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Michael Halminski

Protecting Natural Areas

Arson

Occupancy Taxes

Jail History

Hazardous Chemicals

DWI Education

State Lotteries

Popular Government

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Cover Photo: The black-necked stilt is a rare coastal bird. Many special habitats will be lost if action is not taken now to preserve them. Photo by Michael Halminski.

All color photographs courtesy of the North Carolina Wildlife Resources Commission.

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Developing a Microcomputer Policy in Local Government

Gary R. Miller

A microcomputer policy provides a roadmap for a local government's journey to automation.

Microcomputers have been widely adopted by local governments throughout North Carolina. The 1985 *Index of Hardware and Software in Use in North Carolina Local Governments*[1] reports that 60 microcomputers made by 15 manufacturers are in use in over 40 local government departments. Their applications range from general office tasks to maintenance of the local government's financial accounts.

The more microcomputer systems a local government has, the more likely it is that the local unit will have problems with its total computer facility. The local government that uses microcomputers needs a well-conceived policy to guide it around the potential problem areas. This article will discuss first the uses to which microcomputers are being put and then the major concerns a microcomputer policy should address.

Microcomputers perform five standard functions: word processing, data base management, spreadsheet calculations, graphics, and computer terminal communications. According to the 1985 *Index*, 86 per cent of the local government microcomputers are used for word processing, accounting (spreadsheet), filing (database management), and graphics, in that order. Only 10.9 per cent of the microcomputers are dedicated to custom programs or tasks other than general office applications.

Microcomputers are often purchased to supplement the local government's central computer. Nearly all of the local governments listed in the *Index* have other computing equipment. Microcomputers allow additional computing capability without the need to expand the main computer.

Software programs provide the instructions that allow the microcomputer hardware to perform a specific task. Packaged ("off-the-shelf") software programs that perform the five office functions can usually be purchased for the microcomputer. Fewer than 30 per cent of the local government microcomputers in this state use specially developed software, and only 10.9 per cent are dedicated (used for no other function) to a use with specially developed software. This fact tends to verify the belief of the Center for Urban Affairs[2] that while microcomputers can be programmed, few programs specially developed by a local government are used on local governments' microcomputers. Local governments often modify available software rather than write new software programs because programming expertise is not widely available, and programmers' time is better spent in programming the larger multi-user system(s) for the local government.

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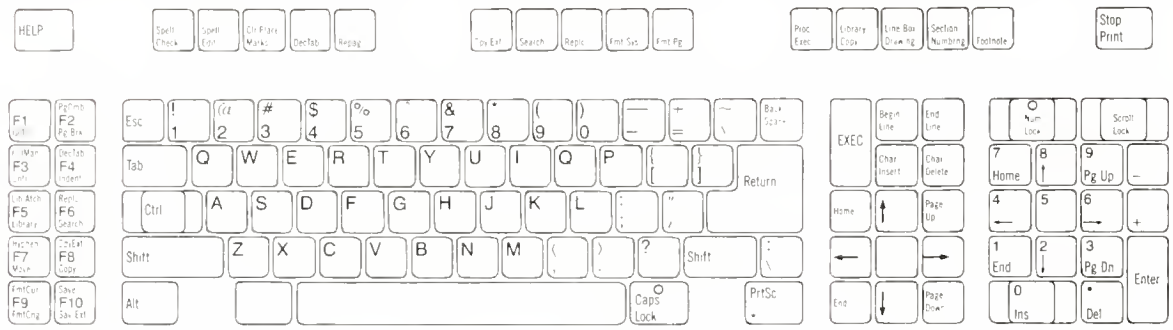
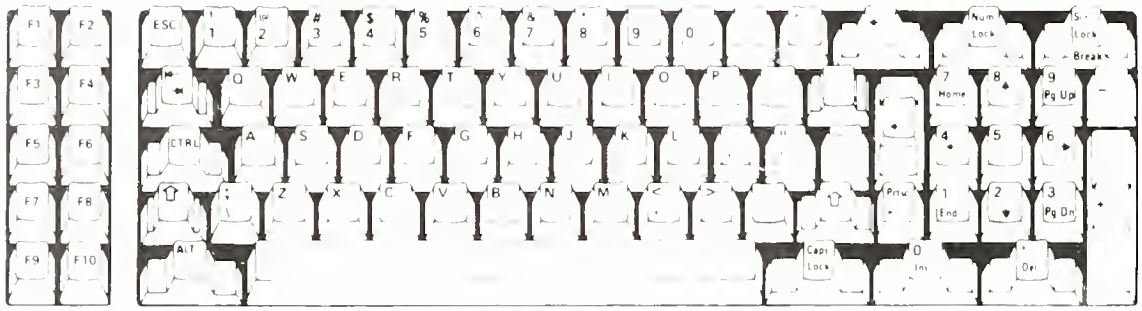
2. The Center is an agency of North Carolina State University in Raleigh.



A. Specialized Word Processing Keyboard. Has labeled function keys, additional labeled command key, separate cursor movement keys, larger shift, and return keys.



B. Typical Personal Computer Keyboard

Figure 1.

The standard functions

Word processing programs. Microcomputers are rapidly replacing typewriters for word processing. The battle over whether to use a microcomputer with a word processing package or a dedicated word processor (a computer that can be used only for word processing) is nearly over. Word processing software packages now available have many features of a dedicated word processor. Manufacturers of traditional dedicated word processing systems have translated their software programs to the microcomputer. Only the microcomputer's universal keyboard makes word processing on the microcomputer more difficult than on a dedicated computer. To solve this problem, several companies sell a word processing keyboard to accompany their word processing software that replaces the microcomputer's standard keyboard (Figure 1). Other software suppliers include a keyboard overlay that labels the generic function keys of a microcomputer.

Because the microcomputer allows automated word processing equipment to be placed on a secretary's desk at a low cost, the centralized word processing facility is seen less often. Now a word processing system can be chosen on the basis of the tasks to be performed. Where clerical staff are still responsible for other office duties, such as answering the phone and filing, a microcomputer-based word processor is a good choice. If the position is in a word processing center or where word processing is the staff's only function, then a dedicated word processor has merit.

Database management programs. Another of the five major office uses of microcomputers is database management. Database management allows lists of data to be organized and selected on the basis of some criterion like greater than, less than, equal to, etc. Vehicle maintenance is a good example of a database management application in local government. Factors like a vehicle's mileage or time since last oil change can be used as the basis for schedul-

ing vehicles for maintenance checks. Most data maintained by the local government can be manipulated in a database program.

Spreadsheet programs. Until the Visicalc spreadsheet program was developed, a microcomputer was of little use in working with financial and accounting data. Some studies now indicate that spreadsheets for accounting purposes are the major business use of microcomputers. Spreadsheets allow columns and rows of numbers to be manipulated, and changes in the numbers are easy because the software automatically calculates the changes made to totals anywhere on the spreadsheet. Budget preparation, bid evaluation, and other financial applications are examples of use of the spreadsheet package.

Graphics programs. High-quality drawings, graphs, and charts have been difficult for most local governments to produce. Automation makes the production of graphics easier. Graphics are normally used with spreadsheets to allow spreadsheet data to be presented more understandably. The graphic capacity can also be used to make overhead transparencies or generally improve the quality of reports required in the local government. Since local governments need to communicate information to a diverse audience, the production of graphics should be considered an important application of the microcomputer.

Communications programs. Since over half of the microcomputers listed in the 1985 *Index* can communicate, local governments are aware of the advantages of connecting the microcomputer to other computers. By using modems, telephone lines, and a communications program, the local government can connect computers in separate locations in order to achieve communication—and thereby obtain and share information quickly. Reviewing and/or transferring files from a larger computer allows the microcomputer to serve as a terminal into a larger system yet still manipulate the information locally. Sometimes the larger system allows the microcomputer to process more information than it can store locally. The larger system can present the data in components small enough to be managed by the micro, and then it can recompile the information when the microcomputer has finished its manipulation. By using the microcomputer to process some functions that would normally run on the larger computer, the larger computer can be freed to perform other functions. The communications capacity allows both the microcomputer and the larger computer to be more productive.

Why a microcomputer policy?

A local government needs a policy governing the purchase and use of microcomputers so that it can avoid the numerous problems that can arise from the uncontrolled and haphazard use of microcomputers. One of these problems is dealing with multiple vendors for computer automation. The microcomputer hardware is often of different manufacture from the local government's main computer because not all manfacturers of large computers make a microcomputer. In addition, the microcomputer produced by the maker of larger computers may not be satisfactory for the specific use within the local government. Software also complicates this problem, since micro software packages are often bought from other vendors. All of these factors mean that the local government is responsible for assuring compatibility between different microcomputers before they can share information. If the local government buys different brands of microcomputers, these problems must be solved for each brand. Using the same brand can simplify the difficulty. Using identical microcomputers can also give the local government built-in backup should one of the units need repair. When hardware is compatible, data can be transferred easily to other microcomputers; and if the local government is working on a large project, the compatible microcomputers can work together on the project, thus increasing output.

Another automation problem can occur if different types of software are used throughout the local government for a single function. Diverse software can make data difficult to exchange. Standardizing software not only makes data easy to exchange but also allows local government personnel who know a software package to teach it to new staff. Questions by new users about a specific software feature can be answered quickly in-house without having to maintain and pay for outside assistance. With standardized software, personnel can work in or move to other offices in the local government without having to be retrained on a new software program, and microcomputer data can be manipulated the same way anywhere in the local government.

For these reasons and others that will become apparent, a local government that plans to acquire more than one microcomputer should develop a formal policy for acquiring and using them. A number of large local governments in North Carolina—including Winston-Salem, Charlotte, and Catawba County—have adopted microcomputer policies. Any

local government should take care to see that the decision to acquire a microcomputer is wisely made.

Policy decisions

The foundation of a local government's microcomputer policy should be a single policy group that is responsible for preparing and implementing the policy. This body should be made up of key personnel from various departments who understand the local government's computer needs. Sometimes it is best to make a specific department—like finance or data processing—responsible for administering the policy once developed. In North Carolina local governments, members of the policy-setting committee usually come from various departments, and then a single department administers the policy.

The policy group's first function should be to develop a written statement dealing with the acquisition and use of microcomputers. That document should cover:

—proper use of microcomputers,
—hardware and software standards,
—acquisition procedures and guidelines,
—training and support,
—care and maintenance,
—restrictions in use, and
—responsibilities of the administering department.

Proper use. In determining proper use of a computer, the policy group must keep in mind the department's automation needs and seek to satisfy them. The first decisions it should make are: (1) Is the task worth automating? (2) How should it be automated? If the committee finds that the task should be automated, it or the administering department decides whether a microcomputer is the best choice for accomplishing automation. The following guidelines should be considered in deciding whether to automate:

—A true need for automation should exist. A department may *think* it needs a task automated, but when it carefully considers the amount of work required for automation, it may find that the benefits do not justify the effort.
—There should be packaged software available to perform the task. Software is now available for most applications that a local government might need. Programming a microcomputer for a single use in a traditional computer language like BASIC or Pascal is not usually cost-effective. Programming a larger computer will often allow several departments to have access to the software and benefit from the programmer's work. If the microcomputer program is useful in other areas of the local government, then it can be copied and transferred to microcomputers in other departments.

In general, microcomputers should be used primarily for applications of restricted, local interest only—that is, they should be standalone. The local government should consider other available computer resources and other departments that could use the data before a new application is automated. If other departments need the same information, the policy group should investigate how it could be transferred, because data can be transferred among microcomputers only with considerable cost, anguish, and potential loss of information. In general, other options should be considered before a standalone microcomputer when data must be shared. For example, databases are constantly updated; if updates are performed locally on a microcomputer, another user may not have the latest database version of the document being used. A standalone might not be a good candidate for this application.

The microcomputer may perform some functions better than other computing equipment. Word processing is a good example of a standalone application. Usually the main computer cannot provide word processing capability to all the departments in a local government that desire it. These departments may be some distance removed from the main computer, and connecting to the main system may be too expensive. Also, word processing packages on most larger computers are not as good as those that have been transferred to microcomputer.

The microcomputer could be a good solution when there is a task that other computer resources will not address for some time. For example, social services departments need to keep records on clients and on worker time accounting. On a large computer, a program may have to be written in order to do these jobs, but a software package can be modified for the microcomputer to perform the task without having to program the large computer.

Networking of microcomputers—connecting them as telephones are connected in an office—is one method of allowing microcomputers to share data, but that also can cause problems. Networking usually implies that the pieces of equipment must be located fairly close together—usually within the same building and often on the same floor. The actual net-

work hardware required depends on the distances of the connecting cable in the network.

Software for the five office applications must have network management features. Without proper planning, changes in software and conversion of data may have to be made in order to move from stand-alone to networked microcomputers. The policy document can provide the foundation for that planning.

A microcomputer should not require the addition of personnel. Although someone may have to be made responsible for the equipment, the microcomputer should improve the department's current procedures and effectiveness without the need to add staff.

Standardizing hardware and software. Besides deciding whether a microcomputer is the correct choice for a given department, the policy group should act as a system consultant to the department. Having assured that the planned equipment and software will accomplish what must be done, the policy group should be able to advise and make recommendations to the departments in using their microcomputers. In addition, it should seek to standardize the software, especially for the five general office applications we have identified. Standardization provides the following advantages, among others:

—Training and support can be provided by other local government personnel who have already been trained on the same system;
—Equipment and software backup will be available in various local government departments if a problem occurs in one department;
—Negotiated discounts and better support from dealers can be obtained when quantities greater than one are purchased;
—The compatibility of programs and the ability to transfer data allow different users to benefit from work done on other microcomputers;
—Once communications to the main computer have been accomplished for one microcomputer system, the local government can easily attach the other microcomputers; and
—Upgrading and networking will be easier with standardized microcomputer hardware and software than they would be if many different systems were used.

While standardized software is desirable, a local government should take care not to make standardization an inflexible rule. Many applications in local governments may require unique hardware and software—for example, fuel-dispensing, engineering applications, and public works treatment systems. The system purchased should be the best one for the application.

Many local governments have worked toward standardization in a positive manner. Instead of telling the departments what they must buy, the policy group tells the departments what hardware and software the local government will support; then if a department decides to purchase a different system, it is responsible for obtaining the training, support, and maintenance of that system.

A single policy group should be responsible for preparing and implementing a microcomputer policy for the local government. This body should be made up of key personnel from various departments who understand the local government's computers needs. The policy group can provide guidelines to help establish a sound system of microcomputers.

Acquiring the microcomputer. The policy document should describe how a department procures a microcomputer. The procedure might require the user to send his request to the policy group, or it might simply involve buying from the proper source. Often the written policy requires a specified form or document.

The actual method of procurement can vary. The local government can use state contracts, develop its own contract, purchase by quotation for each system, or some other method. The advantages and disadvantages of each method depend on the training, support, and maintenance services needed by the local government.

One method of acquisition is state contract purchasing. Many microcomputers on North Carolina State Contract Certification 250-15 are priced about 30 per cent below list price. The Division of Purchase and Contract in Raleigh can provide information on using state contacts.

The state contact does not provide for training, support, or maintenance. Depending on where a local government is located, training, support, and maintenance for systems purchased under state contracts may or may not be available. Buying through the state contract may prevent the local government from developing a relationship with a local vendor who can provide hometown support. Therefore, the local government should carefully weigh the advantage of state contract prices against the availability of local services.

By writing its own bid request, the local government can specify the training, support, and maintenance required. A bid may allow the local government to make purchases within its community. Whether to establish a long-term contact by bid or to seek bids for each microcomputer system as required depends on the market area and the service needed. If a vendor is responsible for all of a local government's microcomputer business, as in a term contract, it may provide better support than would otherwise be forthcoming. When competition in the microcomputer market is high, prices often go down. Bids sought for each microcomputer system as needed may quote better prices than bids for a term contract.

Many local governments find that they need less help after they have purchased a few microcomputers and gained some experience with them. Such a local government may therefore judge the relative merits of the economy under state contract and the support provided by local vendors differently from a local government that is new in the ball game. The procurement decision should be based on the needs of the department that will use the equipment.

The policy document should specify the site preparation that must be made where the equipment will be located. Special or additional air conditioning is not usually required, but it is important that the humidity not condense. In addition, are suitable tables and chairs available? Are the sources of power adequate and properly located? The policy document should outline how the prospective user of the microcomputer should ask for technical help for site preparation. Usually the request for help should be addressed to the data processing department. All necessary forms and supporting information required should be clearly stated in the policy document to prevent problems with building codes and local government procedures.

Training. Even when a vendor provides training as part of the package when the system is sold, additional training on new software is often needed. While hardware and software manufacturers continue to improve their manuals, learning a new application from the manual is both time-consuming and frustrating. Other training options should be considered—perhaps attending a training seminar, contracting with a company that specializes in training, buying a training program on audio or video cassette, or buying a special tutorial program on diskette. Many larger local governments have internal training arrangements—usually formal training courses taught by the data processing department.

Local and regional educational institutions frequently offer microcomputer training at a reasonable cost. Most community colleges and technical institutes have a variety of such courses. Some educational institutions are willing to tailor the training to a user's needs. The microcomputer policy group should keep the local government's personnel informed about training programs that use local educational resources.

The vendor who sold the equipment and third-party vendors who specialize in training are also sources of additional training. This training may be on a per-hour or per-class basis, as the local government requires.

Whatever training option is chosen, it should be clearly set out in the microcomputer policy document. Training the staff is extremely important and can be expensive. Careful choice of training methods can help control costs and assure that the staff have the training needed to use the microcomputer system effectively. Because the local government has developed training methods for certain kinds of software, the user department will tend to buy this software; thus the local unit achieves standardized software among its various departments without dictating the standardization.

Care and maintenance. The policy document should specify the proper care of equipment, how to use supplies, how maintenance will be handled, and whom to call when the system fails. To prevent needless maintenance requests, one person should be designated to coordinate maintenance problems. This person could determine whether the problem requires repair or whether it results from improper use or other source that does not require repair services. Should the system need repair, the local government will have many options. The most prominent maintenance methods are depot, on-site, internal, and per-call.

Under a depot maintenance contract, local

government personnel must carry the equipment to a maintenance location (the depot). Such a contract should cost from 8 per cent to 12 per cent of the system cost per year. Usually the repair takes longer than with on-site maintenance—perhaps days. The local government must have personnel available to transport equipment, and the users must be able to get along without the equipment for a few days.

On-site maintenance costs from 12 per cent to 22 per cent of the system cost per year and is the more traditional maintenance arrangement for office equipment. The maintenance company comes to where the equipment is in order to repair it, and response time is usually measured in hours. While more costly than other maintenance programs, on-site maintenance should be considered when it is important that the equipment be repaired quickly.

Since many repairs involve only simple board or disk replacement, internal maintenance is a viable alternative where many systems of the same type are used. An organization that has internal maintenance can make repairs itself, and cost is based on labor and parts. This maintenance program may be used in conjunction with per-call maintenance in places where outside maintenance is called only when internal personnel cannot solve the problem.

The per-call maintenance program operates the same as an internal program except that the service is provided by an outside vendor—either on site or at a depot location. Costs for maintenance are based on the actual need for repair and are charged on the basis of parts needed and labor rates. Typically, no maintenance contract is purchased.

As a percentage of system cost, microcomputer maintenance contracts are expensive when compared with maintenance contracts on mini- or mainframe computers. As local governments gain confidence in the reliability of microcomputers, per-call maintenance for microcomputers is becoming more common.

Restrictions. The policy group will also want to address the matter of restrictions on the use of microcomputers. For example, may personal business be conducted on the micro? Should games be allowed?

When a department decides to automate, whether on a microcomputer or by some other method, some staff members will be anxious about the automation. One way to reduce this anxiety and encourage use is to allow games to be played or personal business to be conducted on it. Technical colleges use games to acquaint novices with keyboards, disks, CRTs, function keys, cursors, and other unique computer items. Allowing personal business—such as computation of income taxes or interest rates for the new car—entices the user to expand his knowledge and learn new functions of a software package. The more familiar a user becomes with the microcomputer and software, the better he can use the tool in his work.

How does a department go about obtaining a microcomputer?

What type of microcomputer will be purchased?

When should a task be automated?

How will training be provided?

May the computer be used for personal purposes?

Who is responsible for maintaining the microcomputer system?

Another reason for allowing personal business to be conducted on the computer is the difficulty of policing unauthorized use. What constitutes unauthorized use? The local government will not usually know when a microcomputer is being used for work or for personal business. Locking the microcomputer up to prevent use would be counterproductive. If users do not use the microcomputer and software regularly, they tend to forget the system's functions and features. Does the local government allow its employees to use such work equipment as the telephone, copiers, and calculators for personal purposes? Then why not develop a policy that allows microcomputers to be used for personal functions as long as no personal monetary gain occurs?

There are opposing views. A manager may not want his work force accused of playing games on the taxpayers' money. The local government may not want to be accused of providing free computer service for some employee's private business. Each local

government will have to make its own decisions concerning proper use of microcomputers by employees.

Provision also should be made for when and how microcomputers, data, and software may be moved. When may these items leave their primary installation? Some employees may need to work at home on their own microcomputer or on equipment provided by the local government. Guidelines should include when hardware may be moved to another location, what data will be duplicated before the item may be moved, and what care should be taken when hardware and software are moved. While it is difficult to insure the security of data when the systems are moved about, making employees aware of security needs for data and hardware can help prevent loss of valuable information and equipment.

The microcomputer policy should also address the copying of software for business and personal use. Many copyrighted software programs are copied for backup purposes. Copying a program for use other than backup is usually unauthorized and illegal, and software thefts have been prosecuted successfully. Because litigation is so costly, use of illegally obtained software needs to be strictly prohibited in order to limit the local government's liability in this area.

Staff members who use microcomputers may themselves develop valuable software or a customized interface to a microcomputer package. The policy document should state clearly who owns internally developed software and any revenues generated by it. Many local governments view internally developed software as in the public domain and allow for the free interchange of software programs with other local governments. The final authority in determining whether an internally developed software program is public property or licensed for sale should be the local government.

Bulletin boards are a popular means of connecting professionals and exchanging information. These bulletin boards are an electronic message service that allows a user to call from his computer to a remote computer and read and leave messages on the remote computer. A bulletin board may also maintain a library of public domain software that can be accessed and transmitted to another computer.

Bulletin boards are being established for local governments. RESPOND (the Institute of Government and the Center for Urban Affairs) and LINUS (the National League of Municipalities) are examples of two local government bulletin board systems that allow the interchange of information and software relating to local government. Many other bulletin board systems now operate in North Carolina on a variety of topics. The policy document should address the use of the bulletin board system. It should answer such questions as who should have access to the bulletin boards, who pays for the bulletin board service and long-distance telephone connections, what type of information can be posted, and what software developed by the local government may be shared.

Some bulletin boards have user charges based on a yearly subscription or actual minutes used. Others—like RESPOND—are free, but calls from outside the local telephone exchange will be charged at the long-distance rate. Because telephone connections for data are often longer than voice phone conversations, a local government could find that its long-distance bill increases significantly.

Responsibilities of the data processing department. The existing computer center is an obvious choice to administer the microcomputer program. It is a good source of information concerning computers, and it understands the local government's computer direction and needs. The microcomputer policy needs to outline the administering department's functions, which could include:

—Helping departments analyze need,
—Determining the most appropriate hardware and software for the requesting department,
—Establishing standards for communications to allow the microcomputers to connect with the local government's main computer,
—Developing and instructing departments on copying and backup of data and programs,
—Performing any required acceptance-testing of hardware and software,
—Administering the maintenance program,
—Conducting periodic reviews of departmental microcomputer operations to insure proper use,
—Coordinating surplus boards and parts,
—Maintaining a supplies inventory,
—Maintaining an inventory of microcomputer systems within the local government, and
—Assisting in installation and site preparation.

The computer center may maintain microcomputer hardware and a library of software for departments to try before they purchase a system. The center is a resource the local government can use to provide help and to insure that various standards and policy issues are met.

(continued on page 24)

Arson in North Carolina

Ben F. Loeb, Jr.

ARSON IS A SERIOUS national problem—and has been for more than a decade. Statistics compiled by the Federal Bureau of Alcohol, Tobacco and Firearms indicate that arson claims about 1,000 lives each year and has a direct cost of almost $2 billion annually. The indirect cost (including tax-base and employment losses) is approximately $15 billion a year.[1] The word arson itself causes some difficulty for those who study its incidence (or growth) because it is defined differently in different jurisdictions. In North Carolina, arson is a common law offense that applies only to a person who "willfully and maliciously burns the dwelling house of another." Other burning offenses are set forth in statutory form in Article 15 of General Statutes Chapter 14. As used in this article, the word arson means all unlawful burnings, except where otherwise indicated.

Profile of arson

Because arson is increasing in some areas, it is receiving close attention from the insurance industry. A recent study entitled "Arson Incidence Claims Study" by the All-Industry Research Advisory Council (AIRAC) demonstrates the interesting patterns of arson. This study was based on data from insurance companies in Arizona, California, Florida, Georgia, Illinois, Maryland, Michigan, Missouri, New Jersey, New York, Ohio, and Washington.[2] It divided insured property into two categories: (1) property insured through the voluntary market; and (2) property insured through a FAIR (Fair Access to Insurance Requirements) plan, which insures high-risk owners and property. The differences in the incidence of arson within these two categories are indeed startling. With regard to residential buildings, for example, arson was the suspected cause in 30 per cent of fires involving structures insured by FAIR plans but accounted for only 11 per cent of the residential fires when the dwelling was insured through the voluntary market (see Table 1). The AIRAC study also showed that the dollar amount of damage from an arson-caused fire was likely to be substantially greater than the dollar amount of damage from an accident-caused fire (Table 2).[3]

Single-family dwellings had the lowest arson "rate" in the voluntary market, while garages had the highest (Table 3). And, as might be expected, buildings occupied by the insured person had a very low arson rate, while vacant buildings had a very high rate (Table 4).

This study also dealt with the interesting question of motive. Vandalism was thought to be the cause in about 50 per cent of the arson cases. Other leading motives included fraud, revenge, and pyromania (Table 5).[4] A recent example of vandalism at its worst was the outbreak of arson in Detroit during Halloween week, 1985. Almost 500 fires were intentionally set in a three-day period, including 64 burnings of occupied dwellings.[5]

Finally, the AIRAC study indicates that arson is unevenly distributed by time of day, day of week, and month of year. For example, more fires are set between midnight and 4 a.m. than at any other time, while very few are set between 10:00 a.m. and noon. With regard to commercial structures, arson is most prevalent on weekends

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The author, an Institute of Government faculty member, is the author of *Fire Protection Law*, published by the Institute.

1. *Newsletter*, published by the Insurance Committee for Arson Control (July 1983), p. 1.

2. All-Industry Research Advisory Council, *Arson Incidence Claim Study* (March 1982), pp. 1-26.

3. *Ibid.*

4. *Ibid.*

5. News and Observer (Raleigh, N.C.), Nov. 2, 1985, p. 22A.

Table 1
Arson Statistics under the Voluntary Market v. FAIR Insurance Plans, 1982

Coverage	Market	Sample size	Actual dollars (millions)	% Arson
Residential	Voluntary	7,845	$130	11%
	FAIR Plan	1,590	23	30
Commercial	Voluntary	2,785	398	27
	FAIR Plan	1,198	43	40

Source: All-Industry Research Advisory Council, *Arson Incidence Claim Study* (March 1982).

Table 2
Median Dollar Loss in Fires (Arson v. Nonarson)
Under the Respective Insurance Plans, 1982

Coverage	Market	Nonarson	Arson
Residential	Voluntary	$ 4,209	$15,000
	FAIR	9,291	11,490
Commercial	Voluntary	12,008	23,355
	FAIR	14,250	16,088

Source: *Ibid.*

Table 3
Types of Structures Affected by Arson, Percentages of
Total Arson Incidence Covered by the Respective Insurance Plans, 1982

	Voluntary		FAIR plan	
Type of property	Sample size	% arson	Sample size	% Arson
Single-family residence	6,601	9%	875	29%
Apartment	203	17	108	38
Condominium	26	12	1	0
Other multi-family	258	16	540	29
Detached garage	183	34	20	75
Outbuildings	149	28	12	50
Personal property	303	10	15	7
Other	92	22	1	0

Source: *Ibid.*

and least likely on Thursdays and Fridays. For residential buildings, the arson rate does not vary substantially from day to day. The favorite month for arson (both commercial and residential) is October; the rate drops sharply by December.[6]

National statistics

Tables 1-5 are based on insurance data from twelve selected states. Those data probably, but not necessarily, reflect the insurance industry's nationwide loss experience from arson. The statistics shown in Table 6, on the other hand, were compiled by the United States Department of Justice from reports made by over 12,000 law enforcement agencies during 1984 and should accurately reflect national trends.

Buildings accounted for almost 60 per cent of the property struck by arsonists in 1984. Over half of these fires—33.1 per cent of the total—involved residential structures. In contrast, only 763 buildings used for industrial or manufacturing purposes—0.9 per cent of the total—were the target of arsonists. Burnings of mobile property (motor vehicles, trailers, airplanes, boats, etc.) accounted for 24 per cent of the arson offenses; the other burnings involved crops, timber, fences, signs, etc. (Table 6).[7]

The average damage per arson incident came to approximately $12,000 for single-family dwellings, $82,000 for industrial or manufacturing structures, and $3,000 for motor vehicles. In 1984 some 19,000 persons were arrested and charged with arson. Of those arrested, 64 per cent were under age 25, and 88 per cent were males.

6. *Op cit. supra* note 2.

7. *Crime in the United States* (Washington, D.C.: U.S. Department of Justice, 1985), pp. 37-39.

Seventy-eight per cent of the arson defendants were white, 21 per cent were black, and the rest were mainly Hispanic. Justice Department figures indicate that arson has increased only slightly in recent years but remains at a very high level throughout the nation (Table 6).[8]

North Carolina data

North Carolina's published arson statistics are far less detailed than the U.S. Justice Department's figures; nevertheless, they give some insight into the extent of the problem in this state. During 1984 over 1,900 arson cases were reported in North Carolina; many cases may go unreported. The total property damage resulting from these unlawful burnings came to over $26 million (Table 7). The data indicate that arson in this state increased by 14.9 per cent during 1984, in contrast to the very slight increase nationally. The reason (or reasons) for this sharp rise is not known.[9]

North Carolina's arson law

North Carolina law provides for both first- and second-degree arson and numerous unlawful-burning offenses. Arson in this state is still a common law offense—that is, contained in the case law rather than in the statutes. As so defined, it is the "willful and malicious burning of the dwelling house of another." Under the terms of G.S. 14-58, if the dwelling is occupied when the fire occurs, the offense is first-degree arson, punishable by imprisonment for up to 50 years (or life). Second-degree arson has the same elements as first-degree, except that for this charge it is not required that the dwelling be occupied at the time of the burning. Arson in the second degree is a Class D felony, punishable by imprisonment for up to 40 years. Since dwellings are by far the most frequent target of arsonists (Table 6), this is an extremely important law.

Arson, whether first or second degree, is a highly technical offense having several elements that must be proved by the prosecution. In *State v. Shaw*,[10] for example, the defendant had set fire to the back porch of a house, and there was some testimony indicating that only the porch was damaged. The defendant contended that this burning was only "attempted arson," since the main part of the house was not burned. But the State Supreme Court held: "To satisfy the proof of a burning, it is not necessary that the building be wholly consumed or even materially damaged. It is sufficient if any part, however small, is consumed."[11]

The meaning of the words "dwelling house" has also been litigated many times. In *State v. Vickers*, the defendant contended that a "dwelling" had not been burned, since no one was actually in the house when the fire occurred. The Supreme Court, in finding for the State, said: "[S]ince arson is an offense against the security of the habitation and not the property, an essential element of the crime is that the property must be inhabited by some person....This court has held that

Table 4

Types of Residential Occupancy Affected by Arson, Percentage of Total Arson Incidence Covered by Respective Insurance Plans, 1982

	Voluntary		FAIR plan	
Type of occupancy	Sample size	% Arson	Sample size	% Arson
Insured	6,393	8%	488	17%
Tenant	873	15	743	32
Insured & tenant	128	14	179	17
Vacant	147	61	114	83
Unoccupied	271	40	44	61

Source: *Ibid.*

Table 5

Arson Motive in the Voluntary Insurance Market by Type of Structure, 1982

Motive	Residential %	Commercial %
Fraud	14%	12%
Vandalism	53	49
Revenge	12	11
Concealment	6	8
Pyromania	3	3
Other	13	16
	100%	100%

Source: *Ibid.*

8. *Ibid.*

9. *Crime in North Carolina* (Raleigh, N.C.: North Carolina Department of Justice, 1985), p. 74.

10. 305 N.C. 327 (1982).

11. *Id.* at 341.

Table 6
National Arson Statistics by Property Type, 1984

Property type	Number of burnings	%	Average damage
Total	82,338	100.0%	$10,378
Total structure	47,736	58.0	16,310
Single-occupancy residential	19,947	24.2	11,775
Other residential	8,182	9.9	12,143
Storage	4,955	6.0	17,000
Industrial/manufacturing	763	.9	82,178
Other commercial	6,149	7.5	29,716
Community/public	5,112	6.2	13,226
Other structure	2,628	3.2	17,906
Total mobile	20,036	24.3	3,470
Motor vehicles	18,304	22.2	3,084
Other mobile	1,732	2.1	7,542
Other	14,566	17.7	444

Source: *Crime in the United States* (Washington, D.C.: U.S. Department of Justice, 1985), pp. 37-39.

Table 7
North Caroline Arson Trends, 1980-84

Year	No. of offenses	% Change (over previous year)
1980	1,957	—
1981	1,995	+1.9
1982	1,847	-7.5
1983	1,656	-10.3
1984	1,903	+14.9

North Carolina Property Damage, 1984
1,407 (burnings of structural property)
414 (burnings of mobile property)
237 (burnings of all other property—crops, timber, etc.)
$26,560,726, total reported property damage

Source: *Crime in North Carolina* (Raleigh, N.C.: North Carolina Department of Justice, 1985).

dwelling house as contemplated in the definition of arson means an *inhabited house*.... We reject defendant's attempt to equate *inhabit* with *occupy*."[12] It is apparent from this case that, while someone must have lived in the house, it is not necessary that someone have been at home at the time of the fire in order to convict for second-degree arson.

In *State v. Long*, on the other hand, the burned house was vacant and uninhabited when the fire occurred (having been damaged by a previous fire). The Supreme Court, in reversing the defendant's conviction, stated: "[T]he State has offered not a scintilla of evidence that this house after the fire of July 23, 1954 was fit for habitation."[13]

12. 306 N.C. 90, 100 (1982).
13. 243 N.C. 393, 398 (1956).

The cases also indicate that the crime of arson has not been committed if only the furnishings or other contents of the dwelling are burned. For an arson conviction to be sustained, some portion of the structure itself must be charred.[14]

It should be noted that the structure burned must be the "dwelling house of another." Though burning one's own home is a crime (G.S. 14-65), it does not constitute common law arson. But if others reside there also, the result may be different. In *State v. Shaw*, the defendant lived in a house with his wife, her father, and three children. He intentionally set fire to the house but contended that he could not be convicted of common law arson because he lived there. The North Carolina Supreme Court, in disagreeing with this contention, stated: "Was the dwelling here the dwelling house of another person? We conclude that it was. The fact that the defendant resided in the house does not, under the circumstances here, prevent his conviction for the arson of that dwelling."[15]

The crime of common law arson was developed centuries before there were apartments, condominiums, cooperatives, etc. Trying to adapt this very old law to the burning of new types of structures has caused the courts endless problems. In *State v. Watt*,[16] the defendant set fire to an uninhabited apartment. However, other apartments in the same building were occupied. In fact, some of the tenants were at home when the fire occurred. The defendant argued that each individual apartment constituted a separate and distinct dwelling, and since the fire was confined to an empty apartment, there could be no common law arson. But the North Carolina Court of Appeals, in

14. State v. Sandy, 25 N.C. 570 (1843).
15. 305 N.C. 327, 337 (1982).
16. 48 N.C. App. 709 (1980).

upholding the defendant's conviction, stated:

> The main purpose of common law arson is to protect against danger to those persons who might be in the dwelling house which is burned. Where there are several apartments in a single building, this purpose can be served only by subjecting to punishment for arson any person who sets fire to any part of the building.[17]

Unlawful burnings

Since common law arson applies only to "burning the dwelling house of another," other types of unlawful burnings are covered by statutory provisions. Among the more important of these unlawful burning laws are the following:

Burning an uninhabited house or other building. G.S. 14-62 makes it unlawful to willfully and wantonly set fire to or burn an uninhabited house, church, warehouse, office, or any building used in carrying on a trade or manufacturing enterprise. A violation of this statute is a Class E felony, punishable by imprisonment for up to 30 years. The confusion that results from having both common law arson and statutory burning offenses is well illustrated by *State v. Gulley*.[18] In that case the defendant was charged under G.S. 14-62 with burning an "uninhabited dwelling house." However, evidence presented at the trial showed that at the time of the fire the occupants had left home for only a brief holiday. In reversing defendant's conviction, the court stated: "[W]e find that the temporary absence of the Watsons from their dwelling did not make the dwelling an uninhabited house within the meaning of G.S. 14-62...."[19] (Obviously the defendant in this case should have been tried for common law arson.)

Burning one's own dwelling. To convict a person of common law arson, the dwelling burned must be the "house of another." G.S. 14-65 plugs this loophole by making it unlawful for the owner or occupant of a building used as a dwelling to "wantonly and willfully or for a fraudulent purpose" set fire to or burn the building. A violation of this statute is a Class H felony, punishable by imprisonment for up to 10 years. G.S. 14-65 is aimed in part at those who burn their own property in order to collect the fire insurance. In fact, the North Carolina Supreme Court has stated that "[b]urning for a fraudulent purpose...describes a mental state having to do with the desire for illegal pecuniary gain usually at the expense of the property's insurer."[20]

Burning a public building. G.S. 14-59 prohibits setting fire to or burning a building owned or occupied by any agency of the state or a local government. This statute, as well as several others, uses the term "set fire to" as well as the word "burn." "Set fire to" is broader than "burn" and includes cases in which no charring has occurred. The State Supreme Court in 1985 discussed this distinction:

> The crime of arson is consummated by the burning of any, the smallest part of the house, and it is burned within the common law definition of the offense when it is charred, that is, when the wood is reduced to coal and its identity changed, *but not when merely scorched or discolored by heat* [emphasis added].[21]

Scorching, without charring, would probably be enough to constitute "set fire to."

Burning any other building. North Carolina's numerous unlawful-burning laws do not cover every conceivable type of building. Therefore G.S. 14-67.1 contains a catch-all provision that makes it unlawful to wantonly and willfully set fire to or burn any structure of a type not otherwise covered by statute. A violation of this section is a Class H felony, punishable by imprisonment for up to 10 years. Thus in *State v. McWhorter*[22] the defendant was convicted of a violation of G.S. 14-67.1 for burning a small building that was used for storage. Apparently this storage building was of a type not listed in any other burning law.

Attempted burning. G.S. 14-67 prohibits any *attempt* to set fire to or burn a dwelling house, an uninhabited house, a government building, and a multitude of other listed buildings and structures. This section makes no distinction between a building owned or possessed by the defendant and one owned or possessed by someone else. A violation of G.S. 14-67 is a Class H felony, punishable by a maximum imprisonment of 10 years.

Burning personal property. All of the provisions discussed thus far apply only to buildings or structures and not to their contents. G.S. 14-66 prohibits setting fire to or burning personal property of any kind with the intent to prejudice the interest of another. A violation of this section is also a Class H felony.

Other unlawful-burning statutes include G.S. 14-58.2 (arson of a mobile home), G.S. 14-60 (burning a schoolhouse), G.S. 14-61 (burning a bridge, fire station, or rescue squad building), G.S. 14-62.1 (burning a building under construction), G.S. 14-63 (burning a boat, barge, or ferry), G.S. 14-137 (setting fire to woods), and G.S. 14-136 (setting fire to grass, brushlands, or woodlands).

17. *Id.* at 712.
18. 46 N.C. App. 822 (1980).
19. *Id.* at 824.
20. State v. White, 288 N.C. 44, 50 (1975).
21. State v. Hall, 93 N.C. 571, 573 (1985).
22. 34 N.C. App. 462 (1977).

A new proposal

The North Carolina arson law (parts of which are old as the state) is scattered throughout dozens of cases and statutes. As a result, there are occasional proposals for a rewritten or recodified law. The most recent effort to enact a new law is contained in HB 406, which was introduced during the 1985 session of the North Carolina General Assembly. While this bill (entitled "Criminal Code Revision") did not pass, the property-damage provisions contained in Article 31 deserve mention. HB 406 would replace arson and the unlawful-burning offenses with first-, second-, third-, and fourth-degree "property damage." And whether the damage was caused by fire, incendiary device, explosive, bomb, or other "force or material" would be irrelevant. These property damage offenses are summarized briefly below.

First-degree property damage. A person would commit this offense if he: (1) destroyed the dwelling of another; (2) damaged the dwelling so that it was no longer inhabitable; or (3) damaged the property of another in an amount of $500,000 or more. Since this offense is concerned primarily with dwellings, it roughly corresponds to first- and second-degree arson. But whereas for "first-degree arson" the dwelling must be occupied at the time of the offense, that is not necessary for a charge of first-degree property damage. This offense would constitute a felony punishable by up to 40 years in prison (the same as for second-degree arson).

Second-degree property damage. This offense consists of (1) damage to the property of another in the amount of $50,000 or more; (2) damage to property by the use of destructive force (fire, explosive, etc.); (3) damage to property of a public utility or organization providing health or safety protection in a manner to knowingly interrupt service to others; or (4) damage by use of destructive force in a manner that puts another in danger of serious bodily injury. Conviction of second-degree property damage would be a twenty-year felony. In contrast, burning the building of another under current G.S. 14-67.1 is punishable by not more than ten years in prison.

Third-degree property damage. A person would commit this offense if he (1) damaged the property of another in the amount of $1,000 or more; or (2) damaged the property of a public utility or organization providing health or safety protection. Conviction of third-degree property damage would be punishable by up to five years in prison. The North Carolina statutes do not now provide an offense that corresponds to third-degree property damage. The punishment for an "unlawful burning" under current law depends on the type of building burned, not on the amount of damage caused by the fire.

Fourth-degree property damage. This offense, which is a six-month misdemeanor, consists solely of "knowingly" damaging the property of another. Fourth-degree property damage is similar to the offense of "injury to real property" under current G.S. 14-127 (a two-year misdemeanor).

The property-damage provisions of HB 406 have the virtue of being very concise. Also, some of the elements that must be proved in an arson case would be eliminated. For example, the State would not have to prove that a burning (charring) occurred or that a building was occupied when the burning occurred. On the other hand, the dollar amount of the damage would have to be proved in many cases, and this would probably result in a great deal of conflicting "expert testimony."

Arson prosecutions

Arson is a serious and apparently growing problem in North Carolina. The offense is a difficult one to prosecute for a number of reasons, including:

Lack of physical evidence. The physical evidence, if any, usually burns up with the building or other property. Frequently there are no fingerprints, weapons, blood stains, etc., that officials find so helpful when investigating other types of serious crime.

Lack of suspects. The leading motive for arson is vandalism (see Table 5), and often there is no logical or obvious suspect for law enforcement authorities to zero in on. Investigating arson is often like looking for a needle in a haystack, with no known motive to connect the criminal with the crime.

Antiquated laws. Because the North Carolina arson law—derived in part from the English common law—is scattered throughout numerous cases and statutes, law enforcement officials and prosecutors face predictable problems. For example, in *State v. Long*[23] and *State v. Gulley*,[24] the defendants were put on trial for the wrong offense. While a modern law would not by itself reduce the incidence of arson, it could make prosecutions somewhat less difficult. **P**

23. 243 N.C. 393 (1956).
24. 46 N.C. App. 822 (1980).

Strategies for Protecting North Carolina's Natural Areas

Charles E. Roe

LOCAL GOVERNMENTS AND PRIVATE GROUPS CAN BE EFFECTIVE IN CONSERVING UNIQUE HABITATS.

Anyone who appreciates nature cannot help but feel alarm and sorrow at what is happening to the natural landscape of North Carolina. As the state grows in population and becomes more industrial and urban, we are losing irreplaceable rural scenic, natural, historic, and agricultural resources at an ever increasing rate.[1] Many of these areas are privately owned and often are under the pressure of development. Other forces—tax policies, real estate speculation, and even the international balance of payments—also help to tip the scales away from efforts to conserve and protect important natural areas.[2]

As a result, many of North Carolina's outstanding natural areas and dozens of our native plant and animal species are imperiled. The future of our state's natural habitats and wildlife depends on applying innovative means to preserve the threatened lands.[3] There is no single best way to do this and no single agency that can best do it. Preserving our state's finest natural legacies will require a set of "tools" that meet the the varying needs of individuals, corporations, and public agencies that own the land that needs protection.

State and federal agencies are already active in efforts to conserve areas in jeopardy, but they cannot do it alone. In the first place, public funds to purchase land at risk are limited, and there may be no money to manage the land once it is acquired. Furthermore, not all land is for sale. Sometimes the price is too high. And sometimes the threat is so imminent that public agencies cannot act quickly enough to save the site.

Other ways to protect these special places must be found. Fortunately, some methods are already available. Among other approaches, two things are necessary. First,

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1. Losses of the state's natural landscapes have not been quantified in acres converted by development or damaged by exploitation of natural resources. The Natural Heritage Program's inventory of exceptional natural areas has documented the destruction of dozens of special natural areas and endangered species habitats in the past ten years. Although measures of land changes are subjective, a few recent studies have sought to document the trends of natural and conversion in North Carolina. The U.S. Fish and Wildlife Service's National Wetland Inventory (*Wetlands of the United States: Current Status and Trends*, March 1985) estimates that North Carolina is among the top five states in the rate at which it is converting its wetlands (which occupy roughly 16 per cent of the state's land area). In recent decades as much as 70 per cent of the shrub-bog "pocosin" wetlands that once existed in the state have been converted to agriculture or managed forests or have been partially drained, cleared, or planned for development [Curtis J. Richardson, ed., *Pocosin Wetlands* (Stroudsburg, Pa.: Hutchinson Ross Publishing Company, 1981)]. North Carolina's 18 million acres of forests are being cut at an increased rate, often by clear-cut methods and often without attempt to replant. The timber industry, which owns about 2.1 million acres, is generally converting forestlands to pine plantations (or "tree farms") to meet the growing demands for pulpwood. [See the series of articles on forest management in *North Carolina Insight* 6, no. 1 (June 1983).]

2. For a more detailed discussion of the losses of natural habitat and wildlife in North Carolina and challenges for preserving wildlife habitats, see Lawrence S. Earley, "The Crisis in Habitat," *Wildlife in North Carolina* 49, nos. 5-8 (four-part series, May through August, 1985).

3. For an account of the North Carolina Natural Heritage Program and its contributions to the identification and protection of exceptional natural areas and endangered species, see Charles E. Roe, "Safeguarding North Carolina's Natural Heritage," *Popular Government* 49, no. 4 (Spring 1984), 21-31.

local governments—despite the pressures of development—must recognize the public benefits of preserving greenways, stream corridors, and recreational lands and then must make use of the tools that can save these natural areas. Second, private conservation groups must be formed for the kind of quick, flexible response that only private agencies can provide.

Most of North Carolina's undeveloped land, including exceptional natural areas and rare species habitats, is privately owned. Many private landowners, once they understand the problem and see that their own interests are not damaged by conservation, can be persuaded to retain their properties in essentially undamaged natural condition.[4] The alternatives to public acquisition include, first, education and then such incentives as public recognition, tax savings, and management assistance.

Options for local governments

Most North Carolina cities and counties are suffering some degree of destruction of natural areas, but few of them are doing anything about it—even though a number of local governments have programs to save prime agricultural lands and rural historic landmarks.[5] The principal exceptions are in the coastal region, where the Coastal Area Management Act has stimulated local governments to adopt plans and policies for conserving environmental resources.[6]

In rural areas, local leaders are faced with a dual problem: attracting appropriate and well-designed development while protecting the resources that are special to the locality. Although most local governments have the power to do so, few have adopted appropriate tools to protect present natural resources and accommodate compatible growth. A number of private and governmental programs to aid in conservation efforts are already in place, but many local governments are not equipped to use existing legislation, technical help, or funding programs to their best advantage. For example, few of them are knowledgeable about such useful techniques as private land trusts, conservation easements, and revolving funds that can either complement government action or be used independently.

A variety of techniques, some governmental and some private, can be employed together to protect environmental resources. To conserve natural resources, first goals and policies must be formulated and special environmental resources must be inventoried and identified, and then whatever local regulations and incentives may be needed can be developed. The most successful approach will probably be a combination of techniques—comprehensive planning, innovative performance standards, and land-use regulations. This article cannot describe all of the possible local government controls on land resources, but a number of recent publications deal with this subject.[7] An excellent introductory guide and bibliography entitled *Rural Conservation* is available from the National Trust for Historic Preservation.[8]

Options involving retention of ownership

Government agencies alone cannot assure the proper allocation of our state's natural resources. Most privately owned properties can remain in their natural conditions only if their owners act to protect them. Government agencies at all levels and private nonprofit conservation organizations can encourage landowners to protect important natural areas voluntarily. For example, land can be protected by techniques that range from outright acquisition of a full or partial interest in a property to simple voluntary agreements among property owners to practice good stewardship. The range of options is wide enough that a suitable method can usually be found to obtain cooperation among landowners.

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4. The following more detailed descriptions of land protection methods are available from the Natural Heritage Program.

The Landowner's Options for Natural Heritage Protection: A Guide to Voluntary Protection of Land in North Carolina

How to Protect Natural Lands: Guidance to North Carolina Landowners and Conservationists

Conservation and Historic Preservation Easements: To Preserve North Carolina's Heritage

Forming a Conservation Foundation in North Carolina

North Carolina Registry of Natural Heritage Areas

Please contact the Natural Heritage Program to request these publications at no cost for individual copies.

5. See William A. Campell, "Strategies for Protecting North Carolina Farm and Forest Land," *Popular Government* 47, no. 3 (Summer 1982), 35-39; J. Myrick Howard, "New Tools for Historic Preservation and Community Appearance," *Popular Government* 45, no. 1 (Spring 1980), 15-20.

6. Milton S. Heath, Jr., "The Coastal Area Management Act," *Popular Government* 45, no. 1 (Spring 1980), 32-37.

7. Technical and informational assistance is available from the Institute of Government, the North Carolina Department of Natural Resources and Community Development, the American Farmland Trust, the American Planning Association, the Land Trust Exchange, the National Association of Towns and Townships, the National Trust for Historic Preservation, the Trust for Public Land, and various federal government agencies, including county offices of the Agricultural Stabilization and Conservation Service.

8. A. Elizabeth Watson and Samuel N. Stokes, *Rural Conservation*, Information Sheet No. 19, (1984), National Trust for Historic Preservation, 1785 Massachusetts Avenue, N.W., Washington, D.C. 20036.

The Natural Heritage Program

The North Carolina Natural Heritage Program is dedicated to the preservation of the state's natural diversity. The program identifies our state's exceptional natural areas and endangered species habitats and works to protect tham in alliance with other conservation organizations. The program is a unit of the North Carolina Division of Parks and Recreation. It was established by the State Department of Natural Resources and Community Development with assistance from The Nature Conservancy, a national nonprofit conservation organization that is very active in preserving important natural areas in North Carolina. The Natural Heritage Program maintains the state's inventory of all known locations of outstanding natural areas, exemplary natural habitat types, and endangered and rare species. It provides information and advice to owners of natural areas and to other conservation organizations to help protect and manage natural areas. The Natural Heritage Program coordinates the State Registry of Natural Heritage Areas and the state's system of Dedicated Nature Preserves.

If the natural heritage and the natural beauties of North Carolina are to be preserved, the success will be due primarily to active participation and initiatives by private property owners—landowners concerned enough to protect their natural lands by voluntary actions.

Because it will be impossible—and undesirable—for government agencies to own all important natural lands, private landowners must be persuaded to assure the conservation and preservation of natural landscapes and unique natural areas. A variety of options is available for persuading private owners to protect their natural lands while retaining ownership.

Education and recognition. The simplest approach to land protection is education. More natural areas are destroyed from ignorance and neglect than by design. Most owners are unaware that they possess special ecological resources on their properties—perhaps a rare or endangered species or an exceptional natural habitat. A first step, then, after a unique area has been identified, is simply telling a landowner that a special natural resource occurs on his property, explaining why it is important, and discovering the owner's attitudes and plans for the property. Such communication does not guarantee protection, but it does make landowners aware that they own something worth protecting. It may not be necessary to ask a landowner, once informed, to take any action—it is hoped that educated property owners will be more sensitive and protective of natural areas, and destruction will therefore be avoided.

Extending recognition to the landowner also may mean publicizing the fact that his property is significant, so that he can enjoy the appreciation of his own community.

A positive relationship between a property owner and preservationists can evolve into a permanent commitment to protection. At the state level, the North Carolina Natural Heritage Program is contacting and informing the owners of some of the state's most exceptional natural areas, but local governments and private land conservation organizations—working with property owners in their home territory—can accomplish even more in building good relationships with landowners.

Nonbinding agreements: registration. A special aspect of the effort to recognize landowners who have cooperated in land conservation is a program of voluntary, nonbinding agreements with landowners to protect special natural resources. Many states have such programs. The North Carolina Department of Natural Resources and Community Development (NRCD) administers our state's Registry of Natural Heritage Areas, which recognizes landowners who pledge to protect important natural areas. The Natural Heritage Program arranges these agreements with private and public landowners. An owner of an important natural area agrees in writing to protect certain features of the property that are exemplary, rare, or unique and receives a plaque that indicates the significance of the property and the owner's contribution to conservation objectives. The registry has been an effective and popular means to encourage voluntary protection of natural areas. More than 160 natural areas have been registered in North Carolina by a wide variety of owners, but there are many more that should be included.[9]

9. For a more detailed discussion of the registry of natural areas, see Roe.

Temporary binding agreements: management agreements and leases. In the preservation context, *management agreements* are legal contracts between landowners and some other organization regarding the use and maintenance of land. Temporary management agreements obligate the landowner to use and maintain his property in a specific way for a certain period of time in order to achieve mutually accepted purposes. These agreements are legally enforceable by the parties to the contracts. Usually they are voluntarily granted by landowners. Such agreements are well suited for use with private owners who have traditionally and consciously managed their properties for natural values. The agreements can last as long as both parties desire. They may be recorded with the county register of deeds and may produce tax benefits through reduced property assessments.

Leases are rental agreements between a landowner and a land management agency. The agency pays rent and takes temporary possession of the property in order to control its use. Both leases and management agreements provide an alternative for those who wish to retain ownership but want to see their land used or protected by a conservation agency for a period of years.

In recent years the North Carolina Nature Conservancy has arranged both management agreements and leases with landowners, particularly with owners of endangered species habitats. Also, much of the land in the State Gamelands program is open to public hunting through management agreements or leases between the private owners and the North Carolina Wildlife Resources Commission. This technique could be more broadly used.

Mutual covenants among landowners. If the owner(s) of land that should be protected do not want to enter a binding agreement with any organization or if no recipient agency wishes to enter an agreement, the future use of land can be limited through mutual covenants among landowners. Neighboring landowners with a common conservation interest may enter into mutually beneficial and restrictive agreements controlling the use of their properties. Such a convenant would be recorded with the register of deeds and would be binding on subsequent owners. It would be enforceable by any of the landowners who entered the agreement or by any future owners of the land.

Covenants differ from conservation easements in three ways. Normally enforcement of the terms of a covenant by neighboring landowners is optional rather than legally mandatory. Mutual covenants may terminate when a court determines that it is no longer possible to achieve the benefits sought when the covenants were adopted. Covenants do not enable landowners to claim a loss in market value as a charitable deduction on their income tax returns. Nevertheless, while not as strong as conservation easements, mutual covenants provide an alternative approach when easements may not be feasible or desirable.

Conservation easements. A conservation easement is a legal means by which a landowner retains ownership but agrees voluntarily to set permanent limitations on the future use of the land, thus protecting the land's natural qualities.[10] Through an easement, the owner conveys to a qualified public or private organization the right to prevent certain uses of the land in the future or to use it for specific purposes. An easement may be donated or sold, just as any interest in property may be donated or sold. Both federal and state laws provide tax incentives for donations of conservation easements.

The major attraction of a conservation easement is that the land remains in private ownership. The owner may use, sell, lease, or convey it subject to the explicit terms of the easement, because neither the title nor the right to possession of the land is given up by the agreement. The responsibilities and rewards of ownership continue, and unless the agreement specifies otherwise, the landowner still retains full control over public access. People grant easements primarily because they wish to protect land that they value and will be important for its natural attributes in the future. They are rewarded by a sense of satisfaction at having protected something worth saving. But the financial benefits of granting a conservation easement in perpetuity can also be important. Donating an easement can assure the owner savings in income taxes, estate and inheritance taxes, and property taxes.[11]

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supra note 3, pp. 25, 28; and the Natural Heritage Program publication titled *North Carolina Registry of Natural Heritage Areas*. Established by the Department of Natural Resources and Community Development by administrative regulation in 1979, the registry of natural areas received statutory authority by enactment of the North Carolina Nature Preserves Act of 1985 (N.C. GEN. STAT. § 113A-165).

10. North Carolina Historic and Conservation Agreements Act, N.C. GEN. STAT. §§ 121-34 to -42. See Campell, *supra* note 5. Also see the publication titled *Conservation and Historic Preservation Easements*, available from the Natural Heritage Program.

11. The federal and state tax laws encourage individuals and corporations to donate land for conservation purposes to governmental agencies or qualified charitable organizations. Section 170 of the Internal Revenue Code, as amended, governs the federal tax deductions for most donations of land in fee or less than fee.

While the law applying to tax deductions for contributions of an undivided portion of a donor's entire interest in property for remainder interest (such as gifts with retained life estates) has remained consistent since the Tax Reform Act of 1969 (Pub. Law No. 91-172), the status of easements on real property

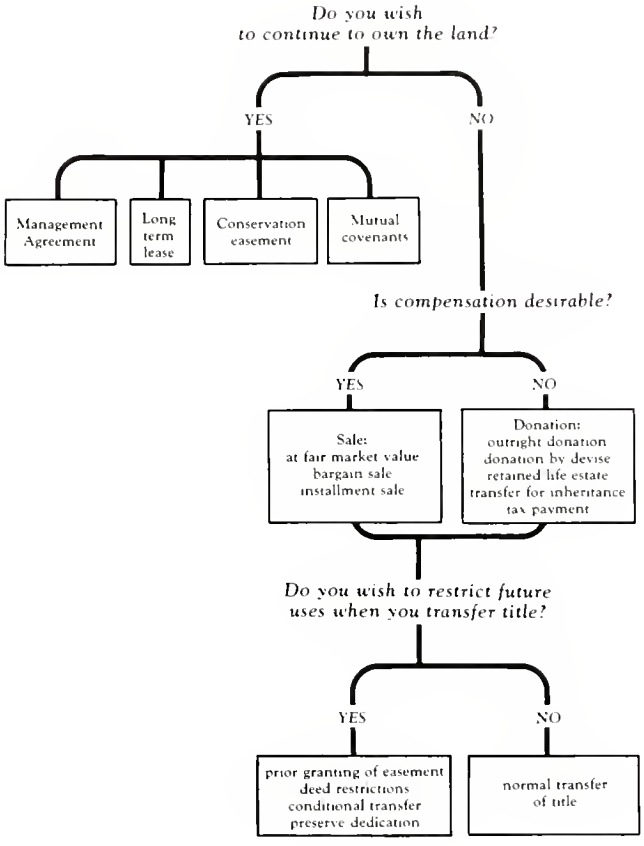
The limitations on land development set forth in conservation easements are tailored to suit the unique characteristics of individual properties, as well as the different needs and interests of individual landowners. Generally, the limitations prescribed in an easement limit the type and location of development activity, and they specify what can be done to the surface of the land and its natural resources. The versatility of conservation easements allows them to range from agreements assuring that the land will remain in an undisturbed natural condition to agreements that allow limited residential use, farming, and properly managed timber-harvesting.

The lasting effect of the limitations created by the easement is assured by granting the specified development rights to a qualified private organization or public agency interested in preserving the natural character of the land.[12] The sole responsibility of the easement recipient is to assure that neither the present owner nor any subsequent owner disregards the regulations on use set forth in the agreement.

In North Carolina a few conservation easements have been donated to The Nature Conservancy, and some have been purchased by the National Park Service for lands along the Blue Ridge Parkway and by the state for several tracts along the New River, a natural and scenic river.

Although infrequently used in North Carolina, the conservation easement is an ingenious and often inexpensive way to protect natural resources. The land remains

Options for Protecting Special Land



This figure depicts the alternatives available to a landowner who is seeking a means to protect natural lands. It is taken from the Natural Heritage Progam's publication entitled, *The Landowner's Options for Natural Heritage Protection*. That booklet is the principal source of information presented in this article. For copies of the guidebook and other information on locations of special natural areas and the means for protecting them, please write to the North Carolina Natural Heritage Program, Division of Parks and Recreation, North Carolina Department of Natural Resources and Community Development, P.O. Box 27687, Raleigh, N.C. 27611.

for conservation or historic preservation purposes has changed significantly. Amendments to the federal Internal Revenue Code by enactment of the Tax Treatment Extension Act of 1980 (Pub. Law No. 96-541) limited the deductions for conservation easements. The law allows a deduction only for the donation of a "qualified conservation contribution," defined as a permanent restriction on the use of a real property given "exclusively for conservation purposes" to a government agency or a conservation organization qualified as a private charity with broad-based public support. "Conservation purpose" means (1) preservation of land for outdoor recreation or education of the general public, (2) protection of natural habitats and ecosystems, (3) preservation of open space (including farmland and forest land) for the scenic enjoyment of the general public and pursuant to a clear government conservation policy and significant public benefit, or (4) preservation of a historically important land area or certified structure [summarized from Int. Rev. Code § 170(h)(4)(A)].

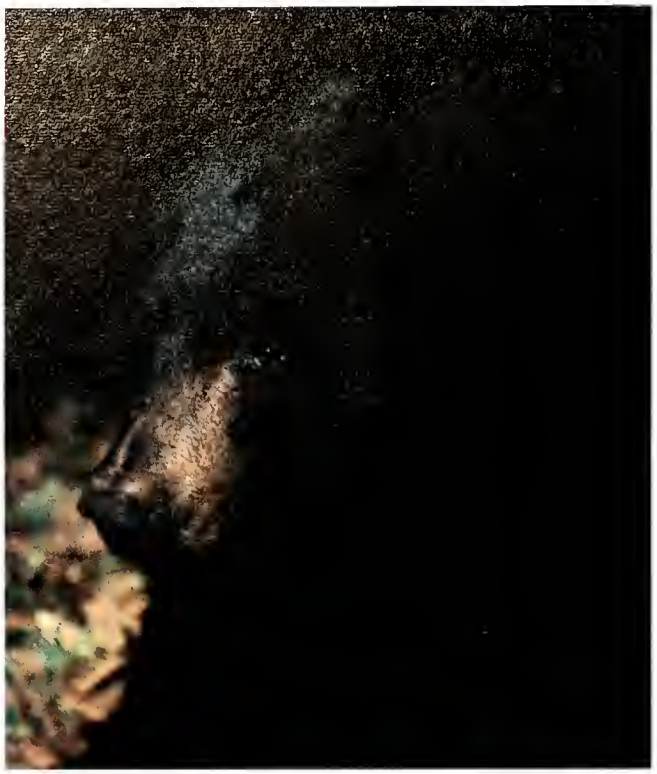
North Carolina allows a state income tax credit to donors of interests in real property for conservation purposes (see N.C. GEN. STAT. §§ 105-130.34 to -150.12).

A donor of interests in property can reduce federal estate and state inheritance taxes. If a gift of land or conservation restrictions is made (by deed or in trust before death, or by will at the time of death) to a governmental body or qualified charitable conservation organization, the estate is given a full deduction for the value of the property.

Landowners who convey conservation easements or other restrictions on their land to a government agency or qualified conservation organization may reduce property taxes as well. The restricted land will be taxed only on the value of the retained rights. Thus the removal of rights for development and timber harvest through a conservation easement may reduce the taxable value of the property.

For a more detailed discussion of tax incentives for land conservation, see the Natural Heritage Program publication titled *The Landowner's Options for Natural Heritage Protection (see supra* note 4).

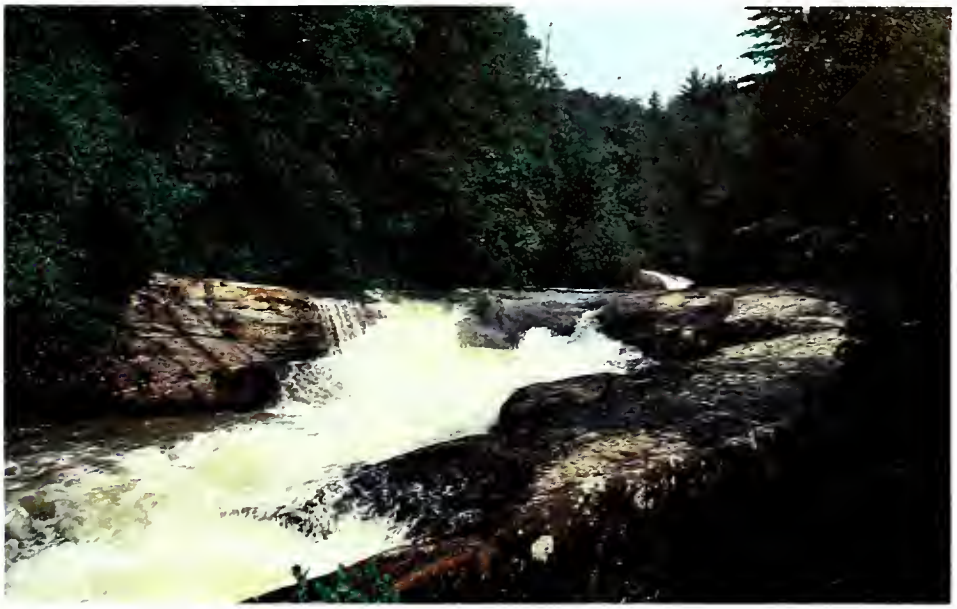
12. In order to claim the federal and state income tax deductions for a charitable donation, a landowner must donate a partial or complete interest in property to a government agency or a publicly supported private charity. Numerous private, nonprofit conservation organizations are eligible to acquire land or interest in land in North Carolina. *The Landowner's Options for Natural Heritage Protection*, (available from the Natural Heritage Program) contains a directory to conservation groups that are exempt from federal and state income tax and are qualified to accept tax-deductible gifts of property, partial interests in land, or money.



The draining of the Carolina bays and other freshwater wetlands for agricultural purposes is eradicating habitat of the black bear in Eastern North Carolina. (Photo by Steve Maslowski)

Protecting hardwood forests from development or from lumbering saves the habitat of the wild turkey and other species. (Photo by Ken Taylor)

Nesting areas for shore birds—here the royal tern—are endangered by beachfront development. (Photo by Ken Taylor)



The Horsepasture has recently been designated one of North Carolina's Wild and Scenic Rivers. A natural area registry with Crescent Land and Timber Company and land purchases by the Trust for Public Lands have protected segments of the river gorge. (Photo by Alan Eakes)

Below, the Nag's Head Woods Nature Preserve, jointly acquired by The Nature Conservancy and the Town of Nag's Head by land purchase and donations. (Photo by Lawrence Earley) Right, the rare bunched arrowhead grows in southern Appalachian bogs. It was the first plant in the state to be named to the federal list of endangered species. (N.C. Plant Preservation Program)

in private ownership, but its future use is permanently controlled. Easements provide owners the opportunity to ensure the permanent protection of natural lands by private initiative. They could be the best means for preserving natural lands in a great variety of locations—coastal wetlands, river floodplains, mountain scenic vistas, and many places owned by private landowners who are committed to conservation goals.

Dedication. The North Carolina Nature Preserves Act of 1985[13] enables the Governor and the Council of State to accept permanent or long-term dedications of important natural areas by private landowners or on public lands. A dedication agreement is similar to a conservation easement and will provide the same tax benefits. The principal advantage of dedicating a nature preserve is that the State of North Carolina, in accepting the dedication, recognizes the land's "highest and best use" as a nature preserve and allows no contradictory and damaging uses without the express approval of the Governor and the Council of State. Dedications of preserves will provide an "insurance policy" for lands owned by nonprofit conservation groups and some individual owners by granting the state an interest in the property and providing maximum assurance that no future damaging uses will be permitted. At the time of this writing, the first dedications are being arranged on lands owned by The Nature Conservancy and the state.[14]

Options involving the complete transfer of title

Some landowners may be willing to give or sell important natural lands to a governmental or private conservation agency. This may be so for a number of reasons: the beliefs that the land should be used by the public or by a certain group, that a landholding agency is better able to manage or protect the land than the present owner, that taxes have climbed too high for the owner to continue to own and protect the land, or that the landowner needs a tax deduction. Whatever the reason, the donation or sale may be executed in a number of ways, each with varying financial and personal implications for the landowner.

Donation. Federal and state tax laws encourage gifts of land for conservation purposes. A landowner can frequently reduce state and federal income taxes, estate and inheritance taxes, capital gains taxes, and property taxes by donating land to a qualified organization or by placing conservation restrictions on the land.[15]

Donating the land is usually the simplest way to transfer title. The landowner need only obtain acceptance from the organization to which the land will be given and then deed the land to that recipient. The tax benefits that flow from the gift may help offset some of the loss to the donor. A landowner who is considering a donation will want to select carefully the recipient best qualified both to receive the gift and to assure that the donor's wishes for the future use and protection of the land will be honored.[16]

Some owners may want to donate land in installments in order to maximize the tax benefits of the donation. Others may wish to donate land but not give up its use immediately. In that case, two options exist: donation by will, and/or donation with reserved life estate.

Many of our state and local parks and preserves owned by The Nature Conservancy, the National Audubon Society, the North Carolina Botanical Garden Founda-

13. N.C. GEN. STAT. § 113A-165.

14. The North Carolina Nature Preserves Act (N.C. GEN. STAT. § 113A-165) authorizes the establishment of a system of voluntarily registered natural areas and dedicated nature preserves. The Natural Heritage Program is charged with coordinating both the registration and dedication programs. Natural areas determined eligible by the Secretary of NRCD may be dedicated permanently, preserved by long-term agreements on state-owned lands, or preserved through agreements between governments and private landowners. Dedication agreements must be accepted by the Governor and the Council of State. Dedication agreements cannot be amended or terminated without approval of the Governor and the Council of State. The agreements contain provisions similar to those in conservation easements and assure that the dedicated preserves will be maintained in their natural condition.

15. The use of tax incentives to encourage protection of land for conservation purposes shows how the federal and state governments are indirectly financing the acquisition of land by conservation organizations. Tax incentives reduce landowners' tax liability and constitute an indirect payment for the land or interest in land. A donor may be reimbursed for up to 70 per cent of the value of the land. Tax incentives are based on the assumption that land conservation provides general public benefits. A donor of land or interest in land is entitled to a federal and state income tax deduction computed on the appraised fair market value of the gift.

North Carolina provides state income tax credit for donations of interests in real property for conservation purposes: the credit is equal to 25 per cent of the fair market value of the donation, up to a maximum of $5,000 for the tax year. To maximize the state income tax deduction, a donor may spread a gift over several years. To receive the tax credit, the donor must obtain a document from the NRCD that certifies that the land was given for a qualified conservation purpose.

16. A landowner who is seriously considering protecting a property through any of the means described in this article should discuss the alternatives with an attorney who is familiar with both land conservation law and the tax implications of conservation measures. He may also wish to obtain a real estate appraiser's estimate of the proposed action's impact on the value of the property. Although the final transaction may not be complex, a landowner needs to be sure that (a) the alternative chosen is legally sound, (b) the legal instrument used will fully accomplish the goal, (c) the action is wise in terms of tax planning, and (d) the recipient of the property interest is the best one to protect or use the land as the landowner envisions.

North Carolina Needs More Conservation Foundations

Conservation foundations are associations of concerned citizens committed to preserving their natural heritage. In some states conservation foundations are called land trusts—created to help save land. They are a private, nonprofit, charitable (and tax-exempt) corporation for the purpose of acquiring and managing lands in the public interest and increasing community awareness of natural resources.

A conservation foundation created by a few dedicated people, perhaps to save a single precious piece of land, can evolve into the means by which an entire community works to preserve its land heritage. Land conservancies may focus on a particular town, watershed, county, or region—either to preserve natural lands and habitats, to establish parks, or to provide for community recreational and open-space needs.

Unfortunately, government agencies frequently cannot respond to local conservation needs and opportunities. Private conservation foundations have more flexibility and interest than government agencies may have. They can act quickly and apply a number of acquisition techniques available only to nonprofit organizations. Prospective donors often respond especially well when they have the opportunity to keep their gifts to conservation in local hands.

But North Carolina has only a few conservation foundations. Without private organizations committed to natural preservation, many opportunities to save valuable natural lands are being lost. Government cannot do the conservation job alone. Local initiatives are necessary to provide "grass roots" support for conservation.

tion, and other private conservation groups were established by gifts of land.

Sales of property. In North Carolina most achievements in protecting natural land conventionally have been accomplished by the purchase of property. Some public and private conservation organizations have a certain amount of money to buy lands that have exceptional ecological resources or can be used as public parks, wildlife management areas, or recreational areas. In considering a sale to such an agency, the landowner has the option of selling at fair market value, at a "bargain" price, or in installments. The desire to sell at fair market value is often hampered by the fact that most landholding agencies have only limited funds for purchasing land and must be very selective about their choices. Also, if land sold for its full value has appreciated in value since its purchase, the seller will be liable for income taxes on the capital gain—which can significantly reduce the net profit of the sale.

A *bargain sale* occurs when the owner is willing to sell the property for less than fair market value. Because the selling price is lower, a conservation organization can more easily buy the property. The seller can also claim an income tax deduction for the difference between the bargain price received and the fair market value.[17]

An *installment* sale is another alternative that can be advantageous to both the landowner and the purchasing agency. Local governments and private organizations may either pay for the land in annual installments or buy a portion of the land each year, with an option to buy the remainder of the land in the years thereafter. State and federal agencies *must* use the second approach.[18] The financial advantage to the landowner is in spreading the income and the taxable gains over a number of years. The advantage to the purchasing agency is in spreading out the cost and possibly delaying management costs.

17. For the landowner to be able to claim the income tax deduction, the recipient must be a government agency or publicly supported private charity.

18. North Carolina authorizes its counties and municipalities to purchase properties in installments (N.C. GEN. STAT. § 160A-20). Federal and state agencies cannot buy on an installment plan because they cannot pledge the credit of the government. They can, however, purchase a specific parcel or portion of the total land area each year and agree to purchase the remaining parcels on a contractual basis. In effect, they can exercise annual options to purchase a specific portion of an area.

A landowner may wish to sell his property but also may want to protect its natural resources. To this end, restrictions can be placed on the use of the property. The landowner who wishes to attach conditions on the transfer of title has several options (by either sale or donation), including the prior granting of a conservation easement, deed restriction, conditional transfer, and reverter clause (these last two devices are means by which land no longer used for the stipulated purpose can be returned to its original owner or heir).

Acquiring property and easements. Government agencies and nonprofit conservation groups can use the same variety of techniques that private buyers and sellers of real estate use. For the conservation organization, these techniques can reduce acquisition costs, gain time needed to raise necessary funds, or make it possible to achieve partial or complete control over land. They also provide tax incentives for landowners who are willing to make donations or bargain sales. In addition to simply buying a property (or conservation easement) or obtaining it by donation, a conservation organization may employ one of several innovative approaches: right of first refusal and purchase option, life estate and leasebacks, bargain sales, use of a revolving land purchase fund, and resale with development restrictions.

If we are to keep our state's forests, wetlands, and streamways—with their native plants and wildlife—from being obliterated, it is essential to convince private landowners that conserving these natural treasures is important. Governments at all levels as well as private conservation organizations must make concerted use of the varied techniques available to achieve cooperation from landowners for the preservation of North Carolina's natural heritage. ☙

Computer Policy *(continued from page 8)*

Keeping the policy current

Proper management of microcomputers is an ongoing concern; it cannot be addressed just once in a policy document. Either the computer center or the policy group is a good organization to address future data processing and microcomputer concerns and problems. As the technology changes, the local government's policy must change.

A microcomputer policy is needed in local governments to prevent many of the problems of automation. Without a policy, the local government may spend a considerable amount of money but find itself unable to transfer information. The resulting problem may be more cumbersome than the former manual system or may require a major expenditure to replace perfectly good but incompatible systems. While networking among different brands of microcomputers can help to solve the problem of incompatibility, the networks may not be totally compatible. A local government may be able to transfer data on a network, but the software on the microcomputer may not be able to use the data received. These are problems that most local governments have neither the time nor the expertise to solve. A properly written policy can make future growth of the automated system easier.

A policy also can protect the local government. By clearly telling to employees what is expected, the chances of abuse are reduced. By verifying the need for a microcomputer system, the local government can be sure the purchase is a wise expenditure of funds. The microcomputer policy provides a road map for a local government's journey to automation.

For additional information on setting up a microcomputer policy, contact:

Jim Kier, Catawba County Director of Planning and Development, P.O. Box 389, Newton, NC 28658 (704) 464-7880.

Dick Passine, MIS Director, City of Charlotte, 301 South McDowell Street, Suite 300, Charlotte, NC 28202 (704) 332-2914.

Sam Owen, MISS Director, City of Winston-Salem, P.O. Box 2511, Winston-Salem, NC 27102 (919) 727-2865.

Gary Miller, Office Automation and Telecommunications Specialist, Center for Urban Affairs, TACIT Program, North Carolina State University, Box 7401, Raleigh, NC 27695 (919) 737-2578.

For information on North Carolina State Contract 250-15, contact:

Tom Pugh, North Carolina Division of Purchase and Contract, 116 W Jones St., Raleigh, NC 27603 (919) 733-6604. ☙

Local Government Occupancy Taxes in North Carolina

William A. Campbell

In 1983, the North Carolina General Assembly authorized the first group of local governments to levy a hotel and motel room occupancy tax. By the end of the first session of the 1985 General Assembly, a total of fifteen cities and counties had been authorized to levy the tax. All of them are now doing so. Although all of the local acts authorizing levy of an occupancy tax are similar in their two central elements (the rate of the tax is a percentage of the gross receipts from the rental of hotel and motel rooms and similar facilities, and the revenue from the tax is spent to promote travel and tourism), they vary considerably, and the tax is far from uniform. The acts differ partly because they were drafted by different lawyers and partly because fifteen taxing jurisdictions had different goals. Table 1 shows the chief characteristics of the respective acts and how they differ. The text of the article explains and comments on the information shown in the table, discusses the coverage of the various acts, describes the penalties used to encourage prompt payment of the tax, and discusses some of the miscellaneous variations in the tax acts.

The author is an Institute of Government faculty member whose fields include local government tax law.

Comments on the table

The local governments that levy the tax are listed in the left-hand column of the table. Column A identifies the legislation authorizing levy of the tax for each jurisdiction and states the month and year the tax was first levied by resolution of the taxing unit's governing board. The first group of local governments was authorized to levy the tax by Chapter 908 of the 1983 session laws. It included Buncombe, Haywood, Mecklenburg, Forsyth, and New Hanover counties and the coastal municipalities of Ocean Isle Beach, Surf City, and Topsail Beach. The rest were authorized in the 1984 session and in the first session of the 1985 General Assembly.

Column B shows the tax rates authorized. Three variations are apparent. Some jurisdictions are authorized to levy the tax at a 2 per cent rate, some at 3 per cent, and some at a rate not to exceed 3 per cent. All but one jurisdiction in the last category levied the tax at the full 3 per cent rate; Long Beach levies at 1 per cent.

Column C shows the purposes for which revenue from the tax may be spent. The standard purpose is for advertising and promotion of tourism, travel, and conventions, but a number of the acts add other, special purposes. For example, the Cumberland County act requires 50 per cent of the revenue to be spent on improvements to the county auditorium and related facilities. The Craven County act includes operation of a visitor information center. And in New Hanover County 80 per cent of the revenue is allocated to the control of beach erosion. The four municipalities and Dare County are authorized to spend the money collected on such purposes as fire protection, solid waste collection, and sewage treatment—activities that are not strictly related to travel and tourism but (at least in resort communities) provide a level of public services without which tourism could not exist.

Except in the four municipalities, all of the taxes are collected by the county. Column D indicates whether any of the money collected is distributed to the municipalities in the county. This column is

Table 1. Characteristics of and Variatio

Taxing Jurisdiction	A Authorizing Legislation and Date Tax Imposed	B Tax Rate	C Purposes for Which Funds May Be Used
Buncombe	Ch. 908, §§ 17-23 1983 S.L. Oct., 1983	2%	Development of travel, tourism, and conventions through advertising and promotion.
Cherokee	Ch. 1055, 1983 S.L. Oct. 1, 1984	3%[1]	Development of travel, tourism and conventions through advertising and promotion.
Craven	Ch. 980, 1983 S.L. Oct. 1984	3%	Advertising and promotion of travel, tourism, and conventions, and operation of the Visitor Information Center.[2]
Cumberland	Ch. 983, 1983 S.L. Nov. 1984	not to exceed 3% 3% levied	50% to Auditorium Commission for improvements to existing facilities and new convention facilities. 50% for advertising the auditorium and promoting travel and tourism.
Dare	Ch. 449, 1985 S.L. Jan. 1, 1986	3%	Tourism related, including construction and maintenance of public facilities, solid waste collection, and police protection.
Forsyth	Ch. 908, §§24-30, 1983 S.L. Nov. 1983	2%	Development of travel, tourism and conventions through advertising and promotion.
Guilford	Ch. 988, 1983 S.L. Oct. 1984	3%	70% to county for promotion of travel and tourism.[3]
Haywood	Ch. 908, §§ 10-16 1983 S.L. Jan. 1, 1984	2%	Development of travel, tourism and conventions through advertising and promotion.
Long Beach	Ch. 985, 1983, S.L. Jan. 1, 1985	not to exceed 3% 1% levied	Tourism, including fire protection, public facilities, solid waste and sewage treatment, and erosion control.
Lumberton	Ch. 1028, 1983 S.L. Oct. 1, 1984	not to exceed 3% 3% levied	50% on tourism-related expenditures, including fire protection and solid waste and sewage treatment, and 50% to promote tourism through construction or operation of a civic center.
Mecklenburg	Ch. 908, §§ 5-9, 1983 S.L. Aug., 1983	not to exceed 3% 3% levied	50% of first $1 million in collections, 35% of second $1 million, and 25% in excess of $2 million in any fiscal year to City of Charlotte for convention and visitor promotion.
New Hanover	Ch. 908, §§ 31-36, 1983 S.L. Nov. 1983	2%	80% to the county to control beach erosion; 20% to county and municipalities to promote travel and tourism.[4]
Ocean Isle Beach	Ch. 908, §§ 37-44, 1983 S.L. Jan. 1, 1984	not to exceed 3% 3% levied	Tourism, including fire protection, public facilities, solid waste and sewage treatment, and erosion control.
Surf City	Ch. 908, §§ 37-44, 1983 S.L. June 1, 1984	not to exceed 3% 3% levied	Tourism, including fire protection, public facilities, solid waste and sewage treatment, and erosion control.
Topsail Beach	Ch. 908, §§ 37-44, 1983 S.L. June 1, 1984	not to exceed 3% 3% levied	Tourism, including fire protection, public facilities, solid waste and sewage treatment, and erosion control.

1. The board of commissioners may reduce the rate of the tax after the first year it is levied.

2. Thirty-five per cent of the net proceeds in excess of $100,000 in a calendar year shall be allocated to the funding of museums, meeting facilities, civic centers, and parking facilities.

3. Both the Greensboro/Guilford County Tourism Development Authority and the City of High Point are required to allocate 85 per cent of their shares of the proceeds to the promotion of travel and tourism. The remaining 15 per cent is to be spent for tourist-related events such as art festivals or similar cultural events or for acquiring or constructing facilities that enhance the development of tourism.

4. The county commissioners may change the purposes for which the tax revenue may be used after a county election on the issue

D Distribution to Municipalities	E Administering Department	F Revenue Collected	G Tourism Devel. Authority
No	Finance Department	July 1, '84—June 30, '85 $600,460.88	Yes
No	Finance Department	Oct. 1, '84—June 30, '85 $10,422.71	Yes
No	Tax Collector	Nov. '84—June '85 $84,178.80	Yes
No	Tax Collector	Nov. '84—June '85 $305,993.04	No
Yes. 2/3 of net collection in proportion to property taxes levied	Tax Administrator	—	No
No	Tax Collector	July 1, '84—June 30, '85 $451,085.21	Yes
Yes. 30% to High Point.[3]	Tax Collector	Oct., '84—June 30, '85 $960,862.75	Yes
No	Finance Department	Jan. 1, '84—Dec. 31, '85 $129,253.70	Yes
—	Tax Collector	Jan. 1, '85—June 30, '85 $11,917.75	No
—	Tax Collector	Oct.1, '84—June 30, '85 $151,181.58	No
Yes. Excess collections (see previous column) distributed by formula.*	Tax Collector	July 1, '84—June 30, '85 $2,166,477.53	No
Yes. The 20% is distributed according to the formula in G.S. 105-472 for the sales tax.	Tax Collector	July 1, '84—June 30, '85 $479,886.56	No
—	Tax Collector	July 1, '84—June 30, '85 $160,000.29	No
—	Tax Collector	July 1, '84—June 30, '85 $35,480.30	No
—	Tax Collector	July 1, '84—June 30, '85 $58,787.37	No

*See page 29.

related to Column G, which indicates whether the revenue collected is remitted to a tourism development authority. In every case but one where there is a tourism development authority, no money is distributed to municipalities. The exception is Guilford County, which makes a distribution to High Point.

Column E shows the department of government that collects and administers the tax. In all but four cases, the tax is collected by the county or municipal tax collector. In two of the three counties where the tax is collected by the finance department, the tax collectors are elected (Buncombe and Haywood), and the boards of commissioners in those counties may have sought closer supervision over the administration of the tax by giving the authority to collect it to the appointed finance officer.

Column F shows the amount of revenue collected in the most recently completed fiscal or calendar year. The amount of revenue generated by the tax correlates closely with the number of rooms available for rent. The range is from a high of $2,166,477.53 in Mecklenburg County to a low of $10,422.71 in Cherokee County. The $160,000.29 collected in Ocean Isle Beach reflects the number of cottages that are rented for substantial weekly rentals.

Column G indicates whether the revenue collected is remitted to a tourism development authority. In the counties where the revenue may be spent only for the development of travel, tourism, and conventions through advertising and promotion, the revenue collected is turned over to a tourism development authority for expenditure. These authorities are typically made up of one county commissioner, representatives from the hotel and motel business, representatives from other tourist-related businesses, and a representative from one or more of the municipalities in the county. They are required to account to the board of commissioners for their expenditures of the tax revenue.

Coverage of the tax and exemptions

The standard approach to defining the transactions that are subject to the tax is to include all rentals that are subject to the state sales tax levied in G.S. 105-164.4(3), and all of the acts so define the scope of the tax—although the Mecklenburg and Cumberland acts do not refer to the state tax statute by section number. By tying the local acts to the state tax in this manner, the tax reaches operators of "hotels, motels, tourist homes, tourist camps, and similar type businesses . . . ." Exempt from the state tax are private residences or cottages that are rented for fewer than 15 days in a calendar year and any room or lodging rented to the same person for 90 or more continuous days. The Mecklenburg and Cumberland acts needlessly repeat this 90-day rental exclusion. The Dare County act specifically includes campsites within the scope of the tax, although they would appear to be covered by the language of the state act that includes "tourist camps." In the coastal municipalities the tax applies to the rental of private cottages even if the rental is for fewer than 15 days a year.

The Mecklenburg, Haywood, New Hanover, Cherokee, and Cumberland acts exempt lodgings furnished by nonprofit charitable, educational, benevolent, or religious institutions. The Dare County act contains the same exemptions and adds the requirement that the accommodations be provided in furtherance of the organization's nonprofit purpose. The Buncombe, Forsyth, and Craven acts exempt religious and educational organizations, summer camps, and businesses that offer to rent fewer than five units, but they do not require that the exempt organizations be nonprofit. The Guilford act contains the same exemptions as Buncombe, Forsyth, and Craven and then exempts "charitable, benevolent, and other nonprofit organizations." The acts for the coastal municipalities and Lumberton contain no exemptions, which means that in those jurisdictions the exemptions contained in G.S. 105-164.13 apply. These exemptions include rentals by some, but not all, nonprofit organizations.

Penalties

All of the acts impose a penalty of $10 a day on taxpayers who are late in filing their tax returns. In addition, all of the acts except Cumberland's provide that a penalty of 5 per cent of the tax is imposed for each thirty-day period that the return is not filed or the tax is not paid within 30 days of the required date. The acts contain no authority to compromise or forgive these penalties, and in some cases the penalties can amount to sums much larger than the tax itself. To provide some flexibility in these situations, New Hanover County obtained an amendment to its act in 1985 that authorizes the board of commissioners to compromise or settle the county's claim for penalties (N.C. Sess. Laws 1985, Ch. 726). Willful evasion of the tax is a misdemeanor. The coastal municipalities and Lumberton are authorized to use attachment and garnishment to enforce collection of the tax. This authorization was unnecessary because G.S. 160A-207 grants this power for the enforcement of all municipal taxes.

Miscellaneous variations

All of the acts that require the proceeds from the tax to be remitted to a tourism development authority and Mecklenburg's act provide that only the net proceeds are to be remitted; the county is first to deduct its administrative expenses incurred in collecting the tax. The

Mecklenburg, Craven, and Cumberland acts limit these expenses to 3 per cent of the proceeds; the Guilford act sets a limit of 5 per cent.

The Dare County act and the acts for the coastal municipalities and Lumberton provide that the tax returns required to be filed shall not be public records under G.S. 132-1.

The Dare County act gives hotel and motel owners a 3 per cent discount for collecting the tax.

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*After the allocations to the City of Charlotte, the act provides that the remaining funds are to be distributed as follows:

> The amount of net proceeds remaining after allocation of the sums for activities and programs aiding and encouraging convention and visitor promotion shall be allocated by Mecklenburg County among itself and each municipality in Mecklenburg County (presently Charlotte, Cornelius, Davidson, Huntersville, Matthews, Mint Hill, and Pineville) using the following formula: the ratios of expenditures by the county and each municipality for acquiring, constructing, financing (including debt service), maintaining and operating convention centers, civic centers, performing arts centers, coliseums, auditoriums, and museums (including off-street parking facilities for use in conjunction therewith) and for visitor-related programs and activities including, but not limited to, museums and other art or cultural programs, events, or festivals as such bears to total county and municipal expenditures for such purposes. Such ratios shall be computed annually on the basis of the prior fiscal years's [sic] expenditures. As to the municipalities, the maximum amount payable by Mecklenburg County to each municipality shall be the net proceeds from hotels, motels, and inns located within the corporate limits of said municipality.
>
> (d) The proceeds distributed and retained pursuant to subsection (c) [see above] may be expended by Mecklenburg County and the municipalities only for acquiring, constructing, financing (including debt service), maintaining and operating convention centers, civic centers, performing arts centers, coliseums, auditoriums, and museums (including off-street parking facilities for use in conjunction therewith) and for visitor-related programs and activities including, but not limited to, museums and other art or cultural programs, events, or festivals.

History of Jails in North Carolina

Michael R. Smith

Why trace the evolution of county jails in North Carolina? First of all, each generation is curious about the lives and times of earlier days. History for its own sake. But there are more practical reasons. History offers public officials and citizens a valuable perspective for evaluating the widespread criticism of today's county jails. Inmates' complaints come so often that they sound like the refrain to a popular song. Some of them are valid, although many are frivolous and without merit. When we look back to the shameful condition of North Carolina's early jails, we see that inmates today have comparatively little reason to complain. County jails have made great progress in the treatment of inmates. But present judgments about jail conditions and the treatment of inmates should not be based solely on comparisons with jails in the nineteenth century. Today's jails inevitably will be evaluated by looking ahead and measuring them against the evolving standard of an ideal jail. That is the nature of progress. A brief look at the history of county jails will give people a perspective for measuring the distance covered along the road to that ideal.

Theories of punishment and colonial jails

In 1741 the colonial General Assembly passed a law requiring each county to build "a courthouse, prison, and stocks."[1] The function of those early jails was limited because in those days imprisonment was virtually unheard of as punishment for a crime. County jails were used almost exclusively to hold persons awaiting trial. Although a few offenses did carry imprisonment as a possible penalty, they were "limited in the main to small and trifling breaches of the law."[2] Merciless retribution, not imprisonment, was the basic impulse guiding the state's criminal law. Some 30 crimes still carried the death penalty in 1837, and not until 1868 was the list reduced to four.[3] At one time, forgery, horse stealing, bigamy, sodomy, and larceny were punishable by death.[4] Early North Carolinians evidently believed that eliminating criminals was the surest way to eliminate crime.

Any punishment short of death always was corporal punishment that ranged in severity from public ridicule to physical torture and mutilation.[5] For minor offenses, like drunkenness, the punishment was humiliation by confinement in the stocks in a public place. Those convicted of more serious crimes, however, were less fortunate. A conviction of perjury, for example, required that "the offender shall, instead of the public whipping, have his right ear cut off and severed entirely from his head, and nailed to the pillory by the sheriff, there to remain until sundown."[6] Early criminal punishment was swift as well

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The author is an Institute of Government faculty member whose field is criminal justice. This article is adapted from his similarly titled article in *Jail Law Bulletin* No. 7 (July 1985).

1. N.C. Pub. Laws, 1741, Ch. 28.

2. Albert Coates, "Punishment for Crime in North Carolina," 17 *North Carolina Law Rev.* 205, 108 (1937).

3. *Id.* at 205-6.

4. Guy Johnson, *Antebellum North Carolina* (Chapel Hill, N.C.: University of North Carolina Press, 1937), pp. 644-47.

5. Coates, *supra* note 2, at 206; Johnson, *supra* note 4, at 647-49.

6. J. Steiner and R. Brown, *The North Carolina Chain Gang* (Chapel Hill, N.C.: University of North Carolina Press, 1927), p. 11.

as severe. The offender was "killed and buried, or mutilated, branded, whipped, or pilloried and turned loose without delay—frequently on the day the sentence was imposed and almost always on the courthouse square."[7] The harsh sentence usually was carried out by the sheriff, although private citizens could further punish someone placed in the stocks "by stoning them, dumping garbage on them, or spitting on them."[8]

Counties were exclusively responsible for corrections in colonial North Carolina. There was, in other words, no state prison system. A county jail mostly held offenders who were waiting to have their criminal cases heard, although persons not charged with any crime sometimes ended up in jail too. For example, imprisonment for debt was common in North Carolina until 1844.[9] Under limited circumstances a creditor could have his debtor placed in jail until the debt was paid. In 1848 Dorothea Dix, an early reformer who traveled throughout the state investigating the treatment of the insane, found insane persons confined in many county jails. Jail conditions gradually had improved over the years, but Dix still reported that in nearly every jail "insane persons had been 'grievous sufferers' at different times and in varying periods of duration."[10] Vagrants and runaway slaves also added to the diversity of county jail populations.[11]

Reform and the penitentiary movement

At the end of the eighteenth century many states shifted away from retribution as the primary goal of punishment. Religious leaders, especially the Quakers in Pennsylvania, pushed "to separate convicted offenders from the rest of society and force them into penitence by imprisoning them."[12] The theory behind imprisonment was that if an offender engaged in solitary reflection and repented, he would be rehabilitated. A criminal, in essence, was viewed as someone who was sick and could be cured. The place designed to encourage the necessary reflection and repentance, of course, was the penitentiary. In 1790 Philadelphia's Walnut Street Jail, converted to house convicted felons, became the first state prison.[13] The penitentiary concept, despite the harm suffered by some offenders from prolonged solitary confinement, was "hailed as a great step forward in penal technology."[14]

A similar reform movement developed later in North Carolina. Legislation first was proposed in 1791 to establish a state-operated penitentiary to reform criminal offenders. The overwhelming failure of that proposal marked the beginning of a struggle for reform that would last much of the next century. Arguing that "North Carolina [had] the bloodiest code of laws of any state in the Union,"[15] the reform supporters urged imprisonment as an alternative to the death penalty and corporal punishment. But opponents of a state penitentiary responded that prolonged imprisonment was in many ways less humane than quickly administered corporal punishment and also cost too much. A supporter of the penitentiary concept, in an often-quoted response, sharply asked whether North Carolina was "too poor to be just? Must she hang her citizens as being not able to bear the expense of saving their lives?"[16]

The reformers ultimately prevailed, however, and the state's penal policy was completely revised. The State Constitution of 1868 abolished all forms of corporal punishment and limited the death penalty to four offenses—murder, arson, rape, and burglary. Imprisonment was substituted as the usual punishment for crimes, although an offender also could be fined and disqualified from holding office.[17] The shift to imprisonment was based on the Quaker philosophy that serving time in prison would reform offenders and prevent them from committing future crimes. But county jails were not large enough to hold the number of offenders likely to be imprisoned under the new law, and there were serious doubts about whether the atmosphere in most jails would encourage rehabilitation. The 1868 Constitution not only shifted the focus of the criminal law to rehabilitation but also recognized the limitations of county jails; it directed the General Assembly to "make provision for the erection and conduct of a state prison or penitentiary."[18]

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7. Coates, *supra* note 2, at 217.

8. R. Cruikshank and A. Dameron, "First in Freedom and Other Myths: A Brief History of Adult Male Corrections in North Carolina" (unpublished manuscript in the North Carolina Collection, University of North Carolina at Chapel Hill), p. 29.

9. Johnson, *supra* note 4, at 657.

10. *Id.* at 710.

11. Allan Ashman, *Legal Aspects of Jail and Detention Services* (Chapel Hill, N.C.: Institute of Government, 1968), p. 2.

12. R. Goldfarb, *Jails: The Ultimate Ghetto* (Garden City, N.Y.: Anchor Press, 1976), p. 10.

13. *Lock-Up—North Carolina Looks at Its Jails* (Chapel Hill, N.C.: Institute of Government, 1969), p. 4.

14. Cruikshank and Dameron, *supra* note 8, at 17.

15. Johnson, *supra* note 4, at 652 quoting from the Hillsborough Recorder, March 21, 1844.

16. *Id.* at 651.

17. N.C. CONST. art. XI, § 3 (1868).

18. *Id.*

County jails and chain gangs

The new state prison was supposed to receive all inmates convicted of crimes previously punishable by death, while those convicted of crimes that had carried corporal punishment could be imprisoned either in the prison or a county jail.[19] In 1868 the General Assembly enacted a bill providing for construction of the prison. A site for the new prison was purchased in 1870, but because of assorted political and financial difficulties, the prison was not completed until much later.[20] A limited number of state prisoners, in the meantime, were confined at the site in a temporary prison surrounded by a log stockade.[21] In order to limit the new prison's construction costs, the legislature authorized the use of those prisoners "in quarrying the stone, the preparation of the site and grounds, and in the erection of the cells...."[22] Even with the extensive use of prison labor, Central Prison was not completed until 1884.[23]

The prolonged delay in completing the state prison had widespread consequences for county jails. In 1868 the Constitution had dramatically shifted legal responsibility for corrections to the state: imprisonment and rehabilitation would be in a state prison, not a county jail. That noble-sounding idea, as a practical matter, was impossible to carry out. As more and more offenders received prison sentences, it became clear that county jails were the only places available to confine them. The legislature had reservations about using jails to hold all convicted prisoners, but it soon realized that it had only one option. Notwithstanding its reservations, the legislature provided that "until the completion of the State's prison, any person...sentenced to confinement therein...may be confined in the County jail...."[24] The soaring crime rate that accompanied Reconstruction greatly increased the pressure on county jails, and harsh economic conditions prevented counties from building new jails. Existing facilities soon were overcrowded.

The difficult economic climate also made it difficult for counties to meet their responsibility for building and maintaining roads.[25] A labor force was needed to work on the roads; at the same time, there was an overwhelming desire to make jail operations self-supporting. Inevitably it was proposed that the prisoners locked in overcrowded county jails be used on the roads—the chain gang was born. Legislation enacted in 1867 authorized superior court judges to place offenders on county chain gangs,[26] although at first the judges were more likely to require prisoners to help build the state prison or to work on railroad construction.[27] Ten years later, however, the practice of working prisoners became widespread as county commissioners, instead of judges, were empowered to provide "for the employment [of convicted inmates] on the public streets, public highways, public works, or other labor for individuals or corporations. . . ."[28] Removing the prisoners for road work immediately reduced the overcrowding in jails, although the true motive behind chain gangs undeniably was economic: " The average county official in charge of such prisoners thinks far more of exploiting their labor in the interest of good roads, than of any corrective or reformatory value in such methods of penal treatment."[29] The chain gang represented a perfect marriage between having a ready supply of cheap labor and the need to build more county roads.

The use of inmate labor to work on county roads quickly developed into a complex system. Special county road commissions and districts were created to control the use of prisoner labor, and occasionally the legislature directed counties to make their prisoners available for large-scale construction projects.[30] By 1901 about 25 counties worked prisoners on the roads,[31] and that number had increased to 46 by 1926.[32] Eventually ten prisoners were sent to road camps for each offender sent to state prison.[33] Small counties, with only a few prisoners, could not operate a road gang profitably. As a result, larger counties took able-bodied prisoners from these counties in exchange for paying their court costs.[34] As the system developed, many counties established a system of temporary workhouses and road camps to house prisoners working on the highways.[35] State prison officials increasingly received only those prisoners who were unfit to work on county roads, and they complained that the

19. N.C. Pub. Laws 1868-69, Ch. 167.
20. *Op. cit. supra* note 13, at 5.
21. Cruikshank and Dameron, *supra* note 8, at 66.
22. N.C. Pub. Laws 1868-69, Ch. 239.
23. Cruikshank and Dameron, *supra* note 8, at 69.
24. N.C. Pub. Laws 1868-69, Ch. 167
25. James C. Drennan, "Corrections," in Charles D. Liner, ed., *State-Local Relations in North Carolina* (Chapel Hill, N.C.: Institute of Government, 1985), p. 56.
26. N.C. Pub. Laws 1866-67, Ch. 30.
27. Cruikshank and Dameron, *supra* note 8, at 48.
28. N.C. Pub. Laws 1876-77, Ch. 196.
29. Steiner and Brown, *supra* note 6, at 6.
30. *Id.* at 28-30.
31. *Id.* at 37.
32. Paul W. Wager, *County Government and Administration in North Carolina* (Chapel Hill, N.C.: University of North Carolina Press, 1928), p. 363.
33. Steiner and Brown, *supra* note 6, at 5.
34. *Id.*
35. N.C. Pub. Laws 1870-71, Ch. 124.

prisons "became a mere asylum for the 'prison paupers'—the decrepit and diseased criminal offenders."[36]

Unfortunately, a narrow-minded focus on the economics of road-building meant that chain gang prisoners often lived and worked under deplorable conditions. Traveling in movable camps to remain close to their work, the prisoners in most road crews were "lodged in iron cages, which are mounted on wheels and moved from one location to another as the roads of a county are worked."[37] In Rockingham County, for example, 49 men were discovered in a prison wagon intended to hold 18.[38] Prisoners' food was frequently prepared under unsanitary conditions, sewage disposal was haphazard, water was often contaminated, and disease was widespread. To illustrate the prevailing attitude toward chain gang prisoners, it was said that "one county spent 23 cents a day for each prisoner's subsistence and 56 cents a day to feed each mule."[39] Often hindered by a heavy ball and chain, prisoners thought to be not working hard enough faced discipline ranging from a brutal flogging to solitary confinement. Pressure increased gradually to eliminate the crews as critics questioned their economic value and pointed out the extraordinarily high mortality rate among chain gang prisoners.[40]

Early jail conditions and practices

Dismal conditions existed in the earliest jails as prisoners were thrown together without any kind of classification. A county jail usually was divided into small rooms, each holding twenty to thirty inmates in cramped quarters.[41] Inadequate classification of prisoners, for example, meant that "the boy of twelve, put in for a street fight, or some slight misdemeanor, and the hardened criminal, deep dyed in infamy, are all thrown together in filth and idleness, thereby making the jail a seminary of crime and corruption."[42] A crude classification system eventually was implemented as jailers were required to separate debtors from criminals and, of course, males from females. The racial attitudes of the time prevailed, and black inmates were separated from whites.

Primitive jail conditions and harsh operational practices in colonial jails may be attributed, at least in part, to a philosophy that corrections should not cost the county any money. At one time a prisoner was required to "bear all reasonable charges for guarding and carrying him to jail, and also for his support therein until released."[43] How could a jail prisoner raise the money to meet those charges? Certain prisoners, after posting a bond with the sheriff, were free to work within a designated geographical area outside of the jail known as the "prison bounds," which sometimes included a nearby town.[44] The practice not only reduced the county's operating expenses but also preserved the prisoners' health by offering them clean air and exercise.[45] Prisoners in the state's earliest jails received precious little else from the counties. Sometimes they were "chained in a room amid human excrement without fire in winter or ventilation in summer,"[46] and the burden of supplying a prisoner with food usually fell to friends and relatives.

North Carolina's jails improved slowly as the nineteenth century unfolded. Jailers were required to provide inmates with blankets during the winter, and jails later had to be "so heated by furnaces, stoves, or otherwise, as to render them warm and comfortable."[47] A law passed in 1816 required jailers to clean the rooms used to hold prisoners once each day.[48] Counties also assumed responsibility for feeding jail prisoners. In addition to an adequate supply of water, each prisoner was entitled to "not less than one pound of wholesome bread [and] one pound of good roasted or boiled flesh...."[49] Extra food and other necessary items still could be received from friends and family.

The laws on the books, despite improvements, present a misleading picture of life in county jails. In 1869 the newly created Board of Public Charities investigated county jail conditions and discovered that the jails did not always satisfy legal standards, as suggested by reports that "the offenders themselves sometimes preferred summary punishment to imprisonment in the local jails."[50] A jail prisoner's existence remained brutal even after the basic necessities of food and shelter were provided. In

36. J. Zimmerman, "The Penal Reform Movement in the South During the Progressive Era, 1890-1917," *Journal of Southern History* 17 (1951), 469.
37. Wager, *supra* note 32, at 363.
38. Cruikshank and Dameron, *supra* note 8, at 51.
39. *Id.* at 52.
40. Steiner and Brown, *supra* note 6, at 6 and 72.
41. *Op. cit. supra* note 13, at 3.
42. Aydlett, "The North Carolina State Board of Public Welfare," *North Carolina Historical Review* 24 (1947), 1, 5-6.
43. Consolidated Statutes of 1919, § 1347.
44. Johnson, *supra* note 4, at 655.
45. F. Hoffer, D. Mann, and F. House, *The Jails of Virginia* (Charlottesville: University of Virginia Institute for Research in the Social Sciences, 1933), p. 20.
46. Johnson, *supra* note 4, at 680.
47. N.C. Consolidated Statutes of 1919, § 1319.
48. A Manual of Laws of North Carolina 1715-1817, p. 454.
49. N.C. Consolidated Statutes of 1919, § 1346.
50. Johnson, *supra* note 4, at 680.

1922 a group of concerned citizens described conditions in the typical jail as follows:

> Crowded together, as prisoners frequently are, in these dark, dirty cells, with wholly inadequate toilet facilities, compelled always to breathe air laden with the sickening prison odor, and fed upon the cheapest and coarsest food with never a chance to exercise, and constantly exposed to infection from syphilis, gonorrhea, and tuberculosis—it is little wonder that these men come out with a grudge against society and the fixed determination to get even.[51]

Complaints about jails obviously had a much more serious basis then than most of the ones heard today. For example, despite a law to the contrary, male and female inmates were not always confined separately, and prisoners sometimes were punished by being whipped.[52]

The sheriff and his jailers managed the jail and supervised prisoners, but security and discipline were not emphasized as they are today. A combination of structural inadequacies and poor supervision made escapes common.[53] The fact that prisoners sometimes set fire to wooden jails in order to escape was one reason that burning a jail was made a capital crime.[54] In fact, in many jails prisoners were allowed to supervise and discipline themselves. Prisoners operated "kangaroo courts" and sometimes cruelly enforced jail regulations with the sheriff's approval.[55] "In one instance the jailer was reported as being not only in sympathy with it, but was credited with being the head of the Kangaroo Court."[56] Although the jailer and his family commonly lived in separate quarters at the jail as part of their compensation,[57] it is doubtful that prisoners had any friendly feeling for them. A portrait of jailers as "rough but kind-hearted fellows who treat the prisoners decently"[58] must be viewed with skepticism.

Joint state-local responsibility for corrections

The state prison was created primarily to shift overall responsibility for convicted offenders away from the counties. Economic circumstances originally frustrated that goal, however, and most convicts were sent to county jails even after Central Prison was completed. But public disenchantment with county corrections grew as the State Board of Public Charities regularly called attention to miserable jail conditions, especially the brutal practices in chain gangs and road camps. In 1931 the state finally took charge of most convicted prisoners. The legislature directed the State Highway Commission to maintain all 45,000 miles of county roads,[59] and the state received all 3,500 county convicts to work on them.[60] Later the Highway Department automatically received all prisoners sentenced to 30 days or more, and it built nearly 100 new prison camps to meet the influx.[61] All other convicted prisoners served their sentences in county jails. But that allocation of prisoners was motivated by a "desire to build and maintain roads the cheapest way possible, not to benefit any inmates,"[62] and critics argued that the humane treatment of prisoners and their rehabilitation were being sacrificed for short-term economic gains. The 1957 General Assembly finally agreed and transferred the management of state prisoners to a separate Prison Department.[63]

The philosophy of assigning only inmates with short sentences to county jails still prevails, although the exact mix of convicted prisoners allocated between county jails and the state prison system occasionally has been adjusted. Defendants who are awaiting trial are still confined in county jails.

Corrections has evolved in several ways from solely a county function to a complex joint state-local responsibility. The state's direct responsibility for county jail conditions and operations has increased substantially. State-mandated jail standards are enforced by inspectors who visit each jail twice a year, and if the county does not remedy the deficiencies found, it may have to close the jail. In addition, the Secretary of Correction issues rules for prisoner conduct and awards jail inmates credit for good behavior toward the service of their jail terms. Though jail costs were once paid by the county alone, the state now partly reimburses the counties for keeping certain prisoners.

Overlapping responsibility for corrections undeniably has created tensions between the state and local governments, but it also has spurred tremendous im-

(continued on page 48)

51. *The Bulletin* (North Carolina State Board of Charities and Public Welfare, January-March 1923), p. 11.
52. *Id.* at 10.
53. Johnson, *supra* note 4, at 680.
54. Revised Code of N.C. 1854.
55. S. Queen, *The Passing of the County Jail* (Menasha, Wisconsin: The Collegiate Press, 1920), p. 12.
56. *Op. cit. supra* note 51, at 12.
57. *Report to the Legislative Research Commission, A Preliminary Study on Jails in North Carolina* (Chapel Hill, N.C.: Institute of Government, 1967), pp. 30-31.
58. Wager, *supra* note 32, at 359.
59. Drennan, *supra* note 25, at p. 58.
60. N.C. Pub. Laws 1931, Ch. 145.
61. N.C. Pub. Laws 1933, Ch. 39.
62. Cruikshank and Dameron, *supra* note 8, at 92.
63. Lee Bounds, "Penal-Correctional Adminstration," *Popular Government* (September 1957), 65.

Presenting the check to John Sanders (left) are W. T. Hall, Leonard Friday, and Wayne Sexton.

Purchasing Organizations Present Gift to Institute of Government

Three purchasing organizations have presented a gift of $10,000 to the Institute of Government to further the Institute's work with purchasing officers and other officials.

The three groups were the Purchasing Management Association of the Carolinas-Virginia, the Triangle Chapter of PMAC-V, and the Carolinas Association of Governmental Purchasing.

John Sanders, Director of the Institute of Government, expressed his appreciation to the representatives of the purchasing groups. He noted that the Institute cooperates with the organizations to provide ten different professional development programs each year attended by some 450 purchasing officials from private business and public agencies.

The gift is being used to improve the facilities at the Institute, including renovation of the visitors' lounge. "This should benefit not only the purchasing officials," Sanders said, "but also the 6,000 other officials who attend programs at the Institute of Government each year."

Representatives from each of the three purchasing organizations formally presented the gift to the Institute at a luncheon. They were:

Wayne Sexton and Gilbert Synder, president and vice-president, respectively, of the Purchasing Management Association of the Carolinas-Virgina.

Leonard Friday, president, Barbara Stone Newton, vice-president, and Donald Skelton, professional development chairman, of the Triangle Chapter of PMAC-V.

W. T. Hall, president, and Donald Farmer, past president, of the Carolinas Association of Governmental Purchasing.—*WPP*

The Right to Know About Hazardous Chemicals: Local Government Responsibilities

Charles Jeffress

NORTH CAROLINA LOCAL GOVERNMENTS NEED TO BE AWARE OF THEIR RESPONSIBILITIES UNDER THE STATE'S REGULATORY SCHEMES FOR HAZARDOUS CHEMICALS.

Thousands of hazardous chemicals are in use in North Carolina workplaces every day. These materials are essential to the production of the goods and services that American consumers enjoy. From the talcum on the baby to the cleanser down the drain, products made from dangerous substances are part of modern life. Private-sector services use hazardous chemicals in dry cleaning, auto repair, photography, and numerous other activities. Government also uses dangerous substances for many of its functions—for example, water purification, sewage treatment, and weed control.

Approximately 750,000 North Carolinians—about one in four in the workforce—are exposed to some type of hazard from the half-million chemical products now in general use. Virtually every type of employment, from manufacturing to retail trade and public services, can involve hazardous materials.

Properly handled, hazardous chemicals in the workplace pose no threat to the public at large. But when accidents happen, the public can be endangered. The methyl isocyanate leak in India last year grabbed headlines around the world and focused attention on the problem of controlling hazardous chemicals. In North Carolina, chemical accidents have contaminated wells in Scotland County, hospitalized firefighters in Charlotte and Mooresville, threatened people who ate fish from High Rock Lake, and caused temporary evacuations of neighborhoods.

In North Carolina the governmental regulatory response to concerns about hazardous chemicals has taken two forms. First, the State Department of Labor, headed by Commissioner John C. Brooks, has adopted an occupational safety and health (OSHA) standard on hazard communication that requires employers to provide education and training for their workers about chemical hazards in the workplace. Second, the 1985 General Assembly adopted the Hazardous Chemicals Right to Know Act (G.S. 95-173 et seq.), sponsored by Representative Harry Payne of Wilmington, to provide firefighters and the general public with information on hazardous chemicals in their communities.

Local governments need to be aware of their responsibilities under both regulatory schemes. As employers, local governments must inform their employees about hazards in accordance with the OSHA standard. Utility workers, maintenance employees, public works employees, health care workers, school laboratory employees, and others exposed to hazardous chemicals must receive appropriate training to protect themselves from the chemicals.

In addition, under the Right to Know Act local fire chiefs (whether paid or volunteer) will receive informa-

The author is the Assistant Commissioner of Labor. He assisted in the review and adoption of the state OSHA hazard communication standard and lobbied for the passage of the Hazardous Chemicals Right to Know Act.

tion from all employers in the community, including governmental units, about the hazardous chemicals being stored in bulk quantities at each workplace. Fire chiefs will be authorized to inspect workplaces to insure the accuracy of the information provided and to require employers to develop emergency response plans.

Historical perspective

North Carolina was not the first state to adopt measures to require adequate information about hazardous substances. In 1974 the federal Occupational Safety and Health Administration (OSHA) established a Standards Advisory Committee on Hazardous Material Labeling to draft guidelines for categorizing and ranking chemical hazards according to their degree of hazard. In November 1983—after nine years of studies, proposals, and public hearings—OSHA adopted its hazard communication standard. That standard requires that hazardous substances be identified and labeled, that material safety data sheets (MSDSs) describing the hazardous nature of the respective substances be provided to manufacturers, and that employees who use these materials in manufacturing be trained to recognize and respond to chemical hazards.

The federal OSHA standard first took effect in the twenty-nine states that come under federal OSHA jurisdiction. The twenty-one states with state OSHA plans, including North Carolina, were allowed six months in which to adopt either the federal OSHA standard or an equally effective state standard.

In December 1983, Commissioner Brooks formally adopted the federal OSHA standard for this state. He also announced that he would hold hearings to determine whether any other provisions were necessary to protect North Carolina workers. After a series of general informational hearings in the fall of 1984 and specific rulemaking hearings in the spring of 1985, Commissioner Brooks adopted three modifications to the federal standard; the most important was that the coverage of the standard was extended beyond just manufacturing employers to all types of employers, both public and private, throughout the state.

While these hazardous chemical rules for workers had been under consideration nationally since 1974, state requirements that hazardous chemicals be labeled date back to 1955, when Massachusetts enacted a statute that dealt with containers of benzene and related substances. In 1977 Connecticut required labeling of carcinogenic substances, and in 1979 Maine became the first state to enact a comprehensive worker right-to-know law covering hazardous chemicals. Since then, twenty-seven states have enacted right-to-know laws with provisions to protect workers. Many of these state laws have been pre-empted by the federal standard.[1] Nine states—New Jersey, Massachusetts, Illinois, New Mexico, New York, Connecticut, West Virginia, Pennsylvania, and Wisconsin—have contested the extent of pre-emption in federal court.[2]

Employers are required to develop hazard communication programs for their employees. There are requirements for labeling containers, providing MSDSs, and training employees in handling hazardous materials and tasks.

A provision for the public's right to know about hazardous chemicals first appeared in a 1980 Michigan law, which required employers to provide copies of MSDSs to the state's department of public health, on request. At least twenty states now have some form of public right-to-know provisions, which range from a requirement that MSDSs be sent to fire departments on request to a provision for release to the general public of surveys on the hazardous chemicals in a workplace. The more extensive public right-to-know requirements have only recently become effective, and there is still too little experience to assess how well the various provisions work.

In addition to these actions by the states, in December 1985, each house of Congress passed national public right-to-know provisions as part of the Superfund reauthorization for clean-up of hazardous waste sites. The bill was in a conference committee when Congress adjourned at the end of the year, and action on some version of a national law seems likely in early 1986.

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1. The federal OSHA standard states explicitly [29 CFR Part 1910.1200(a)(2)]: "This occupational safety and health standard is intended to address comprehensively the issue of evaluating and communicating chemical hazards to employees in the manufacturing sector, and to pre-empt any state law pertaining to this subject. Any state which desires to assume responsibility in this area may only do so under the provisions of § 18 of the Occupational Safety and Health Act (29 U.S.C. 651 *et seq.*) which deals with state jurisdiction and state plans."

North Carolina has an approved state plan under Section 18 of the OSH Act and therefore has assumed responsibility for OSHA standards in this area.

2. United Steelworkers of America v. Auchter (12 OSHC 1337), and New Jersey State Chamber of Commerce, et al. v. Hughey, et al. (12 OSHC 1121).

In North Carolina, Representative Payne introduced a comprehensive right-to-know bill (H 1339) in the 1983 General Assembly; it included provisions for worker protection, for reporting of information on waste discharges, and for a right to know by firefighters and the public at large. The study committee to which it was referred met four times between January and May 1984 and then recommended a somewhat revised version. Representative Payne reintroduced the proposal in the 1985 General Assembly, where it became H 348. Before doing so, however, he further revised the bill to eliminate the required reporting on waste discharges.

While the legislature was considering Payne's bill and several other right-to-know proposals, a number of compromises were made. The worker-protection provisions in Payne's bill were dropped after Commissioner Brooks adopted a modification to the OSHA standard that extended the standard to all employers, and the public right-to-know provisions were significantly restricted during the Senate consideration of the bill. A key section pre-empting local governments from adopting ordinances regulating the disclosure of information on hazardous chemicals was also added during Senate consideration. The final compromise bill passed 43-0 in the Senate and 101-8 in the House.

What is a hazardous chemical?

Fortunately for North Carolina employers, the Hazardous Chemicals Right to Know Act and the North Carolina OSHA standard define a hazardous chemical in the same way. In many states, an employer may face different definitions from OSHA, from the state, and occasionally from a local government ordinance.

North Carolina's definition is the one contained in the OSHA standard on hazard communication. That standard refers to four lists of hazardous chemicals, and it charges manufacturers and importers of chemicals to evaluate other materials that are produced or imported by them but do not appear on the lists in order to determine whether those substances are hazardous. The four lists contain more than 2,300 chemicals and are frequently updated. They are: (1) *29 CFR Part 1910, Subpart Z, Toxic and Hazardous Substances* (Occupational Safety and Health Administration); (2) *Threshold Limit Values for Chemical Substances and Physical Agents in the Work Environment* (American Conference of Governmental Industrial Hygienists); (3) *Annual Report on Carcinogens* (National Toxicology Program); and (4) monographs of the International Agency for Research on Cancer. Beyond these lists, the tests that an employer must conduct in order to determine whether other chemicals are hazardous are carefully spelled out in the standard. Once a chemical manufacturer or importer determines that a chemical produced or imported by his firm is hazardous, he is responsible under the OSHA standard and under the Right to Know Act for producing an MSDS on the chemical and supplying it to all purchasers.[3]

The North Carolina OSHA standard

Under the terms of the Occupational Safety and Health Act, state and local government employers are covered by the standards and regulations of the Division of Occupational Safety and Health of the State Department of Labor. In adopting modifications to the hazard communication standard, Commissioner Brooks set an effective date of May 25, 1986, for all state and local government employers to be in compliance with this standard.

Employers have a fourfold responsibility: to maintain information on the hazardous chemicals in their workplaces, to label containers of such chemicals, to develop written hazard communication programs, and to train their employees in handling hazardous substances carefully and in responding properly if overexposure occurs. An employer who manufactures a hazardous chemical is also responsible (as noted above) for testing the chemical for its hazards, preparing an MSDS on the chemical, and sending copies of the MSDS to distributors and purchasers of the chemical.

Information to be maintained. The information that an employer must maintain consists of a list of the hazardous chemicals known to be present in the workplace and an MSDS for each of these substances. The list, known as a workplace chemical list, can be assembled for an entire workplace (such as a maintenance compound) or for individual work areas, such as the carpentry shop, the garage, the electrical shop, or the plumbing shop within a maintenance compound. It must identify the hazardous chemical by a name that is referred to on the MSDS, so that employees can easily locate the appropriate MSDS from the name on the list. For example, if an employee is working with acetone, the hazardous substance list must show "acetone (dimethyl formaldehyde)" if the MSDS is filed under the name dimethyl formaldehyde.

3. The responsibilities of employers who manufacture chemicals are detailed in sections (d) and (g) and appendixes A and B of the standard. Public employers who manufacture hazardous chemicals should contact the Division of Occupational Safety and Health of the North Carolina Department of Labor for more information on these responsibilities.

The MSDS for each hazardous chemical is to be prepared by the manufacturer of that product. It must contain the following: the name of the substance as found on the label; the chemical and common names of the substance that is hazardous (or, in a mixture, the hazardous ingredients therein); the physical and chemical characteristics and the physical and health hazards of the chemical; any recommended or mandatory limits on exposure; the primary means of exposure to the chemical (e.g., skin absorption, inhalation, eye irritation); precautions for safe handling and use; emergency and first aid procedures; whether the chemical is a known or suspected carcinogen; the date the MSDS was prepared or last revised; and the name, address, and telephone number of the party responsible for preparing the MSDS who can provide additional information in an emergency.

Under the standard (and the Act), the manufacturer of a hazardous chemical must provide MSDSs to distributors and purchasers of the substance. A copy of the MSDS is to be sent with the initial shipment of the chemical. When the MSDS is updated, a copy of the revision is to be sent with the first shipment thereafter. The employer may rely on the MSDS unless it is obviously incomplete or inadequate. If he does not receive an MSDS, he is required to obtain one as soon as possible. (The Right to Know Act goes further than the OSHA standard to provide that if the employer does not receive an MSDS within 30 days of his request to the manufacturer, he *must* notify the Commissioner of Labor that the manufacturer has not provided the MSDS.) Distributors of hazardous chemicals have the same responsibility for distributing MSDSs as do the manufacturers of these materials.

The workplace chemical list and the MSDSs must be kept in locations readily accessible to employees.

Labeling of containers. Containers of hazardous chemicals in the workplace must be marked with the identity of the hazardous chemical and with appropriate hazard warnings. This requirement applies to all containers except pipes and any portable containers that are filled from labeled containers and whose contents are intended only for the immediate use of the employee who fills it. In lieu of putting labels on stationary containers used in processing the product, an employer may use signs, batch tickets that accompany the product during the manufacturing process, operating instructions, or other written materials that are readily accessible to employees in their work area.

Manufacturers and distributors of chemicals, in affixing labels to containers that are shipped, must include on the label the identity, appropriate hazard warnings, and the name and address of the manufacturer or other responsible party. Purchasers of hazardous chemicals must not deface or remove existing labels on incoming containers.

Hazard communication program. The OSHA standard requires employers to develop written hazard communication programs for their employees. The written program must state how the employer intends to meet the requirements for labeling containers, providing MSDSs, and training employees. The written program must list the hazardous chemicals, describe the methods to be used to teach employees about the hazards of nonroutine tasks, and state how contractors who are performing work for the employer will be informed about the chemical hazards that their employees may encounter.

Employee training. Whenever employees are first assigned to a work area or whenever a new hazard is introduced into an existing work area, the employer must give them information and training on the hazardous chemicals present. At a minimum, employees must be informed of the operations in their area where hazardous chemicals are present; where the hazardous chemical list, MSDSs, and written hazard communication program can be found; and the requirements of the hazard communication standard.

Employees are to be specially trained in detecting a hazardous chemical; the physical and health hazards of chemicals in the work area; protective measures to be used during routine and emergency handling of the chemicals present; what to do should overexposure occur; and how to understand and use MSDSs, the hazard communication program, and the container-labeling system.

One modification to the federal standard that was adopted for North Carolina allows employees to refuse to work with a chemical that they believe to be hazardous if it is not identified for them within five days of their request for information on it. This refusal-to-work provision should rarely be invoked, since employers are required to have on hand the identity of all hazardous chemicals and should be able to tell employees what they want to know immediately. A five-day grace period is allowed in the event that the information is not readily available.

The standard prohibits the discharge of an employee or discrimination against an employee who refuses to work with a chemical in accordance with this provision. The employee may be reassigned, at equal pay, to a comparable job that does not involve exposure to the chemical. Also, once a substance has been identified, the employee may be required to continue working with it.

Other provisions. The OSHA standard includes special provisions to protect manufacturers' trade secrets and to require that trade secret information be released

to medical professionals, employees, and employee representatives in emergency and nonemergency situations. Even though a manufacturer claims that a hazardous material is a trade secret, he must provide an MSDS with all relevant hazard information and a statement that the specific chemical identity is a trade secret. Any challenge to a trade secret claim is to be made to the manufacturer and not to an employer who has purchased the product.

The OSHA standard also has special provisions for laboratories and for employers who handle only small quantities of hazardous chemicals. Laboratories are covered by the standard only to the extent that they must insure that labels on incoming containers are not removed or defaced, that MSDSs provided with shipments of chemicals are maintained and made accessible to employees, and that employees are informed and trained in accordance with a written hazard communication program. Thus a school laboratory that is mixing chemicals is not responsible for developing an MSDS on every new mixture or for maintaining a workplace list of every chemical present at that location.

Employers who maintain no carcinogens and less than two gallons or 20 pounds of hazardous chemicals are subject only to the same requirements as laboratories, except that they need not prepare a written hazard communication program.

Employers who maintain not more than five gallons or fifty pounds of individual products that are packaged and labeled according to the rules of the Consumer Product Safety Commission are exempt from the OSHA standard, if their employees' exposures to the hazardous chemicals are not significantly greater than the exposures of consumers who normally use the products.

The Right to Know Act

North Carolina's right-to-know legislation complements the OSHA standard by providing information to firefighters and the general public. It has requirements of employers and local governments beyond those of the OSHA standard.

Information to be maintained. Employers must compile and maintain a hazardous substance list and a set of MSDSs for hazardous chemicals being used or stored. The requirements apply to each hazardous chemical that is normally present in quantities of 55 gallons or 500 pounds or more. All containers of hazardous chemicals must be marked clearly as hazardous (this labeling provision differs from the OSHA standard's provision; see page 38), and existing labels on incoming containers must not be removed or defaced.

Hazardous-substance list. The hazardous substance list must contain the following information:

(1) The chemical name or the common name used on the MSDS or container label;

(2) The quantity of each substance usually stored at the location within the facility in the following ranges:
- —Class A, for quantities of less than 55 gallons or 500 pounds;
- —Class B, for quantities between 55 or 550 gallons and 500 or 5,000 pounds;
- —Class C, for quantities between 550 or 5,500 gallons and 5,000 and 50,000 pounds; or
- —Class D, for quantities greater than 5,500 gallons or 50,000 pounds; and

(3) The location where each chemical is stored and to what extent the material may be stored at altered temperature or pressure.

The hazardous substance list may be prepared for each work site or for specific work areas within a site, just as the OSHA workplace chemical list may be prepared by work area or work site. The Class A range provided in the Act will be used by employers who prepare lists by work areas in which the amount of hazardous material maintained may be less than 55 gallons or 500 pounds but the total in the establishment is above the 55-gallon or 500-pound minimum reporting limit. The list must be updated within 30 days whenever a chemical is added to or deleted from the list or whenever the quantity stored changes enough that the material must be placed in a different class on the list. The entire list must be updated at least annually.

Material safety data sheets (MSDSs). In addition to the hazardous substance list, employers must maintain the most current MSDSs, which chemical manufacturers and distributors are required to provide to all purchasers of hazardous chemicals. As stated earlier, if an employer does not receive an MSDS from the manufacturer or distributor, he must request one in writing. If the MSDS has not arrived within 30 days after being requested, the employer must notify the Commissioner of Labor that the manufacturer or distributor has not provided the data sheet as required.

Information for firefighters. Employers covered by the Act must give the chief of the fire department that has jurisdiction over the work site the name and telephone number of someone within the employer's organization who may be contacted in an emergency. Fire chiefs in municipalities with a population of 10,000 or more must also be given a copy of the hazardous substance list. In municipalities with less than 10,000 population, the employer must notify the fire department that the list is available and send it if the chief requests it. The legislative

Useful Resources for Local Governments' Right-to-Know Responsibilities

The Division of Health Services of the Department of Human Resources. This agency has environmental epidemiologists on its staff who are well versed in the type of information to be found in Material Safety Data Sheets (MSDSs) and are available to assist communities and local and state government agencies in times of overexposure to chemicals. The Division does not have a library of MSDSs and therefore may not have information about specific chemicals. Contact Dr. John Freeman, Environmental Epidemiology Branch, Department of Human Resources, Post Office Box 2091, Room 400, Cooper Building, Raleigh, North Carolina 27602. Telephone 919-733-3410.

The Division of Environmental Management of the Department of Natural Resources and Community Development. This agency can provide information and direct communities to sources of help in preparing contingency and response plans for chemically caused emergencies. The Division's primary concern is with toxic chemicals that threaten the environment. Most of its activity has been in response to environmental dangers like spills and discharges of oil and hazardous substances. The Division has staff in Raleigh and in seven regional offices. Contact Robert DeWeese, Water Quality Section, Department of Natural Resources and Community Development, Post Office Box 27687, Raleigh, North Carolina 27611. Telephone 919-733-5083.

The Division of Emergency Management of the Department of Crime Control and Public Safety. Through its staff in Raleigh and area and county emergency management coordinators, this agency can help local fire departments determine what information is needed for emergency response plans, can identify available resources, and can design and exercise response procedures. The Division of Emergency Management is the lead agency in coordinating and directing state/federal resources for responding to all hazardous-materials incidents, and it operates the State Emergency Operations Center. It can be contacted through the State Warning Point, Division of Emergency Management, Department of Crime Control and Public Safety, 116 West Jones Street, Raleigh, North Carolina 27611. Telephones 1-800-662-7956 (toll-free), 919-733-3861, or 919-733-3867.

The Division of Occupational Safety and Health of the Department of Labor. This agency's consultation staff and its education and training staff are available to local governments to explain the requirements of the occupational safety and health standard, to help in designing hazard communication programs, and to help train groups of supervisors or employees. Contact Dr. James Oppold, Director of the Division of Occupational Safety and Health, North Carolina Department of Labor, 214 West Jones Street, Raleigh, North Carolina 27603. Telephone 919-733-4880.

The Fire and Rescue Service of the North Carolina Department of Insurance. This agency has a specialist on hazardous materials who can help identify the hazard that any chemical may present. It can also help in planning the correct emergency response to various hazards. Contact Phillip Riley, Deputy Commissioner of Insurance, Fire and Rescue Service, North Carolina Department of Insurance, Post Office Box 26387, Raleigh, North Carolina 27611. Telephone 919-733-2142.

The State Highway Patrol. The Patrol conducts training courses at its facility in Garner on identifying radiological and chemical hazards and on using the U.S. Department of Transportation's Hazardous Materials Guidebook. Classes are open on a space-available basis to public agencies, and special classes have occasionally been set up for special groups. Contact Major R. A. Barefoot, Director of Administration, Highway Patrol Training Center, 3318 Garner Road, Raleigh, North Carolina 27610, 919-779-1704; or Captain William Etheridge, Director of Research and Planning, North Carolina State Highway Patrol, 512 North Salisbury Street, Post Office Box 27687, Raleigh, North Carolina 27611. Telephone 919-733-5282.

The Chemical Manufacturers Association. This organization offers several helpful programs. The *first* is Chemtrec, a 24-hour "hot line" that provides information to emergency responders on the hazards of specific chemicals. Its toll-free number is 1-800-424-9300. Information is available orally and on hard copy through a computer hookup. Chemtrec personnel will also help physicians who are treating patients to reach medical personnel in chemical manufacturing plants. Through Chemtrec, fire chiefs can request assistance from Chemnet, which will call to an accident scene a representative of the shipper of any chemicals involved. The *second* is the Chemical Referral Center, a new service that is developing a chemical index and fact sheets on 500,000 chemicals. The Center will help to locate the manufacturers of various chemicals and will provide basic information on hazards. Its telephone number is 1-800-262-8200; it is open from 8 a.m. to 9 p.m. The *third* is an emergency-response training program through which materials will be provided at no charge for training at the local level; contact Alma Howard at 202-887-1263. The *fourth* measure is the Community Awareness and Emergency Response Program, through which chemical plant managers will help local communities develop response plans for emergencies; contact Chris Catheart at 202-887-1265. Information about the four programs can be obtained by writing to the Chemical Manufacturers Association, 2501 M Street, N.W., Washington, D.C. 20037.

conference committee intended employers located in unincorporated areas to be treated similarly to employers in small municipalities, but the Act does not say so explicitly. If employers in unincorporated areas do not comply with this provision, the General Assembly will no doubt address the omission. Employers must also send the chief copies of updates of their lists if the original lists were sent to him.

On request, the employer must give the chief a copy of the MSDS for any chemical on the list and any emergency response plan for the work site, and on the fire chief's written request, the employer must prepare an emergency response plan for the site.

The Act authorizes the fire chief or his representative to conduct on-site inspections of the chemicals on the lists of the respective employers in his jurisdiction to insure the accuracy and usefulness of the lists and to plan fire department activities in emergencies.

The fire chief is also authorized, in consultation with the employer, to share information from the hazardous substance list, from the emergency response plan, and from MSDSs with other personnel (local or state) who are responsible for planning police, medical, fire, and other emergency response activities. Disclosing any information other than information that the Act requires to be made available to the public is a misdemeanor if the discloser had access to the information only as a result of the Act. Local governments are explicitly exempted from the Public Records Act (G.S. Chapter 132), with respect to the Right to Know Act, in order to prevent public disclosure of confidential information obtained under this law.

Trade secrets. An employer may withhold trade secrets from information otherwise released if the claim of trade secrecy is clearly stated and if necessary information on hazardous materials is given to the fire chief.

Any person may challenge an employer's trade secret claim and ask the Commissioner of Labor to review the claim in private. If the claim is ruled invalid, the requested information must be released. If the claim is ruled valid, the Commissioner of Labor is to determine whether the fire chief has been given sufficient information. Any person who has access to trade secret information solely because of the Act and discloses that information, knowing it to be a trade secret, is guilty of a Class J felony (punishable by a prison term of up to three years and a fine) and is subject to civil action for damages.

Any party that feels aggrieved by the Commissioner's decision in a trade secret review may appeal the decision through the courts in the manner provided by the Administrative Procedure Act (G.S. 150A-43 et seq.).

On request, an employer must give a health professional who is treating a person exposed to hazardous chemicals the specific chemical identity of the chemical even if it is a trade secret. In an emergency, the employer must release the identity immediately and later may require a written statement of need and a confidentiality agreement. In other situations, the employer may require the statement of need and the confidentiality agreement before he identifies the chemical.

The information that an employer (including a local government) must maintain consists of a list of the hazardous chemicals known to be present in the workplace, including a material safety data sheet (MSDS), for each of these substances.

Information for the public. Under the Act, any person in North Carolina may ask any employer for a list of the chemicals on the employer's hazardous substance list, along with the range of the quantity stored and a copy of the MSDS for any or all of the chemicals on the list. The request must include the name and address of the person who makes the request and the name and address of any organization, partnership, or corporation on whose behalf the request is being made. It must also state the purpose of the request. The employer may require that the request include a statement that the information will be used only for the purpose stated. The employer must honor the request within 10 days if it includes the above information. The employer may charge a fee not to exceed the cost of copying the materials.

Local governments' responsibilities. Local governments have some special responsibilities under the Hazardous Chemicals Right to Know Act. Like all employers, they must maintain certain information, notify their fire chiefs of hazardous chemicals in use, and provide information on hazardous chemicals to citizens who request it. Local governments that are the parent organization of a fire department also must implement the primary purpose of the Act—that is, to insure that local fire departments have the necessary information to respond to chemical emergencies. In addition to these responsibilities is the proscription against local ordinances on the subject.

The Act clearly intends that the chief of each fire department be responsible for receiving and acting on

information from employers, but it defines "fire chief" as "Fire Chief or Fire Marshal, or Emergency Response Coordinator in the absence of a fire chief or fire marshal for the appropriate local fire department."[4] This definition at least leaves open the possibility that a county fire marshal may be designated by the county commissioners to carry out the responsibilities otherwise assigned to local fire chiefs.

Responsibilities of fire departments. The provision of the Act that the General Assembly supported most strongly was the requirement that fire departments be given the information they need in order to fight chemical fires or to respond to accidents involving hazardous chemicals. The Act authorizes fire chiefs to inspect facilities, "insuring by inspection the usefulness and accuracy of the Hazardous Substance List,"[5] and to require employers to prepare emergency response plans for their facilities.[6] Fire chiefs in the state's forty-five largest cities will automatically receive from employers lists of the names and quantities of hazardous chemicals being used or stored, the area where they are stored, and the temperature or pressure of any chemical stored at other than normal temperature or pressure. Fire chiefs in other areas may request this same information and may also request the MSDS for any chemical on the list. The Act does not distinguish between paid and volunteer fire departments. Volunteer fire chiefs have the same rights and responsibilities as do their paid counterparts.

The information required will come from every type of establishment—manufacturing plants, warehouses, office buildings, construction sites, utility operations, etc. It will be helpful only if fire chiefs and their staffs are trained to understand it and can organize it usefully and ask for more information when they are uncertain of the hazards or the best way to treat a particular chemical.

By May 25, 1986, fire chiefs must decide how to respond to the opportunities and requirements of the Act. A number of resources in state government (listed in the box on page 41 are available to fire chiefs for assistance in planning. Local governments may need to provide more funds for training firefighters, for storing information, and (in some cases) for adding staff.

Complaints about noncompliance. Complaints about noncompliance with the Act are to be filed with the Commissioner of Labor, whose representatives are empowered to investigate complaints. When noncompliance is found, the Commissioner will notify an employer of the violations and order compliance. If the employer has not complied within 14 days, he may be penalized up to $1,000 per day per violation; the amount of the penalty is to be determined by the Commissioner of Labor. An aggrieved party may appeal the agency's decision in accordance with the provisions of the Administrative Procedure Act (G.S. Chapter 150A).

Pre-emption of local ordinances

One controversial feature of the law is the pre-emption of all local ordinances that "require disclosure, directly or indirectly, of information regarding the use or storage of hazardous chemicals by employers . . . ."[7] The pre-emption clause clearly voids comprehensive local ordinances like those that have been passed in Durham and proposed in Roanoke Rapids. It may also void ordinances like Charlotte's permit requirements for handling hazardous materials and Charlotte's requirements for posting buildings in accordance with the National Fire Protection Association's provisions for warning firefighters about the properties of chemicals kept in the building.

Since the pre-emption clause applies only to disclosure of information, it does not pre-empt local ordinances that regulate or prohibit the use of hazardous chemicals in various zoning categories. Also, while the clause prohibits the enforcement of local ordinances regarding disclosure, nothing in it prevents a local government from using the state law to obtain from local businesses the same information that is available to citizens—namely, a list of hazardous chemicals, a material safety data sheet for each chemical, and an indication of the quantity stored at the site.

The Hazardous Chemicals Right to Know Act and the OSHA standard both take effect as to local governments on May 25, 1986. As with any new law or regulation, questions will undoubtedly arise about the coverage and about how to interpret the language of the Act.

In adopting the modifications to the OSHA standard, Commissioner Brooks said that as the Department of Labor gained experience in administering the standard, further changes might be necessary. Federal court decisions in regard to the OSHA standard may also require changes in North Carolina's standard. People on the

(continued on page 48)

4. N.C. GEN. STAT. § 95-174(h).
5. *Id.* § 95-194(c).
6. *Id.* § 95-194(e).
7. *Id.* § 95-217.

Education for Drunk Drivers: *How Well Has It Worked in North Carolina?*

John H. Lacey, Linda C. Rudisill, Carol L. Popkin, and J. Richard Stewart

In 1979 the North Carolina General Assembly enacted a law that provided for a statewide program of Alcohol and Drug Education Traffic Schools (ADETS). The program—which went into effect on January 1, 1980—was intended for first offenders convicted of driving under the influence (DUI) of alcohol or other drugs. First offenders were those who had not received an alcohol/drug-related traffic conviction in the past seven years [G.S. 20-179(b)(1)]. The ADETS program endeavors to alter drinking-and-driving behavior through education in order to reduce recidivism (recurrences of the behavior) and thereby reduce alcohol/drug-related crashes.

The Highway Safety Research Center (HSRC) of the University of North Carolina, with funds from the North Carolina Department of Human Resources (DHR), evaluated the effectiveness of the ADETS program during the period 1980-82, when the now-repealed DUI law was in effect; that evaluation is the subject of this article. On October 1, 1983, the Safe Roads Act went into effect. It totally revised the statutes that regulate drinking and driving and created a new offense of DWI (driving while impaired), which replaced the former offense of DUI. The Safe Roads Act brought with it certain changes in the use of the ADETS program that may make the program more effective. The HSRC has begun an evaluation of the ADETS program under the Safe Roads Act (see the last section of this article); its results will be reported in a future issue of *Popular Government.*

Under the former law, DUI was proved in court by demonstrating that the defendant had been driving with a blood alcohol concentration (BAC) of .10 per cent or more or had been driving under the influence of alcohol or other drugs. The DUI charge was often plea-bargained to the lesser included offense of careless and reckless driving after drinking. In 1980, for example, 17.2 per cent of the DUI case dispositions reported to the Division of Motor Vehicles (DMV) were convictions for careless and reckless driving after drinking. Conviction for a first-offense DUI carried a mandatory 12-month revocation of driver's license, but a judge could grant a limited driving privilege (LDP), usually on the condition that the offender attend and complete ADETS. The opportunity to continue driving with this LDP was a strong incentive for DUI offenders to attend and complete the school.

Although ADETS was conceived as a program for first offenders, repeat offenders were sometimes assigned. Also, not all first offenders were required to attend the program. Judges could issue a LDP without the ADETS condition (a) if there was no school reasonably close to the offender's home; (b) if the offender was unlikely to profit from the program because of a history of alcohol or drug abuse; or (c) if there were "specific, extenuating circumstances that made the individual unlikely to benefit from the program" [G.S. 20-179(b)(1)]. Clearly, the statute allowed a great deal of judicial discretion, which helps to explain why some first offenders were not required to attend ADETS. Socioeconomic factors might also have influenced assignments to the program. Attendance at the school was desirable because it could lead to early driv-

The authors are associated with the UNC Highway Safety Research Center in Chapel Hill. They wish to thank Richard Kleeberg and Dottie Ellis of the State Information Processing Services and J. T. Baker of the Division of Motor Vehicles for their invaluable help in providing driver history files and other driver-related information; Allen "Pete" Martin, Director of the Department of Human Resources ADETS Program, for his cooperation throughout the evaluation; and their colleague Eric Rodgman for his help in the computer analysis of these data.

ing privileges. Defendants who waived counsel may have been less successful in obtaining ADETS assignments than those who were represented by counsel.

Once assigned to the program, offenders had to complete the school successfully within 90 days of conviction in order to meet LDP requirements. To fulfill their ADETS obligation, students had to attend all class sessions, and they could be failed for attending class while intoxicated. If the offender assigned to ADETS completed all sessions and complied with other LDP conditions, such as payment of fines, DMV restored his or her license six months after conviction. However, failure to complete ADETS resulted in revocation of the LDP [G.S. 20-179(5)].

The schools

During the period of this analysis (1980-82), there were 88 permanent ADETS, usually operated by area mental health centers, that accommodated over 30,000 students yearly. Staff from DHR provided overall administration, developed standards and the curriculum, accredited local programs, and trained and certified instructors. Most of the 200 instructors were mental health center employees who had received training from DHR staff regarding the problem of substance abuse. The typical ADETS consisted of four three-hour classes, with an average of 22 students per class. Each student paid a fee of $100. ADET schools retained $95, and DHR received $5 to finance statewide administration. If the court determined that a student was unable to pay, his fee was waived.

As a part of our study, HSRC researchers reviewed state-level curriculum standards and visited ADET schools to observe their activities. The curriculum included lectures on the behavorial, psychological, and pharmacological aspects of alcohol and other drugs; on the effects of alcohol and other drugs on driving skills; on the legal consequences of DUI; on resources for coping with drug abuse; and on myths about drugs. Certain portions of the subject matter, such as social pressures that encourage drinking and the ordeal of jail and trial for DUI, were portrayed via movies. Handouts, pamphlets, and slides illustrated key points from lectures. Discussion periods allowed students to ask questions and to talk about their ideas and experiences.

Knowledge tests

To assess how much the ADETS participants learned through the program, a test on alcohol and other drugs was routinely administered during the first and last sessions of the course. The test contained 27 items (19 multiple-choice and eight true-false questions) from five content areas. The number of test items varied according to content area. Examples of questions include:

Which of the following has the highest alcohol content?

a. 12 oz. beer
b. 1 oz. 100-proof whiskey
c. 5 oz. wine
d. All are about the same

Conviction of a second-offense DUI results in the mandatory revocation of a person's driver's license for a period of _____ years.

a. 2
b. 3
c. 4
d. 5

A small person will get intoxicated faster than a large person on the same number of drinks.

True
False

Some 1,594 pairs of tests taken at the beginning and the end of the course by students who completed ADETS during the second quarter (April-June) of 1981 were analyzed to obtain a measure of change in knowledge as a result of attending the ADETS course. The sample included tests from schools in both urban and rural areas.

The average overall test score for the first test was 56.0; for the later test it was 76.5. This gain of 20.5 percentage points in test score amounted to a 38 per cent increase from the first to the second test. Students from schools with an average class size below 20 scored higher on the second test than students from classes of 20 or more participants, even though the former group scored lower on the first test. These findings suggest that the course increased the knowledge of its participants, especially among those in smaller classes.

Analysis of recidivism

Ideally, in a study like this, all first-time DUI offenders would be randomly assigned to either of two groups—one that attended ADETS and one that did not—and the two groups would be compared over time. But since the statute made ADETS available to all convicted first offenders, random assignment was not an option. We used another approach that capitalized on the sizable number of persons who were eligible but did not attend the course.

We obtained a copy of the driver history file from DMV. First-time DUI offenders were selected for the years 1980 and 1981, and two groups—those who completed the ADETS course and those who were not assigned

to ADETS—were identified.[1] In the "school" group (33,825) and the "no-school" group (16,429), typical participants were males between the ages of 21-35 who had a BAC between .0 and .15 at the time of arrest. In the school group whites and nonwhites were represented according to their percentage of the North Carolina population, but in the no-school group nonwhites were overrepresented.

The two groups generally had different opportunities to drive legally during the first year after conviction. Ninety-five per cent of those who completed ADETS received LDPs for the first six months after conviction and received full driving privileges immediately after that six-month period. On the other hand, 95 per cent of those who did not attend ADETS did not receive LDPs, and they did not have full driving privileges until twelve months after conviction. Since the group that attended ADETS had a longer time during which to drive, they had more time in which to become recidivists.

In examining a number of variables in the driver history file, we found differences between the school and no-school groups in age, race, and BAC at the time of arrest. These differences were also associated with DUI recidivism. Statistical adjustments made it possible for us to correct for these differences in order to compare the recidivism rates as though the two groups were alike in terms of these variables. However, it is important to note that the school and no-school groups may have differed with respect to other characteristics on which we had no data and that such differences may have biased the comparison of the groups.

Several measures of recidivism—DUI convictions, reckless driving after drinking, total accidents, alcohol-related accidents, and nighttime crashes—were compared.

First comparison. In our first comparison, each member of the school group was followed up for one year beginning on the date he completed ADETS, and each member of the no-school group was followed up for one year beginning 46 days after he was convicted of DUI. (Forty-six days was the mean time from conviction to completion of ADETS for the school group.) Table 1 shows the cumulative recidivism rates for the two groups in this first comparison at the end of each quarter (three-month period) of their follow-up periods. During the entire 12-month period, the school group drove more than the no-school group. In fact, the no-school group had hardly any opportunity to drive legally because almost all of the group had 12-month license suspensions; nevertheless, some apparently did drive, in defiance of the suspension.

Table 1. First Comparison: Cumulative Recidivism Rates for School (S) and No-School (N-S) Groups, by Quarter

	Quarter							
	1		2		3		4	
	S	N-S	S	N-S	S	N-S	S	N-S
DUI Conviction	2.1%	1.2%	4.3%	2.4%	6.3%	3.5%	8.0%	4.4%
Reckless Driving Conviction	1.0%	0.6%	1.9%	1.2%	2.8%	1.7%	3.9%	2.2%
Crashes	2.1%	1.2%	4.2%	2.6%	6.4%	3.8%	8.5%	4.8%

The school group had higher recidivism rates than the no-school group with respect to all of our measures of recidivism (Table 1). With respect to DUI convictions, for example, the school group's rate at the end of 12 months was 8.0 per cent, compared with 4.4 per cent for the no-school group.

Second comparison. We also compared the two groups for three months beginning six months after completion of ADETS for the school group and 12 months after conviction for the no-school group. This comparison thus began at a time when most members of both groups had recently regained their full driving privileges. As Table 2 shows, recidivism was considerably higher for the school group than for the no-school group; for example, the respective rates of DUI conviction for the two groups were 2.1 per cent and 0.9 per cent.

Table 2. Second Comparison: Recidivism Rates for School and No-School Groups for Three-Month Period Beginning When Full Driving Privileges Restored

	School	No-School
DUI Conviction	2.1%	0.9%
Reckless Driving Conviction	1.0%	0.5%
Crashes	2.2%	1.1%

Third comparison. Our final and perhaps most informative comparison covered 15 months, beginning one year after completion of ADETS for the school group and one year plus 46 days after conviction for the no-school

1. The number that was assigned to ADETS but failed the first time was 8,926. The number of repeat offenders (i.e., those with one or more alcohol-related traffic convictions in the previous seven years) was 11,584. Neither of these groups was included in our study.

Table 3. Third Comparison: Cumulative Recidivism Rates Following First Year after Conviction for School (S) and No-School (N-S) Groups, by Quarter

	Quarter									
	1		2		3		4		5	
	S	N-S	S	N-S	S	N-S	S	NS	S	N-S
DUI Conviction	2.2%	1%	3.4%	1.9%	5.3%	3.2%	7.0%	4.7%	8.3%	5.1%
Reckless Driving Conviction	.8%	.5%	1.5%	1.1%	2.1%	1.3%	2.8%	1.9%	3.7%	2.5%
Crashes	1.8%	.9%	4.3%	2.3%	6.3%	3.8%	7.8%	4.7%	9.0%	6.4%

group. As this 15-month period began, members of both groups had had their full driving privileges restored. Also (and this was not true in the other two comparisons we performed), as the 15-month period began, an equal amount of time had elapsed for both groups since their first DUI conviction. As Table 3 shows, the school group continued to become recidivists at a higher rate than the nonschool group. After 15 months of this follow-up, the respective cumulative DUI conviction rates for the two groups were 8.3 per cent and 5.1 per cent.

Conclusions and recommendations

On the basis of our study, we believe that some changes in ADETS legislation and design were needed to make the program more effective in reducing recidivism.

Test scores indicated that those who attended the schools learned a substantial amount about highway safety and alcohol and other drugs. Since this was particularly true for persons who attended schools with a class size below 20, we recommend that the maximum number of students be reduced from 35 to less than 20.

Nonwhites were overrepresented in the group not assigned to ADETS and were thereby ineligible to receive LDPs. Thus, we are led to believe that socieconomic factors may have affected such important areas as representation by counsel, which may in turn have influenced judges' assignments. Specific statutory provisions that regulate the conditions for assignment to ADETS would help to alleviate this factor.

For ADETS to be judged successful, there should be a demonstrable reduction in recidivism and, ultimately, in alcohol-related crashes for those who attend the schools. The former law made it difficult to demonstrate such effectiveness. License suspension or revocation is one of the most effective ways to deter DUI recidivism. The legislation that established ADETS shortened DMV-imposed license suspensions from one year to six months for those who completed the schools, and it permitted the court to issue LDPs during the six-month suspension. Those who did not attend the schools received the full one-year DMV license suspension and were ineligible for LDPs. The group that did not attend thus received more severe sanctions than the school group, and these license-removal sanctions evidently had a greater deterrent effect than the schools. For the school group, perhaps the loss of deterrent effect that may have resulted from the greater opportunity to drive legally could not compensate for any beneficial effects from attending a 10- to 13-hour course.

Our results suggested that ADETS were effective in transmitting information to first-time offenders of DUI, but the learning was not necessarily translated into reduced recidivism. In our report on the evaluation of ADETS in the 1980-82 period,[2] we recommended that the law be modified so that ADETS would *supplement rather than replace* other sanctions, such as license suspension, for drunk drivers. In fact, this is exactly what the General Assembly did in the Safe Roads Act—the task force that drafted the legislation had come to the same conclusion we did.

The Safe Roads Act

The Safe Roads Act addresses many of the problematic components of the old ADETS-related statutes.

2. C. L. Popkin, L. K. Li, J. H. Lacey, J. R. Stewart, and P. F. Waller, *An Initial Evaluation of the North Carolina Alcohol and Drug Education Traffic Schools*, Vol. I, Technical Report (Chapel Hill, N.C.: UNC Highway Safety Research Center, July 1983).

It establishes the new crime of driving while impaired (DWI) and limits judicial discretion in a number of ways. Plea bargaining essentially no longer exists because the lesser included charge of careless and reckless driving after drinking is eliminated. Once the defendant is convicted of the DWI offense, a hearing is conducted to determine aggravating and mitigating factors that determine the level of the offense. The five levels of punishment require mandatory sanctions, and judges must rely on facts defined in the statutes to support the punishments imposed on the offender. Since sanctions are based on fact and plea bargaining is eliminated, the effect that socioeconomic factors may have on sentencing factors should diminish.

Under the new law, completion of ADETS does not hasten the return of driving privileges. This provision alleviates the loss of deterrence that results from less stringent license sanctions for school attendees. Furthermore, DWI offenders may be excused only if they have already completed ADETS or if the judge states the reason in the court record for excusing them. Assignment of repeat offenders and serious problem drinkers is curtailed through screening procedures that require persons with a BAC at or over .20 and repeat offenders to undergo alcohol-problem assessments and to follow treatment programs. The provision may enhance the effectiveness of the program for first offenders by providing more homogeneous classes.

Although we expect changes in the way ADETS function under the new law, their effectiveness cannot be predicted without further analysis. After our current evaluation of the ADETS program under the Safe Roads Act, we should be better able to assess the social and economic status of DWI offenders and their courtroom experiences through new and refined reporting procedures. Our findings from this analysis will be presented in a future article. ☙

Jail History *(continued from page 34)*

provements in jail conditions and operations. Conditions in county jails have substantially improved over the years. Furthermore, the federal courts are increasingly willing to protect the constitutional rights of jail inmates. As a result, it is generally well recognized that jail inmates may not be confined more restrictively than is necessary for their security and safety. Yet today's county jails face other serious problems. Many are overcrowded and poorly staffed; the treatment of inmates in some jails has not kept pace with rapidly evolving legal standards. In short, North Carolina gradually has eliminated most of the horrible conditions that once were accepted as routine, but nearly everyone would agree that there is still plenty of room for continued improvement. ☙

Right to Know *(continued from page 43)*

Department of Labor's right-to-know mailing list will be notified of pending changes in either the OSHA standard or the Act.

When the legislature adopted the Act, firemen, community activists, industry lobbyists, the bill's sponsor (Representative Payne), and the Senate conference committee chairman (Senator Russell Walker, D-Randolph) expressed their intent to review the workings of the Act during the next two years and ask the 1987 General Assembly for any necessary modifications.

The Department of Labor will be enforcing the OSHA standard and the Act as written. State and local government and private employers need to take the necessary steps to comply with both sets of requirements.

The concern about chemical hazards in our communities will continue. After each accident, calls for stricter controls will be renewed; and with experience, industry and government will find better ways to control hazardous chemicals and to inform the public about potential dangers. The right-to-know provisions described in this article should be considered the starting point for what will be a permanent responsibility for local governments. ☙

Of Revenues and Morality: The Debate Over State Lotteries

James Clotfelter

SUPPORTERS AND CRITICS of state lotteries agree on one thing: lotteries are politically attractive. "There are few things more powerful," an anti-lottery columnist wrote, "than a bad idea whose time has come."[1] Although no southern state has yet done so, between 1964 and 1984 twenty-one states and the District of Columbia adopted lotteries. In 1985 North Carolina's General Assembly defeated a proposal for a lottery referendum, but the proposal almost certainly will be reintroduced.

What accounts for the political attractiveness of lotteries? Will they ultimately be as popular in the South as they have been elsewhere? What are the arguments for and against them? If a lottery is adopted in North Carolina, how might it be implemented? This article will address these and related questions.

History

In 1964 New Hampshire became the first state in modern times to adopt a lottery. (In the nineteenth-century some states had lotteries but abolished them, often because of allegations of fraud.) Since then, gross sales of state lottery tickets increased from $655 million (in eight states) in 1973 to $7.3 billion (in 17 states and the District of Columbia) in 1984. In 1984 four more states held successful referenda on lotteries. Iowa, the first state in the conservative Plains region to do so, introduced a lottery in August 1985, and initial ticket sales were high.

Lotteries were not originally expected to be a major revenue source; nevertheless, in some states they produce significant amounts. In 1984 the lottery became the fourth largest revenue source in Illinois and the third largest in Maryland. In New Jersey and Maryland, lottery proceeds represent more than 6 per cent of total state revenues. Depending on the number of out-of-state purchasers and other factors, a state's net annual proceeds from lotteries can vary from Vermont's $2 per capita to Maryland's $46 per capita.

Shortly after the North Carolina General Assembly adjourned in 1985, a Lotto drawing in New York set a new record in prize money ($47,825,432), a record number of ticket sales (36,112,626), a record amount to the vendors of Lotto tickets ($2,166,757), and a record amount in proceeds from lottery tickets to the state's education fund ($16,250,681). Three winners, including a group of recent immigrants, shared a $41 million first prize by picking six numbers correctly.

Design and management

State lotteries are an effort, with minimal investment of public funds, to exploit the gambling interests of citizens for the purpose of raising funds for public use. Other forms of state-approved and state-managed gambling are possible, but lotteries are probably the quickest and least expensive to establish.

Certainly, an interest in gambling is already present in the population, but states also boost that interest through heavy advertising in newspapers, television, radio, and billboards. Celebrities pick winning numbers on television. The names of big winners are publicized. Most states with lotteries spend over 1 per cent of ticket sales on

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1. Donald Kaul, "Going Ga-Ga Over State-Run Lotteries," Winston-Salem Journal, August 28, 1985, p. 14.

advertising—higher than the average ratio of advertising costs to sales for private corporations in the United States.[2]

Using professional lottery-marketing consultants, states introduce new games periodically as interest in existing games wanes. Games have such names as "Money Tree" (Connecticut), "Lucky Buck" (Ohio), or "Lottery Derby" (New Jersey). The most popular games are the daily "numbers" games, in which players choose their own numbers. In Lotto, gamblers select a group of numbers from a larger field. A drawing is held to pick the winning numbers. If no winning numbers are chosen in a game, the purse that remains for those numbers is added to the purse for the next game. The variations of lottery games are almost endless.

Why do people play? There can be no "rational" expectation of gain, since only a portion of sales proceeds is returned as prize money. After all, the purpose is to raise funds for the state. Players presumably either hope for the jackpot or enjoy the excitement of playing. Also, if people are deemed to be the best judge of their own well-being, economists argue, players benefit from playing—simply because they play willingly. To the extent that players do not understand the odds, of course, such a conclusion may not be valid.

Policy considerations

State officials who are considering whether to propose a lottery—and if so, what kind—need to address questions relating to legalization, government operation, marketing, and tax rates.

Legalization. The first question is whether an activity such as gambling in a lottery should be made legal. In recent decades, southern states commonly have defined most forms of gambling as illegal but have permitted a few forms such as church bingo games. The state presumably does not legalize activities simply because people want to participate in them. The state government that legalizes betting inevitably makes a moral statement—legalization implies an acceptance.

It has been argued that a legal lottery might reduce the popularity of illegal games and thus bring gambling more under the state's control. On the other hand, some people fear that lotteries will attract organized crime or encourage illegal gambling among previous nongamblers.

Government operation. Out of a concern about corruption, all state lotteries are operated by state agencies.

State lotteries are an effort, with minimal investment of public funds, to exploit the gambling interests of citizens for the purpose of raising funds for public use. Other forms of state-approved and state-managed gambling are possible, but lotteries are probably the quickest and least expensive to establish.

By operating as well as legalizing lotteries, state governments confer even more approval. Some lottery states operate liquor stores, but they conduct this activity quite differently from the way they conduct lotteries.

Marketing. States with lotteries actively market their product. They not only advertise through various media but also often change lottery games to stimulate ticket sales. Any objections to legalization and government operation are multiplied when the state actively advertises its goods. New Jersey advertises: "Thousands of people have won! It could happen to you!"

Taxation. Usually 35 to 45 per cent of state lottery sales are skimmed off as state revenue and the rest goes to prizes and operating expenses. Those figures translate into excise tax rates higher than the tax rates on alcohol and tobacco—commodities whose dangers to health and safety are well known.

Five studies of who pays the lottery "tax" all have concluded that this revenue source is regressive. That is, the percentage of income paid falls as income goes up. A "tax" on lottery sales is more regressive than taxes on tobacco, alcoholic beverages, and food consumed at home and more regressive than a general sales tax. Still, state lotteries are not like other taxes. First, of course, the state is operating as well as taxing. And second, as a state senator from Maryland said, "The poor are willing suckers, and it's hard to defend a group that doesn't want to be defended."

Research findings that lottery sales amount to a regressive tax are disputed by lottery proponents, who point to reports that the poor are not represented disproportionately among lottery players. In Colorado, the typical lottery winner was reported to be a middle-aged man with an annual income of $30,000. But these reports are irrelevant to the regressivity argument, which says

2. U.S. Internal Revenue Service, *Statistics of Income-Corporation Income Tax Returns, 1981* (Washington, D.C.: GPO, 1984), p. 32.

that the poor pay disproportionately more of their income for lottery tickets.

Earmarking. More than half of the states with lotteries earmark some or all of the proceeds. That is, they specify that net proceeds will go to an education fund, or to aid senior citizens, or for some other designated purpose. Earmarking enhances the political appeal of a lottery by transforming the supporters of the special fund into supporters of the lottery. In Pennsylvania, for example, next to the lottery logo are the words "benefits senior citizens."

Steven Gold, director of the State-Local Finance Project of the National Conference of State Legislatures, has pointed to the "shell game" that can be played with earmarked funds:

> Earmarking of lottery proceeds is meaningless if it's for a function which is already receiving a large amount of revenue, because if you add in additional money, other money may be siphoned off. If it's going into the schools' pot, that's the equivalent of not earmarking at all.[3]

Two chairmen of New York State's education committees have said that the extra lottery revenues brought in by the record-breaking Lotto game in August 1985 did not mean more money for education, because the state's budget for education was fixed. When lottery games bring in more than anticipated, New York State's general aid for elementary and secondary schools is reduced by that amount, and proceeds from the Division of the Lottery are substituted for the amount of the reduction.[4]

Political environment

For elected officials, what makes lotteries attractive is that citizens voluntarily "tax" themselves. The more citizens play, the more they will (on average) lose, and the more they "tax" themselves. Usually taxes are opposed by those who have to pay them; for lotteries, opposition comes primarily from those who say they would not play (and thus would not pay). All coercive taxes are unpopular, so—faced with whether to raise a coercive tax, cut state services, or start a lottery—elected officials often find lotteries attractive.

No southern state has a lottery—yet. Strong church interests in the South often oppose sales of alcoholic

Earmarking enhances the political appeal of a lottery by transforming the supporters of the interest to be supported by the earmarked funds into supporters of the lottery.

beverages, and many of them also oppose gambling. Considerations of morality therefore would play an important part in any campaign against a state lottery. Furthermore, southern state governments traditionally have been slow to adopt new concepts or practices[5] (a good or a bad trait, depending on one's appraisal of the innovation), and most have not had revenue crises as severe as those in some northern industrial states.

Recent public opinion studies in southern states, however, suggest that many citizens would be receptive to a state lottery. In a 1983 North Carolina poll, 59 per cent of the respondents favored a lottery, and 55 per cent said they would play if one was begun. Scientific Games, Inc., financed another poll in North Carolina in June 1985. The Atlanta-based firm, which provides supplies and services for state lotteries, reported that 71 per cent of North Carolina registered voters favored a lottery.[6]

Three factors contribute to the favorable outlook for lotteries. First, many citizens want to play. Second, lotteries are perceived by some citizens as a way to avoid raising tax revenues or to avoid cutting state services. And, third, a significant backlash is developing (as noted below) against the politically active fundamentalist groups, such as the Moral Majority, that probably would lead opposition in the South.

In a poll taken in June 1984, 58 per cent of adults in Tennessee favored a lottery; 34 per cent opposed it, and the rest were neutral or undecided. Every sizable group in the population except blue-collar whites and farmers favored a lottery. Men supported a lottery by larger margins than women. For example, among whites aged 18 to 34, 76 per cent of men favored a state lottery, com-

3. Bill Curry, "State Lotteries: Roses and Thorns," *State Legislatures* 10, no. 3 (March 1984), pp. 11, 15.

4. Assemblyman Jose E. Serrano: "I've never been convinced it is anything other than a bookkeeping gimmick." Senator James H. Donovan: "My inclination is to say it is a fraud." Gene I. Maeroff, "Some Call Big Lotto Revenue No Boon to Schools," New York Times, August 23, 1985, p. 12.

5. Jack L. Walker, "Innovation in State Politics," in Herbert Jacob and Kenneth N. Vines, eds., *Politics in the American States*, 2d ed. (Boston: Little, Brown, 1971), pp. 354-87.

6. News release, Focus Group, Inc., Chapel Hill, N.C. (1985). The reported results did not mention respondents who answered "don't know" or would not express an opinion. Nor did the release provide supporting technical information.

pared with 61 per cent of women. Even among members of fundamentalist churches and self-identified "born again" Christians, a plurality favored a state lottery.[7]

In a poll taken among adults in Florida in January 1985, 64 per cent favored a lottery, while only 30 per cent opposed it. Again, men and the young were most supportive. A plurality of all major groups except blacks favored a lottery.[8]

Polls in 1984-85 in several states inside and outside the South showed a certain distrust of the Moral Majority. In a North Carolina poll taken in December 1984, 26 per cent of respondents rated the Moral Majority positively and 36 per cent rated it negatively—almost exactly the same percentages as for the AFL-CIO labor federation.[9] Older religious groups will no doubt also be involved in any anti-lottery campaign, but public suspicion of political fundamentalism will be an important political factor when state legislatures consider lotteries.

The North Carolina effort, 1985

The North Carolina General Assembly, which had defeated a lottery proposal in 1983, gave it more serious consideration in 1985. In the House of Representatives, lottery legislation (H 232, died in the Judiciary II Committee) received committee hearings and a good deal of discussion. In the Senate, lottery legislation (S 532, failed on third reading in the Senate) proposed by Senate Majority Leader Kenneth Royall (D-Durham) passed 27-21, then was defeated on a 24-24 tie vote.

The Royall bill proposed (1) a statewide referendum in May 1986; (2) distribution of at least half of the lottery proceeds in prizes; (3) allocation of at least 34 per cent of proceeds for public education; (4) expenditure of no more than 16 per cent of proceeds on administrative and promotional costs; (5) a five-member lottery commission, appointed by the Governor, to oversee the lottery; (6) a demographic study of lottery participants to be conducted after six months of operation; (7) a prohibition on ticket sales to anyone under age 21; and (8) a repayable appropriation of $4.1 million to start the lottery. Proponents of the bill estimated that the amount available annually for public education—in effect, the tax take—might be as low as $114 million ($19 per capita) or as high as $163 million.

It has been questioned whether lottery proceeds support the special interest at a higher level or simply substitute for general fund revenues.

Support crossed party lines. Republican legislators co-sponsored the bill in the House, and liberal Democratic ex-legislators lobbied for it. Opposition also crossed party lines. Both Governor Jim Martin, a Republican, and former Governor Jim Hunt, a Democrat, opposed a lottery. Martin opposed it, he and his aides said, because having the state involved in gambling would set a bad example and because a lottery would raise money from poor people who could least afford to lose it.

The first favorable Senate vote of 27-21 was overturned when four senators switched their votes. They denied that they had been heavily pressured to change their votes, although Senator Royall attributed the switches to pressure from religious groups opposed to gambling. The Christian Action League and the North Carolina State Baptist Convention were interested in the legislation, but no religious organization launched the kind of campaign associated with liquor-by-the-drink or drunk-driving legislation.

Both the Christian Action League and the Baptist Convention gave the lottery considerable space in their legislative mailings, and some interest apparently was aroused within their constituencies. Although leaders of other major denominations were concerned about the lottery, the organizations themselves were relatively inactive on the issue.

The opportunities and problems facing religious organizations were reflected in the testimony of Larry Braidfoot (Christian Life Commission of the Southern Baptist Convention) before the North Carolina House Judiciary II Committee.[10] He put forth four arguments against state lotteries: (1) They are "the most regressive form of legalized gambling." (2) They have "a disproportionate appeal to ethnic minorities, thereby further complicating the relationship between ethnicity and poverty." (3) They

7. Opinion polls, Hamilton and Staff, Inc., Chevy Chase, Md, 1984 and 1985. The author wishes to thank Hamilton and Staff for making these surveys available to him. Also see Dudley Clendinen, New York Times News Service, "Falwell's Influence with Voters Appears to be Slipping," News and Observer (Raleigh, N.C.), November 28, 1985, p. 17A.

8. *Ibid.*

9. *Ibid.*

10. Larry Braidfoot, "Arguments Against State-Operated Lotteries," testimony before the Judiciary II Committee, North Carolina House of Representatives, May 1985. Braidfoot's earlier testimony was before the Subcommittee on Intergovernmental Affairs, Committee on Governmental Affairs, U.S. Senate, October 1984.

"stimulate illegal gambling." (4) They "contribute to growth in the number of compulsive gamblers." All of these are empirical assertions with a strong ethical component. Braidfoot asserted that a state, by adopting a lottery, abdicates its responsibility to promote the general welfare. Notably absent, however, was the word "moral." Braidfoot's testimony in a congressional hearing in 1984 had been entitled "Moral Arguments . . .," but the word was not in the title of his 1985 testimony in North Carolina.

To be successful politically, religious groups—no matter how much they use moral arguments in speaking to their own members—must make a more "secular" appeal to the legislature and the general public. Some religious groups recognize this; others do not. The Rev. George Reed, lobbyist for the State Baptist Convention, commented, "You are not going to change minds on moral grounds in the heat of the battle. The people who will oppose lotteries on moral grounds are already convinced."[11]

Some people fear that lottery proceeds may not be reliable over time. A different kind of economic concern came from the Carolina Sports Association, an organization that hopes to build a state-licensed horse-racing complex in the North Carolina Piedmont and gain approval for pari-mutuel betting. This group says:

> As a voluntary tax, a lottery is a consumer of dollars that provides no economic gain . . . . The Carolina Sports Association has a complete economic development program. We stand for generating jobs and economic worth. Our position is against a lottery.[12]

Questions to be resolved

Lotteries claim to deliver "free money"—not only to citizens who buy tickets but also to state officials. As with federal funds, lottery proceeds are collected without the need for state officials to impose taxes. Whether this produces a less responsible attitude in the disbursal of those proceeds is debatable. The experience in some states suggests that, whether earmarked or not, lottery proceeds become in effect an addition to general fund revenues.

If North Carolina adopts a lottery, what "tax" rates and marketing approaches will the state use? If the state justifies "tax" rates higher than the tax rates for alcohol or tobacco by saying that it disapproves of betting more than it disapproves of alcohol, can it justify heavy advertising for lotteries?

The state operates its alcoholic beverage control (ABC) stores without billboard or television advertising. ABC stores do not advertise that "Drinking Is Fun!" If the state follows the ABC model, a lottery would be operated with just enough advertising to inform bettors about games and the odds of winning.

Future legislative study could focus on ways to restrain marketing. Because other states have been interested in generating revenue through lotteries, not in preventing overly aggressive marketing, state models of restrained-marketing lotteries may not exist. If restrained marketing is of concern to North Carolinians, the state may have to develop its own model.

North Carolina could also operate a lottery with a considerably lower "tax" rate than other states have used. Of course, the lower the "tax" rate (that is, the more paid out to winners) and the less spent on advertising, the less revenue the state would gain.

As is true of most policy issues, the debate over lotteries occurs on two levels. First, should the state have a lottery, or are the arguments against it so strong that no lottery of any kind should be adopted? Second, if a lottery is a defensible idea, which approach to organization and marketing will meet some objections while permitting the state to collect a significant amount of new revenue?

THE QUALITY of this debate will be enhanced if the lottery idea is studied extensively—in legislative hearings, by a legislative study commission, or by another credible public or private body. This study should not be restricted to technical matters.

The debate over lotteries, if it continues in North Carolina and other southern states, also will be enhanced if the participants give each other the benefit of any doubt as to their motives. We should assume that religious groups are motivated by testimonies that are important to them. Religious groups will not succeed politically unless they can convince others who do not share their interpretation of religious values but might come to share their beliefs about what is good for the state. We should assume that, although some firms have an obvious monetary stake in lotteries, many North Carolinians who favor a lottery do so because of what they believe the additional revenues will mean for the state. Issues identified as having a moral basis lead to heated words; if participants assume good faith on the part of those who disagree with them, the debate on lotteries might produce light as well as heat.

11. Personal interview.

12. "A Lottery—Where We Stand," news release, Carolina Sports Association, High Point, N.C. (1985).

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