Consequently, their academic backgrounds will be weak. The population also will include many children of broken and single-parent homes. For various social and psychological reasons, these potential students are often unprepared to meet the challenges of secondary or postsecondary education.

Fifth, the cost of any kind of higher education has far outstripped the cost of living, and it quickly is becoming prohibitive for lower-income students. One indicator of this trend is the steady increase in the proportion of loans relative to total student financial aid. As late as 1980, loans accounted for only 10 percent of all student support. But by 1984 this percentage had increased to about 53 percent, and it continues to rise. In addition, the anticipated decline of federal financial aid can only exacerbate the problem. A person who is poorly prepared, poorly motivated, and faced with the rapid obsolescence of skills and no or inadequate funds to purchase an increasingly costly education has every reason to fail or not even make the effort.

How Community Colleges Can Help

Community colleges are in a pivotal position to do something about the at-risk situation for several reasons. First, as intermediaries between secondary schools and four-year colleges, they are expected to be key players in solving the problem. Harold L. Hodgkinson observes that American education is "all one system." from kindergarten through graduate school: actions taken in any sector of the system require adjustments in the other areas.3 Moreover, as Burton R. Clark points out, the practice of promoting ill-prepared students for reasons of social adjustment automatically creates a need for remediation at the next grade level.⁴ In most instances, that need is not met by the public schools, and the proliferation of remedial programs at the college level offers no incentive to deal with the problem at a lower level. However, universities have deplored the continued need to do remedial work. As early as 1982 the Washington State Couneil for Postsecondary Education expressed concern over this situation:

With substantial numbers of students coming to college academically unprepared, the costs of remediation are high in terms of time, energy, and money. The teaching of remedial courses already may have altered the character of many of Washington's colleges and universities, placing them in the dual role of high schools and institutions of higher education... In the face of the need for college faculty and administrators to direct institutional resources to responsibilities of higher priority, the growth and availability of remedial services must be scrutinized and enrtailed.⁵

If universities are increasingly unwilling to perform this necessary task, and if the public schools are no more successful in the future than they have been in the past in dealing with the problem, the finger of responsibility points directly at the community college system. Confining postsecondary remediation to community colleges is highly consistent with the system's ideals of access and excellence. More than half of our nation's entering freshmen attend a two-year institution. Most minority students who seek access to higher education do so through community colleges, and the system's flexible programs have given the over-twenty-five population a second chance at higher learning. Moreover, community colleges are in an ideal position to provide guidance to the nation's public schools and to engage in meaningful dialogue with the universities.⁶

Second, the General Assembly, the State Board of Education, and individual communities are pressuring community colleges to do a better job in linking their curricula, organizational structure. and personnel with secondary education. This linkage, known as articulation in the education community, involves many kinds of joint programs. One program that receives a great deal of emphasis by federal and state interest groups is the Tech Prep program. Many, if not most, of the high school droponts are from the high school general education population-those students who are in neither the college preparatory nor the vocational curriculum. The Tech Prep program is directed at these atrisk students, and its major goal is to prepare them for sophisticated technical programs in community colleges.

Third, community colleges have made teaching a priority and have been recognized as excellent teaching institutions. For this reason, they may be able to assist four-year colleges and universities as they look for ways to strengthen their teacher-training programs. The weakest students often need the best teachers, and community college instructors have had to excel at teaching because their students have such a broad range of abilities and backgrounds. As the demographics of student populations continue to change, future teachers will be in a similar position. They will be required to demonstrate professionalism and a sensitivity to demographics heretofore unknown, they will have to be the most talented and dedicated individuals the nation can produce, and they will need the best training available. But universities are not in a position to produce teachers like these because their schools of education often lack the prestige to attract the best students.

Furthermore, universities are not the best models of teaching excellence. University faculties are employed departmentally and are rewarded for activities that the department values. Criteria for advancement focus on traditional, disciplinary research that leads to publication, not on interdepartmental ecoperation, articulation, and the ability to teach. This system of values and rewards hinders a university's ability not only to train students to be excellent teachers but also to provide quality teaching to all of its students. Unless universities modify their values and become more responsive to the changing clientele, they will face the spector of decline.7 And the system of values and rewards used by community colleges could point the way to teaching excellence.

Indeed, the nation is still at risk. Community colleges cannot attack this problem alone, but they can make positive contributions toward solving it. With their special strengths and their position in the educational system, community colleges stand as the natural catalyst to marshal the resources needed to save a nation at risk. \clubsuit

Notes

1. National Commission on Excellence in Education, A Nation At Risk: The Imperative for Educational Reform (Washington, D.C.: Dept. of Education, 1983).

2. Carol Innerst. "SAT scores fall 2 points—first decline in 8 years." *Washington Times*. 20 September 1988.

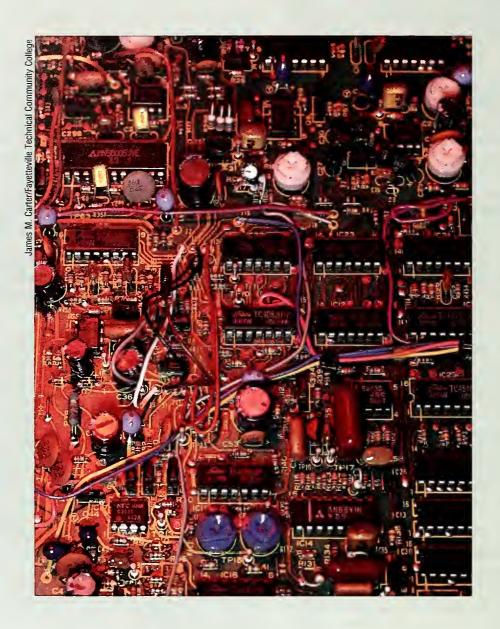
3. Harold L. Hodgkinson, All One System: Demographics of Education, Kindergarten Through Graduate School (Washington, D.C.: Institute for Educational Leadership, 1985).

 Burton R. Clark, "Conclusions," in *The School and* the University: An International Perspective (Berkeley: University of California Press, 1985), 240–325.

5. Eleanore Kenny and Katherine Carlson, *High School to College Transition*. Planning Issue Paper no. 3, rev. ed. (Olympia, Wash.: State of Washington Council for Postsecondary Education, 1982), 22.

6. Ernest Boyer. "A Community College Agenda: Four Points of Educational Leadership" (Address to the American Association of Community and Junior Colleges' sixtyfifth annual meeting. San Diego. 14 April 1985), reprinted in AACJC Journal 57 (August/September 1986): 14–17.

 Ernest A. Lynton and Sandra E. Elman, New Priorities for the University (San Francisco: Jossey-Bass, 1987).



A Vision for the Future: Community Colleges Prepare for the Next Quarter Century

Joseph W. Grimsley

We are now engaged in another great economic transition brought about by the information age and characterized by global competition. To meet this challenge and to take stock of the community college system's first twenty-five years, the State Board of Community Colleges created the Commission on the Future of the North Carolina Community College System in 1987 to develop recommendations for carrying the founding vision forward into the next quarter century. In its investigations the commission heard from a large and diverse audience and found that the system's ability to contribute to economic development was at risk. The tremendous gap in lost purchasing power in the 1980s due to inflation and underfunding had made the system unable to deal with the rapid economic and sociological changes in the state. Many colleges could not start up new programs demanded for local industries and clientele.

The commission's final report presented thirtythree recommendations emphasizing the system's

important role in economic development.¹ It called on the state of North Carolina to equip the community college system to meet its imposing agenda, concluding that "if we are to keep our competitive edge for economic and educational progress, we must invest now. Every day we delay we take a step backwards." The commission proposed that its recommendations be phased in over a six-year period beginning in 1989. The proposed schedule of funding would infuse the system with \$135 million. During that period, the system's annual per-student expenditures would be increased to the current national median for two-year colleges, adjusted for inflation. However, the 1989 General Assembly made only a \$10 million biennial commitment to this agenda, compared with the commission's recommendation of \$47.5 million.

Six Fundamental Charges

In addition to the major recommendations, the commission urged the system and its colleges to take on six fundamental charges:

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- To provide every community college student access to quality teaching and academic support services. The continuing challenge of the open-door policy will require an even stronger faculty, better methods, more outreach and connseling, and increased efforts to reduce barriers to receiving an education.
- 2) To establish effective mechanisms to promote accountability and increased flexibility in funding. The commission recognized that quality education would be achieved best by increased flexibility in funding formulas. The individuality of each locally responsive institution, based on local strategic planning, should be eonsidered in a new method of funding.
- 3) To provide opportunities for all adult North Carolinians to master the basic critical-thinking skills demanded in a complex and competitive economy. The commission recognized the importance of literacy and basic skills to a world-class work force. It urged expanded efforts and increased funding to support innovative teaching methods to "save" the large number of adults lacking basic skills.
- 4) To help business and industry adapt to technological change and promote small-business development throughout the state. The commission found that industries and small businesses are not implementing many new technologies. It recommended expanding the program for state-funded small business centers to each college and mounting new efforts to pass on technological change to local industries.
- 5) To build strong partnerships with the public schools and the state's universities to establish a comprehensive education system in North Carolina. It urged community colleges to develop cooperative programs with high schools to reach dropouts and to link high school and community college curricula in technical and vocational fields. It also recommended strengthened efforts to facilitate college transfer to four-year institutions.
- 6) To develop strong leadership for the system and its colleges. The community college system should establish a governance and management structure that clearly delineates responsibilities between the state and local boards. It

also urged that eollege presidents and administrators have access to a comprehensive professional education network.

The Tech Prep Response

The commission's fifth charge, which recommended eloser cooperation with public schools and senior eolleges, eame in response to a recognition that too many poorly prepared students were entering both two- and four-year colleges. Cooperative efforts, known as articulation, have taken on a new sense of urgency in the 1990s as more students are enrolling in two-year technical (associate in applied science) programs yet lack adequate academic preparation for them. Research by Dr. Dale Parnell. president of the American Association of Community and Junior Colleges, found that the majority of high school dropouts come from the segment of students who have little focus on careers and who. therefore, take a program that is less-demanding than the college prep course of study.² For these students. Dr. Parnell recommends a tech prep program, an articulated course of study that begins in the high school and continues into community college.

In 1986 Richmond Community College and Richmond County schools instituted a new model of a 4 + 2 Tech Prep program. Students enter the program in the ninth grade and register for one of three courses of study: college prep. tech prep. or general academic/vocational. The tech prep curriculum requires completion of Algebra H and the use of state-adopted textbooks for the grade level in all academic courses (grade level courses). plus upgraded vocational courses that include mathematics and science principles as well as computing applications.

The Richmond County experience has proven successful. After three years, Scholastic Aptitude Test scores have risen 46 points, while the dropout rate has decreased from 7.8 to 4.8 percent per grade. Algebra I end-of-course test scores also have risen, while the number of students taking the course has increased from 47 to 75 percent of the student body. Because of this success, the program has been implemented in seven additional high schools and three other community colleges in Anson. Montgomery, Moore, and Scotland counties. The 4 + 2 Tech Prep model also is being expanded throughout the state with financial support from the North Carolina Rural Economic Development Center.

The Challenge

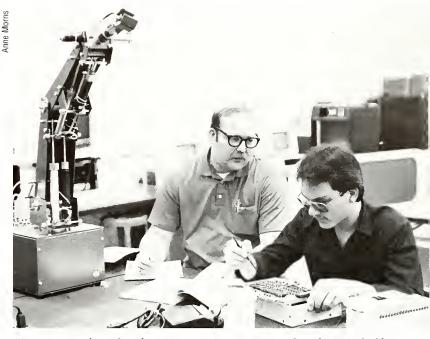
The community college system has been considered the special ingredient that made North Carolina an attractive industrial location for the last twenty-five years. Through the community colleges the state has provided hundreds of thousands of new industrial employees with free training in production tasks. But the significant loss of purchasing power during the 1980s has eroded the readiness of the system to respond to economic opportunities and educational challenges. Many states have caught up and now offer similar or better inducements. In addition. many new industries are now locating in urban areas and on interstate corridors because of the greater potential of a prepared labor force. The possibility that in the 1990s all areas of North Carolina may not be able to compete well for new industry worries those regions served by small rural colleges.

The community college system stands at a critical crossroads. Seldom has the challenge of teaching, both in academic and in technical programs, been more intense. And never in the history of the community college system has the system failed to deliver. Nevertheless, nagging questions remain: Illfunded for a decade, will the system receive the commitment of resources from the state necessary to meet these challenges? Will the colleges respond with the necessary leadership? What is the state's commitment to a world-class work force? What is its commitment to equal opportunity for all of its citizens? Whatever the answers, the community college system will play a major role in meeting these challenges. *

Notes

1. Commission on the Future of the North Carolina Community College System, *Gaining the Competitive Edge: The Challenge to North Carolina Community Colleges* (Chapel Hill, N.C.: 1989).

2. Dale Parnell. *The Neglected Majority* (Washington, D.C.: American Association of Community and Junior Colleges, 1985).



A growing number of students are entering two-year technical curricula like Electronics Engineering Technology, Graduates find middle-management positions in industries and automated businesses. As use of robotics increases in industry, so will the demand for technicians with electronics or mechanical engineering backgrounds.

Various community colleges across the state offer one-year Machinist and two-year Tool and Die currienla, but although there is a shortage of machinists and metal workers in the work force, community colleges are finding it hard to attract students into this field.





Work-Force Preparedness: Business Leaders Evaluate Our Student Body's Forgotten Half

Michael L. Vasn and Andy Frazier

The fact that North Carolina ranked last among the fifty states in the Scholastic Aptitude Test (SAT) is a serious indictment of our educational system. However, this statistic reflects the performance only of the 57 percent of high school students planning to enter college. What about the other 43 percent who did not take the SAT, the "forgotten half" of students? These students represent a segment that is fundamental to the continued economic growth and prosperity of the state. What performance measure tells us whether they are adequately prepared to enter the labor force upon high school graduation?

This article reports selected findings of a statewide research project directed at this dimension of the state's "education issue." the relationship of education to work-force preparedness and economic development. Whereas the recent SAT rankings provide us with a performance measure of how well our schools are preparing students for college entrance, this study provides another perspective on the education issue by supplying information on how well our schools prepare students not bound for college.

During the spring of 1988, the North Carolina Department of Administration's Office of Policy and Planning, in cooperation with the Department of Economic and Community Development's Division of Employment and Training and the North Carolina Business Committee for Education, conducted a scientific sampling of North Carolina employers listed in the Employment Security Commission's data base.¹ The business and industry leaders in our sample were asked to evaluate North Carolina high school, community college, and university graduates in terms of a variety of dimensions related to work-force preparedness. They rated students on such specific skills as reading, writing, mathematics, thinking, and communication. Our questionnaire also probed employers about the problems they have in finding qualified applicants for jobs. Finally, we asked our respondents their perceptions of the emerging "skills gap," that is, the gap between what employers expect and what workers bring to the workplace.

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Table 1 Skills of Applicants for Entry-Level Jobs Requiring a High School Diploma

Skill	Inadequate	Uncertain	Adequate
Reading	32.1%	11.0%	53.9%
Writing	51.8	17.6	30.6
Wath	48.2	28.1	23.7
Thinking ^a	40.0	30.9	29.2
Communication ^b	51.2	15.5	33.3

Source: 1989 North Carolina Business and Industry Survey.

Note: The exact wording of the question was, "Reflecting upon the applicants you get for entry-level jobs that require a high school diploma, please indicate the extent to which these applicants have adequate reading, math, writing, communication, and critical thinking skills" (n=828).

^a For example, problem solving.

^b For example, speaking and listening.

 Table 2

 Student Preparedness, by Education Level

Education Level	Prepared	Uncertain	Unprepared
High school (n=828)	29.0%	18.3%	52.7%
Community college (n=702)	72.4	15.8	11.8
University (n=736)	84.1	10.1	5.8
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Source: 1989 North Carolina Business and Industry Survey.

Note: Respondents were asked whether they agreed or disagreed with the following statement: "Overall, 1 am satisfied with the North Carolina [high schools/community colleges/universities and colleges] regarding the preparation of students for the work force."

Methodology

The nature of our research questions and resource limitations determined our sampling design. Many of our questions, for example, anticipated large expenditures on new equipment or technology, which had particular relevance for large firms. Therefore we elected to include all of the 1.715 employers having more than 250 employees. We then selected a random sample of the remaining employers having less than 250. The Employment Security Commission did a systematic random selection of every one-hundredth record in this category.

This resulted in a total sample of 3.081 employers. To reduce the total sample to the 2.500 for which we had funding, we deleted those employers having three or fewer employees. Our final sample size was 2.434, of which 100 were eliminated beeause of incorrect addresses. Clearly, this sampling design allowed for greater precision for that strata representing firms with 250 or more employees.

Response

Survey instruments were returned by 1.150 employers, for a 49 percent response rate. This included 32.9 percent employers with fewer than 250 employees and 67.1 percent employers with 250 or more employees. Of the total, 13.4 percent described their businesses as "high technology," 43.9 percent said they were "intermediate technology," 38.4 percent said "low technology," and 4.3 percent did not know their level of technological sophistication. Moreover, the location of the respondents were 23.6 percent from rural areas with a population of less than 10.000, 40.8 percent from small cities with a population between 10.000 and 50,000, and 35.6 percent from urban areas with a population greater than 50,000.

Findings

Skills level

How do employers rate the skills level of North Carolina high school graduates? Starting with reading. 53.9 percent of respondents reported that the applicants for jobs in their firms who have a high school degree have adequate reading skills. 14.0 percent were uncertain about those skills, and 32.1 percent reported them as inadequate (see Table 1). It is important to note, however, that this is the only skill of the five that was reported as *adequate* by a simple majority of the respondents. In the case of writing, a majority (51.8 percent) of respondents reported that applicants' skills were inadequate. In the case of math. 48.2 percent reported them as inadequate. 28.1 percent were uncertain, and only 23.7 percent said that they were adequate. The thinking skills of high school graduates for entrylevel positions, which were operationally defined in terms of the ability to solve work-related problems. were considered inadequate by 40.0 percent of respondents. Finally, the majority (51.2 percent)

reported that applicants' communication skills were inadequate.

Any evaluation of these data is subject to a certain amount of interpretation. However, one point seems clear: this is not a good report card for the North Carolina secondary education system. Throughout the state, business and industry leaders regard the skills level of entry-level job applicants possessing a high school degree as low. In fact. on average only about 30.0 percent of the state's business and industry leaders believe that applicants' writing, math. thinking, and communication skills are adequate. The remainder are either uncertain or, by significant proportions, consider these skills inadequate. Moreover, this respondent group, which ranges from chief executive officers to personnel directors, is in a unique position to make this particular type of evaluation.

We also asked business and industry leaders to evaluate the work-force preparedness of students according to their level of education (see Table 2). The responses showed that there is widespread and consistent agreement (84.1 percent) that the average college and university graduate is prepared for the work force, however the respondent defines that. Moreover, only 5.8 percent of the respondents disagreed with this statement. In the case of graduates of community colleges, 72.4 percent of respondents agreed that the graduates were prepared for the work force, and only 11.8 percent disagreed.

One way to summarize these data is to note that there is a descending degree of satisfaction with the preparation of students for the work force, which ranges from a very high level of satisfaction with university graduates, to a moderately high level with the gradnates of the community college system, and to a markedly low level with high school graduates. Moreover, even though each respondent applied his or her own definition of "preparation" to the question, there was a clear differentiation in the assessment of student preparation, and that differentiation was related to the level of education.

Problems finding qualified applicants

The next question we posed concerned problems in finding qualified applicants for entry-level positions (see Table 3). The number of respondents for

Table 3 Problems Finding Qualified Applicants for Entry-Level Positions, by Size of Firm

Number of Employees	Always	Frequently	Sometimes	Never
100 or fewer (n=270)	13.7%	40.4%	37.4%	8.5%
101–250 (n=93)	7.6	37.6	50.5	4.3
More than 250 (n=743)	11.0	44.8	40.2	4.0
Total sample (n=1,120) ^a	11.3	43.1	40.4	5.2

Source: 1989 North Carofina Business and Industry Survey.

Note: The exact wording of the question was, "tlow often does your company encounter problems finding qualified applicants for entry-level positions?"

^a tucludes responses containing some missing answers.

[Chi square = 15.10104; p <.01. df = 6]

this question was higher than for previous questions because it was put to all employers, not just those who hired high school graduates. Of the total sample, 11.3 percent said that they always have trouble finding qualified applicants, 43.1 percent said frequently, 40.4 percent said sometimes, and only 5.1 percent said never. Moreover, there were statistically significant differences between firms of different sizes: a greater proportion of respondents in larger firms (more than 250 employees) and in smaller firms (less than 100 employees) said that they experience problems.

The widening skills gap

We also queried respondents on whether they think that there is a widening skills gap, which we defined as a difference between what employers need and what applicants offer (see Table 4). A large majority of all respondents (69.4 percent) perceive such a gap to be widening. Again, we see statistically significant differences related to firm size. Specifically, 72.6 percent of respondents in large firms, 65.9 percent in medium-size firms, and 61.3 percent in small firms reported that they saw this skills gap as widening.

In addition, we asked respondents what percentage of applicants for entry-level positions were

Table 4 Skills Gap between Employers' Needs and Workers' Skills, by Size of Firm

Number of Employees	Widening	Uncertain	Not Widening
400 or fewer (n=225)	61,3%	27.1%	11.6%
101-250 (n=91)	65.9	20.9	13.2
More than 250 (n=719)	72.6	17.2	10.2
Total sample (n=1.045) ^a	69.4	19.9	10.7

Source: 1989 North Carolina Business and Industry Survey.

Note: The exact wording of the question was. "Due to the pace of technological development, there is a widening skills gap between employers' needs and the skills obtained by workers who apply for their jobs. Considering the qualifications of most of your applicants, do you agree, are you uncertain, or do you disagree with this statement?"

^a Includes responses containing some missing answers.

[Chi square = 12,72516: p < .01, df = 4]

Table 5 Minimum Training and Education Qualifications for Entry-Level Positions in 1989 and 2000

Requirements	1989	2000
None	31.8%	10.4%
High school diploma or equivalent	52.7	40.1
Some postsecondary education	5.7	21.7
Two-year associate degree	2.9	7.2
Four-year college degree	5.6	6.7
Gradnate degree	0.6	1.3
Don't know	0.7	12.6

Source: 1989 North Carolina Business and Industry Survey.

Note: The exact wording of the question was, "What are the minimum training and educational requirements for *most* entry-level positions in your firm? What will be the minimum training and educational requirements for *most* entry-level positions in this location by the year 2000?" (n=1.087).

qualified. In other words, if they found ten qualified applicants out of each one hundred interviewed, the resulting percentage qualified would be 10 percent. The mean percentage for all respondents to this question (n = 1.052) was 28.84 percent. That is, on average respondents reported finding approximately twenty-nine out of every one hundred applicants qualified, or, conversely, seventy-one out of every one hundred unqualified. It is important to remember that the mean does not reflect the amount of variance in the responses. More specifically, 27.7 percent of the respondents reported finding ten or fewer qualified applicants per one hundred interviewed.

In a related question, the respondents were asked to estimate the percentage of current employees that had inadequate basic skills to meet the expectations of employee productivity. The mean percentage estimated was 20.33 percent, in other words, respondents estimated that on average twenty of every one hundred workers they currently employ have inadequate basic skills. These figures on applicants and employees are not out of line with national data reported by the American Society for Training and Development, which estimates that 20 percent of United States adults are considered functionally illiterate.²

Present and future skill requirements

Finally, respondents were asked two separate questions regarding current educational requirements and whether those requirements would change by the year 2000 (see Table 5). Respondents reported an anticipated drop from 31.8 percent to 10.4 percent in the number of entry-level jobs that would require no formal education. This mirrors national Irends, which are expected over the next ten years to produce a manufacturing and service economy that will require literacy and basic skills for most jobs.³ The high school degree requirement also is anticipated to drop from 52.7 to 40.1 percent between now and the year 2000, Respondents projected significant increases in the need for some postsecondary education or a two-year associate degree. They reported nearly a 300 percent increase in the number of jobs that will require the latter. The categories for higher levels of education showed smaller increases.

Conclusions

A central theme in the national research on the relationship between work-force preparedness and economic prosperity is the importance of "buman capital" in the economic equation. The economic miracle that is Japan cannot be explained on the basis of superior natural resources or inherent comparative advantage. Indeed, many of the studies that focus on Japanese "quality control" point to a very skilled. educated. and motivated work force as a major factor in high-quality products. The Japanese and all other industrial nations now compete in a global marketplace dominated by an information age economy. Technological change in this economy occurs at a very fast pace, with the time between product conception and marketing constantly constricting. The ability of employees to adapt to new situations by creatively applying their skills to a constantly changing set of demands is going to be an important component of future economic success.

The relevance for public policy of these new economic realities is clear. North Carolina's future, as well as that of the nation, will hinge on all students in the educational system. However, much of it will depend on the forgotten half of our student population, those not bound for college. These high school graduates will be the "human capital" on whom we base a major portion of our economic hopes. \clubsuit

Notes

1. For a full discussion of this survey, see Michael L. Vasu and Andy Frazier. Workforce Preparedness for Economic Development: Report on the 1989 North Carolina Business and Industry Survey (Raleigh, N.C.: Office of Policy and Planning. Dept. of Administration: Division of Employment and Training, Dept. of Economic and Community Development: and N.C. Business Committee for Education, 1989).

2. American Society for Training and Development. Training America: Learning to Work for the 21st Century (Alexandria, Va.: 1989).

3. William B. Johnston, *Work Force 2000: Work and Workers for the 21st Century* (Indianapolis, Ind.: Hudson Institute, 4987).

UPCOMINGIN Popular Government

Handicap discrimination in employment North Carolina's Department of Cultural Resources The General Assembly and the state budget Contracts binding the discretion of governing boards The Governor's Schools of North Carolina Lease-purchase agreements Zero-base budgeting

Spending and Employment in the Public Schools

Charles D. Liner

Since 1868 the North Carolina Constitution has made the General Assembly responsible for providing a "general and uniform" system of public schools for a minimum term. Today's constitution further requires that the public school system must be one "wherein equal opportunities shall be provided for all students."¹ However, it permits the General Assembly to assign financial responsibility to local units as it sees fit and authorizes local units to supplement public school programs provided by the state (see North Carolina Constitution, page 27).

The 1868 mandate for the General Assembly to provide a general and uniform public school system for a minimum term is still the basis for today's system of public school finance. But since 1868, the system devised to fulfill that mandate has changed dramatically because of a fundamental problem involved in requiring or allowing local units to finance schools: differences in income and tax base cause local units to vary greatly in the ability of their residents to support schools.²

The General Assembly's original response to the 1868 mandate was to assign to county commissioners full responsibility for financing the public schools for the minimum term. But as the state's economy became more industrial and urban during the late nineteenth and early twentieth centuries, disparities in the ability of local units to support schools increased, and many local units that remained rural and industrially undeveloped could not support the minimum term required by the constitution.

As a result, the role of the state in financing schools continued to increase, until in 1933 the state assumed responsibility for financing the operating expenses of the instructional program for an equal eight-month term in all schools. Nevertheless, the problem of disparities among local units has remained a fundamental problem because local units are responsible for building and maintaining school facilities and because local units have continued to supplement state school funds.

In view of the disparities in local units' ability to support schools. how effective is North Carolina's public school finance system in providing a general and uniform school system and in providing equal opportunities to all students? A full answer to this question would require an evaluation of the adequacy and quality of the educational program in each local unit. This would be a complex and difficult undertaking, because the quality of schools and their programs depends on much more than how much is spent or how many teachers and other resources are available in the schools. Most studies that have addressed this question have focused simply on the existence of disparities in local or total spending per student among the units. Surprisingly, most of these studies have not examined the relationship between total spending or employment and income or tax base of the units. nor have they adequately analyzed or explained the significance of the disparities they found.

This article will examine how total spending for operating expenses varies with estimated per-capita income of school units and how public school employment (the numbers of teachers, teaching assistants, other professionals, and administrative and support personnel) varies among units. Although analyzing spending and employment cannot reveal much about the quality of schools, it is a necessary

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first step in trying to answer questions about uniformity and equality. We will see that neither spending nor employment is an adequate indicator of resources in the public schools, particularly when one considers the needs of small school systems or small high schools.

North Carolina's School Finance System

Between 1868 and 1931, the General Assembly assigned to counties the responsibility for raising the revenues needed to support schools for the minimum term (which was four months until 1919, when it was increased to six months). At the turn of the century, the state began to assist local units through a regular, annual appropriation, distributed on a per-student basis, and through one of the nation's first equalizing grant programs, which distributed state funds to the poorer units to help them attain the minimum term. Despite these equalizing grants, disparities in spending continued to exist during the first decades of this century because industrialization and urbanization continued to occur unevenly throughout the state.

When the Great Depression jeopardized the continued operation of the schools, the General Assembly assigned to the state the responsibility for financing the statewide system of schools for the minimum term. In 1931 the state became responsible for paying the operating expenses for instructional programs in all public schools for the constitutional minimum term of six months, and in 1933 it became responsible for paying those expenses for an eight-month term (local supplemental taxes for school support were repealed, but local units were authorized to reenact such taxes if they chose to do so).³ Counties remained responsible for building and maintaining school buildings, though the state assisted them later by using state school-bond funds. by authorizing local sales taxes and earmarking part of the proceeds for school construction, and by appropriating state funds under the School Facilities Finance Act of 1987.⁴

Since 1933 the state has been responsible for paying the operating expenses of the instructional program for a minimum term, now set at nine months. Under this system, state operating funds are distributed according to about eighty allocation

North Carolina Constitution, Article IX, Education

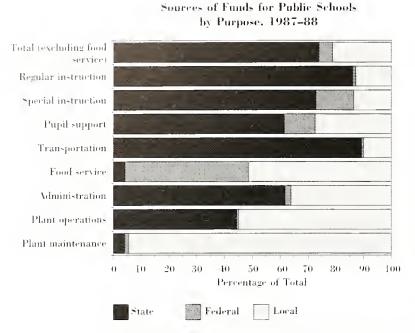
Sec. 2. Uniform system of schools.

(1) General and uniform system: term. The General Assembly shall provide by taxation and otherwise for a general and uniform system of free public schools, which shall be maintained at least nine months in every year, and wherein equal opportunities shall be provided for all students.

(2) Local responsibility. The General Assembly may assign to units of local government such responsibility for the financial support of the free public schools as it may deem appropriate. The governing boards of units of local government with financial responsibility for public education may use local revenues to add to or supplement any public school or post-secondary school program.

formulas that are intended to provide the necessary resources-teachers, administrators, supplies. transportation, and so forth. Unlike formulas used in other states, these formulas are not intended to calculate a certain amount of state funds that will be given to local units to spend. Instead, they are designed to provide the actual resources needed to provide the standard course of study. In most formulas the determination of need is based on average daily membership (ADM). (There are exceptions, however, such as transportation funds, which are distributed according to approved budgets and actual costs.) Because most of the formulas allocate resources rather than funds, and because, as disenssed later, costs per student of providing these resources can vary substantially from one unit to another, state spending per student can vary considerably among units.

Counties are responsible for providing funds, in addition to any state funds available for these purposes, to build and maintain school buildings, and they have chosen also, in varying degrees, to improve schools through additional hiring or purchases or to supplement the state salary schedules (the state salary schedules do not adjust salaries for differences in the cost of living or for the wide differences in the general salary level of public and private employees that exist in different areas of North Carolina, particularly between rural and urban areas). Local property taxes used to support schools, including supplemental taxes levicd within



Source: N.C. Dept. of Public Education. North Carolina Public Schools: Statistical Profile 1989 (Raleigh, N.C.: 1989).

Figure 1

city school unit boundaries, must be levied by counties, because school units do not have authority to levy taxes.

Although the basic finance system devised in 1931 and 1933 is still in place, a significant new element was added in 1985 with the adoption of the Basic Education Program. Before then, there was no standard in place for determining the level of funding the state would provide for the minimum term that level was set simply by the amount of funds appropriated by the General Assembly and distribnted through allocation formulas.

The new approach began in 1984 when renewed interest in improving the public schools led the General Assembly to adopt a policy for defining the state's financial responsibility. The 1984 General Assembly required the State Board of Education to develop a standard course of study to be offered to every child in the state and specified the state's responsibility for financing it:

To insure a quality education for every child in North Carolina, and to assure that the necessary resources are provided, it is the policy of the State of North Carolina to provide from State revenue sources the instructional expenses for current operation of the public school system as defined in the standard course of study. 5

This policy was implemented the following year with the enactment of the Basic Education Program, which was to be phased in over an eight-year period. Under the law, the Basic Education Program "shall describe the education program to be offered to every child in the public schools."⁶

The Basic Education Program was intended to be a basic program, but not a minimal one. The law provided that "Instruction shall be offered in the areas of arts, communication skills, physical education and personal health and safety, mathematics, media and computer skills, science, second languages, social studies, and vocational education." The program would also take into account the needs of special children (ehildren with disabilities and academically gifted students, for example), would set competency standards by grade levels in each area of the curriculum, and would set standards for student performance and promotion, support programs, staffing, class size, and facilities.⁸

If fully implemented by the 1992–93 fiscal year, the Basic Education Program will have provided state financing for about 25,000 new teachers, support personnel, and administrators—an increase equal to 23 percent of total school employment in October, 1985—and annual spending from state sources will have increased by \$800 million, which equals 29 percent of total spending and 44 percent of state spending in 1984–85. (The 1989 General Assembly scaled back the planned appropriation for 1989–90: whether those funds will be restored remains to be seen.) The program has been incorporated into the state's allocation formulas, which are intended to supply the resources needed to provide the standard course of study.

Spending and Employment

A hallmark of North Carolina's school finance system is that the state, not local units, is responsible for financing the instructional program in public schools, and therefore state spending accounts for a large proportion of total spending. Of the total amount spent for operating public schools in 1987–88 (excluding food service expenses and construction outlays), 73.9 percent came from state revenue sources, 5.0 percent came from the federal government, and 21.1 percent came from local revenue sources (see Figure 1).⁹ For regular instructional programs, however, state funds accounted for 86.0 percent of the total, while local funds accounted for 12.7 percent and federal funds accounted for 1.3 percent. State funds also accounted for large shares of spending for special instructional programs (73.0 percent), pupil support (61.6 percent), transportation (89.2 percent), and administration (62.1 percent). Of course, these percentages reflect only the initial phasing-in of the Basic Education Program, which will increase state spending.

Local funds accounted for the largest shares of spending for plant maintenance (94.6 percent) and plant operations (54.7 percent). Federal support was significant only for special instructional programs (13.5 percent), pupil support (11.1 percent), and food service (44.4 percent).

State financial support is even more important in terms of the number of full-time positions funded (a large share of local funds is used to supplement salaries rather than to hire additional teachers). Of total employment in October, 1988 (excluding vocational education positions, which are supported by a combination of state and federal funds). state funds accounted for 88.6 percent of teacher positions, while federal funds accounted for 4.8 percent and local funds accounted for 6.6 percent (see Figure 2). State funds accounted for 95.0 percent of principal and assistant principal positions, 77.7 percent of other professional positions (guidance counselors, psychologists, librarians, and others). and 84.1 percent of teaching assistant positions, but only 44.1 percent of support positions-clerical. services, and laborer positions.

Variation by School Unit

As noted above, local school units are permitted to use locally collected revenue to supplement state school-personnel salaries and the educational program financed by the state, and they are required to provide and maintain school facilities. The question arises, therefore, whether local spending varies systematically among local units according to variables that indicate the ability of the residents to support their schools financially, such as per-capita income or tax base. This section will examine how

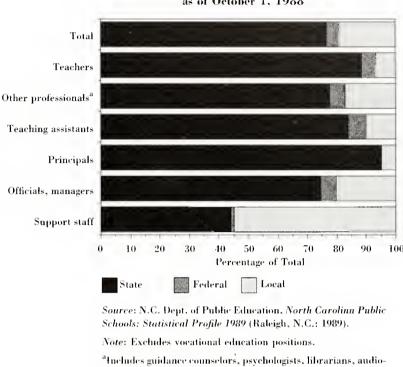


Figure 2 Sources of Funds for Foll-time Positions as of October 1, 1988

total spending per student for operations—from state, local, and federal sources—varied with estimated per-capita income in 135 school units in 1987–88 (food service expenditures were excluded). A later section will examine variation in school employment by per-capita income.

visual technicians, and consultants.

Per-capita income is a general indicator of the ability of local residents to pay taxes to support schools. Property tax base is another indicator of this, because local units can increase property tax rates to obtain additional revenue for schools (rates of local retail sales taxes, the only other substantial local tax source, are set by state law). Although most studies of school spending use property tax base as one indicator of local ability to support schools, the property tax base (total property tax assessed valuation per capita or per student) can be misleading because of differences from county to connty in assessed value relative to market value of locally assessed property. These differences occur because in practice counties do not assess property uniformly according to market value, as required

for 135 Units. 1987-88 \$4,000 \$3,000 \$2,000 \$2,000 \$1,000 \$1,000 \$1,000 \$1,000 \$2,89 \$9-\$10 \$t0-\$11 \$11-\$12 \$12-\$13 \$13-\$11 \$t4+ 1986 Per-Capita Income (in Thousands) State Federat Local

Figure 3

Spending per Student by Source of Funds

Source: N.C. Dept. of Public Education. North Carolina Public Schools: Statistical Profile 1989 (Raleigh, N.C.: 1989).

by law, and because counties revalue property in different years according to an octennial revaluation cycle. Assessment-sale price ratio studies conducted by the North Carolina Department of Revenue permit a rough adjustment for differences in assessed value of locally assessed property relative to its market value.

Although this article reports in detail how spending and employment varied with per-capita income. I also examined how county school unit spending and employment varied with the level of county adjusted property tax valuation per ADM. In general, the results of this analysis were similar to that of spending and employment in relation to percapita income, in that variation in per-student assessed valuation in county units did not result in large systematic disparities in total spending per student or employment per hundred ADM.¹⁰

The only available estimates of per-capita income in the thirty-five city school units that existed in 1987–88 are census estimates for 1979 (city units are not part of municipal governments, and their boundaries seldom match municipal boundaries). Those estimates show that in 1979 per-capita income in city school units was usually differenteither higher or lower—than per-capita income for the county as a whole. Therefore, 1986 per-capita income estimates for counties were adjusted by the ratio of city school unit to county income in 1979 to obtain estimated per-capita income of city school units in 1986.

Figure 3 shows average total spending for operations from all state, local, and federal sources per student (ADM) in 1987–88 for 135 school units grouped by estimated per-capita income (see Table 1 also). The sixteen units whose per-capita income was highest (above \$14,000) had the highest average total spending per student (\$3,471), but average spending for that group exceeded spending in the nineteen lowest-income units (\$3,226) by only 7.6 percent. On the whole, average total spending did not vary significantly according to per-capita income of the groups.

The statistical correlation between income and total spending per student in individual units was slightly positive, but for the 119 units with incomes below \$14,000, it was slightly negative. However, in hoth cases the correlation between per-capita income and spending was weak—it explained only 7 percent of the variation—and there was considerable variation at every income level. For example, of the thirty units with highest income, eleven ranked higher than 20th in total spending per student, but eleven ranked below 50th, and five ranked below 100th. Of the thirty units with lowest income, nine ranked 100th or lower, but eleven ranked 50th or higher, and five ranked 20th or higher (two of these units ranked second and third, respectively).

Average per-student spending from local sources did increase with per-capita income—from \$414 to \$975 for the lowest- and highest-income units. respectively (see Figure 3). However, average spending from both state and federal sources tended to be higher in units with low per-capita income, offsetting or reducing average differences due to local spending. Comparing averages for the lowest- and highest-income units, average state spending per student was \$2.570 and \$2.370, respectively, while average federal spending was \$241 and \$125.

What Do Spending Figures Mean?

Rather than examining the relationship between spending and per-capita income, some previous

Per-Capita Income	Number of Units	Total Spending per ADM ^a	Minimum	Maximum	Teachers per 100 ADM 1988–89	Employees per 100 ADM 1988–89
Less than \$9.000	19	\$3,226	\$2,748	\$3,988	6.0	12.1
\$9,000-\$10.000	22	3.017	2,754	3,302	5.8	11.1
\$10,000-\$11,000	21	3,139	2,645	3,745	5.8	11.5
\$11,000-\$12,000	28	3,040	2,681	3,516	5.7	11.2
\$12,000-\$13,000	15	3,119	2,823	3.396	5.8	11.2
\$13,000-\$14,000	1.4	3,235	2,820	4,097	5.9	11.3
\$14.000 ar more	16	3,472	3,321	3,904	6.1	11.7

Table 1
Average Total Spending and Employment per Student
in 135 Units Grouped by Per-Capita Income

Source: Spending and employment data are from N.C. Dept. of Public Education. North Carolina Public Schools: Statistical Prafile 1989 (Raleigh, N.C.: 1989). County income data are U.S. Bureau of Economic Analysis estimates. Income for city units was estimated from county estimates based on the 1980 Census Bureau estimates for school districts. The tabulation excludes units in Polk and Robeson counties that have merged since 1987–88.

^aTotal spending for operations from state, local, and federal sources,

studies have focused simply on the existence of disparities in local or total spending per student among individual school units. They have pointed out, for example, the large differences in spending from local sources or the large differences in total spending between the units with the highest and lowest total spending.

However, the mere existence of disparities in spending is not inherently meaningful. In 1987–88 the unit with the highest total spending was the Tryon city unit, where total spending per student was \$4,124 (this unit, which had 527 students in ADM, has since merged with Polk County schools). The unit with lowest total spending was Onslow County, which spent \$2.645 per student. Thus, total spending per student was 56 percent higher in Tryon than in Onslow County.

But this variation was due in part to differences in state funds, not merely to differences in local spending. Tryon accounted for \$2.692 per student in state funds, which was 28 percent higher than the level in Onslow County (\$2.097). Even if Onslow County had spent the same amount per student from local sources as Tryon did, the latter still would have had total spending 37 percent higher than that of Onslow County. Furthermore, Onslow County's low standing cannot be accounted for by low per-capita income—forty-two of the counties had lower per-capita income in 1986. In fact, the state's top-spending nnits included county units of some of the poorest counties—five of the top twenty units in total spending (and four of the top ten county units) had per-capita incomes below \$9,000 (see Table 2).

Some past analyses have focused simply on the large disparities that exist in local spending per student. In 1987-88, local spending per student varied from \$286 in Fairmont city schools to \$1,534 in Chapel Hill-Carrboro city schools (the statewide average was \$584 per student). But even if all local units spent the same amount per student from local sources, there still would be large unit-to-unit differences in total spending because of differences in spending from state funds. (As discussed later, state allocation formulas are designed to provide resources to local schools, not to provide a certain amount of funds. As a result, state funds allocated to local schools can vary considerably on a perstudent basis.) For example, in 1987-88, state spending per student varied from a low of \$2,097 in Onslow County to a high of \$2.967 in Hyde County. a difference of 41 percent. If in 1987-88 all 135 units had spent from local sources an amount equal to the statewide average for local spending per student, the difference in total per-student spending hetween the lowest- and highest-spending units would have been 46 percent.

Differences in spending are also not very meaningful in telling us about the adequacy of resources available in local educational programs. This is true for several reasons. The most important reason is that state allocation formulas are designed to pro-

Table 2 School Units with Highest and Lowest Spending for Operations per Student, 1987–88

	Average Daily	Estimated Per-Capita	Rank in	Total Spending
	Membership	Income	Income ^a	$\mathrm{per} \ \mathrm{ADM}^{\mathrm{h}}$
Highest spending per	student:			
Asheville	4.731	\$13.418	24	84.097
Hyde	945	8.401	126	3.988
Swain	1.619	8.027	130	3.918
Chapel Hill-Carrbore	5.119	17.287	1	3.901
Greensboro	20.616	16.171	3	3.864
High Point	8.017	14.537	12	3.765
Durham City	8.371	10.927	7-1	3.745
Salisbury	2.423	13.402	26	3.721
Statesville	3.071	13.603	21	3.718
Elkin	983	14.950	10	3.679
Tvrrell	761	7.117	131	3.662
Polk ^e	1.117	11.217	16	3.662
Mecklenburg	-53.422	16.786	2	3.575
Forsyth	38.179	16.282	-1	3.529
Greene	2.817	8.233	128	3.526
Haywood	7.397	11.276	66	3.516
Graham	1.320	8.021	131	3.515
Orange	5.071	15.032	8	3,505
Gate-	1.638	10.011	93	3.193
Perquimans	1.854	8.741	123	3.485
Lowest spending per -	tudent:			
Cumberland	43.625	10.884	75	2.889
Franklin	1.576	9.551	106	2.882
Nash	11.223	13.130	30	2.874
Lincoln	8.690	11.532	58	2.872
Cherokee	3.719	8.758	121	2.855
Mamance	10.398	13.704	19	2.847
Vance	7.135	9.881	96	2.846
Caswell	3.725	7.493	133	2.841
Union	12.130	13.594	-2-2	2.831
Gaston	30,606	12.058	- 1 I	2.823
McDowell	6.504	9.153	109	2.821
Iredell	10.529	13.130	29	2.819
John-ton	14.416	10.559	84	2.811
Robe-on ^d	11.325	7.899	132	2.803
Carteret	7.666	11.190	67	2.799
Richmond	8,691	9.214	112	2.753
Hoke	1.964	7.097	135	2.747
Randolph	13.212	11.563	57	2.685
Davidson	16.019	11.904	16	2,680
On-low	16.977	10.103	92	2.615

Source: Spending and employment data are from N.C. Dept. of Public Education. North Carolina Public Schools: Statistical Profile 1989 (Raleigh, N.C.: 1989). Connty income data are U.S. Bureau of Economic Analysis estimates. Income for city units was estimated from county estimates based on the 1980 Census Bureau estimates for school districts.

^aOut of 135, with 135 as lowest rank.

^bFrom state, local, and federal sources.

^cIncludes Tryon City, which had the highest total spending in 1987–88 (§4,124) before being merged with Polk County schools.

^dIncludes Fairmont, Lumberton, Red Springs, and St. Pauls eity units, which have been merged with Robeson County schools. vide resources to the schools without regard to the costs of such resources, and the cost per student of those resources can vary considerably. For example, a large county with a dispersed student population will have much higher transportation costs per student than a small, urban unit. Likewise, heating costs for a school in the mountains will be higher than for a school in the coastal areas. The cost of providing teachers from state funds varies because state salaries are based on teachers' education and experience. Units with low turnover of teachers may account for more state funds per student for teacher salaries because their more experienced teachers receive higher state salaries.

High per-student spending from local sources may be misleading if it is due to large salary supplements. Some urban units may supplement the state salary schedule because prevailing wage and salary levels tend to be higher in cities than in rural areas—they have to supplement state salaries to make school salaries more competitive in the local labor market. Spending local funds to supplement salaries, as opposed to using them to hire additional employees, does not necessarily mean that the educational program is better than in units that do not supplement state salaries.

Another reason why differences in spending can be misleading is that the costs per student of providing specific resources vary greatly with the size of a unit, and in particular with the size of high schools. The size of high schools is especially important in small units (in 1987–88, eleven units had fewer than 500 high school students, and twenty-seven had fewer than 800 students). Because the per-student cost of resources varies with size, the amount of spending can be misleading as an indicator of the adequacy of resources in these small units.

In 1988 total enrollment varied from 1.071 in Camden County (which had 249 students in grades 10 through 12) to 73.422 in Mecklenburg County, which was the county with highest per-capita income (\$16.786). Total spending per student was almost as high in Camden (\$3.461) as in Mecklenburg (\$3.575), and in some small, rural counties (Hyde, Swain, and Tyrrell) per-student spending exceeded that of Mecklenburg. Some small city school units also have relatively high per-capita spending.

But there are several reasons why high perstudent spending may not permit these small systems to provide an educational program as adequate as those in larger units that have equal perstudent spending. For example, the state allocation formula for regular high school teachers provides one teacher per thirty students. A small, rural county with only 400 high school students would be entitled to only 13.5 regular classroom teachers (additional teachers for teaching math, science, and vocational courses and for instructional support and "program enhancement." for example, are provided through other formulas that cannot be ealculated for a hypothetical school). This number of teachers would not permit a wide range of course offerings in comparison with that of a 2000-student high school, which would be entitled to 66.5 regular classroom teachers.

Another reason is that certain overhead expenses must be provided in every unit regardless of size. For example, the state government provides funds to pay a basic salary for one superintendent in each unit, but on a per-student basis that salary expense is much higher in small units than in large units. Conversely, large units can provide central staff services at a relatively low cost per student.

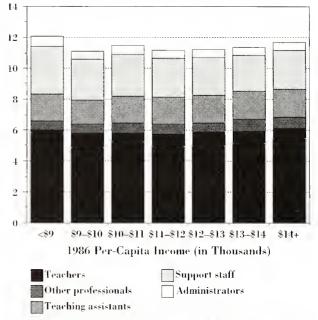
Finally, it should be noted that a unit may have an adequate level of spending for instructional programs but inadequate school buildings and facilities, which are the financial responsibility of local units. (Spending for school construction is not included in any of the figures included in this article.)

In summary, per-student spending is not a meaningful indicator of the adequacy or equality of educational resources among local units. A more meaningful indicator is the number of employees per student—it is more meaningful to know how many teachers, teaching assistants, and guidance counselors, for example, are available in the schools than to know merely how much money is spent.

Employment

Figure 4 shows average employment per bundred ADM in 1988–89 for units grouped by estimated 1986 per-capita income. Units with lowest per-capita income had the highest average number of employees, but differences among all the groups were not very large. Units where per-capita income was less than \$9,000 had an average of 12.1 employees, compared with an average of 11.7 employees in

Figure 4 School Employment per Hundred Students for 135 Units, 1988–89



Source: N.C. Dept. of Public Education, North Carolina Public Schools: Statistical Profile 1989 (Raleigh, N.C.: 1989).

nnits that had the highest incomes. Units with the highest incomes had slightly more teachers per hundred ADM on average than other units (the difference between the lowest and highest units represented student-teacher ratios of 16.3 and 16.6, respectively), but overall the differences were small.

If we examine the number of employees directly involved with students (teachers, other professionals, and teaching assistants), the number perhundred ADM varied on average from 8.0 in units where per-capita income was between \$9,000 and \$10,000, to 8.6 in units where per-capita income was highest, a difference of 7.5 percent. The category of employee that was most closely associated with per-capita income was "other professionals" guidance counselors, psychologists, librarians, and so forth. The number of other professionals perhundred ADM was 0.58 on average in units where per-capita income was lowest, and 0.74 in units where per-capita income was highest.

The relative equality in average number of teachers per hundred students came about despite the fact that higher-income units provided more teachers from local revenue sources than did lowerincome units. This is due mainly to the equalizing effect of federally supported teacher positions financed by programs that favor poorer units. The lowest-income units also had more state-financed teacher positions per hundred students. The units with lowest income provided from local funds on average 0.18 teachers per hundred ADM, while those with highest per-capita income provided 0.67 teachers per hundred ADM (the latter was considerably higher than the average for all other groups of units).

Although federal spending constitutes a small percentage of total spending—5.0 percent, compared with 21.1 percent for local spending—it has a disproportionate effect in equalizing the number of teachers, because a large share of federal funds is used to hire teachers. Of all full-time teacher positions, as noted earlier, federal funds accounted for 4.8 percent, and local funds accounted for 6.6 percent. And for all units, the average number of federally funded teacher positions (0.30 per hundred ADM) was close to the average number of locally funded positions (0.34 per hundred ADM). (However, federally funded teacher positions are likely to be in special, rather than regular, instructional programs.)

Just as spending per student can be a misleading indicator of the adequacy of educational programs, the number of employees per student also can be misleading, especially when considering small units and small high schools. Take, for example, a small high school with 400 students (perhaps in a small county or city unit) and one with 2,000 students, each of which has six teachers per hundred students (that is, a student-teacher ratio of 16.7). The 24 teachers in the smaller school would not be able to provide as full a curriculum as the 120 teachers in the larger school could. Large units also may be able to take advantage of scale economics in providing central services and support programs.

Conclusion

In North Carolina the state is responsible for financing the operating expenses of the instructional program in public schools for the constitutionally required term. The extent of the state's responsibility is defined by the policy stated in law in 1984 the state will be responsible for the instructional expenses needed to provide the standard course of study that should be available to every child. That policy was incorporated into law as the Basic Education Program, which further defined the standard course of study that the state would finance. Financing the standard course is accomplished through the state's allocation formulas, which are intended to channel to schools the various resources required to provide the standard course.

Despite the fact that local units are allowed to supplement state funds, this article has shown that North Carolina's system of school finance, unlike the systems in many other states, does not result in large systematic disparities in total spending per student for operating expenses or in employees per hundred students between units with low and high per-capita incomes. Although disparities in spending and employment exist among individual units (at all levels of per-capita income), these disparities are only weakly correlated with estimated percapita income of the units. In fact, some of the units with lowest per-capita income rank near the top in total spending and employment per student. while some units with relatively high per-capita income rank near the bottom.

As this article has discussed, however, differences in spending among units can be a misleading indicator of the resources available in schools and of the general adequacy of educational programs, especially when small units are compared with larger units. Employment per hundred students, a better indicator of resources available, is much more uniform among units than is spending per student and tends to be slightly higher in lowest-income units. However, employment also can be a misleading indicator for small units, where a minimum number of teachers is required to provide an adequate high school curriculum and where the lack of scale economies may make it difficult to provide a full range of programs and support services.

In summary, measures such as spending and employment per student cannot alone answer the question of whether the state's allocation formulas are being successful in carrying out the intent of the Basic Education Program, which is to ensure that every school has resources adequate to provide the standard course of study. \clubsuit

Notes

1. N.C. Const. art. 1X. § 2(1).

2. The term local units refers to counties and city school administrative units (which in general are not associated with municipal governments). Counties are responsible for providing schools for the county's students, and all operating funds from countywide revenue sources must be distributed to county and city-unit schools on the basis of average daily membership. Schools in city administrative units are administered separately from county schools, but special taxes for city units must be levied by the board of county commissioners.

3. 1931 N.C. Sess, Laws ch. 430 and 1933 N.C. Sess. Laws ch. 562.

4. 1987 N.C. Sess. Laws eh. 622.

5. N.C. Gen. Stat. § 115C-408(b).

6. N.C. Gen. Stat. § 115C-81(a1).

7. N.C. Gen. Stat. § 115C-81(b).

8. N.C. Gen. Stat. § 115C-81(b).

9. School spending and employment data used in this article are from Department of Public Education, North Carolina Public Schools: Statistical Profile 1989 (Raleigh. N.C.: 1989).

10. The analysis showed that variation in adjusted property tax valuation per ADM was not correlated strongly with county units' per-student total spending from all sources, total employment per hundred ADM, or number of teachers per hundred ADM. Adjusted property tax valuation per ADM varied much more than percapita income. from \$97.099 in Hoke County to \$804.971 in Dare County. (Total spending per student for operations from all sources in these two counties was \$2.713 and \$2,973, respectively, a difference of 8.4 percent.) However, ninety of the one hundred counties had adjusted property tax valuations per student below \$350,000. and in seventy-one counties the valuation per student was less than \$250,000.

Average total spending for operations from all sources in county units, classified according to per-student valuation, was as follows (the number of units in each classification is shown in parentheses): less than \$150,000: \$2,915 (21): \$150,000 to \$200,000: \$3,155 (29): \$200,000 to \$250,000: \$3,074 (21); \$250,000 to \$300,000: \$3,292 (7): \$300.000 to \$350,000; \$3,211 (11); \$350,000 to \$400,000; \$3,096 (4); and \$100,000 or higher; \$3,271 (7). The average for all counties was \$3,109. Per-student valuation explained only 6 percent of variation in total spending.

The average number of teachers per hundred ADM in counties classified according to per-student valuation was as follows: less than \$150.000; 5.62; \$150.000 to \$200.000; 5.87; \$200,000 to \$250.000; 5.69; \$250.000 to \$300.000; 5.80: \$300.000 to \$350,000: 5.93; \$350,000 to \$400,000: 5.90; and \$400.000 or higher: 6.00. The average for all counties was 5.79. Per-student valuation explained only 5 percent of variation in number of teachers per hundred ADM.

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The Hub of the Wheel: Clerks Keep Government Running Smoothly

Carolyn Lloyd

Who are the clerks, and what are their needs? That was my first thought when asked several years ago to present a workshop on interpersonal communication to the Institute of Government's clerks' school. Answering those questions has led me from the shores of Nags Head to the mountains of Boone. What 1 discovered was a group of people totally dedicated to serving the governmental entity and eitizens for whom they work.

The position of clerk is one of the oldest in government, dating back to prebiblical times. During the Middle Ages, the term *clerk* (a cleric or clergyman) became synonymous with *scholar* because elerks were among the few people in their community who could read and write. The elerk tied the past to the present by keeping the records of what happened.

Since then the position has gone through a major evolution, which has accelerated greatly in the last ten to fifteen years mainly because of the formation of professional organizations that have promoted education to meet the specific needs of clerks. These organizations also have provided networking opportunities to facilitate the exchange of ideas and techniques and have strengthened elerks' influence in matters that directly affect their position. The North Carolina Association of Municipal Clerks and the North Carolina Association of County Clerks to the Boards of County Commissioners have beeome two of the most active organizations of public officials in the state. As a result of this influence, the role of clerk has become more complex, requiring that the present-day clerk be a professional administrator.

In order to understand this complex position better, I talked with a number of elerks, both individually and in groups, and gathered information through a questionnaire sent to more than 500 elerks in North Carolina. I found that no one job description ean be written to fit the position. The diversity of responsibilities and the uniqueness of each position are due, at least in part, to the wide variation in size of the communities-from less than 500 to just under 500,000 eitizens. Cities and counties also vary in their organization, and the clerk's duties reflect these differences. All clerks work for their governing boards, but some clerks also are accountable to a city or county manager. In some areas of the state the elerk's position is a part-time or even a volunteer position. In many small counties and towns it may be combined with one or more other positions, such as finance officer, manager or assistant to the manager, register of deeds, or tax collector. In larger cities and counties, in contrast, the clerk's position is basically an administrative one. supervising a staff that takes and prepares the minutes of council and board meetings, prepares the agenda, and keeps the historical records of the government.

The author is a private consultant with CADRE Associates. Inc. in Chapel Hill and specializes in interpersonal and presentational communication. Photographs by Carolyn Lloyd.

For a more in-depth look at the differences and similarities. I asked four clerks to share their knowledge and perceptions of their particular positions: Cathleen Small of Watauga County. Norma Bodsford of Guilford County. Nonnie Maness of Biscoe, and Jean Bailey of Rocky Mount. Three of these clerks are natives of the county or city they represent. Their educational backgrounds include high school, business school, and community college plus the experiential learning that results from working in a particular position for many years. Each has served between six and eleven years.

I selected clerks who would represent both cities and counties as well as communities that vary in



Jean Bailey locates information for a citizen in a minutes book for a previous year.

size: Watauga County with a population of 35.000: Guilford County with 345.000: Biseoe with 1.516: and Rocky Mount with 50.000. Three of the four communities have a city or county manager form of government. In Rocky Mount and in Watauga and Guilford counties, the conneil or board is the chief administrative and policy-making body, and the manager is responsible for day-to-day administration. Biscoe is governed solely by a mayor and board of commissioners. The clerks in the two city governments are accountable only to the mayor and the council, but in the two counties, they answer to the county manager as well as the board of commissioners. The number of people employed in the service of government varies from fourteen in Biscoe to 2.032 full-time employees in Guilford County.

All of the clerks 1 interviewed displayed a keen interest in and an extraordinary knowledge about their particular governments as well as their own positions. Though they had different backgrounds, education, and experiences, they shared a sense of responsibility for the smooth running of their governments, which extended beyond their assigned duties.

One important aspect of the position of clerk is the central role the clerk plays in the governmental communication network. Many clerks describe themselves as being the funnel through which much of the communication is sent from department heads, citizens, employees, and others to the manager and council or board. Do you feel you are the "hub of the wheel" in your government? Who do you communicate with, and how often do you communicate with them?

Bodsford: Your description of a clerk as the hub of the wheel is much the way I think of my position here. The clerk is the hub and serves as one of the major sources of information on board actions. I communicate daily with the commissioners, the county manager, and the county attorney. I interact frequently with the planning director, other department heads, other government employees, and the press. The clerk also serves as a link between citizens and government. One of my primary functions is to provide information.

Bailey: Basically my office is an information office. I am in the center of things because as elerk I am usually more accessible than the mayor, council members, and other eity officials. I have immediate access to information because I am on the front line in the city council meetings. I communicate daily with the mayor, the city manager, and various department heads, depending on what is going on. My office has quite a bit of contact with the newspapers, and we get anywhere from fifteen to twenty calls a day from the general public.

Although clerks' duties vary across the state, the clerks' organizations have stressed the need for all clerks to perceive their role as a professional. What does this mean to you? Do you see yourself as a professional, and what steps have you personally taken to develop professionally?

Small: Being a professional means to contribute to the smooth running of the county, to know your board, and to be able to deal with the public in a businesslike but caring manner. I take seminars on different subjects to become more knowledgeable about the workings of the laws and the general information needed on issues facing the board.

Bailey: I see professionals in any field as being people who are aware and knowledgeable of what their responsibilities are and confident in what they are doing. They keep up-to-date on all the changes and modern techniques that affect their position. In order to develop professionally, I joined both the North Carolina Association of Municipal Clerks and the International Institute of Municipal Clerks, and I have earned both my Certified Municipal Clerk and Academy for Advanced Education certificates.

What role do the clerks' organizations and other clerks play in the development of professionalism?

Bailey: Both of these elements have been very important to me in my development as a city clerk. I have found that the most valuable resource I have is a fellow clerk. Each clerk possesses a wealth of information and is always willing to share. To build on this, the North Carolina Association of Municipal Clerks is formalizing this networking process through a mentoring program called WSOS (We Share Our Services). Each new clerk who wishes to participate will be assigned an experienced elerk who will serve as mentor and be on call for that clerk until he or she becomes comfortable with the job. I have sought and received this kind of help on an informal basis over the years, and this has contributed greatly to my development as a professional. The clerks' organizations facilitate this networking and provide many opportunities for professional development through education that is tailored to meet elerks' specific needs. The Certified Municipal Clerk and Academy for Advanced Education certificates are granted to clerks meeting specified educational and experiential requirements.

Each clerk's job description evolves out of the needs and wants of a particular governmental entity, and no standardized job description has been developed for this position throughout the state. Would you describe in detail what it is that clerks do? Could you describe an average day—what routine tasks are you expected to perform, and what tasks of an unexpected nature might come up?

Maness: I don't have an average day. That's one thing that makes the job interesting—every day is different. I think I spend about 25 percent of my time on clerk duties. I have three titles and many other responsibilities. Besides the position of town



Deputy Clerk Janice Wooten observes Nonnie Maness as she advises Billing Clerk Pamela Hurley (seated) on a water-billing question.

elerk. I hold the positions of tax collector and finance officer. I am a registered commissioner for the Montgomery County Board of Elections, a notary public, and unofficially the personnel officer. As the town elerk, I record the minutes for all the board meetings, prepare the agendas for those meetings with the mayor, mail out packets of all material related to the agenda to the commissioners, handle the maintenance of the records, attend meetings as clerk or as representative for the mayor, and confer with the town attorney.

Bodsford: It is hard to explain an average day. For a clerk, many days start before 8:00 A.M. and go well after 5:00 P.M. You do whatever is necessary. The major task of clerk is to take full and accurate minutes of each board meeting, and with the taking of minutes come many other related jobs. My office prepares an agenda before board meetings, takes and indexes the minutes, corresponds with department heads and people who need information about a board action, and keeps boards' and commissions' records. I am also responsible for supervising the work of the deputy clerk. Many days the unexpected is the norm when you work with the commissioners or a manager. You never know what that day may bring. After an election when new commissioners come on the board. I assist with their orientation by providing them information on county



Norma Bodsford (right) reviews the agenda for the upcoming meeting with Commissioner Dot Kearns.

government. The clerk must be aware of the political nuances and take care in how he or she handles certain issues.

One of your mandated duties is your work related to the council or board meetings. To give the reader some idea of just what it is that the clerk is required to do in relation to these meetings. I would like you to give an account of the various specific tasks you perform in preparation for these meetings.

Maness: We have one regular meeting a month. I start preparing the agenda on the Tuesday before the board meeting on the following Monday. I finalize the agenda with the mayor on Wednesday afternoon and mail copies of it to the commissioners on Thursday. On Monday the deputy clerk and 1 set up the room, which is used for many other functions. by arranging the chairs, placing name plates, and providing information and materials that might be needed during the meeting. On Monday night 1 arrive early to turn on the lights and heat and make sure everything is in its place.

Bodsford: On the average we have four board meetings a month. These are held on the first and third Mondays and the preceding Thursdays. The agenda preparation starts on Wednesday, a week before the Thursday meetings. We prepare agendas for both meetings so the commissioners can have a longer period of time to review them. The budget director receives all agenda items first because he must prepare the budget ordinances. He then brings all agenda items to me. Between Wednesday and Friday, draft agendas are prepared for review by the county manager and the chairman of the board. On Friday morning the deputy clerk and 1 finalize the agenda packets for delivery to the commissioners. We also mail agendas to the sunshine list (the press and people who have asked to receive copies of the agenda).

I understand that many clerks work at the "pleasure of the board." Just what does that mean, and what significance does that have for the position?

Bodsford: To serve "at the pleasure of" means that clerks are not afforded the same job protection and security as other full-time county employees. They are not protected by personnel procedures and can be removed by a majority vote of the board at any time. Clerks strive to do their job in a professional and competent manner and to remain nonpolitical.

Bailey: As 1 understand this phrase, it means that a governing board can dismiss a clerk without cause, or, in other words, just because it no longer pleases them for you to be their clerk. I suppose that this came about because the clerk generally works for the governing board, which is elected, and this gives each board the option to change a elerk if they doubt the clerk's loyalty. While this could pose a problem as far as job security is concerned, I do not believe it has been a real factor in North Carolina. Clerks are generally very adaptable to changing boards and make these transitions in a professional manner.

As I have talked with clerks over the last few years, they have discussed the ever-changing role they play in government. As your community's population increases and as technology increases the expectations of everyone, how do you see the role of clerk changing to meet the needs?

Bodsford: The work load has changed drastieally. Onr board now holds an average of four meetings a month; however, during the strategic planning times and budget cycles, it meets seven or eight times a month. As additional programs evolve, new committees are added, and as directions change in order to meet community needs, my duties change and expand.

Bailey: In the broad sense of the word, the responsibilities of elerks are basically what they have always been, even back to biblical times. What has changed and will change even more dramatically in the future is how we do our jobs. I think we will always be responsible for meeting the legal requirements of the council's actions, for preserving the legal and historical integrity of our governments through the creation and maintenance of the official legal records, and for managing that information. What form that will take in the future remains to be seen. I anticipate a time when we will be able to press a button and send information directly into the homes of our citizens or wherever else we need it to go. If the question is meant to ask if technology will replace the city clerk at some time in the future. no. I don't think so. The clerk gives an element of continuity to our local governments that can never be replaced by advances in technology.

Small: As the county grows, the position of clerk will become more complex. In 1977 Watauga County became a county manager type of government, and the position of clerk has been more defined since then. Before that time, someone in another position did the duties that clerks are required to do now. As the position becomes more complex, it will require someone with a higher degree of education and ability. I think one thing that is needed is to have a course of study at the college level for people interested in becoming clerks.

What do you mean by "course of study?" Are you talking about something different from the inservice training and education clerks get through the Institute of Government's Clerk's School?

Small: While the Institute of Government does an excellent job of educating clerks, I think a curriculum in local government could be given at a community college, with a course to address the specific needs of both city and county clerks. There are courses for new county commissioners, county



Cathleen Small discusses a board action with County Attorney Stacy C. Eggers 111.

administrators, county finance directors; why not one for elerks?

Bailey: The clerk's position has gradually, but steadily, been transformed from a high-level clerical job into a professional management position, and governing boards are becoming more aware of the importance of selecting competent (educated) and qualified individuals to fill the position of clerk. This is clear from the fact that boards are beginning to look outside their area for experienced clerks to fill vacancies, and clerks are now beginning to relocate from city to city to upgrade their salary and position. Although salaries for clerks have improved somewhat, I see, or at least hope to see, great leaps



At one time, minutes such as these from Biscoe were painstakingly written by hand. Today many cities and counties use computerized systems for processing and indexing minutes.

in this area for the future. This will happen as the profession ceases to be one where a person just happens into the job and becomes one that is part of a career ladder for individuals looking for a challenging and rewarding career. For this to happen. the clerks' profession must be one that is planned for. This will only come about when and if profiles of the profession and of clerks themselves begin to appear in public administration and public management literature, so that lingering, uninformed perceptions can begin to fall away. Then advanced students in public administration will see this position as a viable step in a public administration career. When this happens, a preparatory course for clerks will be added to our public administration and management science curriculum.

I have observed that clerks tend to be very dedicated and resourceful people. They seem always to be looking for ways to meet more effectively and efficiently the needs of their government and the people who run it. What are some of the needs you have seen, and how did you meet them?

Bodsford: Two innovations that I have been responsible for are the talent bank list and the summary of board actions. We have approximately twenty five boards and commissions. People who are interested in serving on a board or commission fill out and submit an application indicating their interest. We place their names, geographic location, race, district, and special interests on our talent bank list, which is kept on computer. When a vacancy occurs on a particular board or commission, we refer to this list. The summary of board actions is a summary of all the board actions taken during a board meeting. Typically it can take days or weeks for the official minutes of the meeting to be finalized for distribution. Through the summary, we get a brief synopsis of the board's actions out to department heads and others the day after the meeting, so that they can be informed on decisions that pertain to their jobs.

Bailey: I constantly look for ways to present a more comprehensive agenda package to city council members to make their job easier, and I have made changes several times to accomplish this goal. I ehanged the format of the minutes to make information retrieval easier. I developed a cover sheet for the agenda that the public receives when they attend a city council meeting, to inform them of procedures and how they might participate in the meeting. I also developed an "Action Agenda" that is sent to department heads (now electronically) the morning after a city council meeting, advising them of actions taken by the council on the various agenda items to eliminate the necessity of a call or memo.

One of the concerns that I have heard expressed by most clerks is that even though they play a central role in their governments, few people outside their office know who they are or what they do. I see this article as an opportunity for clerks to educate people about their position. Therefore, what message would you as a representative of all clerks like to send to the readers of Popular Government?

Maness: When people come to the Town Hall, usually it is because they must come—because government can sometimes be introsive in people's lives. I would like citizens to know that the clerk's office is a place they can come to for assistance. They might not always like the answers, but at least this is a place to get an answer for a lot of things. I

Facts about North Carolina's Clerks

North Carolina's 100 counties and its approximately 486 municipalities are all required by law to have a elerk.¹ About 82.5 percent of city clerks are women, while about 17.5 percent are men.² As of late 1989, seventy-two county clerks to the boards of commissioners were women, while twenty-eight were men.

More than three fifths of municipal clerks on the Institute of Government's mailing roster hold one or more job titles in addition to that of clerk. The most common additional positions listed are tax collector (nearly 41 percent of clerks) and finance officer (nearly 38 percent of clerks). About 13 percent of municipal clerks are also purchasing agents, more than 8 percent are personnel directors, more than 7 percent are managers. and more than I percent are assistant managers. Occasionally, the clerk may also be a planning director, community development director, or governing board member. (The city clerks' mailing list does not report such additional job titles as administrative assistant.)

About two thirds of county elerks to boards of commissioners hold the primary title of elerk, clerk/ administrative assistant, clerk/assistant to the manager, or a similar designation. In the other one third of the counties, a variety of situations exist. Sixteen elerks to the board are also county managers, three are assistant managers, three are county attorneys, and seven are finance officers. (Some of these persons also hold other positions besides clerk and the one listed.) Occasionally, county clerks are also registers of deeds or tax administrators. At least one clerk is also county information officer.

Many counties and municipalities have assistant or deputy clerks who assist the clerk in performing his or her duties. In some cases where the clerk holds an additional position or positions, the assistant clerk may be very heavily involved in the dayto-day responsibilities of minutes taking, notice giving, or record keeping.—*A. Fleming Bell, II*

Notes

 N.C. Gen. Stat. §§ 153A-111 and 160A-171.
 The data presented here were compiled primarily from the N.C. Association of County Commissioners' 1990 Directory of North Carolina County Officials (Raleigh, N.C.: 1990) and from a roster of city clerks maintained by the Institute of Government and comprehensively updated in 1988. Some information about county el€rks' job titles also was obtained from the roster of the 1990 Annual City and County Clerks' School, held January 24-26, 1990, at the Institute of Government, and from the Institute's roster of county clerks, which was comprehensively updated in 1989.

would also like the general public to take a greater interest in the way local government works. I love my job and helping people, and I look forward to meeting the challenges of the future.

Bailey: I would like everyone to recognize that clerks have a significant role to play in making our local government work as smoothly as possible. I would like the general public to know that there is a city clerk in their town who can provide a very significant and important link between them and the elected officials, and that this clerk would like nothing more than to be able to be of assistance to the citizens. Small: I would like citizens to know that the clerk is responsible for all documents that are generated by the board of commissioners (that is, the minutes, ordinance books, resolution books, and any other documents entrusted to the clerk). As a clerk, I am dedicated to performing all of my duties in a professional and businesslike manner.

Bodsford: The clerk's job is not all cut and dried. As the hub of the wheel, the clerk must be responsive to the needs of elected and appointed government officials as well as citizens. The clerk can be a link for citizens with their government and can be a very valuable resource to both. \clubsuit

Solid-Waste Management: Local Government Exclusionary Policies

William A. Campbell

Solid-waste management rapidly is becoming an issue of great concern for many cities and counties in North Carolina and throughout the nation. Existing landfills are nearing capacity. New landfills are costly, and many local governments encounter determined opposition from nearby landowners when they select a site for a landfill. And the alternatives to landfilling, such as waste-to-energy plants. also are costly and not without their own environmental problems. Concerned about the need to conserve landfill sites and the costs of managing solid waste. local governments in some states have attempted to exclude commercial landfills from their juri-dictions and to prohibit the disposal in existing landfills of solid waste generated outside the unit (exogenous waste). This article reviews the court cases dealing with exclusionary policies of various kind- and examines their relevance to several North Carolina statutes authorizing local governments to adopt some types of exclusionary policies. The article deals with these issues only in the context of municipal solid-waste management. Exclusionary policies affecting the management of hazardous and low-level radioactive waste implicate federal and North Carolina statutes that are beyond the scope of this discussion.

Regulation of Landfill Sites

A local government may want to stop a commercial waste-management firm from establishing a landfill within its boundaries for at least two reasons. First, it may wish to conserve scarce potential landfill sites so that the local government itself can have first choice of those sites. Second—and related to the first reason—it may be concerned about the possibility of a commercial firm's accepting exogenous waste at the site. Local governments have tried to use several devices to accomplish this exclusionary purpose, all without success.

West Virginia attempted to give local groups veto power over the siting of landfills. It provided in a statute that one of the considerations the Department of Natural Resources could weigh in deciding whether to issue a landfill permit was whether

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the proposed facility was "significantly adverse to the public sentiment of the area where the solid waste facility is . . . located." That is, if local opposition groups made enough noise, the department could take the opposition into account and deny a permit. The department used this provision to deny two permit applications, even though the proposed sites were technically and environmentally acceptable. A third applicant challenged the statute on due-process grounds and won.¹ The Fourth Circuit Court of Appeals held that a land-use regulation must have a basis in the police power (that is, a government's general regulatory power) and be asserted on behalf of the public welfare. It found the West Virginia statute arbitrary and without any rational relationship to a valid policepower objective.

Other local governments have attempted to use the zoning power to exclude landfills completely, but the attempts have been invalidated. In two reported cases, one from Michigan² and one from Pennsylvania.³ the courts held that local governments could constitutionally use the zoning power to prohibit the establishment of a legitimate business only if the prohibition was reasonably related to the public health, safety, and welfare, and that in these cases the local governments had not established such a relationship. No North Carolina cases have dealt with the use of the zoning power to prohibit the siting of landfills, but it is likely that the North Carolina courts would adhere to the principles applied in the Michigan and Pennsylvania cases. In Berger v. Smith,⁴ for example, the North Carolina Supreme Court struck down a municipal ordinance that prohibited sawmills within certain areas of a municipality, because the municipality had not shown that the public health or safety was threatened. Although courts view attempts to prohibit landfills with disfavor, they do allow regulation of landfills. In Al Turi Landfill. Inc. v. Town of Goshen.⁵ a federal district court upheld a New York town's regulation that left an existing landfill with only six acres for expansion.

North Carolina. in Section 130A-294(a)(4) of the General Statutes, provides that the Department of Environment. Health, and Natural Resources may not issue a permit for a landfill until the governing board of the host county or municipality has given its approval. Insofar as this grant of absolute veto power to local governing boards applies to both public and private landfills, it is vulnerable to constitutional challenge on two grounds. First, it appears to violate the principle against prohibiting a legitimate business without grounding the prohibition in a demonstrated need to protect the public welfare—as in the West Virginia and zoning cases discussed above. Second, to the extent that it applies to a private firm that wishes to establish a landfill in North Carolina for the disposal of waste generated in other states, it is contrary to the Snpreme Court cases holding that under the commerce clause a state may not "hoard" its natural resources (in which category the Supreme Court has tentatively included landfills) for the exclusive use of its citizens.⁶

In 1981 several North Carolina counties obtained local acts from the General Assembly that prohibited another unit of local government from acquiring real property in the county for any purpose without the permission of the board of county commissioners.⁷ Counties with these acts could use the granted authority to stop another governmental unit from acquiring property for a landfill. The acts do not apply to land acquisition by private firms and therefore do not encounter the constitutional difficulties discussed above. The counties that obtained veto anthority by local act are Bladen,⁸ Brunswick and Pender.⁹ Columbus,¹⁰ Sampson,¹¹ and Caswell, Franklin, Granville, Person, Vance, and Warren,¹²

Regulation of Exogenous Waste

Local governments wishing to prohibit the disposal of exogenous waste in private landfills face an insurmountable hurdle: *City of Philadelphia v*. *New Jersey*.¹³ New Jersey enacted a statute prohibiting the disposal in New Jersey landfills of waste collected or generated ont-of-state. Prior to the statute's enactment, exogenous waste had been disposed of in the state's private landfills. Philadelphia challenged the statute on commerce-clanse grounds, and the Supreme Court held the statute invalid. The Court stated that solid waste was protected by the commerce clause to the same extent as other goods that move in interstate commerce. New Jersey's attempt to conserve the state's landfill space by excluding waste in interstate commerce was a type of protectionist measure that consistently had been invalidated under the commerce clause.

Several cases have followed City of Philadelphia and invalidated local restrictions on placing exogenous waste in private landfills.¹⁴ One possible exception to the no-exclusion rule of City of Philadelphia is that if solid-waste disposal in a jurisdiction is about to cause a public health emergency. the jurisdiction may be allowed to impose certain restrictive measures. In the one case dealing with this issue—another New Jersev case¹⁵—a private landfill was used primarily by three counties, and these counties had no other disposal options. The state had allowed the landfill to expand sixteen feet vertically as an emergency measure. The plaintiff borough obtained a court order directing that the landfill be used only by the three neighboring counties-waste from elsewhere in New Jersev and from other states was to be excluded-and that the three counties make maximum efforts to recycle their solid waste. The reviewing court found that the restrictions did not violate the commerce clause. They were imposed on intra- and interstate waste alike and were reasonable in light of the public health emergency in the three counties.

The North Carolina General Assembly has required that before out-of-state waste may be deposited in any private or public landfill, it must have been inspected by the appropriate regulatory ageney of the state where it was generated and certified by that agency to be noninjurious to health and safety.¹⁶ This provision was enacted in 1987, probably in response to the wandering garbage barge from Long Island. New York, which made a stop in North Carolina. Because the inspection and certification requirements apply only to waste in interstate commerce, and not to waste generated in North Carolina. they would-if challenged-very likely be struck down under the authority of City of Philadelphia as discriminating against interstate commerce.

When we turn to regulation of waste deposited in publicly owned landfills, as distinguished from those that are privately owned, we find the courts to be in unanimous agreement that local governments may legally exclude waste generated outside the jurisdiction. The courts have used two different theories to uphold the exclusionary regulations and have found the *City of Philadelphia* rule inapplicable. In cases from Pennsylvania.¹⁵ Oregon.¹⁸ and Florida¹⁹ the courts held that because the exclusionary regulation operated evenhandedly against waste from other jurisdictions both within and without the state, and because it was designed to further a legitimate local purpose-extension of the life of the landfill-there was no commerce-clause violation. The leading commerce-clause case from which this reasoning is derived is *Pike v. Bruce Church, Inc.*: "Where the statute regulates evenhandedly to effectuate a legitimate local public interest. and its effects on interstate commerce are only incidental, it will be upheld unless the burden imposed on such commerce is clearly excessive in relation to the putative local benefits."20 In the Oregon case, a good example of why local governments adopt exclusionary policies, a municipal service district covering three counties in the Portland metropolitan area operated a landfill. On January 1, 1986, the service district closed the landfill to waste generated outside the three-county area. This affected all other jurisdictions in Oregon as well as some counties in Washington. The purpose of the restriction was to increase the life of the landfill for six to twelve months. The restriction was upheld.

The second theory courts have used, reflected in cases from Rhode Island²¹ and Maryland.²² is that when a local government adopts exclusionary regulations that affect only the operation of a landfill it owns, it is acting as a "market participant" rather than as a market regulator. That is, it simply is participating in the market for solid waste along with other public and private landfills, and the courts view any impact on interstate commerce as incidental to the market participation and not within the City of Philadelphia rule. In the Rhode Island case, the Rhode Island legislature prohibited the disposal of out-of-state waste in the state-owned Central Landfill, which was the only active landfill in the state. The federal district court found that the prohibition did not involve the hoarding of a natural resource (searce landfill sites) but rather involved the state's regulation of its own service business (solid-waste disposal). The market-participant exception to regulations that discriminate against interstate commerce is well-established.²³ but the Supreme Court has never applied it in a case in which a state restricted its natural resources. as distinguished from other types of goods and services, to the use of its own eitizens; and in the *Reeves* case the Court was careful to distinguish between the cement produced by a state-owned plant—a manufactured good—and a state's natural resources.

North Carolina's recently enacted Solid Waste Management Act of 1989²⁴ authorizes cities and counties to adopt ordinances regulating the disposal of exogenous waste in landfills they operate, but such ordinances must not apply to private landfills. This provision conforms to the commerceclause principles discussed above.

If a local government may prohibit the disposal of exogenous waste in a landfill it owns or operates, logic would indicate that if it chooses to allow the disposal of such waste, it may charge higher fees for the service than for the disposal of locally generated waste. A case from Pennsylvania has validated this assumption.²⁵ In that case, the county adopted a three-tiered fee schedule: the lowest fee was charged for disposal of waste generated in the county; the next higher fee was charged for waste generated in a surrounding five-county region; and the highest fee was charged on waste from any other venue. The court upheld the fee schedule against allegations that it violated the commerce elause and equal protection of the laws.

Two North Carolina cases have dealt with differential fee schedules, though not on commerce-clause grounds. In Cabarrus County v. City of Charlotte²⁶ the defendant city owned a landfill in Cabarrus County for which it charged disposal fees, Cabarrus County passed an ordinance declaring that county residents could deposit waste at the landfill without paying the fee. When Charlotte challenged the county's authority to enact such an ordinance. the court of appeals held the ordinance invalid. It stated that the ordinance was not based on any statutory authority, and the attempted regulation of fees was not based on different classes of service, as required by Section 153A-277 of the General Statutes. In Barnhill Sanitation Service, Inc. v. Gaston County²⁷ the defendant county adopted an ordinance that imposed a disposal fee of \$1.00 per cubic yard on commercial, industrial, and municipal haulers depositing waste in the county's landfills. No charge was imposed on individual county residents who deposited waste in the landfill. The plaintiff challenged the schedule on equal-protection

grounds, but the court held the schedule valid. Sections 153A-277(a) and 153A-292 of the General Statutes plainly authorize counties to charge different fees for different classes of service, and no constitutional protection is infringed by such a differential schedule.

Possible Congressional Changes in the Exclusionary Rules

As more states have enacted comprehensive solidwaste-management programs-like North Carolina's Solid Waste Management Act of 1989-they have come to see the City of Philadelphia rule as a serious impediment to their management and planning goals. If a state cannot control to some degree the amount of out-of-state waste being deposited in private landfills, then it cannot manage effectively the total stream of waste being disposed of in the state, and it is at the merey of private landfill owners who may choose to exhaust searce landfill space with out-of-state waste. Ohio's frustration with this state of affairs impelled the legislature, in 1988, to enact a statutory program designed in part severely to discourage the importation of solid waste. The Ohio statute provides that counties and wastedisposal districts with solid-waste-management plans approved by the state may adopt regulations prohibiting or limiting the disposal in their landfills of waste generated outside the district or service area.²⁸ The statute further imposes a state fee on solidwaste disposal to fund clean-up and solid-wasteplanning expenses. The fee for waste generated in the county or district is \$0.70 per ton; the fee for waste generated out-of-state is \$1.70 per ton.²⁹ The statute has been challenged in federal district court by the National Solid Waste Management Association.³⁰

Pursuant to its constitutional authority to regulate interstate commerce,³¹ Congress has the power to alter the *City of Philadelphia* rule, and there are indications that it may be inclined to do so. In bills introduced to reauthorize the Resource Conservation and Recovery Act of 1976,³² the primary federal law governing solid-waste management, Representative Thomas A. Luken of Ohio and Senator Max Baucus of Montana have proposed giving states some authority to exclude out-of-state waste.³³ Representative Luken's bill requires states to submit solid-waste-management plans to the Environmental Protection Agency for approval and allows states with approved plans to prohibit the transportation of out-of-state waste and to impose higher disposal fees on such waste.³⁴ Senator Bauens's bill also requires states to submit waste-management plans to the Environmental Protection Agency for approval and then prohibits a state from accepting out-of-state waste that is not provided for in the plan.³⁵ \bigstar

Notes

1. Geo-Tech Reelamation Indus., Inc. v. Hamrick, 886 F.2d 662 (4th Cir, 1989).

2. Ottawa County Farms, Inc. v. Township of Polkton, 131 Mich. App. 222, 345 N.W.2d 672 (1983).

3. Crown Wrecking Co., Inc. v. Zoning Hearing Bd., 71 Pa. Commnw, 310, 454 A.2d 683 (1983).

4, 160 N.C. 205, 74 S.E. 1098 (1912).

5, 556 F. Supp. 231 (S.D.N.Y. 1982). aff d. 697 F.2d 287 (1982).

6. City of Philadelphia v. New Jersey, 437 U.S. 617 (1978): Hughes v. Okłahoma, 441 U.S. 322 (1979): and South Central Timber Dev., Inc. v. Winnicke, 104 S. Ct. 2237 (1984).

7. For a discussion of the legislative background of these local acts, see Milton S. Heath. Jr., and Christopher Mason, "Natural Resources and the Environment," *North Curolina Legislation 1981*, ed. Ann L. Sawyer (Chapel Hill, N.C.: Institute of Government, 1981), 188–90.

8, 1981 N.C. Sess. Laws ch. 134.

9, 1981 N.C. Sess. Laws ch. 283.

10, 1981 N.C. Sess. Laws ch. 270.

11. 1981 N.C. Sess. Laws ch. 459.

12, 1981 N.C. Sess. Laws ch. 941.

13. 437 U.S. 617 (1978).

14. See Shayne Bros., Inc. v. Prince George's County, 556 F. Supp. 182 (D. Md. 1983), and Duchess Sanitation Serv., Inc. v. Town of Plattekill, 51 N.Y.2d 670, 117 N.E.2d 74 (1980).

 Borongh of Glassboro v. Gloncester County Bd., 100 N.J. 134, 195 A.2d 49 (1985), *cert. denied*, 474 U.S. 1008 (1985).

16. N.C. Gen. Stat. § 1304-294(a)(-la).

17. Hancock Indus. v. Schaeffer. 811 F.2d 225 (3d Cir. 1987). This case also found that the exclusionary policy did not violate antitrust laws or equal protection of the laws.

 Evergreen Waste Sys., Inc. v. Metropolitan Serv. Dist., 820 F.2d 1482 (9th Cir, 1987).

Waste Aid Sys., Inc. v. Citrus County, 613 F.
 Supp. 102 (M.D. Fla, 1985).

20, 397 U.S. 137, 142 (1970).

21. Lefrancois v. Rhode Island, 669 F. Supp. 1204 (D.R.1, 1987).

22. Charles County Comm'rs v. Stevens, 299 Md. 203. 473 A.2d 12 (1984).

23. See Hughes v. Alexandria Scrap Corp., 426 U.S. 794 (1976) (upholding Maryland's bounty program for processing as scrap junked cars that were registered in Maryland), and Reeves, Inc. v. Stake, 447 U.S. 429 (1980) (upholding a South Dakota regulation that gave South Dakota customers first priority in purchasing cement from a state-owned plant).

24. 1989 N.C. Sess. Laws ch. 784; N.C. Gen. Stat. § 130A-309.09(a).

25. Swin Resource Sys., Inc. v. Lycoming County, 883 F.2d 245 (3d Cir. 1989).

26. 71 N.C. App. 192, 324 S.E.2d 476 (1984).

27. 87 N.C. App. 532, 362 S.E.2d 161 (1987), rev. denied, 321 N.C. 742, 366 S.E.2d 856 (1988).

28, Ohio Rev. Code Ann. § 3734.53(C)(1) (Page 1988). 29. Ohio Rev. Code Ann. § 3734.57(A)(1) (Page 1988).

 Bruce J. Parker, "Legal Report: NSWMA Sues State of Ohio: EPA to Rethink Leachate Ban?" Waste Age 20 (April 1989): 48.

31. U.S. Const. art. I, § 8, cl. 3.

32. 42 U.S.C. §§ 690 through 6991i.

33. Alyson Pytte, "Congress May Have to Intervene as Garbage Wars Intensify," *Congressional Quarterly* 48 (1990): 175.

34. H.R. 3735.

35. S. 1113.

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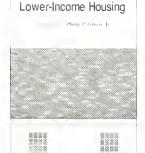
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