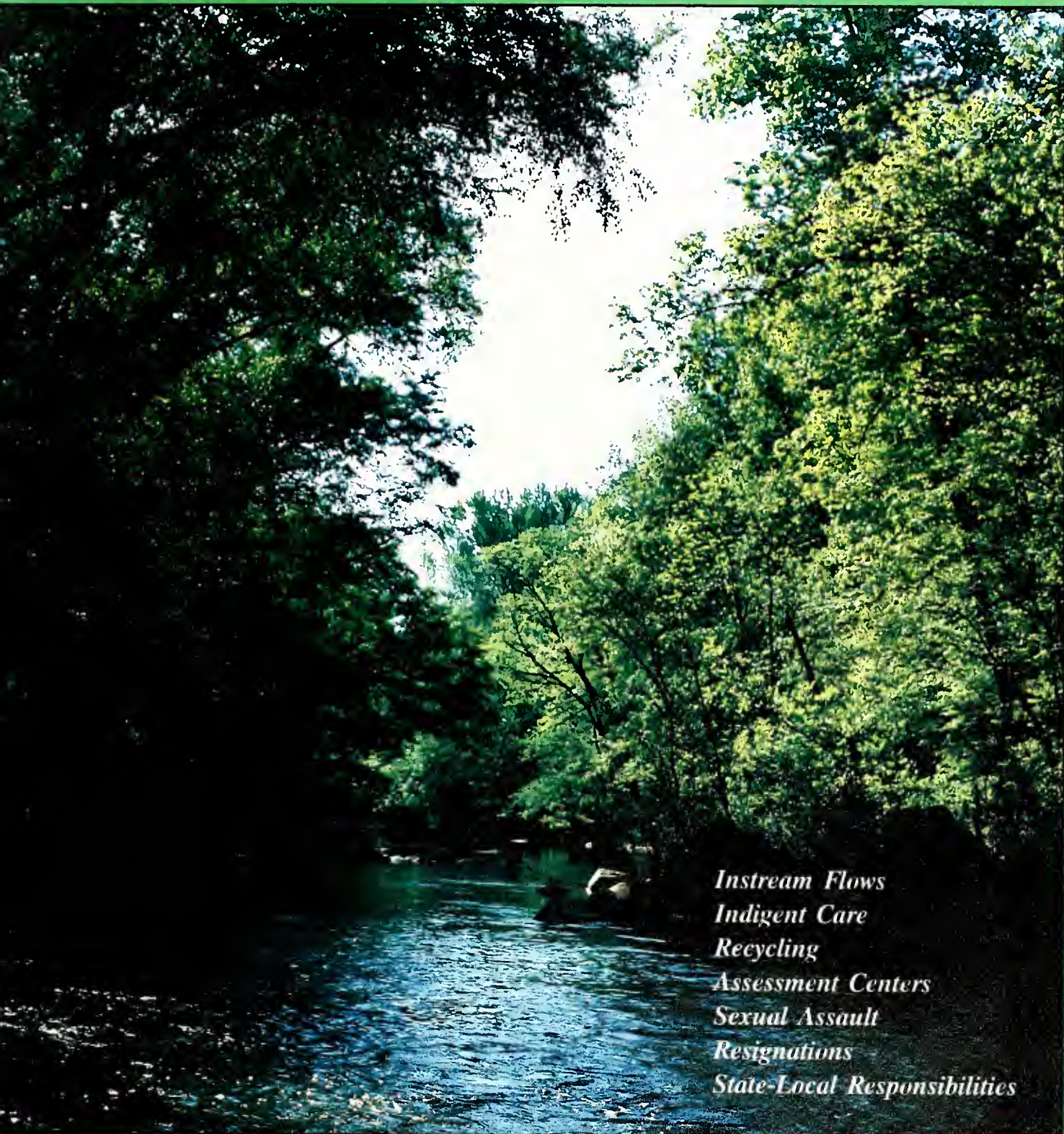


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Instream Flows
Indigent Care
Recycling
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Sexual Assault
Resignations
State-Local Responsibilities

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Prosecuting Cases of Sexual Assault

Wade Barber and Pat DeVine

Rape is an act so violent and so humiliating that the victim often experiences not only an overwhelming fear for her life but also a profound sense of powerlessness. Much has been written about the problems of sexual assault victims who present themselves to the authorities, only to be confronted with confusing and unfamiliar patterns of the hospital and criminal justice systems.¹ By reporting, the victim becomes the key witness in the state's potential case against her assailant. At a time when her greatest needs are for empathy and safety and help in regaining control in her life, this victim finds that she and the crime against her have become public property. She is at the mercy of the hospital, the police, the courts, media, and community opinion. To the degree that the men and women she encounters in these settings are insensitive to her needs, the rape victim is assaulted anew by the institutional process.²

In 1974 a Chapel Hill psychiatrist had urged that a specially trained rape crisis team be formed to work in the emergency room at North Carolina Memorial Hospital in Chapel Hill; further, she said, this team should be tied into a reporting system with the local police department. This recommendation was the first formal step toward

linking the personal care of the rape victim with criminal prosecution of the offender. With it came the formation of the Orange County Rape Crisis Center—during a time when the officially reported occurrence of rape was increasing at a staggering rate (a 320 per cent increase between 1968 and 1978, according to the Uniform Crime Reports), while the conviction rate was the lowest for all violent crimes.

In Raleigh, meanwhile, statewide attention was directed to the fact that rape victims were extremely reluctant to report the assault and to prosecute the rapist. The Sexual Assault Task Force of the North Carolina Council on the Status of Women undertook a study entitled *Aftermath: A Report on Sexual Assault in North Carolina*³ to examine the reasons behind the victims' decision not to report the crime or to participate in the criminal justice process. From July through September of 1977, interviewers spoke with 289 callers on two toll-free lines whose availability had been well publicized in order to persuade victims of sexual assaults to call. The results of their work, published in 1978, indicated that *fear*—not shame or guilt—motivated these women in deciding not to report their rapes. Sixty-five per cent of the *Aftermath* victims recalled their fear of dying during the rape, even though a weapon was used in only 38 per cent of the assaults. Those interviewed spoke also of their fear of public exposure and ridicule, fear of how they would be treated

Ms. DeVine is assistant district attorney for Judicial District 15B, which includes Chatham and Orange counties. Mr. Barber recently resigned as district attorney for District 15B to enter private practice in Pittsboro.

1. See especially Elaine Hilberman, *The Rape Victim* (Baltimore: American Psychiatric Association, 1976).

2. For these insights the authors are indebted to Mary Ann Chap, director of the Orange County Rape Crisis Center in Chapel Hill, N.C.

3. *Aftermath: A Report on Sexual Assault in North Carolina* (Raleigh, N.C.: North Carolina Council on the Status of Women, 1978).

in court, fear of retaliation by the offender, and reluctance to relive or retell the experience.

By implication these findings suggested a more enlightened approach to the prosecution of rape cases. If a rape victim is to initiate and participate in the long process that culminates in the trial and conviction of her assailant, her fears must first be acknowledged and accepted. They must then be dealt with throughout the system—in hospitals, in law enforcement agencies, in district attorneys' offices, and in the courts.

In 1978, the same year the *Aftermath* study was published, the district attorney's office in Judicial District 15-B announced a new victim-oriented program for Orange County. The box on the next page shows the policies and procedures that the district attorney's office instituted after consulting with the North Carolina Memorial Hospital Rape Crisis Team, the Orange County Rape Crisis Center, former rape victims, and local law enforcement agencies.

In April 1978, the Orange County rape crisis center, the hospital rape team, the local police departments, and the district attorney held a joint news conference to announce this program to the community.

Within a year after the Orange County program began, the district attorney's Office noted the following changes:

Of those who report, more victims are willing to cooperate in prosecuting. Victim-D.A. relationship is now excellent. Victims are better prepared to testify, and the defense bar knows it. Rape cases are investigated earlier and preparation of evidence has improved. Those who work in rape programs have more confidence in our office and the courts. Victims are having fewer personal problems during the aftermath.⁴

The total number of reported rapes in Orange County indicate that the arrest rate more than doubled during the year after the program began. The conviction rate increased fivefold.⁵

In the spring of 1984 the North Carolina Council on the Status of Women published *The Protocol for Assisting Sexual Assault Victims*.⁶ This project represents the volunteered efforts of experts recruited by the Council for a special Sexual Assault Task Force—representatives from law enforcement agencies, mental health programs,

medical facilities, district attorneys' offices, and rape crisis centers.

Each component of the *Protocol*—law enforcement, medical care, and prosecution—was drafted by a separate committee of experts in the subject covered, yet each stresses the need for cooperation in helping victims of sexual assault. Throughout, the volume emphasizes the interdependence of the procedures.

Part I, "Protocol for Law Enforcement Response to Sexual Assault Cases," sets forth three primary roles for law enforcement officers in these cases: (1) to protect, interview, and support the victim; (2) to attempt to apprehend the suspected assailant; and (3) to gather evidence in order to make prosecution possible. Law enforcement personnel are reminded that without a cooperative, stable victim, there is no case: "A sympathetic and supportive attitude displayed by the officer will instill trust in the victim, overcome her feelings of shame and embarrassment, and greatly facilitate the evidence and information-gathering process as well as produce a stronger case for court." (*Protocol A-5.*) If law enforcement officers are to play their proper role in these cases, they must remain objective and nonjudgmental. Theirs is the responsibility of investigating the case thoroughly; the courts will judge the guilt or innocence of the accused.

The Task Force outlined the proper procedures for the police dispatcher who takes incoming calls, quite possibly the first person a rape victim speaks to after an assault. Because the victim is in crisis and may not be thinking rationally, the dispatcher's ability to listen well and respond appropriately can often be crucial to her well-being and any success in prosecuting her case. Is she safe? Can she describe the perpetrator? She should be cautioned not to wash, douche, change clothes, or touch anything from which evidence may be collected. If she is unwilling to give her name or unsure about whether she will prosecute, does she know (1) that she can make a "blind" report, (2) that she should seek medical attention, (3) that evidence can be gathered and preserved for use in case she later decides to go to court, and (4) that the state will pay for her treatment if she reports the rape?⁷

The patrol officer who answers the call should ensure the victim's immediate safety, comfort, and security and should confine questioning to the identity of the assailant.

4 Wade Barber, Jr., and Ellen Scouten, "Rape Victims: Program to Encourage Reporting and Prosecution of Rape in Orange County, North Carolina" (unpublished paper, 1978).

5 Seth Truit, "Evaluation of the Orange County Rape Program" (master's thesis, Duke University, 1979).

6. *Protocol for Assisting Sexual Assault Victims* (Raleigh, N.C.: North Carolina Council on the Status of Women, 1984).

7. A state-funded Assistance Program for Victims of Rape and Sex Offenses makes direct payment to ambulance, mental health, and other service providers in cases in which the victim reports the offense within seventy-two hours after it occurred. A "blind" report will qualify a victim for this financial assistance.

ORANGE COUNTY (DISTRICT 15-B) DISTRICT ATTORNEY'S POLICIES AND PROCEDURES REGARDING SEXUAL ASSAULT CASES

1. *Blind Reports.* A victim may report a sexual assault to any local law enforcement department without divulging her name.

2. *Emergency Room Procedures.* Impress upon law enforcement officers, Rape Crisis volunteers, and magistrates that a person who has just been raped should go immediately to the Emergency Room at North Carolina Memorial Hospital for treatment and gathering of medical evidence.

a. *Obtain and Preserve Evidence.* The emergency room rape staff follows an approved checklist of procedures to gather and preserve evidence. The local police have provided "rape kits" (commercially available) to the hospital. The nurses and doctors take careful notes concerning the procedures and the results that come from them.

b. *Prepare Victim.* After the victim is medically examined and treated, a psychiatrist examines her and advises her of our concern and helps develop a positive attitude toward prosecution. Also, she is advised that a woman attorney with the D.A.'s office is available to discuss court proceedings.

3. *Rape Prevention Officers.* Each law enforcement agency has a trained officer who is sensitive to the victim's needs. He or she also helps educate the public about rape and consideration for the victims.

4. *Female Assistant District Attorney Gives Victims Personal Attention.* She has primary responsibility for rape victims and does the following:

a. Is available 24 hours a day to interview and consult victims about prosecution.

b. Has personal contact with the Hospital, the Rape Crisis Center, and police officers to coordinate treatment of the victim and investigation of the case.

c. Protects victim from unnecessary interviews and court appearances.

d. Advises victims at least weekly as to the status of the case—i.e., whether the defendant is still at large, has been arrested, or is out on bond; schedule of court appearances, plea, etc. If the case is too weak for successful prosecution, the assistant district attorney explains to the victim the reasons for not prosecuting.

e. Makes sure that the victim receives available assistance to secure counseling, in moving, or for other needs.

f. Prepares the victim for court appearances and depositions.

g. Explains court procedures to the victim.

h. Makes certain that the victim is accompanied in the courtroom.

5. *Victims Not Routinely Subpoenaed.* The clerk should not issue subpoenas for rape victims. The prosecutor personally advises the victim when to be in court.

6. *Depositions of Victims in Lieu of Preliminary Hearings.* If the victim prefers not to testify in open court or if the district attorney wishes to keep her full name, address, and place of work out of the press, we encourage the defense attorney to take a deposition of the victim in lieu of a preliminary hearing. We make it clear that if he is unreasonable or abusive, we will stop the deposition and take the case to the grand jury without a preliminary hearing.

7. *Victims Not Subpoenaed to Grand Jury.* We do not require rape victims to testify before the grand jury. As with all other felonies, the investigating officer presents the facts to the grand jury.

8. *Discourage Publicity of Victims' Identity.* Together with the Rape Crisis Center and police agencies, we ask the news media not to publicize the name, address, and work location of a rape victim unless the case is tried. We do not place any references to the victim's address or occupation in the court files. We use only an initial and last name on warrants; on arrest, we furnish the defendant and his attorney with complete identity by voluntary discovery.

9. *Rape Cases Are a Priority in This District.* They are to be moved through the system with as few delays and continuances as possible.

10. *The defendant's attorney is requested not to contact the victim.* We advise the victim that she is not required to talk to the attorney or anyone on his staff about the case.

A fair number of studies indicate that the suffering of a rape victim is increased by events that take place after the rape. Unsympathetic and indifferent police handling of the rape victim is one source of this suffering. Those of us in law enforcement have gone to great lengths to reduce that problem. Another source is publicity. Rape victims undergo an ordeal from the public after a news story is published. Crank phone calls are part of that ordeal.

This ordeal of events after a rape is well known. Many rape victims refuse to report the rape because of it. If a rape is not reported, the chance of apprehension goes down. A rapist is free to walk the street and rape again. We are quite convinced that our best method for reducing rapes is to increase the willingness of rape victims to cooperate with the police. This is our job and responsibility to the people of this community.

A. Sid Herje, Chief of Police
Carrboro, N.C. 1981

There should be *only one* officer responsible for interviewing and supporting the victim throughout the investigation and court process. The *Protocol* makes some recommendations to assist this officer in obtaining necessary information and in following correct procedures while gathering and preserving the evidence. An investigation goes best when the victim's need for privacy and security have been taken care of and her needs for emotional support, companionship, and counseling are being met. To serve these needs, an investigator may look to the resources and personnel of the local rape crisis center, if one exists. The law enforcement officers should seek to establish a good working relationship with the center or with mental health agency personnel, who may offer a number of services, including 24-hour crisis lines, short- and long-term counseling, and—in some cases—transportation, child care, and emergency housing. A victim who is supported emotionally is more likely to bear up under the stress of the investigation, to go through with the prosecution, and to be a good witness in court.

Part II, "Protocol for Medical Management of Sexual Assault Victims," stresses the extreme importance of the medical findings in successful prosecution of rape cases, noting that because of the nature of the crime, the manner in which the medical examination is performed strongly affects the victim's well-being. The purpose of the medical examination, therefore, is to provide physical

and emotional care to the rape victim in an environment of safety, empathy, and confidentiality. At the same time, medical personnel will be obtaining specimens for possible later use as evidence in the legal process, preserving and marking it in such a way as to ensure its admissibility under the laws of evidence if the case comes to trial. This section of the *Protocol* sets out these procedures for doctors and nurses who deal with cases of sexual assault, and it offers further suggestions for effective court appearances by medical personnel. These professionals are strongly encouraged to participate in the training of rape crisis volunteers and law enforcement officers and to help in educating their communities about rape. An informed community is an essential ingredient in the improved treatment of rape victims and in preventing rape.

In developing Part III, "Protocol for the Prosecution of Sexual Assault Cases," the Task Force followed the Orange County model, formulating prosecution policies and procedures designed to prevent further traumatizing of the rape victim by the criminal justice system. The recommendations in Part III for safeguarding the victim's identity and privacy extend to drawing the warrant, to newspaper publicity, and to subpoenaing the victim. Court appearances by the victim are to be kept to a minimum, carefully scheduled, and explained to her well in advance. The statewide *Protocol* makes certain additional recommendations: Cases that have concurrent

"In the time since you came into my life, there has not been a day I have not thought about it. Do you realize what you have done? You have terrified me forever and changed my life forever. I was asleep in my own bed in my own home—the place a person should be safe. What you have done is to convince me that I will never be safe again.

"I can protect my home, I can protect my daughter, but I will never be truly safe. There is no such thing as safety. Maybe that is the hardest lesson to learn. I have no control over my life. I had no control over you; you chose my home at random, and now I will never be safe again."

Letter to the Rapists
Greensboro Record
12 November 1981

jurisdiction (for example, in which a victim was kidnapped from one county and raped in another) should be *consolidated* to spare the victim the added stress of multiple trials. Further, the prosecutor should consider the matter of restitution to the victim during the sentencing phase of a sexual assault case. A defendant may be ordered both to reimburse a sexual assault victim for medical expenses not covered by insurance or by the state's Victim Assistance Program and to compensate her for lost wages and other out-of-pocket expenses. In addition, the defendant can be ordered to reimburse the state for moneys spent through the victim assistance program.

Prosecutors are also encouraged to consider offering the victim an opportunity to testify just before the final sentencing if she wishes. She can here be afforded the chance to present a "victim impact statement," closing remarks summarizing for the court what has happened to her as a result of this crime. Such testimony enhances the victim's involvement in the disposition of the case and aids the judge in appropriate sentencing.

The *Protocol* contains appendices, which include

notes on the legal elements of rape with relevant statutes, a copy of the Third Party Anonymous Rape Report (for "blind" reports), the text of the statutory authorization for the Victim Assistance Program, guidelines for collecting evidence from victims of sexual assault, a sample form for the hospital's use in recording data when it treats the victim, and a sample consent form for the victim's signature in the gathering of evidence.

A prosecution policy to ensure sensitivity to the victim's needs and feelings is needed not only to enable her to be a more effective witness but also to encourage more reporting of sexual assaults to law enforcement agencies. The public should be aware that these policies exist, and it should be confident that this class of case and this kind of victim will be handled properly by the criminal justice system. Those who recall the deep concerns, fears, and frustrations of ten years ago—when a rape victim entrusted herself and her case to the criminal justice system at her own peril—now have assurances, made tangible by the new *Protocol*, that across the state of North Carolina their hopes for improvement are at last being realized. ¶

Protection of Instream Flows and Lake Levels

Milton S. Heath, Jr.

"Instream flow protection" is the name given to a variety of governmental measures designed to maintain certain minimum flows in rivers and streams. Commonly, these measures take the form of requirements that streamflows be maintained at levels that will sustain fish life, preserve habitat for game or fish, or ensure a certain water quality. These requirements may be contained, for example, in a state statute or regulation, a state permit to construct or modify a dam, or a license issued by the Federal Energy Regulatory Commission to install a project for generating water power. Limited protection of instream flows also may be available at common law.

Similar measures have been adopted by some state and local governments to maintain minimum lake levels for the benefit of water recreationists and lakeshore owners or to sustain wildlife habitat. Laws to protect lake levels are common in the states bordering the Great Lakes.

This article reviews and evaluates the forms of legal protection that are available to maintain instream flows and lake levels in the common law and by statute. It describes existing common law and statutory provisions in the southeastern states, examines the law of the Great Lakes states, and considers federal law and programs. Finally, it presents a series of options for consideration by the southeastern states.

Common law protection

By tradition, at common law the southeastern states follow the riparian doctrine of water rights in natural streams. Although water-use permit statutes have recently

been enacted in some southeastern states, the riparian doctrine remains essentially the only surface water allocation law in several of these states.

The earliest decisions of American courts concerning riparian rights obligated every owner of riparian land (that is, of land abutting a stream) to allow the stream to flow by his land substantially unchanged in quantity and quality. This version of riparian rights was known as the "natural flow" doctrine, and it had an obvious built-in bias favoring the maintenance of instream flows.

Over a period of many years, as population grew and industry developed, the natural-flow doctrine largely outlived its usefulness and was displaced in typical judicial decisions by a "reasonable use" rule. Under this latter-day version of the rule, each riparian owner is entitled to make a reasonable use of the stream to which his property is riparian, so long as his use does not appreciably or materially diminish the streamflow or impair the stream's quality to the injury of other riparian owners. The rights of all riparian owners up and down a stream are mutual and correlative; these rights are judged in reference to one another and in the context of the particular stream's characteristics. As the years go by, it has become increasingly difficult to predict with any certainty the outcome of lawsuits over riparian rights.

Even the modern "reasonable use" version of riparian rights should give some protection to instream values, since any substantial withdrawal of water from

The author is an Institute faculty member whose fields include environmental law.

a stream subjects a water user to potential liability. But it is not clear that the groups most interested in instream values, such as recreationists and environmental groups, would have standing to sue in most state courts to protect their interests, unless they happen to own adversely affected riparian land.¹ In addition, the risks and costs of water-rights litigation have probably deterred many water-rights suits in riparian jurisdictions even where standing was no barrier. So, in practice, the protection afforded to instream values by the riparian doctrine may be illusory.

The Federal Interagency Task Force on Instream Flows summed up the shortcomings of the riparian-rights doctrine as a practical vehicle for protecting instream flows:

The major drawback to effective implementation of instream-flow requirements under the riparian system is the lack of an administrative mechanism for resolving conflicts between water users. Costly and protracted private litigation would be needed to determine the conflicting claims of riparian owners on a stream. Each time a new riparian use is commenced, further litigation might be necessary to resolve claims involving diminished streamflow.²

One further source of common law protection for instream values may lie in the so-called "public trust" in navigable waters and associated lands. The public trust concept can be used both as a basis for a state to challenge abuses of navigable waters and as a source of constitutional authority to justify legislation protecting navigable waters. A good example of such legislation is the Michigan statute that authorizes citizen suits to protect the environment by using the "public trust" as a general standard for decisions in such suits.³ One unsettled area in public trust litigation in some southeastern states is whether the doctrine applies to inland as well as coastal navigable waters.

The question arises as to whether protection of the public trust doctrine could be extended to cover, for example, streamflows for aesthetic and environmental purposes. North Carolina cases have primarily dealt with the public rights of fishing, hunting, and navigation and the determination of title to such lands.⁴ However, a look

at other jurisdictions reveals that the doctrine has been flexible, expanding and contracting to meet perceived needs, uses, and changes.⁵ In the 1976 North Dakota case of *United Plainsmen Assoc. v. North Dakota State Water Conservation Commission*,⁶ the court rejected the position that the public trust doctrine is limited to conveyances of real property and held that the doctrine required the state engineer, in reviewing applications for appropriation of water, to determine the potential effect of a water allocation on water supplies and future water needs. (Parenthetically, if a state with no coastal shoreline—like North Dakota—can validly apply the public trust doctrine to its waters, then it should be possible conceptually for a state with coastal and inland waters—like North Carolina—to extend the public trust concept to its inland waters.) In the 1972 New Jersey case of *Neptune City v. Avon-by-the-Sea*,⁷ the court extended the public trust doctrine to protect the public's right to swimming and other recreational interests along the shoreline by invalidating a discriminatory fee against nonresident users of a public beach area, noting that the public trust doctrine is not a fixed or static doctrine but may be used to protect the common interests of a state's citizens. In a related development involving riparian owners,⁸ the Fourth Circuit Court of Appeals recently noted that North Carolina law recognizes that a riparian owner is entitled to the agricultural, recreational, and scenic use and enjoyment of a stream bordering his land, subject to the reasonable use rights of upstream riparians. Although this diversity lawsuit (the product of a series of fishkills on the Yadkin River) did not directly involve public trust rights and is not a definitive statement of North Carolina law, it could be cited as consistent with an expansive public trust concept.

In summary:

—The common law doctrine of riparian rights is essentially the only water allocation law pertinent to instream flows in much of the Southeast.

—While the riparian doctrine theoretically may be compatible with instream flow values, in practice it has many shortcomings as a vehicle for protecting instream flows.

—Some of these shortcomings may be correctable by legislation that fills gaps in the riparian doctrine:

a. By statutorily extending the public trust doctrine to inland waters that are navigable-in-fact; and

1. *Springer v. Schlitz Brewing Co.*, 510 F.2d 468 (4th Cir. 1975).
2. U.S. INTERAGENCY TASK FORCE ON INSTREAM FLOWS, FEDERAL LEGISLATION FOR THE PROTECTION AND MAINTENANCE OF INSTREAM FLOWS 14 (1979).

3. MICH. COMP. LAWS ANN. §§ 691.1201-1207.

4. *Skinner v. Hettrick*, 73 N.C. 53 (1875); *State v. Narrows Island Club*, 100 N.C. 477, 5 S.E. 411 (1888); *Read v. Hampton*, 101 N.C. 51, 7 S.E. 649 (1888); *Daniels v. Homer*, 139 N.C. 219, 51 S.E. 992 (1905); *Bell v. Smith*, 171 N.C. 116, 87 S.E. 987 (1916); *Shepard's Point Land Co. v. Atlantic Hotel*, 132 N.C. 517, 44 S.E. 39 (1903); *Elizabeth City Power Co. v. Elizabeth City*, 188 N.C. 278, 124 S.E. 611 (1924); *Capune v. Robbins*, 273 N.C. 581, 160 S.E.2d 881 (1968); and *Swan Island Club v. Yarborough*, 209 F.2d 698 (1954).

5. THE NATIONAL ASSOCIATION OF ATTORNEYS GENERAL, LEGAL ISSUES IN PUBLIC TRUST ENFORCEMENT 31 (1977).

6. 247 N.W.2d 457 (N.D. 1976).

7. 61 N.J. 296, 294 A.2d 47 (1972).

8. *Springer v. Schlitz Brewing Co.*, 510 F.2d 468 (4th Cir. 1975).

b. By legislatively giving persons interested in protecting instream values standing to sue in state court. —Other shortcomings may require more than refinements of the riparian doctrine; they may need remedies and solutions that are summarized in the final section of this article.

Legislation in southeastern states

No southeastern state, possibly except Florida, has enacted comprehensive or extensive statutory protection for instream or minimum streamflows or lake levels. Collectively, however, the states of the region have legislated a substantial body of public policy that supports the protection of instream or minimum flows and lake levels. These laws would serve as a useful initial checklist for legislative programs in states that wish to strengthen and upgrade the protection of instream flows within their borders.

Several kinds of statutory protection for instream flows and lake levels have been enacted in one or more southeastern states.

Minimum flow levels established by state agency or district. Florida for many years has authorized its department of environmental regulation (and predecessor agencies) to establish minimum instream flows and levels of other surface waters. Similar powers may be delegated by the department to the state's water management districts. The levels are set at the limit at which further withdrawals would significantly harm the area's ecology (in the case of streamflows) or water resources (in any case).⁹

State policy. Virginia legislation directs the State Water Control Board, in formulating state water resources policy, to take into consideration the policy of maintaining sufficient streamflows to support aquatic life and to minimize pollution, among other things.¹⁰ Similar but broader statutory policy statements concerning water conservation can be found in a number of states.

Legislation enacted for other purposes

At least six southeastern states (Georgia, Maryland, North and South Carolina, Tennessee, and Virginia) have enacted scenic or wild and scenic rivers laws.¹¹ Although not all of these laws address the instream-flow issue, some are calculated to preserve the natural flows of a stream

designated as a "scenic river" from most or all significant withdrawals or modifications. For example, the North Carolina statute provides that water flow "shall be sufficient to assure a continuous flow and shall not be subjected to substantially altering the natural ecology of the stream."¹²

Most of the statutes contain language that prohibits or limits construction of dams in stream segments designated as scenic rivers. Similar protections are built into the Tennessee statutes.¹³ Even more explicit protection would be given to instream flows by the language of a model bill proposed for Tennessee: "The free-flowing character of scenic waters shall be maintained by establishing an instream flow which is necessary to maintain recreation, fish, and wildlife uses at all times of the year."¹⁴

Dam safety laws. Laws regulating the safety of the design, construction, and operation of dams have been enacted by a number of states in the Southeast¹⁵ and elsewhere, as well as by Congress. The North Carolina Dam Safety Law goes a step further and requires that all dams subject to the law maintain minimum streamflows necessary to sustain stream classifications and water-quality standards.¹⁶ Federally owned, subsidized, and licensed dams are exempt from the law, as are certain small dams. Maryland has a statute separate from its dam safety law that requires owners of water-power dams to assure the release of sufficient water to maintain both water quality and aquatic habitat below the dam.¹⁷ A Virginia statute concerning impoundment of diffused surface waters and flood waters provides that, under specified conditions, the state circuit courts may authorize impoundment of floodwaters by riparian owners: one condition is that when streamflows are less than average, release must be at least as great as the inflow to the impoundment.¹⁸

Small-watershed laws. In most if not all states, watershed improvement or "small watershed" programs are carried out by or in coordination with soil and water conservation districts. The main objectives of these programs are to assist farmers with minor agricultural flooding and to develop water sources for irrigation and

9. FLA. STAT. ANN. §§ 373-042, 373.103.

10. VA. CODE ANN. §§ 62.1-44.36(5).

11. GA. CODE ANN. §§ 17-901 *et seq.*; MD. NAT. RES. CODE ANN. §§ 8-401 *et seq.*; N.C. GEN. STAT. §§ 113A-30 *et seq.*; S.C. CODE §§ 51-5-10 *et seq.*; TENN. CODE ANN. §§ 11-13-101 *et seq.*; VA. CODE ANN. §§ 10-167 *et seq.*

12. N.C. GEN. STAT. § 113A-35(4).

13. TENN. CODE ANN. §§ 11-13-103, -106, -107.

14. J. Draudt, Model State Legislation for Protecting Instream Uses of Water (Cooperative Instream Flow Service Group Working Paper, Western Energy and Land Use Team, 1979).

15. FLA. STAT. ANN. §§ 373.413 *et seq.*; GA. CODE ANN. §§ 17-1401 *et seq.*; MD. NAT. RES. CODE ANN. §§ 8-801 *et seq.*; N.C. GEN. STAT. §§ 143-215.23 *et seq.*; S.C. CODE §§ 49-11-110 *et seq.*; TENN. CODE ANN. §§ 70-2501 *et seq.*

16. N.C. GEN. STAT. § 143-215.25(4).

17. MD. NAT. RES. CODE ANN. § 4-513.

18. VA. CODE ANN. § 62.1-106.

other purposes through construction of small impoundments. The North Carolina small-watershed enabling law explicitly provides for some assurance that downstream flows below those impoundments will be maintained by allowing project work plans to be approved by the State Soil and Water Conservation Commission only if they show that a structure will not appreciably diminish the flow of useful water downstream in critical periods.¹⁹

Water-use permit laws. The water-use permit laws of the southeastern states are obvious candidates as possible vehicles for implementing instream flow protection policy. The Florida permit statute might be applied in conjunction with the powers as to minimum flow level that were previously noted.²⁰ Under that statute, permits to use certain waters may be denied in order to protect fish, wildlife, public health, public safety, and existing uses that are not contrary to the public interest. Also, local governments apparently may adopt ordinances prohibiting diversions of water.

The Georgia water-use permit statute²¹ authorizes the establishment of standards governing competing applications for withdrawals or impoundments; that provision might be interpreted as encompassing instream flow protection, but more explicit language would be helpful. The broad Maryland statutory standards provide a somewhat more secure basis for a policy to protect instream flow, although exemptions for farm use, domestic use, and many municipal systems limit their effectiveness. Applicants must satisfy the agency that issuance of a permit will not "violate the state's water quality standards or jeopardize its natural resources."²² North Carolina's capacity-use-areas law might provide a basis for administrative action in the name of protecting against "unreasonable adverse effects" from a regulated water use or other water uses, "including public use."²³ However, the statute now has very limited territorial application, and its legal implications for use of surface water are uncertain.²⁴

Impoundment laws. The possible significance of the Virginia statute concerning impoundment of floodwaters has already been mentioned.²⁵ A North Carolina statute concerning rights to withdraw excess water that is attributable to an impoundment contains a provision safeguarding normal streamflows that would prevail in

the absence of an impoundment. It also authorizes the State Environmental Management Commission to make determinations of average streamflow.²⁶

Maintaining levels of lakes and artificially altered watercourses

In assessing strategies for maintaining lake levels and levels of artificially altered watercourses, two areas of law deserve consideration—common law and legislation. The common law issue in the eastern states usually involves the application of riparian rights to lakes, ponds, and reservoirs where there is no exclusive ownership of the property on which the body of water is located. Legislation on this subject is concentrated in the Great Lakes states and a few others that contain many inland lakes, ponds, or reservoirs, such as Maine and Florida.

Common law. Where water naturally passes from a lake to a watercourse, it appears to be fairly well settled that owners of land that abuts on the watercourse owe riparian duties to owners of land on the lake and vice versa.²⁷ Accordingly, the diminution of lake quantity in the Illinois case of *Bouris v. Largent*²⁸ was treated under the riparian doctrine of "reasonable use." The court found that as a result of one riparian owner's construction of a dam, large areas of the lower lake bottom were exposed, thus depriving the plaintiff of the reasonable use of the lake for pleasure and recreation.²⁹

The construction of a dam on a previously unobstructed waterway presents the question of whether riparian rights attach to an artificially created body of water or artificially regulated waterway. The following comment addresses legal rights associated with such waters:

An artificial waterway is not in and of itself equated by law with a natural waterway, nor an artificial impoundment with a natural lake. However, under some circumstances the artificial may be equated with the natural—where the waterway or reservoir is permanent in character, where the circumstances of its creation indicate an intention of permanence, and where it is in fact consistently so used for a long period of time.

The right to insist upon continuation of artificial conditions involving watercourses or reservoirs has been predictably sustained by the courts where the facts of a case have justified a finding of estoppel, or of prescriptive rights, or the creation of an easement

19. N.C. GEN. STAT. § 139-35(c).

20. FLA. STAT. ANN. § 363.216 *et seq.*, especially §§ 373.219 and 373.223. See also the text with note 2, *supra*.

21. GA. CODE ANN. § 17-510.1.

22. MD. NAT. RES. CODE ANN. § 8-802(a).

23. N.C. GEN. STAT. §§ 143-215.14 and .15.

24. N.C. GEN. STAT. § 143-215.22.

25. See the text with note 18, *supra*.

26. N.C. GEN. STAT. § 143-215.48.

27. Lugar, *Water Law in West Virginia*, 66 WEST VA. L. REV. 204 (1963).

28. 94 Ill. App. 251, 236 N.E.2d 15 (1968).

29. *Id.*

by implication. In cases such as these, traditional doctrines of property law are being routinely applied as one would expect them to be applied.

On occasion, however—and sometimes where no finding of estoppel or prescription or implied easement could readily be made—some courts have gone further and devised new doctrines to govern these cases. One such doctrine is reciprocal easements by prescription, that is, the notion that when one party to a dispute has acquired a prescriptive right to maintain an artificial reservoir or channel the other party may be accorded a corresponding right to insist upon its continuance.³⁰

While the concept of reciprocal easements has been adopted by a few states, it has been rejected by others and has been criticized by some textwriters.³¹

Another and more direct avenue is followed in a few cases in which an artificial condition is simply treated as if it were natural.³² This position has been advocated in a leading law review article.³³ The author argues that when a stream channel has been diverted or an impoundment created by man and has been continued, the artificial condition should be regarded as if it were created by nature, and riparian rights should attach.³⁴

Although these theories can be distinguished as separate and distinct sources of relief for aggrieved property owners, some courts have based recovery on combinations of the theories.³⁵ In the early leading case of *Kray v. Muggli*,³⁶ the court asserted:

The authorities are numerous that where the flow of a stream of water has been diverted from its natural channel, or obstructed by a permanent dam, and such diversion or obstruction has continued for the time necessary to establish a prescriptive right to perpetually maintain the same, the riparian owners along such stream of water, who have improved their property with reference to the change and *in reliance thereon*, acquire a reciprocal right to have the artificial conditions remain undisturbed; and the person who placed the obstruction in the stream or caused the diversion of the waters, and all those claiming

under or through him, are *estopped* upon principles of equity from restoring the waters to their natural channel or state . . . it must be taken as a permanent obstruction; and it having existed for so great a length of time, the *artificial conditions created thereby must be deemed* to have become natural conditions [emphasis added].

Echoing a similar sentiment on the similarity of the available remedies, a later New York court noted: "The principle is the same whether it be called reciprocal rights, equitable estoppel, or any other name."³⁷ Thus several theories singly or in combination have supported the contention that once a proprietor has changed the natural flow of water by impoundment for an extended period of time (usually beyond the prescriptive period), he should not be allowed to restore the natural flow to the detriment of other property owners. This rationale has been followed with respect to impounded water bodies in at least New York, Minnesota, Wisconsin, Iowa, Maine, and South Carolina, and it has been applied to diversion situations in at least Delaware, Michigan, New Hampshire, and Vermont.³⁸ The rather loose application of several mutually exclusive doctrines in cases like *Kray v. Muggli* has been sharply criticized by some authors and courts.³⁹

North Carolina has not followed the doctrine of reciprocal easements. In the 1908 case of *Lake Drummond Canal and Water Company v. T.M. Burnham*,⁴⁰ the upper proprietor on a watercourse decided to abandon an artificial canal that had been maintained on his premises for about seventy-five years. Closing this waterway caused the waters of the nearby lake to overflow onto the defendant's lands. In an action brought to restrain the defendant from reopening the canal, the North Carolina Supreme Court asserted that the lower proprietor could acquire no right of easement in the continuance of a waterway or structure by lapse of time, since there was no reciprocal easement in favor of a lower proprietor but only an easement in favor of the dominant tenement.⁴¹

30. HEATH, CONTEMPORARY EASTERN WATER RIGHTS REGULATION 17-18 (University of North Carolina Water Resource Papers No. 17, 1966.)

31. *Kray v. Muggli*, 84 Minn. 90, 86 N.W. 882 (1901); *Matthewson v. Ward*, 24 Wash. 407, 64 p. 520 (1901); Note, *Can a Stream Be Returned to Its Natural Channel After Having Been Diverted for the Statutory Period*, 18 NOTRE DAME LAW. 58 (1942); and see note 30, above, and note 39, below.

32. *Smith v. Youmans*, 96 Wis. 103, 70 N.W. 1115 (1897).

33. Evans, *Riparian Rights in Artificial Lakes and Streams*, 16 MO. L. REV. 93 (1951).

34. HEATH, *supra* note 30.

35. Waite, *Nineteenth Century Dams and Twentieth Century Problems: Commentary on a Statutory Solution*, 28 ME. L. REV. 419 (1976).

36. 84 Minn. 90, 86 N.W. 882, 884 (1901).

37. *Hammond v. Antwerp Light and Power Co.*, 132 Misc. 786, 230 N.Y.S. 621, 635 (1928).

38. *Belknap v. Trimble*, 3 Paige Ch. 577 (N.Y. Ch. 1832); *Delaney v. Boston*, 2 Del. (2 Harr.) 489 (1839) (diversion); *Kray v. Muggli*, 84 Minn. 90, 86 N.W. 882 (1901); *Shepardson v. Perkins*, 58 N.H. 354 (1878) (diversion); *Smith v. Youmans*, 96 Wis. 103, 70 N.W. 1115 (1897); *Matthewson v. Hoffman*, 77 Mich. 420, 43 N.W. 879 (1899) (impoundment and diversion); *Marshall Ice Co. v. La Plant*, 136 Iowa 621, 111 N.W. 1016 (1907); *Warren v. Westbrook Mfg. Co.*, 88 Me. 58, 33 A. 665 (1895); *Middleton v. Gregorie*, 13 S.C.L. (2 Rich.) 631 (1839); *Woodbury v. Short*, 17 Vt. 387 (1845) (diversion).

39. Evans, *supra* note 33, at 94-98; Waite, *supra* note 35, at 20 n. 7; *Lake Drummond Canal and Water Co. v. T.M. Burnham*, 147 N.C. 41, 60 S.E. 650 (1908).

40. 147 N.C. 41, 60 S.E. 650 (1908).

41. *Id.*

However, the Court did note in dictum that where an upper proprietor builds an artificial structure that appears to be permanent and the lower proprietor makes improvements in reliance on such an alteration, injunctive relief against the upper owner may be granted on the basis of estoppel.

Much of the case law on this subject is old, and the body of doctrine that emerges is not well defined. The law in this area could well bear a re-examination and reshaping along the lines suggested by prominent writers on the subject.⁴² However, the decided cases do offer some common law support for strategies that seek to protect minimum instream flows and lake levels through statutory reform. The policy of the common law decisions protects reasonable expectations about the reliability of lake levels and streamflows that have been altered by human intervention.

Legislation. A number of states—especially in the Great Lakes area, New England, and Florida—have legislation designed to preserve levels of lakes and artificially altered watercourses.

Michigan, Minnesota, and Wisconsin have empowered administrative agencies or courts to determine normal levels of lakes and other public waters and to regulate the fluctuation of those levels through such means as fixing a level below which a lake may not be lowered.⁴³ Indiana, Illinois, and Massachusetts have similar legislation that applies to some lakes and contains some mechanisms for control of lake levels.⁴⁴

Wisconsin, Illinois, Indiana, and Minnesota assign the function of determining lake levels to a state agency. In Illinois administrative responsibility goes to the State Department of Transportation, and in Minnesota it goes to the Department of Natural Resources. Michigan, on the other hand, assigns this function to the county board of supervisors acting either on its own motion or on petition of abutting landowners. The cost of the proceedings in Michigan can be met from special assessments and bonds. The Wisconsin statute authorizes diversions of “surplus water,” as defined, to maintain normal streamflows or lake levels. Minnesota’s statute authorizes state grants-in-aid to assist projects for maintaining water level. The Illinois statute is a good example of a very simple provision on determination and control of lake level. The Michigan, Minnesota, and Wisconsin statutes exemplify more comprehensive provisions. One Indiana statute

establishes a rather complex set of procedures for a board of viewers to use in establishing and maintaining lake levels.

In a “Neglected Dams Act”⁴⁵ passed in 1975, the State of Maine established a procedure for registering dams and for establishing and maintaining normal lake levels behind the dams. “Its essential purpose [was] to stabilize impoundment waters at traditional levels for the benefit of impoundment shoreline owners.”⁴⁶ The state’s soil and water conservation commission was directed to fix levels necessary to maintain fish and wildlife, to maintain boating and navigation, to prevent erosion of shorelines and creation of hazards and unsightly shorelines, and to accommodate precipitation and runoff—all levels taking into account historical water-level fluctuations. The act does not apply to dams operated for the beneficial use of the owner or downstream owners or to dams less than two feet high.

As originally introduced, the Maine bill was intended to allow a dam owner, after the lake level was set,⁴⁷ either to abandon an unused dam to the state or to continue to operate a useful dam. If it had passed that version, Maine would have joined a group of states that regulate abandonment of old, unused dams while providing for stabilization of lake levels.⁴⁸ But the detailed abandonment provisions were eliminated from the bill, and the resulting statute has been criticized for its unfairness to dam owners and for possible constitutional defects.⁴⁹

A related group of laws, somewhat narrower in scope, requires that (a) water levels behind dams be maintained high enough to preserve fish life, or (b) that the fisheries agency’s permission be obtained before waters from reservoirs inhabited by fish may be drained off (Pennsylvania), or (c) that notice be given to fisheries agencies in advance of drawdowns (Massachusetts and New Hampshire).⁵⁰ Laws like these that protect fish life combined with the laws previously described that require releases from impoundments to maintain downstream water quality and aquatic habitat would produce comprehensive controls over water levels in regulated watercourses.

Federal law and policy

There is no federal agency or law with the words “instream flow protection” in its title, nor any familiar federal

42. See Evans, *supra*, note 33; Waite, *supra*, note 35; HEATH, *supra*, note 30.

43. MICH. STAT. ANN. § 11.300(2) *et seq.*; Minn. Stat. Ann. § 105.43 *et seq.*; WIS. STAT. ANN. § 30.18.

44. ILL. ANN. STAT. §§ 19-78, 70A; IND. STAT. ANN. §§ 13-2-11-I to 18-1 *et seq.*; MASS. ANN. LAWS § 91-19A.

45. ME. REV. STAT. § 12-301 *et seq.*

46. Waite, *supra*, note 35, at 429.

47. *Id.* at 423.

48. *Id.*

49. *Id.* at 424-33.

50. PA. STAT. ANN. § 30-3506; MASS. ANN. LAWS ch. 131, § (Michie/Law Co-op); N.H. REV. STAT. ANN. § 211.II.

program with flow protection as its principal mission. But several basic federal conservation agencies and statutes can, with active and sympathetic administration, significantly protect instream flow.

The Fish and Wildlife Coordination Act requires that the U.S. Fish and Wildlife Service be consulted "with a view to the conservation of wildlife resources by preventing loss of and damage to such resources as well as providing for the development and improvement thereof" whenever a federal agency is planning a project or considering a channel improvement.⁵¹ The Corps of Engineers and other federal water agencies have taken these requirements seriously, at least since the Fifth Circuit Court of Appeals' holding in *Zabel v. Tabb*⁵² that the Coordination Act applies to dredge-and-fill permits issued by the Corps of Engineers. The Ninth Circuit Court of Appeals on similar reasoning previously had upheld an instream-flow condition included in the Federal Power Commission (FPC)'s licenses for irrigation and power projects: in that decision the court cited the Coordination Act as well as the FPC's authority to place conditions on its water-power licenses.⁵³

The Endangered Species Act gives wildlife agencies additional teeth. That law empowers the Secretary of Interior to identify endangered species and to designate habitat required for their protection, including a maintained level of streamflow.⁵⁴ The binding effect of this statute on other federal agencies, even projects well under way when the act was passed, was sustained by the U.S. Supreme Court in the familiar "Snail Darter" case.⁵⁵ Important procedural protections remain in the act, even though Congress responded to the Snail Darter decision by creating a mechanism for exemptions.

Like its state counterparts, the federal Wild and Scenic Rivers Act recognizes the values of free-flowing streams. Once a river segment that qualified as a "free-flowing stream" is included in the wild and scenic rivers system, water development projects may not be licensed in the designated river segment, nor may they directly affect that stretch. Also, federal eminent domain powers may be used to acquire land within the boundaries of the segment.⁵⁶

The Clean Water Act contains important statutory protections for both instream water quality and quantity. For water quality, the basic thrust is to attain fishable and

swimmable water quality for all waters of the United States within set time periods. For water quantity, the act authorizes the Corps of Engineers and other federal agencies to determine the need for minimum flows for various purposes downstream from reservoir projects, and it directs the Corps to evaluate storage capacity in future projects that will allow releases to be made in order to maintain downstream flows.⁵⁷

The Environmental Impact Statements (EIS) required by the National Environmental Policy Act (NEPA)⁵⁸ and the A-95 process⁵⁹ establish procedures that can be used to force an evaluation of significant environmental quality effects of federal projects and licensing actions. The effect on instream flow, in appropriate classes, would lie within the range of these requirements.

President Carter created a U.S. Interagency Task Force on Instream Flows, which issued a series of reports and recommendations concerning instream flow protection.⁶⁰

Federal provisions

To foster both resources development and conservation policies that are potentially significant for protecting instream flow, several sections of the Federal Power Act provide for certain conditions to be imposed when hydroelectric licenses are issued. Under one condition that must be included in all licenses—the headwater-benefits provision—water power licensees of the Federal Energy Regulatory Commission (FERC) must reimburse the owners of upstream hydroelectric projects for benefits from upstream storage.⁶¹ This requirement applies when the upstream project is FERC-licensed or federally owned.

The Power Act also gives the Commission broad discretion to impose whatever conditions may be needed in order to bring about the best comprehensive development of the nation's water resources and to subject the licensees to regulations that may be necessary to protect life, health, and property.⁶²

57. 33 U.S.C.A. § 1251 *et seq.*, especially §§ 1251(a)(2) and 1252(b). This statute provides, however, that releases from such storage may not be used as a substitute for adequate pollution control measures.

58. National Environmental Policy Act, 42 U.S.C.A. §§ 4321 *et seq.*

59. Executive Office of the President, Office of Management and Budget, Circular No. A-95. The "A-95 process" is a clearinghouse procedure established in the 1960s to provide for a routine review of proposed federal agency actions by other federal and state agencies.

60. U.S. INTERAGENCY TASK FORCE ON INSTREAM FLOWS, GENERAL REVIEW OF PLANNING PROCEDURES OF WATER RESOURCES DEVELOPMENT AGENCIES (1979); GUIDELINES FOR DETERMINING INSTREAM FLOW NEEDS (1979); FEDERAL LEGISLATION FOR THE PROTECTION AND MAINTENANCE OF INSTREAM FLOWS (1979).

61. Federal Power Act, 16 U.S.C.A. § 803(f).

62. *Id.* §§ 797(e), 799, 803(a)(c)(g).

51. 16 U.S.C.A. § 662(a).

52. 430 F.2d 199 (1970).

53. *California v. Federal Power Commission*, 345 F.2d 917 (1965), *cert. denied*, 382 U.S. 941 (1965).

54. Endangered Species Act, 16 U.S.C.A. § 668 *aa et seq.*

55. *Tennessee Valley Authority v. Hill*, 437 U.S. 153 (1978).

56. 16 U.S.C.A. §§ 1277-78.

The Commission has worked out several series of standard conditions extending to such matters as navigation, flood control, fish facilities, recreation, public access, hydraulic and electrical coordination, and soil erosion.⁶³

To supplement the standard conditions, the Commission often includes special provisions in a license, sometimes entailing large expenditures by the licensee—for example, requiring that reservoirs be re-regulated in order to distribute the impact of a project on downstream flows. In order to improve the quality of water released from storage at the Gaston and Roanoke Rapids projects of the Virginia Electric Power Company (VEPCO) on the Roanoke River, the Commission in 1960 prescribed minimum flow and dissolved-oxygen content, which required a \$850,000 investment in submerged weirs by VEPCO.⁶⁴ As a result of the Gaston Dam license conditions and the encouragement of the North Carolina Carolina State Stream Sanitation Committee, Duke Power Company—VEPCO's neighboring utility—installed similar facilities that cost over \$235,000 at its Cowans Ford (Lake Norman) development without being required to do so.⁶⁵

The moving force behind the water quality conditions of the Gaston Dam license was a confederation of state and local interests that reviewed the needs of the Roanoke River Basin and made a well-documented presentation of their recommendations to the Commission. This approach will necessarily be the usual one in licensing cases—or suggestions will originate from other federal departments, which are routinely asked for their comments on project proposals. FERC does not have the staff to investigate and evaluate all of the ramifications of a proposed license, and the initiative for new or unique water-conservation requirements typically will rest with affected local and state interests. The Commission's principal function is to provide a forum for evaluating and resolving such issues, not to do the job itself.

The FPC and FERC have also imposed conditions as to lakes level on the issuance of licenses. A good example is the licensing of High Rock Lake on the Yadkin River downstream from Winston-Salem, North Carolina. This reservoir is a natural site for a popular water recreation facility because it is a large artificial lake located in an area of the growing Piedmont Crescent that includes almost 1,000,000 residents. It is also an important storage

reservoir for a series of downstream power dams along the Yadkin. The natural potential for conflict between power generation and water recreation interests on this reservoir was accentuated by the sale of many lakefront tracts by the licensee (Yadkin, Inc., an Alcoa subsidiary). By the early 1960s, many people had built vacation homes and primary residences along the lake and had strong personal interests in maintaining the lake level. When Yadkin, Inc., applied for a license amendment in 1963 to allow existing turbines and generators to be replaced with new and larger units, many lakefront owners, acting through their property owners' association, seized this opportunity to press their demands for stricter limits on drawdowns of the lake level. Coincidentally, the license amendment was sought during a prolonged dry spell that aggravated the conflict between power and recreation interests.

The FPC license covering High Rock had reflected the recreational interest in some ways from the beginning. The original license included two routine recreation provisions common to many licenses for comparable projects.⁶⁶ One ensured reasonable public access for navigation and recreation consistent with proper operation of the project. The other required the licensee to comply with reasonable modifications in construction and operation that might later be prescribed by the Commission in the interest of fish and wildlife resources, upon recommendation of the Department of Interior and the North Carolina Wildlife Resources Commission. Another original license condition made the project subject to such reasonable regulations as the Commission might thereafter prescribe in the interests of recreation, health, and other purposes.

The original license proceedings also foreshadowed the 1963 controversy between recreational and electric power interests over license conditions on lake levels of High Rock. In the original proceedings before the presiding FPC examiner, requests were made for specific restrictions on drawdowns for power production. The examiner recommended that no drawdown of more than three feet below normal maximum pool evaluation be permitted and that this restriction also be included as a license condition for a downstream project, Tuckertown Reservoir. He declined to recommend a specific drawdown limit for High Rock, however, on the ground that a specific limit would "largely defeat the purpose of [the company] in constructing the reservoir" and would greatly reduce the benefits to downstream plants resulting from "previous operating patterns." Instead, he proposed a simple statement that, in order to secure maximum recreational

63. South Carolina Electric and Gas Company, Project No. 2315, Opinion No. 411, 30 FPC 1338, 1346, November 1963.

64. Virginia Electric Power Company, Project Nos. 2093 and 2009, 23 FPC 537, March 1960.

65. Duke Power Company, Project No. 2232, 23 FPC 554, March 1960.

66. Yadkin, Inc., Project No. 2197, 19 FPC 704 (May 1958).

benefits, the licensee should "make every reasonable effort" to maintain the highest lake level practicable from June 1 to September 1. "consistent with the primary purpose of the reservoir to provide a large reservoir which may be drawn down as necessary to maintain continuity of operation of the Badin smelting works at the highest possible minimum level."

In the 1963 proceedings, an avalanche of complaints descended on the Commission from lakefront property owners, urging the Commission to impose a more stringent drawdown limit of three to five feet during the recreation season. The Commission considered various alternatives, including a range of specific drawdown limits and a requirement that the reservoir be operated in accord with a prescribed "rule curve" that would afford some protection to recreational users. After a thorough review, the Commission settled on a compromise made up of the following elements:⁶⁷

—For purposes of the license condition concerning lake levels, the recreation season was extended by one month from May 15 to September 15.

—The licensee was required to operate High Rock Reservoir "generally in accordance with" a rule curve filed by it with the Commission. Studies by FPC staff based on historical streamflow experience indicated that, under the new rule curve and with the benefit of recent contracts between Yadkin, Inc., and neighboring utilities for the purchase of power, the historical drawdowns during the recreational season would be somewhat diminished. Under adverse weather conditions, however, the reservoir still could be lowered more than five feet and occasionally more than ten feet.

—The Commission reserved the option to reopen the proceedings to order further operating changes in the interests of recreation and to hold full hearings upon complaint that the operating results under the new rule had proved unreasonable. (No full or formal hearing was held in 1963. An informal hearing was granted to representatives of the High Rock Lake Association, an organization representing lakefront property owners.)

—The Commission directed its staff to study the possibility of the project's coordinating its operation with those of neighboring utilities. Apparently it was thinking about a possible restructuring of the region's electric utility systems to permit High Rock and the five downstream developments to be operated solely for peaking power. Such an arrangement of course would help in maintaining consistently higher lake levels at High Rock. The

Commission cautioned against premature hopes for any such solution, noting that there was no practical likelihood of a demand for peaking capacity at least until 1967. Early conversion to coordinated operation, in FPC's judgment, would visit large and unjustifiable financial losses on Yadkin, Inc.

These decisions illustrate the potential for protecting minimum streamflows and stable lake levels through FERC water-power licensing proceedings. For two reasons this potential is somewhat limited. First, the opportunity arises only in the context of licensing or license amendment proceedings that occur infrequently for any particular navigable stream. Second, the burden of persuading the Commission to impose license conditions to protect instream flows and lake levels is on the parties who appear before the Commission, not on the Commission or its staff. Nevertheless, any comprehensive strategy for protecting instream flows and lake levels should include FERC license proceedings as one of its elements. Also, it is possible that an across-the-board FERC rule-making proceeding could address these issues for all of its outstanding and future water-power licenses.

One further provision of the Federal Power Act, Section 14, authorizes the United States to "recapture" or take over any licensed water-power project when the license expires on payment to the licensee of its net investment.⁶⁸ Since the projects usually are licensed for fifty years and since most original licenses were issued in the 1920s, 1930s, and 1940s, there will be recapture proceedings or, alternatively, relicensing cases in the years ahead. These cases may provide opportunities for those interested in protecting instream values.

Options

Several options are available to any southeastern state that wants to strengthen its laws and programs for protecting instream flows and lake levels. The state can seek the legal authority for a comprehensive program of instream flow protection, or it can opt for incremental change in areas where change seems readily attainable or especially needed. The state can choose solutions that emphasize the role of state agencies, local governments, private groups, or any combination of them. It can work within the federal framework by using federal laws as a basis for instream protection or by changing existing legislation to strengthen the federal role or responsibility.

67. Yadkin, Inc., Project No. 2197, order further amending license, 30 FPC 960 (October 1963).

68. 16 U.S.C.A. § 807.

RECYCLING PAYS OFF

Savings in Money and Landfill Space

Betsy Dorn

One paradox of our time is that we are simultaneously running out of natural resources and running out of space for disposing of discarded materials (some of it salvageable) made from those resources. In addition, the price of those resources is constantly rising. As a result, very many people and communities throughout the world are interested in saving both money and landfill space by recycling as much disposable material as possible. In the United States, some communities have reduced the amount of municipal waste that requires disposal by 25 per cent. In North Carolina many organizations and communities have recycling programs and are working toward that goal. This article talks about Mecklenburg County's recycling efforts and about recycling options in general.

Newspapers, office paper, corrugated cardboard, glass, aluminum, and ferrous metals compose from 30 to 40 per cent by weight of municipal solid waste, and they are all easily recyclable. Yard wastes—such as leaves, limbs, and brush—make up another 5 to 20 per cent; they can be shredded or composted for use as a soil conditioner or mulch. Used motor oil, although not a solid waste, can be recovered and cleaned for use as a fuel or a lubricant, or it can be re-refined for reuse as motor oil. Furthermore, many discarded items—for example, bicycles, television sets, office equipment, furniture, small appliances—can be salvaged for further use in their existing form.

Recycling options

A wide variety of arrangements for recycling are in operation across the country.

Drop-off recycling centers. Drop-off centers, the most common type of recycling enterprise, accept contributions of one or more types of recyclable materials. The facilities may be simple, unattended containers or

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they may be larger, staffed full time and equipped for processing materials. They may be sponsored by civic clubs, church groups, or schools as a way to raise money, or they may be operated by local governments as a way to reduce the need for landfills.

Drop-off centers require little capital and few operating expenditures. But they rely on individual citizens to carry materials to the center with no compensation for their efforts, and that fact limits the amount of materials that they receive.

Buy-back recycling centers. Buy-back centers purchase recyclable materials from businesses and individuals. They fall into two types: those operated for profit as commercial recycling enterprises and those operated on a nonprofit basis by such organizations as clean-city committees, municipalities, and sheltered workshop programs.

Commercial recycling firms have been around for many years. They deal primarily in scrap generated by private companies. Each firm typically handles one type of material but may purchase aluminum or other resources as prices for these items go up. Some commercial recyclers function as intermediate processors and prepare materials for sale to mills and other "end users." Others use the recyclable materials themselves in manufacturing products that they then sell.

Nonprofit buy-back centers are relatively new, established primarily to reduce litter and conserve resources. Most centers of this type purchase several types of recyclables—usually newspapers, glass, and aluminum. They direct their services to individuals and community groups rather than private companies. Many are designed around a theme—such as a circus, a railroad station, or a gold mine—to make them both attractive and fun to visit.

Although buy-back centers require full-time staffing and higher initial capital investment than do drop-off centers, their ability to obtain more recyclables and make money accounts for their growing popularity.

Separate collection. Collection of recyclables from residences and businesses is the most effective means of recovering reusable materials. Some collection programs are simple, using pick-up trucks to haul only one kind of recyclable. Others collect two or more types of material, using vehicles with separate compartments for each type to be collected. Still others collect mixed recyclables and haul them to a central processing facility for separation. Materials typically collected are newspapers, glass, aluminum, and—in some cases—plastic beverage containers.

Participation in separate collection programs can be either voluntary or mandatory. Mandatory programs of course result in higher participation rates.

Most separate collection programs are not self-supporting—that is, the revenue obtained from the sale of the recyclables collected does not cover the costs of the capital investment and operation. Still, collection of solid waste for *disposal* also must be subsidized (except in communities where each residence and business pays a garbage collection fee equal to or greater than the cost of that service). Furthermore, because the sale of recyclables brings in money, many separate-collection programs operate on a lower cost-per-ton basis than do landfill or incinerator operations that process similar amounts of material.

Commercial recycling. Commercial and industrial firms routinely seek further uses for the wastes or by-products they generate. Many companies with large quantities of one kind of waste have sizable investments in staff and equipment to recover these materials. Such firms are aware of the latest technological and market developments in the field of materials recovery. Smaller companies, however, have fewer resources to devote to this function and may therefore be missing some important recycling opportunities.

The market for recyclables, while traditionally volatile, is growing slowly but steadily. Because of higher market demand, many materials that were once considered to have little or no value have risen in resale value. As a result, recovery activities that were costly just months ago are becoming economically feasible. Recycling firms therefore are now providing services and equipment to companies that generate smaller quantities of waste. Others are expanding their operations to process other types of materials.

Local governments can foster commercial waste recycling through their example in recycling their own wastes (such as paper and motor oil) and by keeping companies in their region informed about commercial waste-recycling opportunities. For example, business and government offices can recycle white office paper and colored ledger paper, computer printout paper and cards, corrugated cardboard, aluminum cans (from the snack areas), and waste motor oil. Bars and restaurants can recycle cardboard, glass and aluminum beverage containers, and vegetable oils. Manufacturing firms can recycle selected plastics, textile scrap, used motor oil, metals (particularly if separated by type), and cardboard.

Recycling operations at the landfill. One effective way to keep recyclable materials out of landfills is to impose on landfill users a disposal fee, or "tipping fee," that is waived if the user brings in presorted recyclables. The higher the fee (different communities use different bases for setting fees), the more recyclables the user must bring in in order to have it waived. Even if the fee is only \$1,

some 70 to 80 per cent of all users bring in recyclables in order to avoid paying the fee.

Another method is by salvaging materials that are still usable as they are. People sometimes dump lawn mowers, bicycles, and other metal products that can be sold for reuse at a higher price than for scrap. Items like books, toys, and furniture have virtually no recycle value but can be sold for secondhand use. Local governments can help keep such items out of landfills by publicizing secondhand stores in their communities and by establishing salvage and sale operations at all landfills and transfer stations.

Wood products brought to landfills for dumping can also be salvaged for further use. Brush and leaves can be shredded or composted for mulch, and larger wood items like tree limbs and lumber scraps can be set aside for local residents to use as fuel. The recovery of wood products alone can make a sizable reduction in the volume of waste that must be landfilled.

Choosing among recycling options

A number of elements affect the success of recovery options. What works well in one community may not succeed elsewhere. Some of the more important considerations in developing a recycling program are:

- Availability of markets for materials to be recovered;
- A dependable method of collecting, storing, processing, and transporting the materials;
- The support of key elected officials;
- Adequate incentives for participation;
- The ability to maintain a continuous public awareness and education program.

Recycling programs can vary, as the five examples shown on page 27 indicate:

Mecklenburg County's recycling program

Numerous recycling programs are operating in North Carolina, most of them involving the collection of newspapers. Many are sponsored by civic organizations alone or in cooperation with local government.

Government-sponsored programs are located in Durham, Gastonia, Greensboro, Morganton, Statesville, Wilmington, Winston-Salem, Raleigh, and Charlotte/Mecklenburg. Mecklenburg's program, which is probably the most extensive, began with collaboration between the county and five high schools to recover and sell recyclables. In 1977, a group of Mecklenburg citizens who were concerned about the environment began working with the county engineering department to develop a pilot program for collecting and recycling such materials as paper, glass, and metals. The committee's basic premise

was that recycling waste material costs less and uses less energy than processing virgin materials to produce manufactured goods and therefore is a preferable alternative to landfilling.

The county supplied \$15,514 the first year to construct and operate drop-off centers at five local high schools. In return for a 50-50 split of the revenue derived from sale of the recyclables, each school agreed to process (i.e., remove undesirable items from materials and sort the materials by type) the materials deposited there for pick-up by the county. The centers collected newspapers, cardboard, aluminum, and/or glass, depending on each school principal's preference.

From 1977 through June 1981 (four years of operation), the county provided these recycling services at a total cost of \$62,647. The gross revenue to the county from recyclables during this period was \$39,156, plus \$7,531 obtained by selling scrap metal recovered at the landfills. Of this amount, the five schools received a total of \$23,344. The county's costs were \$8,000. Four school centers are still operating.

While the recycling program was established first to conserve energy and natural resources, county officials have become increasingly aware of another critical reason for recycling—to conserve landfill space. Mecklenburg County—with a population of over 400,000—generates approximately 1,800 tons of solid waste per day and consumes over 30 acres of landfill space a year. At that rate, the county is rapidly running out of room for this purpose. In fact, the existing landfills may reach capacity before the necessary permits can be obtained to build a new one.

The county has therefore undertaken a major expansion of its recycling program. In September 1981, in order to offset disposal costs, a landfill user fee was imposed on commercial, municipal, and private haulers of refuse. But haulers who brought refuse to the landfill were exempt from the fee if half or more of their load was composed of clean, presorted recyclable materials. Eight months later, the fee was extended to private individuals who used the landfills. Again, users who brought in presorted recyclables were exempted from the fee. (The fee schedules are described in Table 1.) To be exempt from the fee, an individual in a private vehicle must bring in one large grocery bag of recyclables for approximately every dollar of fee charged. As a result of this economic incentive, over 70 per cent of all individuals who come to the county landfills recycle rather than pay the fee.

For fiscal 1982-83, the county commissioners approved continuation of the existing recycling services, hired a recycling coordinator, and added the following projects, which still operate.

Table 1. Fee Schedules for Commercial and Private Vehicles at Mecklenburg County Landfills

Private Vehicles				Commercial Vehicles	
Vehicle type	Disposal fee	Amount of recyclables needed for fee exemption*		Vehicle type	Disposal fee*
Car	\$1.30	or	1 bag	Small open truck, no dual wheels	\$6.60
Pickup van	\$2.60	or	3 bags	Compactor or roll-off	\$1.45/cu. yd.
Car with trailer	\$2.60	or	3 bags	Commercial van or closed trailer	\$0.78/lin. ft.
Van/pickup with trailer	\$5.25	or	5 bags	Open trailer less than 10 ft.	\$6.55
				Open trailer 10-20 ft.	\$21.55
				Open trailer 20-30 ft.	\$28.70
				Open trailer 30-40 ft.	\$35.90
				Single-axle dump truck	\$14.40
				Tandem-axle dump	\$21.55
				Open, nondump	\$25.15

*Vehicles are exempt from the fee if half or more of their load is composed of clean recyclable materials (newspapers, glass, aluminum, cardboard, scrap metals, or motor oil).

—A separate collection program in cooperation with the Town of Huntersville (pop. 1,500).

—Two staffed recycling centers in cooperation with Goodwill Industries.

—A wood recovery and shredding operation.

—A "Trash to Treasures" salvage program.

—A waste paper recovery program in county offices (the "Paper Chase").

Huntersville separate-collection program. Each week since September 1982 the Town of Huntersville has collected newspapers and aluminum cans at the residential curbsides and taken them to the nearest landfill. The County Engineering Department stores, transports, and sells the materials, returning 90 per cent of the revenue to the town. It keeps the remaining 10 per cent to cover handling expenses. About 18 per cent of Huntersville residents participate in the program. If participation can be increased to 24 per cent, the town will more than cover recycling collection costs from the revenue received.

Recycling centers. As an alternative to the county's unstaffed drop stations located at public high schools, Mecklenburg County reached an agreement with Goodwill Industries for Goodwill to staff two recycling centers seven days a week. Attendants at the centers help recyclers unload their materials, sort recyclables and place them in the proper storage containers, and keep the centers clean.

The county pays the two attendants' salaries but

receives all of the recycling revenue. The revenues received do not now cover the personnel and operating costs, but providing both recycling centers for resource recovery and training opportunities for the handicapped is viewed as a valuable public service worthy of tax support.

Wood recovery and shredding program. Another major effort, begun in May 1982, is the wood recovery and shredding program. The county purchased a tub grinder and support equipment to shred the yard waste (leaves, brush, tree limbs) and other clean wood products brought by residents, landscapers, and grounds-maintenance firms to two landfills. The shredded product is sold to the public as a high-grade mulch for use in landscaping and soil conditioning. Prices in 1985 for the "metro mulch" are \$3 per bag, \$5 per cubic yard, and \$12 a pickup truck load. As a result of a good promotion campaign, the demand for mulch now exceeds the supply. Over 3,207 cubic yards of mulch were sold in the spring and summer of 1984. Total revenue was \$13,146. An additional 411 cubic yards were given to various county departments for landscaping public facilities.

At present Mecklenburg County is negotiating with the City of Charlotte to collect the city's residential yard waste separately from other garbage. If the 19,000+ tons of wood products that are now being disposed of in county landfills were diverted from disposal and processed for sale as mulch, they would be worth over \$100,000 each year.

A RECYCLING ROSTER

Boulder, Colorado (85,000 population, plus 23,000 university students). A voluntary curbside collection program is operated by a private, nonprofit company called ECO-CYCLE. Mixed glass, newspaper, mixed paper, aluminum, and cardboard are collected at least once a month from 85 per cent of the Boulder residences.

Twenty per cent (50 per cent in some neighborhoods) of the residents place recyclables out for collection. Members of civic organizations earn money for their groups by staffing the collection vehicles, and offenders sentenced to community service under the driving-while-impaired law process the materials at the plant. In 1983 12,000 tons were recycled; 14,100 tons were collected and \$1.3 million were obtained in revenue in 1984.

Boulder's goal is to recycle 16,000 tons, or 12 per cent, of all the county's waste by 1985. ECO-CYCLE now receives a subsidy from the local governments and private donors for capital expenses but covers all operating costs with recycling revenue from the recycling enterprise.

Source: Pete Grogan, President, ECO-CYCLE, Post Office Box 4193, Boulder, Colorado 80306.

Islip, New York (300,000 population). Islip contracts with private haulers to collect mixed recyclables from 74,000 residences once a week. The materials (newspapers, cardboard, aluminum and ferrous cans, glass, and plastics) are hauled to a central facility for separation.

An ordinance governing the collection of waste requires that recyclables be kept separate

from trash and placed at the curb for collection. Compliance with the law is now around 50 per cent but is rising as more residents learn about the law.

Between 350 and 390 tons of recyclables are collected each week—19 per cent to 22 per cent of the total residential waste collected. Revenues to the town from sale of the recyclable materials average \$25,000 per month, or \$300,000 per year. The town covers the operating costs of the program from recycling revenue but subsidizes the program's capital expenditures.

Source: Thomas Hroncich, Commissioner, Town of Islip, Department of Environmental Control, 401 Main Street, Islip, New York 11751.

Montgomery County, Maryland (600,000 population). Newspapers are collected weekly from 70,000 residences at the curbside by a private contractor. Participation is mandatory and is promoted by county government. Approximately 14,400 tons of newsprint per year are collected. The county is charged \$28.75 a ton for collection and receives \$30 a ton in revenue from paper sales. Annual gross revenue equals approximately \$432,000.

Source: Lenus D. Barnes, Chief, Refuse Regulation and Collection Section, Division of Solid Waste Management, Montgomery County Department of Environmental Protection, 101 Monroe Street, Rockville, Maryland 20850.

Minneapolis, Minnesota (370,000 population). Minneapolis began a voluntary curbside collection program for glass, aluminum, and newspapers in November 1983.

By January 1984, collections averaged more than 600 tons per month. Five private haulers serve all residences once a month.

The city now subsidizes the operation at \$10-\$17 per ton but expects revenues eventually to cover all collection costs. Its goal is to recycle 10 per cent of its municipal solid waste. The city expects 25 per cent of its residents to participate within three years; 25 per cent participation is necessary in order for the program to break even. Approximately 16 per cent of the population is now cooperating.

Source: *Resource Recovery Report* 8, no. 6 (April 1984) (1707 H Street, N.W., Suite 602, Washington, D.C. 20006).

New Jersey Recycling Program. New Jersey imposes a surcharge of 12 cents per cubic yard on all solid waste landfilled in that state and uses the revenues to fund recycling programs throughout the state. Its goal is to recycle 25 per cent of all solid waste by 1986.

In February 1983, 400 recycling programs were operating in 318 New Jersey municipalities. Fifty-two of these cities have programs in which participation is mandatory. One hundred programs involve curbside collection. A notable success in recycling activities is the town of Woodbury, which recycles more than 45 per cent of its residential waste; it saves approximately \$65,000 in waste management costs each year. New Jersey is now considering statewide mandatory recycling legislation.

Source: Mary T. Sheil, Administrator, New Jersey Office of Recycling, 101 Commerce Street, Newark, New Jersey 07102.

Oklahoma Beverage Industry Recycling Program (BIRP). The Oklahoma beverage industry's recycling program was established in 1982. It involves twenty buy-back recycling centers for glass, aluminum, and—in some cases—paper. In 1984, these centers recycling 12,587 tons of materials and paid consumers who brought in recyclables a total of \$2,511,980, who brought in recyclables a total of \$2,511,980.

Plans for 1984 included the number of centers and tripling the amount of recyclables purchased.

Source: *RECAP Recycling News* 2, no. 1 (Winter 1984). Oklahoma Beverage Industry Recycling Program, 317 E. Lee, Sapulpa, Oklahoma 74066.

Urban Ore, Inc. of Berkeley, California. This profit-making company operates a recycling program that includes a composting operation for yard waste and selected organics and the salvage and sale of metals, appliances, building materials, household goods, and other reusables. A buy-back recycling center for cans, glass, paper, oil, and returnable bottles is operated next door on a non-profit basis by a community group. The total amount of materials recycled by both organizations is approximately 1,490 tons per month, or 19 per cent of Berkeley's solid waste stream. Urban Ore collects \$95,744 per month in tipping fees and grosses over \$1,148,000 per year from the sale of recyclables.

Source: *Solid Waste Fact Sheet, Berkeley, California.* Mary Lou Van Deventer, Materials World Publishing, 1329 A Hopkins, Berkeley, California 94702.

Trash to Treasures. Trash to Treasures is a salvaging program conducted during the warm months at one landfill. Items brought to the landfill that have potential reuse value—like books, furniture, toys, and appliances—are retrieved and sold in a monthly “yard sale.” Sales grossed \$965 in 1983 and \$754 in 1984. Sales are usually held the first Saturday of each summer month. They attract a wide variety of buyers, from children to junk dealers and small appliance repairmen.

“Paper Chase.” In June 1983 the county began “Paper Chase,” an in-house paper-recovery program in two county office buildings. Computer paper and white office ledger paper are collected separately in desktop containers and central storage boxes by buildings and grounds employees and housekeeping staff and then carried to a local waste paper dealer. An average of 7,503 pounds of paper is collected and sold each month, the proceeds running at \$131 per month. Eight buildings now participate, and the program is being extended to all county facilities.

As a result of these programs, in 1982-83 Mecklenburg County recovered 1,296 tons of materials, which sold for \$33,003. In 1983-84 revenues virtually doubled, with \$64,181 obtained from the sale of 1,622 tons—an amount equivalent to approximately one day’s generation of solid waste, or over 4,000 cubic yards of landfill space saved.

Today. During 1984-85 the recycling program is being further expanded. The board of county commissioners has set a recycling goal of 20 per cent of the total waste stream by 1989 and 30 per cent by 1994. Currently, approximately 1 per cent of the waste stream is recycled through the county’s program. Clearly, much needs to be done in order to reach the commissioners’ goals.

In addition, the county awarded a \$99,000 contract to a public relations firm to promote recycling in Mecklenburg County and to increase public awareness of solid waste management problems in general. It also let a \$20,000 contract to an Oregon-based consulting firm to design a recycling program for the county that will meet or exceed the county’s recycling goal.

The Charlotte Clean City Committee is now seeking private sponsorship of the Charlotte Recycling Mine, a multi-material buy-back center that would purchase newspapers, glass, aluminum cans, corrugated paper, and other items from the public.

A pilot separation-collection program similar to the program in Huntersville is now being conducted in Davidson, North Carolina (pop. 2,000). The Phillips Container Corporation collects aluminum cans, newspapers, and clear glass from residences every Wednesday and hauls these materials to the landfill. The county then returns

90 per cent of the revenue from these recyclables to the company. In the first three months, 5.09 tons of materials (\$173 in gross revenue) were collected.

Mecklenburg County is strongly committed to recycling programs as a way to handle a significant portion of the solid waste stream. Even with the county’s long history of successful recycling, the program expansions planned for the next few years will make the previous achievements seem insignificant. This is a bold move for a North Carolina county to take, but it is in step with what is rapidly becoming the norm across the United States.



For more information on recycling:

The Recycling Coordinator
Mecklenburg County Engineering Department
700 North Tryon Street
Charlotte, North Carolina 28202
704/537-7442

National Recycling Coalition, Inc.
45 Rockefeller Plaza, Room 2350
New York, N.Y. 10111
212/765-1054

National Association of Recycling Industries
330 Madison Avenue
New York, N.Y. 10017
212/867-7330

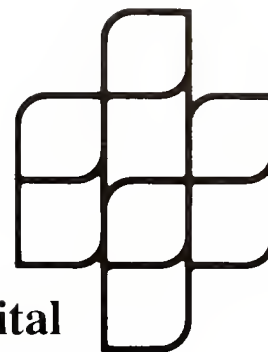
Public Information Office
Office of Solid Waste
United States Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460
202/755-9170

American Paper Institute
Paper Recycling Committee
260 Madison Avenue
New York, N.Y. 10016
212/340-0600

Institute for Local Self-Reliance
1717 18th Street, N.W.
Washington, D.C. 20009
202/232-4108

HOW MUCH IS TOO MUCH?

Indigent Care at North Carolina Memorial Hospital



Nancy O. Mason

North Carolina Memorial Hospital (NCMH) is a medical tradition in the state. As a major medical center and teaching hospital (associated with The University of North Carolina at Chapel Hill), it is a symbol of health care at its best—technologically sophisticated, diversified, specialized.

Another aspect of the tradition is that NCMH provides assured access to hospital services to indigent residents of North Carolina. This role of the Hospital, as perhaps the state's primary provider of indigent care, is now changing. As the costs of operating a hospital rise and other hospitals and health care providers become increasingly unable to treat medical indigents,¹ there is evidence that more of the responsibility for indigent care (with the accompanying financial burden) is shifting from the local level to NCMH. As a result, NCMH's own financial position and continued ability to serve as a major provider of care for indigents are threatened.

This article will examine NCMH's role in providing assured access to hospital services to indigents of North Carolina. It will explore the basis for that role, the interrelationship between NCMH and other hospitals that provide indigent care, and whether NCMH can continue to function as the "health care provider of last resort" for indigents in this state.

A complex institution

As North Carolina's largest state-sponsored medical center, NCMH performs many functions and serves a variety of patient populations. As a major teaching hospital, it encompasses extensive clinical, educational, and research programs. It also functions as (1) a primary care resource and outpatient clinic, (2) a secondary care community hospital, and (3) a major tertiary care referral center. NCMH is also a regional burn, trauma, and hemophiliac center.

North Carolina hospitals do not keep statistics on their volume of indigent care in a standard way that permits comparisons among hospitals.² Though it is theoretically possible for NCMH to compile statistics from raw data about actual numbers of patients treated and types of services rendered in each of its departments, NCMH measures its indigent care activities in financial terms—in terms of dollars not collected (see Table 1). The Hospital's records do not yield fully detailed information on indigent patient load, but they are the best gauge currently available.

According to Hospital financial data, the NCMH volume of indigent care in terms of dollars spent has increased steadily since 1970. The cost of indigent care as

2. Steve Morrisette, vice-president of the North Carolina Hospital Association, states (October 15, 1984) that the reporting of indigent care and the delivery of indigent care are two very different things. Each hospital in the state decides on its own manner and method of reporting about indigent and uncompensated care. As a consequence, even when available, data are not easily comparable, nor can they be usefully cumulated.

One estimate states that in North Carolina 4 per cent of all hospital patients are indigent. See Roye, *supra* note 1, p. 20. Nationwide surveys report that about 10 per cent of all Americans have inadequate medical insurance or none. See Hanna, "Governments May Have to Bear Medical Indigent Burden," *Washington Actions on Health* 10 no. 37 (September 17, 1984), 7.

The author is a third-year student in the School of Law at UNC-Chapel Hill. She has a special interest in health law.

1. See Wyatt Roye, "Community Hospitals: Struggling for Survival," *Popular Government* 19 (Summer 1983), for a discussion of financial pressures facing community hospitals in North Carolina.

Table 1. North Carolina Memorial Hospital: Thirteen-Year Financial Summary of Indigent Care,¹ Fiscal Years 1971-83

	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83
Writeoffs, Total	\$3,448,551	\$2,221,722	\$2,699,905	\$2,600,683	\$3,866,800	\$6,639,232	\$6,765,362	\$7,387,125	\$11,097,899	\$15,770,846	\$16,743,314	\$20,736,906	\$26,541,916
Indigency	2,650,925	826,207	2,380,629	3,560,444	3,011,626	3,979,706	4,088,998	4,573,770	7,939,402	10,659,989	11,449,039	12,593,758	13,753,928
Bad debts	282,846	989,053	558,664	1,236,124	983,177	1,800,203	1,792,869	2,072,515	2,313,319	2,979,791	3,108,955	2,981,109	4,455,614
Contractual adjustments and other ²	514,780	406,462	-769,388	-2,195,885	-128,003	859,323	883,495	740,840	845,178	2,131,066	2,215,320	5,162,039	8,332,374
% of patient revenue represented by indigency	17.34%	4.64%	14.79%	15.40%	9.53%	10.08%	8.26%	8.22%	12.61%	14.35%	13.11%	11.77%	11.43%

1. Isolated from Due North Carolina Memorial Hospital, Thirteen Year Financial Summary, Fiscal Years 1971-1983.

2. Fiscal Years 1980-82 restated for correction of prior years' allowance for contractual adjustment.

Note: Based on the accrual basis of accounting.

a percentage of total patient revenue has fluctuated over the years, but by fiscal year 1982-83 it represented over 11 per cent of total patient revenue. (In this discussion "revenue" means total amount chargeable to all patients; it includes charges that must be written off because of indigency, bad debt, contractual adjustment, etc.) In fiscal 1983-84 indigent care accounted for 14.2 per cent of total patient revenue, and it is projected to represent 14.6 per cent in fiscal 1984-85.³ Since 1980, in keeping these records, the Hospital has closely monitored by county the trend in dollars of indigent care at NCMH.

The North Carolina General Assembly provides an annual operating subsidy to NCMH (see Table 2). Nevertheless, there is no direct relationship between this appropriation from the state and the delivery of indigent care at the Hospital. The general perception is that the state's appropriation to NCMH is for "teaching and indigent care."⁴ In point of fact, the appropriation is not earmarked. It amounts to an operating subsidy that enables NCMH to provide services that it could not otherwise provide—such as a large volume of indigent care and the training of health professionals.

NCMH's records on dollars of indigent care do not yield fully detailed information about the Hospital's indigent patient load. Though it is theoretically possible for the Hospital to compile statistics from raw data about actual numbers of patients treated and types of services rendered in each department of the Hospital, NCMH has chosen to use dollars not collected as the most useful measure of the Hospital's service to indigents.

Why an indigent care provider?

The law. NCMH's role as a provider of indigent care has evolved from a broad legislative directive for the Hospital to provide "community service." The General Statutes⁵ authorize the Hospital's board of directors "to make rules, regulations and policies governing the management and operation of [the Hospital]...to meet the goals of education, research, patient care and community service." Incorporating this statutory language, both the bylaws of the governing body and the bylaws of the medical staff direct that NCMH is both to serve the community and to serve as the primary setting for clinical, educational, and research programs in medicine at the University of North Carolina.⁶

NCMH has translated the statutory statement of goals and the annual operating subsidy from the General Assembly into an open admission policy:

It is the purpose of North Carolina Memorial Hospital to provide the citizens and physicians of North Carolina a referral medical service program, as well as to provide the geographically contiguous community with primary and emergency care in a teaching hospital environment. Medical services are provided to all persons based upon the need for the services and not upon the patient's ability to pay.⁷

5. N.C. GEN. STAT. § 116-37(b) (1983).

6. North Carolina Memorial Hospital Bylaws, Preamble (adopted November 10, 1980); North Carolina Memorial Hospital Medical Staff Bylaws, Preamble (approved by the Executive Committee September 12, 1983).

7. North Carolina Memorial Hospital, Admission and Discharge Policy, No. A-03 (effective November 1, 1978). NCMH defines its community service mission also to include such health care delivery functions as the provision of workshops, community education programs, staffing of the Orange County Rescue Squad by people trained by NCMH volunteers, and service on the local chamber of commerce structure by hospital staff.

3. Conversation with Walter Parris, Director, NCMH Fiscal Services Division, North Carolina Memorial Hospital (October 15, 1984).

4. The designation of the state appropriation for teaching and indigent care apparently is based on an unwritten understanding and tradition. There seems to be no directive to that effect in the records. *Id.*

Table 2. North Carolina Memorial Hospital: Thirteen-Year Financial Summary of Indigent Care,¹ Fiscal Years 1971-83

	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83
Total expenditures, actual ²	\$21,582,461	\$23,465,789	\$28,075,947	\$32,495,656	\$41,878,175	\$47,671,610	\$57,832,733	\$66,446,861	\$71,938,390	\$83,151,014	\$98,175,295	111,307,168	\$114,896,002
Salaries (incl fringes) ²	12,432,292	13,975,793	16,029,761	19,445,135	24,381,450	584,780	31,720,727	36,315,666	39,623,437	43,937,327	49,908,646	55,441,020	58,912,663
Other ²	9,150,169	9,489,993	12,046,186	13,050,521	17,496,725	86,830	26,112,006	30,131,195	32,314,953	39,213,687	48,226,649	55,866,148	55,983,339
Total receipts, actual ²	21,582,461	23,465,786	28,075,947	32,495,656	41,878,175	47,671,610	57,832,733	66,446,861	71,938,390	83,151,014	98,175,295	111,307,168	114,896,002
Patient & other ²	11,619,682	17,213,281	19,801,604	21,384,563	28,612,303	33,091,690	45,971,752	50,403,301	54,246,133	66,295,038	78,717,852	90,429,346	96,721,635
State appropriations ²	9,962,779	6,252,505	8,274,343	11,111,093	13,265,872	14,579,920	11,860,981	16,043,560	17,692,257	16,855,976	19,457,443	20,877,822	18,174,367
Total patient charges	15,291,210	17,788,887	19,480,366	23,126,032	31,586,143	39,477,690	49,525,997	55,615,885	62,971,475	74,269,582	87,528,308	106,975,192	120,356,320

1. Isolated from table entitled "The North Carolina Memorial Hospital, Thirteen-Year Financial Summary, Fiscal Years 1971-1983."

2. Reported on a cash basis, remaining financial data reported on an accrual basis.

It can be argued that pursuant to this admission policy, NCMH has assumed the obligation to care for any North Carolina resident who comes to its door.⁸

Because of the increasing financial burden arising from an absolutely open admission of patients, including those who are not North Carolina residents, in 1982 the NCMH board of directors developed a separate out-of-state admission policy. This policy change was made in an effort to assure that NCMH's commitment to the people of North Carolina would not be jeopardized by the financial drain of delivering free care to nonresidents.⁹ The new policy authorizes denial of out-of-state emergency admissions "if it is determined that [NCMH] will not be compensated for providing care to such persons and another more proximate institution is available to provide the required care." Nonemergency admissions "may be denied if it is determined that [NCMH] will not be compensated for providing care to such persons." An indigent nonresident may be admitted, however, if his condition provides the potential for a "unique educational experience" for students and hospital personnel.¹⁰ In effect, these restrictions are quite mild: an indigent will be denied admission only after an evaluation of his case, and it is always possible to admit him on a "teaching" basis.

8. On the other hand, it could be argued that certain language of the admission policy—such as "referral medical service program" and "based upon need for the service"—should be restrictively interpreted. The issue then would shift to political feasibility.

9. Conversation with Ben Gilbert, Attorney for North Carolina Memorial Hospital (August 3, 1984).

10. North Carolina Memorial Hospital, Out-of-State Transfers and Admissions, Policy No. 0-01 (effective August 8, 1982).

The money: state appropriations

What anchors and shapes NCMH's role as the state's primary provider of indigent care is the North Carolina General Assembly's long-standing commitment to provide medical care for all residents of North Carolina. This commitment is reaffirmed each year in the appropriation to NCMH for "teaching and indigent care."¹¹ Without this consistent appropriation, NCMH could neither have an open admission policy nor provide the current level of indigent care.

NCMH began with a decision after World War II to expand the medical school at the University of North Carolina from a two-year program to a four-year curriculum, which required that hospital facilities be available for clinical instruction of medical students. The state commitment to NCMH was part of a broad goal of improving health care in North Carolina after the war.¹² The historical documentation does not spell out a specific long-range mission for the Hospital, but it does make clear that the General Assembly had moved from a vague vision of health care for North Carolinians to a genuine commitment, and to date the General Assembly has reaffirmed its commitment annually.

How the state appropriation works

Historically, net revenue from patient charges and similar sources has not been enough to cover total

11. See note 4, *supra*.

12. See generally, North Carolina Medical Care Commission, *Official Report of the Medical Care Commission on the Expansion of the Medical School of the University of North Carolina to Governor R. Gregg Cherry and the Board of Trustees* (1947).

operating expenses at NCMH (see Table 2). Appropriations from the state's general fund provide moneys that are perceived to be for costs associated with "indigent care and teaching."¹³ Nevertheless, there is no direct correlation between the state appropriation and either the level of indigent care provided or the actual costs of the Hospital's teaching program:¹⁴ both the indigent care and the teaching continue independently of the appropriation. From an accounting perspective, the state appropriation provides a means for NCMH to balance its budget annually. In other words, the state appropriation is an operating subsidy—a function of the budget process.

Table 3 shows actual state appropriations to NCMH and the percentage of total receipts represented by them from 1970-71 to 1982-83. With some fluctuation from year to year, actual appropriations per year increased while the amount of appropriation as a percentage of total hospital operating budget decreased—46.2 per cent in 1970-71 to 15.8 per cent in 1982-83. The appropriation for 1983-84 was decreased by \$3½ million as part of the tradeoff for an appropriation of funds to construct a critical-care unit.

Although state appropriations have declined as a percentage of total receipts (see Table 2), NCMH seems to be distinguished from other teaching hospitals by the fact that it continues to receive a relatively high percentage of its revenue from government appropriations. By law the Hospital must spend the cash generated from receipts before it uses the appropriations. If any appropriated funds remain unspent at the end of the fiscal year, they revert¹⁵ to the state's general fund. From 1974 to 1983, the average annual reversion was 20 per cent of the gross appropriation.¹⁶

Adjunct to the community hospital network

State law and a political commitment serve as the basis for NCMH's role in providing indigent care. But NCMH is not the only hospital within the state that cares for indigents. Though the available statistics on indigent care from the state's hospitals are not comprehensive and not in a standard form that allows comparison,¹⁷ it is

Table 3. North Carolina Memorial Hospital: State Appropriations, Historical Profile

Years	State appropriations actual amount	State appropriations as % of total receipts (actual)	% Reversion
1970-71	\$ 9,962,779	46.2%	—
71-72	6,252,505	26.7	—
72-73	8,274,343	29.5	—
73-74	11,111,093	34.2	18.5%
74-75	13,265,872	31.7	19.5
75-76	14,579,920	30.6	11.2
76-77	11,860,981	20.5	27.2
77-78	16,043,560	24.1	25.8
78-79	17,692,257	24.6	11.6
79-80	16,855,976	20.3	20.7
80-81	19,457,443	19.8	23.1
81-82	20,877,822	18.8	15.8
82-83	18,174,367	15.8	25.2
			10-yr. avg., 20.1%

Note: Based on the accrual basis of accounting.

Source: Adapted from "North Carolina Memorial Hospital: Thirteen Year Financial Summary, Fiscal Years 1971-1983, North Carolina Memorial Hospital Performance History (State Appropriation Reversions), FY June 1974-June 1983."

assumed that other hospitals in the state are treating indigents locally and absorbing the loss. A few counties make direct appropriations to hospitals for indigent care.¹⁸

Currently, there are 147 nonfederal hospitals in North Carolina; 132 of them are classified by the American Hospital Association as acute-care general hospitals. Theoretically, many of them provide some volume of indigent care,¹⁹ but undoubtedly most indigent care at the local level is provided by a network of "community hospitals" (about 50) sponsored by municipalities and hospital authorities that were created pursuant to Chapter 131 of the North Carolina General Statutes.²⁰ In addition to the lack of statistics about the total volume of indigent care delivery, there is some question about the nature and

18. In 1981 seven North Carolina counties reported that they allocated a specific appropriation for indigent care. Conversation with Patrice Roesler, Director of Intergovernmental Programs, N.C. Association of County Commissioners (January 25, 1985).

19. Michael D. Brombert, executive director of the Federation of American Hospitals, is quoted as reporting that its investor-owned members spend about 4 per cent of revenues for indigent care—about the same as private nonprofit hospitals (but far less than public hospitals). See Hanna, *op. cit. supra* note 2.

20. N.C. GEN. STAT. Chapter 131 was recodified as Chapter 131E in 1983. G.S. 131E-6(2) defines "community general hospital" as "a short-term nonfederal hospital that provides diagnostic and therapeutic services to patients for a variety of medical conditions, both surgical and nonsurgical, such services being available for use primarily by residents of the community in which it is located." N.C. GEN. STAT. § 131E-6(2).

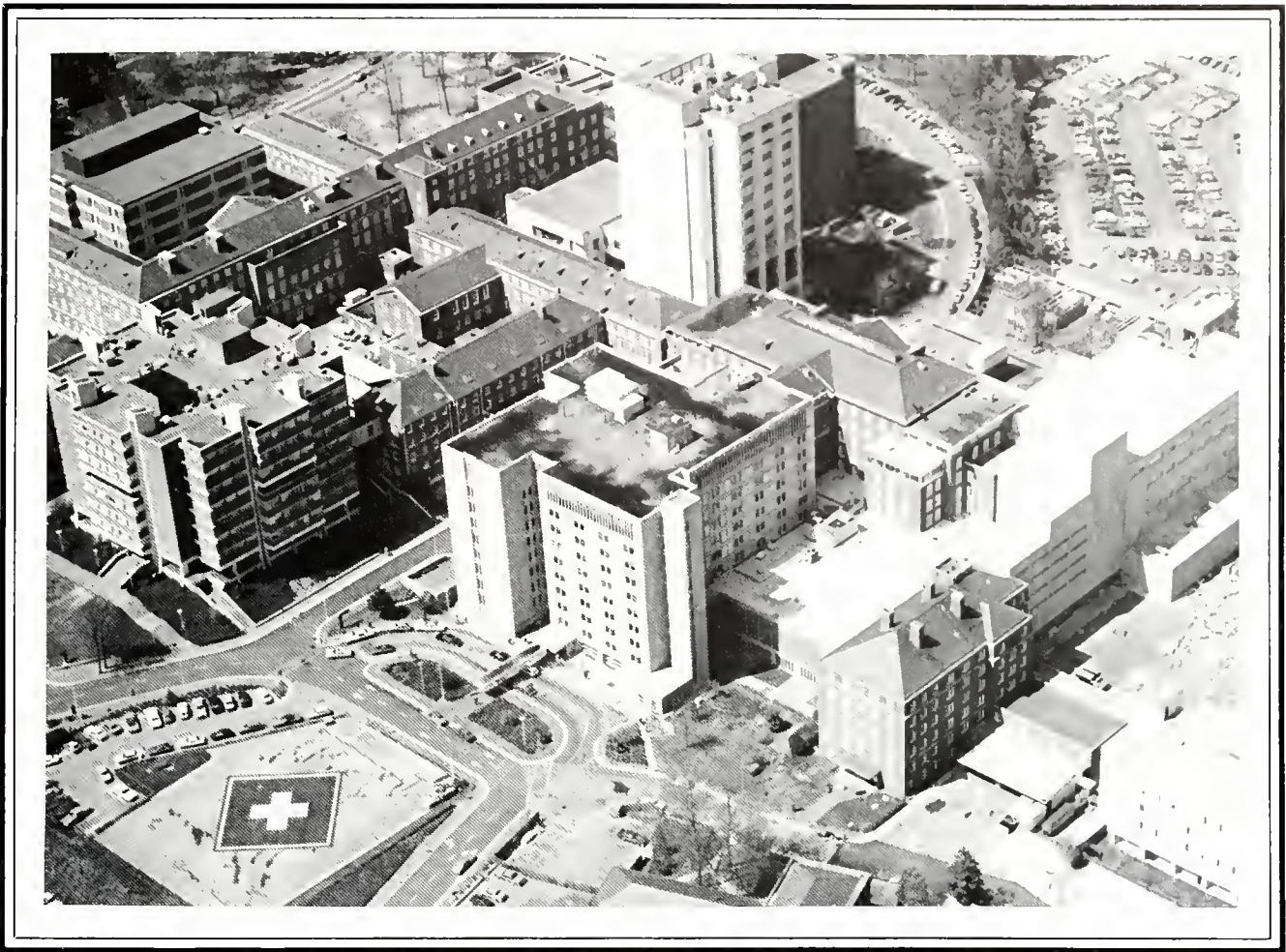
13. See note 4, *supra*.

14. According to the director of the NCMH Fiscal Services Division, the critical fact is that the state appropriation is an "unidentifiable subsidy"; it is "nonrestricted." Conversation with Walter Parris (October 28, 1984).

15. Reversion results when NCMH did not use all of its appropriation or realized greater receipts than it had expected.

16. Fiscal information was provided by Walter Parris, director, and John Caron and Locke Ward, assistant directors, of the NCMH Fiscal Services Division.

17. See note 2, *supra*.



North Carolina Memorial Hospital (Courtesy of the UNC-Chapel Hill News Bureau).

extent of the obligation on municipalities and hospital authorities to provide uncompensated hospital care to medical indigents.²¹

Although not officially a community hospital, NCMH plays the important function of *adjunct* to the state's community hospital network. In theory, this adjunct role consists of the Hospital's being a referral center when local resources and expertise at community hospitals cannot meet the medical needs of a particular patient.²² In reality, NCMH serves as the "provider of last resort" (sometimes the term used is "dumping ground"). The implicit assumption by other North Carolina hospitals seems to be that NCMH is *always* available as a transfer resource.

Unfortunately, community hospitals that are now pro-

viding indigent care at the local level may be the least able of all hospitals to absorb the related financial loss. All hospitals, whether for profit or not for profit, recoup part of this loss by cost-shifting—by increasing their charges to patients whose bills are paid by themselves or by insurance coverage. As the saturation point in this practice is reached, an increasingly attractive method of dealing with the issue of indigent care may be by patient-shifting—by transferring indigents to NCMH.

NCMH's burden of indigent care

As federal policy makers cut dollars from health programs for the elderly and the poor, the financial strength of all hospitals is threatened. Consequently, the incentive is greater for hospitals to engage in this patient-shifting. NCMH is particularly vulnerable because of the high expectations generated by its tradition of providing hospital care to all residents of North Carolina. In order to predict what impact potential shifts in the extent to which indigents are treated at the Hospital might have on

21. See, e.g., D. Ayers, "The Obligation of Municipalities Under North Carolina Law to Provide Uncompensated Hospital Care to the Medically Indigent" (doctoral diss., School of Public Health, The University of North Carolina at Chapel Hill, 1983).

22. As broadly defined in the NCMH admission policy, *supra* note 7.

Table 4. The North Carolina Memorial Hospital Select Analysis of Patient Receipts and Collection Ratio, Fiscal Years 1976-83,¹ Percentage of Patients Receipts

	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83
Inpatient								
Medicare	27.40%	31.40%	30.40%	32.90%	34.50%	33.70%	35.81%	38.52%
Medicaid	21.80	19.40	20.80	17.40	17.90	17.10	14.30	13.52
Cash Payments and Deposits	3.40	3.90	2.80	3.30	2.50	2.30	1.90	2.01
Outpatient								
Medicare	17.80	24.60	23.30	28.30	32.10	29.70	29.52	28.91
Medicaid	12.40	16.00	13.30	11.10	11.50	13.10	8.67	14.47
Cash Payments and Deposits	26.10	24.30	22.70	20.90	18.70	15.40	15.72	16.90
Total Patients								
Medicare	26.10	30.60	29.60	32.40	34.20	33.20	34.99	37.23
Medicaid	20.60	19.00	20.00	16.60	17.20	16.60	13.57	13.65
Cash Payments and Deposits	6.40	6.30	5.10	5.40	4.40	3.90	3.71	4.02
Collection Ratio [Net patient receipts/gross patient service revenue (April-March)]								
Inpatients	77.50	83.00	86.20	83.00	87.50	87.90	82.07	81.30
Outpatients	59.90	60.90	63.50	69.70	69.90	72.00	71.47	71.94
Total patients	74.70	79.60	82.90	81.00	84.80	85.50	80.47	79.89

1. Isolated from: Analysis of Receipts and Adjustments.

the future of NCMH, it is necessary to examine the present trends in service to indigents at the Hospital.

As we saw earlier, NCMH keeps its records on indigent care in terms of dollars not collected; other hospitals use other measures of their indigent care activity.²³ Therefore, it is currently not possible to say precisely what portion of the state's indigent hospital care burden is being carried by NCMH. Still, we can—by examining and calculating certain isolated indicators of uncompensated care—get a rough gauge of the level of indigent care delivered by NCMH.

Indicators of service to indigents

Financial. In actual dollars not collected, the amounts of indigent care have increased steadily from \$826,207 in 1971-72 to \$13,753,928 in 1982-83 (see Table 3), even though the cost of caring for indigents as a percentage of total charges to patients has fluctuated significantly from year to year, leveling off at 11.43 per cent in 1982-83.

23. See note 2, *supra*.

An analysis of NCMH historical financial data²⁴ for the period 1975-76 to 1982-83 shows the following trends related to patient receipts and collection ratios (see Table 4).

- Medicare receipts as a percentage of total patient receipts rose from about 26 per cent in fiscal year 1975-76 to over 37 per cent in FY 1982-83.
- Medicaid receipts declined as a percentage of total patient receipts from over 20 per cent to a little over 13 per cent from 1975-76 to 1982-82 but increased slightly in FY 1982-83.
- Cash payments declined as a percentage of total receipts from 6.40 per cent in FY 1975-76 to 4.02 per cent in FY 1982-83. During this same period, cash payments also declined as a percentage of inpatient receipts—from 3.4 per cent to 2 per cent.
- The collection ratio (net percentage of gross charges on an accrued basis collected annually) increased

24. The usefulness of this payer-mix analysis is limited by the lack of comparative summary data that shows shifts in volume of inpatient use by specific payer mix groups. Such raw data as available in computer format but are not now compiled in similar summary fashion.

Table 5. North Carolina Memorial Hospital: Indigency Writeoffs from a Selected County and Outside the State, Fiscal Years 1980-81, 1981-82, and 1982-83

County County Seat	Fiscal year 1982-83			Fiscal year 1981-82			Fiscal year 1980-81			1981-82 - 1982-83 increase decrease (-)			1980-81 - 1981-82 increase decrease (-)		
	Indigency amount	% of total indigency	Indigency % of gross rev.	Indigency amount	% of total indigency	Indigency, % of gross rev.	Indigency amount	% of NCMH indigency	Indigency, % of gross rev.	Indigency amount	% of Total indigency	Indigency, % of gross rev.	Indigency amount	% of NCMH indigency	Indigency, % of gross rev.
Lee Sanford	\$ 574,309	4.03%	12.30%	\$ 517,426	4.07%	13.98%	\$ 328,118	3.47%	12.36%	\$ 56,883	0.05%	1.68%	\$ 109,108	0.60%	1.62%
Out of State	550,420	3.86	17.67	415,845	3.27	14.54	233,060	2.46	8.61	134,575	0.59	3.13	102,785	0.01	5.93
Total	\$14,257,014	100.00%	12.58%	\$12,698,891	100.00%	12.58%	\$9,464,437	100.00%	11.63%	\$1,558,123	0.00%	0.00%	\$3,234,454	—%	0.95%

Source: Adapted from NCMH Fiscal Services Division. North Carolina Memorial Hospital Indigency Writeoffs by County, Fiscal Years 1980-81, 1981-82, 1982-83.

steadily for both inpatients and outpatients until 1981-82, when it declined. The inpatient collection ratio rose from 77.50 per cent in FY 1975-76 to 87.90 per cent in FY 1980-81 and then declined to 82 per cent in FY 1981-82 and 81 per cent in FY 1982-83. The outpatient collection rate rose from 59.90 per cent in FY 1975-76 to 72 per cent in FY 1980-81, then declined to a little less than 72 per cent in both FY 1981-82 and FY 1982-83.

Teaching hospitals. A comparison of operational and departmental indicators for three North Carolina teaching hospitals shows that charity and other deductions (contract adjustments and bad debts) constitute 15 per cent of total patient charges for NCMH as opposed to 2.2 per cent at Duke University Hospital and .8 per cent at North Carolina Baptist Hospital in Winston-Salem.²⁵

Geographic. In fiscal 1980-81 the Hospital's Fiscal Services Division began to assemble financial data about indigency writeoffs by county. For purposes of analysis, "indigency" includes those patients who do not have money to pay for services; it represents a "credit" issue (rather than a "collection" issue, which involves people who can but do not pay).

The data show that, with some variation year to year, slightly over 50 per cent of the total amount of indigent writeoff is spent on patients from Orange, Alamance, Chatham, Johnston, Harnett, Lee, and Wake counties and from out of state. Twenty-five per cent is for indigents from another 10 counties,²⁶ and the remaining 25 per cent

is spent on indigent patients from the rest of North Carolina.

In 1983, more indigent writeoff was for Orange County than for any other county—14.9 per cent of the total. More of the total—3.86 per cent—was for out-of-state indigents than for indigents from any other county except six.

Some potentially significant changes occurred from 1980-81 through 1982-83, most notably in the figures for Lee County and out of state (see Table 5). For example, as a percentage of total patient load from NCMH's "primary service area," (a seven-county area surrounding Chapel Hill), even though indigent patients from Lee County decreased by .05 per cent between 1982 and 1983, the total dollar amount of writeoff for indigents from that county rose from \$374,000 in 1981 to \$574,309 in 1983, an increase of 53.6 per cent. It may be significant that in 1980 the ownership of Central Carolina Hospital, Lee County's only hospital, was transferred to American Medical International, an investor-owned corporation.

In 1981, 2.46 per cent of the total indigent patient load at NCMH came from out of state; that figure rose to 3.86 per cent in 1983. The actual dollar writeoffs for these patients during that time period increased from \$233,060 to \$550,420—a rise of 136 per cent. Since NCMH's policy of restricting out-of-state admissions did not go into effect until August 1982, its impact was not reflected significantly in statistics for FY 1983.

Medicaid. NCMH appears to care for a disproportionately large share of the state's Medicaid inpatients. In North Carolina, only Duke Hospital receives a higher amount of Medicaid payments for inpatient services. The annual Medicaid patient load as a percentage of all patients is higher for NCMH than for any other teaching hospital in the state.

Table 6 shows Medicaid statistics for the fiscal year ending June 30, 1983, for NCMH, Duke, North Carolina

25. The Duke Endowment Comparative Operational and Departmental Indicators (October 1, 1982-September 30, 1983).

26. The list of these counties may vary slightly from year to year. It generally includes Johnston, Durham, Guilford, Randolph, Sampson, Lenoir, Caswell, and Robeson.

Table 6. Comparative Medicaid Statistics for Selected North Carolina Hospitals, Fiscal Year Ending June 30, 1983

	Medicaid payments to inpatient hospitals ¹ (millions)	Per diem rates ²	% of total	No. of cases	% of total	Average cost per case	Total days of care	% of total	Avg. stay per case (days)
State total	\$139.0		100.0%	78,790	100.0%	\$1,764	548,212	100.0%	
North Carolina Memorial Hospital	\$12.7	\$478.00	9.1%	2,548	3.2%	\$4,984	27,107	4.9%	10.6
Duke	\$13.7	\$509.88	9.8%	3,380	4.3%	\$4,053	29,717	5.4%	8.8
North Carolina Baptist	\$7.5	\$336.57	5.5%	2,045	2.6%	\$3,663	22,944	4.2%	11.2
Durham General	\$2.1	\$336.42	1.5%	744	1.0%	\$2,823	6,756	1.2%	9.1

1. This figure represents 26 per cent of total Medicaid service payments for the fiscal year ending June 30, 1983.

2. Hospital was subject to the patient-days limit at this rate. Excess patient days were reimbursed at the rate of \$200 per day.

Source: Mike Karpinski, Chief of Rate-Setting Section, State Medicaid Office, Division of Medical Assistance, State Department of Human Resources, Fiscal year ending June 30, 1983.

Baptist, and Durham County General hospitals. During that time period, Duke provided the most inpatient days of care (29,717) to the most Medicaid cases (3,380)—or 4.3 per cent of all Medicaid cases in the state. Duke's average length of stay per case was shorter (8.8 days) than the stay in any of the other three hospitals; nonetheless, Duke received 9.8 per cent of total Medicaid payments made to all inpatient hospitals in North Carolina.

Of the total days of care provided to Medicaid patients in North Carolina, NCMH provided 4.9 per cent; this percentage represented 3.2 per cent of all Medicaid cases in this state during that year and 9.1 per cent of total Medicaid payments to inpatient services. The average length of stay per case was 10.6 days. North Carolina Baptist Hospital served 2.6 per cent of the state's total Medicaid cases and provided 4.2 per cent of the state total days of care; the average length of stay at Baptist Hospital was the longest—11.2 days. Baptist Hospital received 5.5 per cent of total Medicaid inpatient hospital payments. Durham County General Hospital had the smallest Medicaid burden, in terms of percentages, among the four hospitals. It provided 1.27 per cent of the state's total number of days of care to 1 per cent of the total number of Medicaid cases and received 1.5 per cent of total Medicaid payments to inpatient hospitals within the state. The average stay per case was longer at Durham County General—9.1 days—than at Duke.

These data suggest that both NCMH and North Carolina Baptist may be seeing Medicaid patients who are more seriously ill and/or require more specialized services. Duke's Medicaid population seems to be less seriously ill and/or is being discharged sooner. Duke's per diem reimbursement rate was \$510, compared with \$478 for NCMH, \$350 for North Carolina Baptist, and \$336 for Durham County General Hospital.

The future?

Access to hospital care for indigents in North Carolina clearly will be affected by how hospitals respond to the increasingly complex financial, legal, and social pressures facing them. Providing indigent care drains the resources of any hospital; therefore the financial incentive is toward minimizing the volume of indigent care delivered. If community hospitals cannot, and other hospitals will not, maintain the current levels of hospital care delivered to indigents locally, the burden of indigent care at NCMH will no doubt increase.

In the past, a certain "equilibrium" in indigent care was preserved statewide so long as the numbers of indigents to be cared for remained manageable and adequate state appropriations to support indigent care and to balance the budget at NCMH was forthcoming from the General Assembly. Furthermore, the burden has been

spread, to some degree, among many hospitals. But now the trend seems to be shifting the burden to larger, nonproprietary hospitals—especially NCMH.

The financial burden of uncompensated indigent care appears to be significant and expanding at NCMH, and the financial consequences will be substantial. For example, presumably because of its expanding Medicare population, the Hospital has projected more than a \$3 million loss²⁷ in the first year of Medicare's prospective-payment system,²⁸ which is being phased in over a three-year period that began on July 1, 1984. NCMH hopes to counter this anticipated loss with more efficient bill-collection procedures and a rate increase that became effective in mid-April 1984.²⁹

Likewise, if the trend toward the assumption of community hospitals by private ownership does indeed mean that increasing numbers of indigents are shifted to public hospitals, NCMH's financial position could be severely undermined. Local governments are facing the increasing financial burden of maintaining a community hospital. The General Assembly has recently enacted legislation that permits counties to convey their local hospital to a

nonprofit³⁰ or for-profit³¹ corporation. Additional legislation was also recently adopted presumably to protect access to local hospital care, but the question remains whether it will also preserve that access for indigents.

The main issue now for NCMH seems to be: How much of an increased indigent care burden can the Hospital absorb and still remain financially secure. The promise arising from NCMH's admission policy is being transformed into the Hospital's great dilemma as the equilibrium in indigent care among the hospitals of the state is upset. If the local burden of providing indigent care continues to be shifted to NCMH, the Hospital could be left with one mission only—to be the *sole* indigent care hospital for North Carolina.

For its own protection, NCMH may be forced to change its policies as the indigent care equilibrium shifts. It might, for example, narrow its very broad community service mission by placing restrictions on its current open admission policy. The question to be considered in such a move is whether, under such a modification, the General Assembly would continue the financial support that signifies its long-standing commitment to provide assured access to hospital care to indigents of the state. **P**

27. "NCMH Gears for Medicare Changes." The Chapel Hill Newspaper, July 4, 1984, p. 1A.

28. Under Medicare's prospective-payment plan, hospital fees are set in advance on the basis of 467 diagnostic-related groups that are based on the severity of the respective illnesses. Hospitals may keep the difference between the predetermined fees and their actual costs if they spend less than the set rate. But a hospital that spends more than the set rate must absorb the loss. *Id.*

29. *Op. cit. supra* note 27.

30. N.C. GEN. STAT. § 131E-8 (1983).

31. N.C. Sess. Laws 1984, Ch. 1066.

Must a Public Officer's Resignation Be Accepted in Order To Be Effective?



David M. Lawrence

When a North Carolina public official resigns, must the resignation be accepted, or may it become effective without an acceptance? Although it has been argued that North Carolina law requires acceptance, I believe that the basis for that argument is no longer reliable. Rather, the question in North Carolina is unsettled, and it would be useful for the General Assembly to resolve it.

The courts of the various states have not uniformly answered the question whether, under the common law, a resignation must be accepted in order to be effective. A majority of the courts that have considered the matter have required an acceptance, following the English rule. But a fair number have rejected the English precedents and held that no acceptance is necessary. The North Carolina picture is not so clear cut.

Those who argue that the North Carolina law is settled, and that an acceptance is required, point to the language of Chief Justice Ruffin in the very old case of *Hoke v. Henderson* (1833).¹ In the course of a long opinion Judge Ruffin said: "An of-

ficer may certainly resign; but without acceptance, his resignation is nothing and he remains in office."² The language certainly seems to be clear, and it has convinced both Judge John Parker, a longtime member of the federal Fourth Circuit Court of Appeals, and the State Attorney General. Both Judge Parker and the Attorney General have written that acceptance is required, citing *Hoke* as their authority.³

But, in fact, *Hoke* is very shaky authority, for Ruffin was addressing not resignations but instead the *property rights* of an officeholder. Therefore, Ruffin's observation about resignations was not a ruling on that topic but a part of his argument supporting the decision on the officeholder's property rights.

The question in *Hoke* was whether a public officeholder in North Carolina, as in England, had a property right in his public office and thus could not be deprived of the office without due process of law. The State Supreme Court held that he did have such a property right, and the discussion on acceptance

of resignations was an important part of the Court's logic. The argument presented to the Court was that it was not fair to give the officeholder a property right in the office (which effectively made it impossible to discharge the officeholder or reorganize the government) because the officeholder could quit at any time he pleased: the obligation was not mutual. It was in response to this argument that Ruffin discussed resignations. His point was that a mutual obligation did exist because an officeholder could *not* resign at his pleasure; his resignation was not effective until accepted.

Although the Court's ruling followed English precedent, it was out of step with American concepts of public service. North Carolina was quickly isolated as the only state to give this property right to officeholders, and the *Hoke* decision was eventually overruled in 1903—that is, officeholders no longer have a property right in their office.⁴ Thus there is no longer a quid pro quo for the obligation of the officeholder to remain in office.

Moreover, the common law background of the officeholder's obligations has changed a great deal since *Hoke* was decided. In his discussion of resignation, Ruffin wrote that the "public has a right

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1. 15 N.C. 1 (1833).

2. *Id.* at 28.

3. Judge Parker cited *Hoke* in *Rockingham County v. Luten Bridge Co.*, 35 F.2d 301 (4th Cir. 1929). The Attorney General's office cited *Hoke* in a letter to W. I. Thornton, dated Oct. 22, 1982.

4. *Mail v. Ellington*, 134 N.C. 131 (1903).

to the services of all citizens, and may demand them in all civil departments as well as in the military."⁵ In England this was certainly true. A person appointed or elected to a local government office in England was subject to criminal indictment if he refused to accept the office. In addition, the court could order him to accept the office and hold him in contempt of court if he refused to do so.⁶ Given the importance the law placed on accepting the burdens of office, it is no wonder that the English rule required acceptance of a resignation before those burdens could be given up.

But this strict view of the obligations of citizenship has never been the common law of North Carolina and has been a decreasing part of the state's statutory policy. Ruffin himself, in a case decided a few years after *Hoke*, held that while the legislature might make it a crime for a person to refuse to accept public office in North Carolina, it had not done so and therefore one could not be indicted under the state's common law for refusing office.⁷ Thus by 1842 the English and the North Carolina notions of public office had diverged.

Moreover, the legislature has further modified traditional notions of the demands of office. Until 1971 the general law affecting cities and towns provided that if a person was elected or appointed to one of several town offices and refused to serve, he was subject to a civil penalty.⁸ Present law, applicable to all public officers, is simply that refusal to serve creates a vacancy.⁹ This shift in attitude has been reflected over the years in other contexts. For example, throughout the nineteenth century male citizens were responsible for helping to maintain public streets and highways; each had an obligation to work on the roads a certain number of days a year. But this system was abandoned in the early twentieth cen-

tury, and no trace of it remains. Thus North Carolina legislative policy today seems in accord with the comments, eighty years ago, of the Nevada Supreme Court: "The suggestion that a civil officer in this country may be compelled against his will to hold an office, and that he is liable commonly for his refusal to do so, is not in accord with prevailing American ideas of liberty of action."¹⁰

Thus *Hoke* is a weak foundation indeed on which to build a case for the need for acceptance of resignations. Its ruling, which is closely tied to the resignation issue, has been discredited, and the legal context out of which the case's notion of public office emerged has been significantly modified. *Hoke* is not a reliable basis for a rule requiring acceptance.

There is one other possible present source for a requirement that resignations be accepted before they become effective. Both the State Constitution and the General Statutes provide that an officeholder is to remain in office until his successor has been appointed or elected and has qualified.¹¹ It might be argued that to permit a person to resign, without requiring acceptance, is inconsistent with this constitutional and statutory provision that he remain in office until there is a successor. But such an argument misconceives the purpose of the holdover provisions. This sort of provision is found throughout the states and indeed was part of the common law. Its purpose is to avoid an interval during which no one is available to exercise the duties or responsibilities of office. The provision accomplishes that purpose by *permitting* an officeholder to retain his office even after his term has ended, until a successor has been selected and has qualified. It does not *require* the officeholder to stay in office, however, and it has not been interpreted to do so.¹² After all, if the provi-

sion were read to require continuing in office, any resignation, whether accepted or not, would be inconsistent with that reading: a person could never leave office until his successor had qualified.

Thus current North Carolina law does not support the view that the resignation issue has been settled. The State Supreme Court seemed to say as much in a 1978 case, when it noted that "[d]ecisions in the various jurisdictions are not in accord with reference to the right of a public official to resign and whether an acceptance is required. That issue, however, is not presented here."¹³ If the matter were settled, there would be no issue to be presented to the Court.

Although it is unlikely today that a person could be kept in office against his will by a refusal to accept his resignation, the question of whether an acceptance is necessary continues to have practical effects. Because it is unclear whether an acceptance is necessary, it is unclear whether an officeholder may withdraw his resignation once offered. The general understanding is that a resignation may be withdrawn until it is accepted; if no acceptance is necessary, in some circumstances a chance for withdrawal may never occur. It may be that a resignation can be withdrawn before it takes effect, although that is not clear. If it were effective immediately, however, there would be no chance for a second thought. In addition, acceptance can set a date when the resignation becomes effective; without a need for acceptance, that time can be uncertain.

Thus there remains good reason to want the matter settled. Rather than depend on the chances of litigation to produce an opportunity for the courts to decide the question, it seems far preferable for the General Assembly to do so. It is not so important how the legislature settles the matter as that the issue be resolved. **P**

5. 15 N.C. At 29.

6. M. THROOP, A TREATISE ON THE LAW RELATING TO PUBLIC OFFICERS §§ 165, 166 (1892).

7. *State v. McEntyre*, 25 N.C. 171 (1842).

8. The statute was upheld in *London v. Headen*, 76 N.C. 72 (1877). In its final form, this statute was found at G.S. 160-26.

9. N.C. GEN. STAT. § 128-7.1.

10. *State ex rel. Ryan v. Murphy*, 97 P. 391, 394 (Nev. 1908).

11. N.C. CONST. ART. VI, § 10; N.C. GEN. STAT. § 128-7.

12. *E.g.*, *Toole County v. De La Mare*, 59 P.2d 1155 (Utah 1936).

13. *In re Peoples*, 296 N.C. 109, 145 (1978).

Providing Government Services: State and Local Government Responsibilities in North Carolina

Charles D. Liner

In the American system of government, each state must create its own system of government and must allocate responsibility for administering and financing government services between the state government and units of local government. North Carolina's present system of state and local government, and the present allocation of responsibilities, is substantially different from the systems used elsewhere in the country because it is a unique product of the state's history. A review of how responsibilities for providing government services have evolved may help us to understand North Carolina's present allocation of responsibilities and may also provide us with insights about current issues involving state and local government relations.

North Carolina's present system of government, like those in other states, evolved from the forms of government established in the American colonies. In North Carolina this evolution occurred in two stages. The first stage involved the basic organization and structure of state and local government, which reached its present form about 1900. The second stage, which began about 1900, has been characterized by a dramatic change in the basic responsibilities and relationships within the existing structure of government. Its hallmark has been a

long-term trend toward centralized responsibility for finance and, to a lesser extent, administration of governmental services at the state level. The result of that trend is a more uniform distribution of governmental services throughout the state and a fairer means of sharing the cost of those services.

The Structure

The colonial heritage. Government in the American colonies was patterned after the English system, but modifications to that system produced four distinct plans, or forms, of government: the New England town plan, the New York county-town plan, the Pennsylvania county-township plan, and the southern county plan.¹ The form of government that developed in the Carolinas and other southern colonies was distinctly different from the forms that developed

in the north. Local government did not arise spontaneously, as it did in the New England colonies, but rather was imposed by a central governing authority that needed to divide the colony into subdivisions that could provide governmental services to the people.

North Carolina was governed first as a proprietary colony by the eight Lords Proprietors and after 1729 as a royal colony.² The Proprietors' charter gave them power to organize government and to enact laws, subject to the "advice, assent and approbation of the freemen, or the greater part of them, or of their delegates." The Proprietors planned at first to divide the colony into three counties. Later, beginning in 1669, they tried to impose an elaborate feudal system of government

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1. Harold F. Alderfer, *American Local Government and Administration* (New York: The Macmillan Company, 1956), pp. 51-65; Paul W. Wager (ed.), *County Government Across the Nation* (Chapel Hill: The University of North Carolina Press, 1950).

2. See Hugh T. Lefler and Albert R. Newsome, *North Carolina, The History of a Southern State*, 3d ed. (Chapel Hill: The University of North Carolina Press, 1973). For a more thorough treatment of the development of local government in North Carolina, see Coralie Parker, *The History of Taxation in North Carolina During the Colonial Period, 1663-1776* (New York: Columbia University Press, 1928); Charles Lee Raper, *North Carolina, A Study in English Colonial Government* (New York: The Macmillan Company, 1904); and Paul W. Wager, *County Government and Administration in North Carolina* (Chapel Hill: The University of North Carolina Press, 1928), Chapter I.

based on a plan devised by the philosopher John Locke. Neither plan was carried out, but from them came the first county, Albemarle, which was divided into precincts, each governed by a precinct court composed of justices of the peace appointed by the Governor. These precincts later became counties, and new counties were formed as settlements spread into other areas of the colony.

In this colonial system counties served primarily as administrative subdivisions (principally for the judicial system) and as political units for representation in the colonial Assembly rather than as political units for local self-government. Throughout the colonial era, county governments were the only governments that could administer governmental services to a widely dispersed population. Towns were slow to develop in the colony, and when they were chartered as municipalities they did not serve—as counties did—to provide basic governmental services. Rather, they served—as they do today—to provide additional services needed by people who lived in towns.

1776-1868. When the state was formed in 1776, the centralized and undemocratic colonial form of government was continued almost unchanged, except that power was shifted from the Governor to the General Assembly. Counties continued to be administered by justices of the peace, who were appointed by the Governor on recommendation of the General Assembly. No county officials were elected by popular vote until after 1829, when the sheriff and later the clerk of court became elected officials.

Because authority was centralized in the General Assembly, people had to look to the state for progress in public education, transportation, and internal improvements. Few advances were made during the first half-century after the state was founded; but beginning in 1835, when the Constitution was amended to give people in the western part of the state fairer

representation, the state entered a remarkable period of progress. During these years the state founded a statewide school system, built plank roads and railroads, and created state institutions for the blind, the deaf, and the mentally ill. It created a fairer state and local tax system based on then-current concepts of equity,³ and it began to use its own revenues to finance services administered locally.

During this period the basic traditions of state responsibility for local government services, centralized finance of statewide programs, and a combination of state and local administration were first established. In creating a state school system in 1839, the state established the basic pattern of administration and finance of statewide services that is followed today: the General Assembly enacts laws establishing a statewide program and appropriates state funds; a state agency sets standards for the program and distributes state funds to county governments; and an elected or appointed board responsive to local concerns administers the program locally.

The Constitution of 1868. The period of progress that resulted from state leadership after 1835 ended with the Civil War and its aftermath of economic collapse and political and racial strife.

To be readmitted to the Union, southern states were required to revise their constitutions. North Carolina's Constitution of 1868 shaped later developments in the state in three important ways. First, its basic provisions remained in effect for over a century and are still the framework for today's Constitution. Second, that Constitution made the General Assembly responsible for providing certain services. It gave the legislature responsibility for financing a "general and uniform" system of free public schools for a minimum term through-

out the state. The efforts to improve the schools through state leadership and financial support that eventually resulted from this mandate undoubtedly contributed to the pioneering steps taken later to centralize responsibility for other governmental functions. The concept of state responsibility for schools remains important, and the constitutional requirement of 1868 that the General Assembly finance a minimum school term still underlies the state's system of school finance. The Constitution also required the General Assembly to erect a central prison, to establish a board of public charities, and to care for orphans and deaf, blind, and mentally ill people.

Finally, in imposing the Pennsylvania county-township form of local government, the 1868 Constitution introduced a form of government whose features had an important and lasting effect. The Pennsylvania plan was not entirely alien to North Carolina. Like the Carolinas, Pennsylvania had been settled as a proprietary colony and divided into counties. But unlike counties in the South, Pennsylvania counties were governed by a popularly elected board of commissioners and were divided into townships for the administration of local government functions.

Relying on this model, the 1868 Constitution placed responsibility for administering the county with a board of five county commissioners elected by popular vote. Each county was divided into townships governed by elected officials who were responsible for providing services like law enforcement, schools, and roads.

This attempt to impose the Pennsylvania plan did not fully succeed. Placing county government under the control of elected commissioners enabled newly enfranchised blacks to gain power in eastern counties that had large black populations. The Constitution was amended in 1875 to permit the General Assembly to "modify, change, or abrogate" the constitutional provisions that had established the plan.

3. See Charles D. Liner, "The Origins and Development of the North Carolina System of Taxation," *Popular Government* 45, no. 1 (Summer 1979), 41-49.

The General Assembly used this amendment in 1876 to regain control of local government. It placed county government under its own indirect control.⁴ The board of commissioners remained, but commissioners were elected by the county justices of the peace, who in turn were appointed by the General Assembly. The board of commissioners' power was severely restricted—it could not levy taxes or purchase property without approval by a majority of the justices of the peace—and the powers of townships were largely rescinded. As an additional means of exerting its control over local governments, the General Assembly used local legislation (that is, laws that pertain to only one or a few units of local government) to set out in detail the authority of specific units of government.

The 1868 Constitution had provided that the board of commissioners would “exercise a general supervision and control” of the various county functions. In 1879 the General Assembly made an important exception to this provision by authorizing county health boards that answered directly to the State Board of Health rather than to the board of commissioners.⁵ This precedent was followed later in establishing county boards for elections, social services, and schools and making them responsible to state agencies.

Despite these changes, the Pennsylvania plan had a permanent effect on North Carolina local government. The plan remained part of the Constitution, and in 1895 the legislature authorized the popular election of county commissioners (however, only three commissioners were to be elected; a judge could appoint two additional commissioners on petition of the electors) and removed the control of county commissioners from justices of the peace. By 1905 all county commissioners were elected by popular vote. Township officials

retained some responsibility, mainly for roads, well into the twentieth century, but townships did not regain their full corporate powers and were never again given a significant role in local government. Today they are mainly convenient geographical subdivisions used as voting districts and as references for recording property.

The legacy of the past. The principal legacy of the Pennsylvania plan prescribed in the 1868 Constitution is a more democratic system of local self-government through popular election of county commissioners. But that plan was imposed on a system that had remained largely unchanged from the colonial period until 1868 and in some counties, except briefly from 1868 to 1876, survived nearly intact until the twentieth century. While the undemocratic features of the colonial form of government were inconsistent with modern democratic principles, other features proved to be beneficial during the evolution of state and local responsibility in this century.

Because legal authority was centralized in the General Assembly and counties were regarded as agents of the state rather than as political subdivisions for local self-government, when people wanted new or improved public services (as they wanted improved public schools early in both the nineteenth and twentieth centuries), they looked for leadership to the state rather than to local governments. During the twentieth century this tradition of state responsibility resulted in a centralization of financial responsibility, a more uniform level of services, and a new state tax system that distributed the burden of financing many services across the state.

The organization of local government in North Carolina is still based on the colonial system—counties serve as the basic unit of government for administering statewide services, and municipalities provide additional services to residents of towns and cities. This organization has remained simple and effective even in areas that

have become largely urban. In contrast, the small, independent towns and townships that characterize local government in the northern states have tended to slow the trend toward centralizing financial responsibility, to perpetuate heavy reliance on the local property tax to support public services, and to promote a proliferation of small local governments and special districts, particularly in urban areas.

Centralization

Although the basic structure of government in North Carolina has not changed since about 1900, the assignment of responsibility for financing and administering public services has changed radically since then.

In 1900 the financing and administering of government services was largely decentralized. The 97 counties that then existed financed and administered the basic governmental functions and programs, including law enforcement, the courts, public schools, roads and highways, aid to the poor, and incarceration of all but long-term prisoners. Municipalities played a relatively minor role because the state was overwhelmingly rural—only six towns had populations of 10,000 or more, and none had more than 25,000 people.

The state government provided the highest court, a central prison for long-term prisoners, two schools for the blind and the deaf, three mental hospitals, and a soldiers' home.⁶ State funds also helped to support two orphanages, the University of North Carolina in Chapel Hill, and three colleges. The General Assembly was responsible under the Constitution for providing a state school system, but it sought to fulfill this obligation mainly by requiring that counties collect sufficient revenues from the local tax base to provide the constitutionally

4. N.C. Pub. Laws of 1876-77, Ch. 141.

5. N.C. Pub. Laws of 1879, Ch. 117.

6. *Biennial Report of the Treasurer of North Carolina, 1899-1900* (Raleigh, 1900).

mandated school term. The only state aid to local governments consisted of per capita grants from funds appropriated for public schools in 1899; those grants accounted for 8 per cent of the total amount spent for public schools in 1900.⁷

The financing of public services was also decentralized. Both state government and the counties and municipalities relied largely on the property tax and poll taxes. Of total state and county government tax revenue collected in 1900, 77 per cent came from the property tax and 13 per cent came from poll taxes. The state obtained 81 per cent of its tax revenue from the property tax and the rest mainly from license taxes.⁸ County officials assessed property for both the state and the county and also collected the taxes.

A transformation: 1900 to 1933.

Between 1900 and 1933 North Carolina's system of government finance and administration was transformed. In 1900 state tax revenue, which came largely from the local property tax base, represented less than one-quarter of total state and local government revenue. By 1934 state tax revenue, none of which came from the property tax, constituted 69 per cent of total governmental revenue, and local property tax proceeds constituted only 29 per cent.⁹ By 1934 the state was financing all or most of the services that had been major county functions in 1900—public schools, roads and highways, and prison camps. It was also responsible for administering roads, highways, and the prison system, and it funded a major share of public health program costs. By 1933 the level of state spending for governmental services was more than 25 times greater than in 1900.¹⁰

This transformation to a system of centralized finance came about through a series of piecemeal steps and major initiatives that culminated during the 1931 and 1933 legislative sessions in several bold measures that amounted to a fiscal revolution.

Today this transformation is often attributed merely to the economic conditions caused by the Great Depression. In fact, the changes began long before the Depression and were a response to a fundamental problem with the decentralized system of financing governmental services: if financing statewide services like schools and roads is left to local governments, the inevitable result is inequality in the level of services and in the tax burden needed to finance a given level of services.

Schools and highways. This fundamental flaw in the existing system became apparent when the state set out, during Governor Charles B. Aycock's administration, to improve the public schools and later when it undertook to improve roads. The main problem was disparity in local tax bases. For example, in 1900 per capita property tax assessments varied from a low of \$53 in Yancey County to \$406 in Durham County.¹¹ These variations were reflected directly in differences from county to county and between the county and city school districts in the level of funding for public schools.¹² Although the Constitution required a minimum school term of four months, the 1900 school term for white students in Yancey County lasted only 3.25 months, while the term in Durham County was seven months.¹³ At least 58 of the 97 counties could not provide the constitutionally mandated four-month school term with local revenues that

the state required to be used for schools and the modest amount of direct state aid.

To help overcome these disparities, in 1901 the General Assembly took a pioneering step. It appropriated an amount equal to the regular school appropriation to be used as an equalizing fund. These moneys were to be distributed only to the school systems that could not afford to provide the minimum term. Later the state made a further effort to overcome disparities in the counties' fiscal capabilities by helping local units to finance rural high schools and libraries and, beginning in 1919, by paying half of teachers' salaries in all school units for the mandated minimum term (then six months). Although the state continued to use the equalizing fund until 1931 and continually increased state aid for schools (state expenditure for public schools was 60 times greater in 1931 than in 1901), serious inequalities in school finance remained until the state assumed responsibility for financing an eight-month school term in 1933.

When the automobile arrived on the scene in the first years of the century, financing, constructing, and maintaining highways and roads were entirely the responsibility of counties, townships, road districts, and municipalities. When federal highway grants first became available in 1916, counties had to provide the required matching funds. When in 1919 the amount of federal funds available greatly increased, the state began to provide half of the needed moneys because counties could not afford to match the grants.

In 1921, as part of an ambitious plan to create a state highway system, the state took over responsibility for 5,500 miles of county highways and roads. This was only the beginning of increased state involvement. Even though the state took more county roads into the state system and provided grants for county roads during the 1920s, many counties still had difficulty financing and administering

7. Clement Harold Donovan, "The Readjustment of State and Local Fiscal Relations, 1929-1938" (doctoral diss., University of North Carolina, 1940), Table XI, p. 44.

8. *Annual Report of the State Auditor*, 1901.

9. Donovan, *supra* note 7, Appendix B.

10. *Report of the Department of Tax Research*, 1944, Table 1.

11. *Annual Report of the State Auditor* (Raleigh, N.C.: 1901).

12. "City" school units are usually named after the towns or cities in the areas they serve, but usually they are not associated with municipal governments in those areas.

13. *Report of the State Superintendent of Public Instruction* (Raleigh, N.C.: 1900).

their share of the remaining 45,000 miles of county roads. Again, reliance on local property taxes to support the road program led to substantial variation both in local spending and in tax rates necessary to finance the roads. Also, many townships, road districts, and counties were too small to construct and maintain roads efficiently. Furthermore, the success of the state highway system made it clear that a state gasoline tax was the fairest way to finance highways and roads. These factors, not just the problems caused by the Depression, led the General Assembly in 1931 to shift responsibility for all roads and highways outside municipal boundaries to the State Highway Commission and to abolish all local taxes for roads.

The state tax system. The use of the property tax by the state as well as counties and municipalities had the effect of undermining the property tax system because it led counties to underassess property deliberately in order to reduce the amount of taxes their citizens paid to the state. The lower assessments in turn required higher tax rates that created a further incentive for counties to keep assessments low.

During the first two decades of the century, the state's ability to accept more responsibility for governmental services was limited by the state's heavy reliance on the property tax and the fact that its other sources of revenue—license taxes and the inheritance tax—could not produce much additional revenue. The state had had a personal income tax since 1848, but that too was of limited value. Potential revenues from it were restricted by a constitutional exemption of income from property. In addition, the tax was levied and collected by counties, and local tax collectors had little interest in enforcing a tax whose proceeds went to the state.

The tax system was reformed in 1921 as a result of several factors. First, ever since Governor Aycock's day, citizens' interest in improving the schools and lengthening the school term had been growing. Second, a

statewide revaluation tripled the total assessed valuation of property within the state, which demonstrated how taxation of property by the state undermined the property tax base. Third, it was at last recognized that the existing income tax was inequitable (because income from property was exempt) and unproductive (because it was locally administered). Third, state officials concurred with a view that had become prevalent—that the state should obtain its revenues from sources completely separate from local government sources.¹⁴

After the constitutional amendments of 1920, the General Assembly reformulated the state tax system. First, it eliminated the state property tax, adopting as policy the separation of state and local revenue sources and providing in the statutes that "no tax on any property in the State shall be levied for any of the uses of State Government."¹⁵ Second, the legislature enacted a new personal income tax, similar in structure to the present tax, and a corporation income tax. Third, to finance the plan to build a state highway system, it enacted the state gasoline tax. Finally, it increased the state license, franchise, and inheritance taxes rates.

These reforms gave the state a tax system that permitted state expenditures to grow dramatically during the 1920s (and later, beginning with World War II). They set in place the main part of the state tax structure that exists today. The addition of the retail sales tax in 1933 completed the basic structure.

The fiscal revolution of 1931-33.

To say that North Carolina's system of governmental finance was revolutionized during the legislative sessions of 1931 and 1933 is no exaggeration. The responsibilities of the state government and the counties were suddenly, radically, and permanently

changed. Responsibility for financing three functions that accounted for two-thirds of local government expenditures—public schools, roads, and prisons—was shifted from counties to the state, as was responsibility for administering roads and prisons. Before these changes, local revenue sources—primarily the property tax—accounted for two-thirds of state and local revenue; after the changes, state revenue sources produced about two-thirds of all state and local government revenue. To complete the revolution, the state undertook the supervision of local government financial administration.

The major changes made during those two legislative sessions were as follows:

Public schools. In 1931 the state became responsible for the operating expenses of a six-month school term throughout the state. In 1933 this responsibility was extended to cover operating expenses for an eight-month school term statewide. All local school taxes were abolished, but authority was granted for a supplemental property tax levy for school purposes by popular vote. As a result of these measures, state funds for public school operating expenses increased from 23.3 per cent of the total in 1930-31 to 89.3 per cent in 1933-34 (the balance came from the few school districts in which a supplemental tax was levied).¹⁶ Responsibility for school construction and other capital expenditures remained with local units.

Highways and roads. In 1931 the state took over responsibility for financing and administering the 45,000 miles of county roads outside municipal boundaries.

Prisons. Because prisoners in county prison camps were used for road construction and maintenance, the state also undertook to finance and administer the county prison system. It assumed responsibility for all

¹⁴ In fact, only California and Pennsylvania had by that time adopted this concept as policy, and only four states did so before 1933.

¹⁵ N.C. Laws of 1921, Ch. 34.

¹⁶ Donovan, *supra* note 7, Table XXVI, p. 146.

prisoners sentenced to 60 days or more beginning in 1931 and for those sentenced to 30 days or more beginning in 1933.

State sales tax. Even though the General Assembly increased the rates of existing state taxes, it could not meet its increased obligations with existing revenue sources. After it became deadlocked on proposed legislation that would have enacted the nation's first state retail sales tax, the 1931 General Assembly had to return temporarily to a state property tax, in violation of its policy (enacted in 1921) of separating state and local revenue sources. But local government's precarious financial position and the responsibilities the state had assumed forced the state to enact a 3 per cent sales tax in 1933. Rates on other state taxes were increased. The state property tax was repealed.

All of these measures together permitted a reduction of 43 per cent in property tax levies between 1930-31 and 1933-34. North Carolina became only the second state to enact both of the two broad-based taxes—an income tax and a retail sales tax—that today are generally regarded as necessary to support large-scale state programs.

State supervision of local government finance. During the 1920s the pressure to build and improve roads and schools and to provide services to the growing municipal populations led to greatly increased spending by local government. Much of the increase was financed by borrowing. Certain local governments used debt almost recklessly—some of them to finance current operations. Many local governments had virtually no financial controls.

In 1927, responding to chronic problems in local financial management and the alarming increase in local debt, the General Assembly tightened control over local financial management through a series of laws that regulated accounting practices, fiscal controls, and debt financing.¹⁷

17. These laws included provision for the county manager form of government and a

Nevertheless, when the Depression began, local governments were probably in worse financial shape in North Carolina than in any other state. In 1930-31 North Carolina's per capita indebtedness was exceeded only by New York's. Debt service amounted to over one-fourth of the state's budget that year.¹⁸ During the Depression more local governments defaulted in North Carolina than in any other state.

The 1931 General Assembly enacted legislation that brought financial practices of local governments under state supervision through measures that were unprecedented elsewhere. It created the Local Government Commission and authorized it to review all proposed bond and note issues by local governments, to enforce sinking-fund provisions, and to supervise local accounting and fiscal practices. All sales of local government bonds and notes were to be made by the Commission.¹⁹

No other state responded to the economic conditions of the Depression with such sweeping, radical changes. However, these changes do not seem so revolutionary or radical when considered in light of North Carolina's history and experience or in light of the more recent trend toward centralization in other states. North Carolina had a long history and tradition of centralized authority and responsibility. As we saw in the period of governmental activity from 1835 to 1860 and the education reform that began in 1900, when people wanted to improve governmental services, they tended to look to the state rather than to local governments. It was natural, then, for them to turn to the state when local governments got

County Government Advisory Commission (N.C. Laws of 1927, Ch. 91), uniform procedures for accounting, fiscal control, and debt financing (The County Fiscal Control Act, N.C. Laws of 1927, Ch. 146), and the County Finance Act (N.C. Laws of 1927, Ch. 81).

18. Donovan, *supra* note 7, Appendix A-1, p. 234.

19. N.C. Pub. Laws of 1931, Ch. 60.

into financial trouble during the Depression. Furthermore, the changes did not represent a break with previous policies. Rather, they were the culmination of a process extending over three decades during which responsibility for financing schools, highways, roads, and other services had been shifted more and more to the state and the state had assumed an increasingly large role in fostering and financing public services.

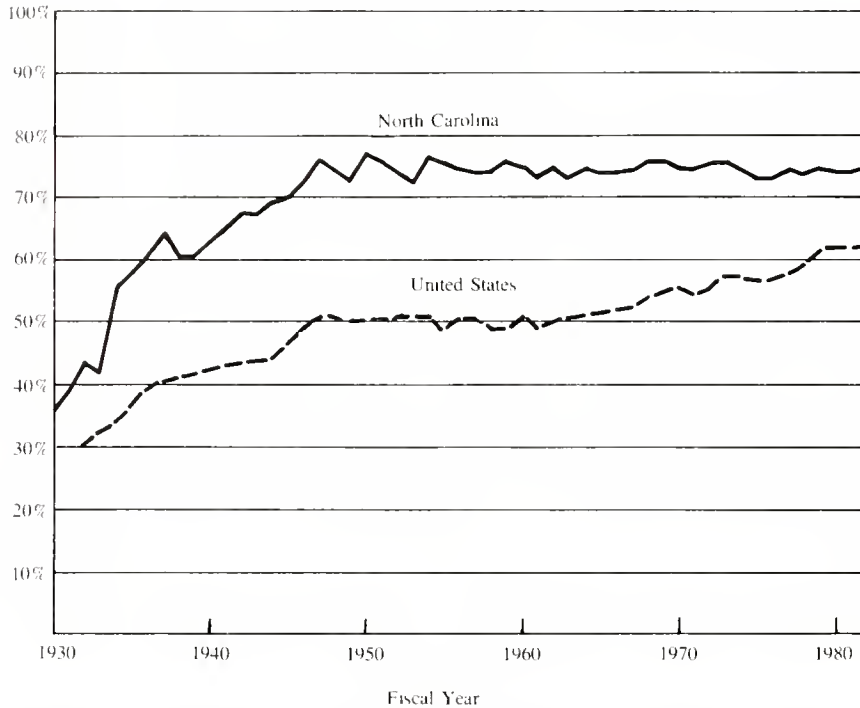
Centralization since 1933. The trend toward centralization of responsibility for finance and, to a lesser extent, for administration has continued. Chart I shows, for North Carolina and the nation as a whole, state general tax revenue as a percentage of total state and local general revenue. It reflects the extent to which responsibility for financing government programs has become centralized in state government. As it indicates, during the 1930s, 1940s, and 1950s North Carolina was well ahead of the national trend toward centralization. Only in the past two decades have most other states begun to close the gap.

Since 1933 responsibility has become even more centralized at the state level. First, the state has taken over the financing and/or administration of other functions that earlier were the responsibility of local governments. In 1951 the state took over the construction and maintenance of all city streets that were part of the state highway system or linked parts of that system, and it began allocating to municipalities the proceeds from 1/2 cent of the gasoline tax for street construction and maintenance (the municipal share was increased to 1 cent per gallon in 1971 and to 1 3/8 cent in 1981).

As late as the 1950s the court system was still largely a local responsibility, as it had been since colonial days. Local differences in standards, rules, customs, and procedures caused the administration of justice to be highly uneven across the state. A court reform movement that began in the 1950s led in the 1960s to a constitutional amendment elimina-

Chart I

State General Tax Revenue as a Percentage of Total State and Local General Tax Revenues



Note: State revenue includes revenue collected by the state and distributed to local governments. For North Carolina, revenue shared with local governments from the franchise, beverage, intangible property, and gasoline, but not the local option sales tax, are included as state tax revenue. Source: North Carolina Department of Revenue, *Statistics on Taxation*, various years; Bureau of the Census, *Historical Statistics of the United States*, Part II (Washington, DC: 1975); and Bureau of the Census, *Governmental Finances*, various years.

ting all local courts and all justices of the peace. They were replaced by district courts, presided over by district court judges and magistrates. All court officials became state employees, and the state assumed responsibility for all operating expenses of the court system and created a uniform statewide court system. Counties remained responsible for the construction and maintenance of court facilities.

The federal government's increased role in financing domestic programs contributed to centralizing responsibility at the state level. Before the Great Depression, the federal government had only a minor role in financing state and local government services. During the next half-century,

however, its role increased dramatically as a result of three major federal initiatives.

First, during the Depression the federal government undertook programs intended to bring about recovery of the national economy. Second, beginning with the Social Security Act of 1935, it became heavily involved in programs designed to provide a minimum level of individual economic security. These programs began modestly, but after World War II—and particularly during the 1960s—their number and scale grew. Many were administered by state and local governments, with primary funding from the federal government. More than most states, North Carolina left the responsibility for administering

these programs—particularly social services programs—to local governments.

The third major federal initiative was the movement into domestic programs that had traditionally been left to state and local governments. Beginning in the late 1950s (about the time Sputnik was launched) and increasingly during the 1960s, the federal government launched major new grant programs in public and higher education, health care, law enforcement, social services, public welfare, urban development, environmental regulation, water and sewer services, recreation, libraries, and almost every other functional area for which state and local governments alone had once been responsible. Consequently, federal revenues as a percentage of total state and local government revenues increased from 10 per cent in 1954 to over 23 per cent in 1978 (it then fell to 19 per cent in 1982).²⁰

As a result of these federally initiated programs, local government employment, expenditures, and administrative responsibility grew. In addition, because so much of the federal funds for these programs has been channeled through state governments to local governments, these federal initiatives have had the effect of further centralizing responsibility for financing and policy-making at the state level.

Another factor in the continuing trend toward centralization of financial responsibility has been the tremendous growth in state tax revenue. By 1933 North Carolina had in place a state tax structure (including income, sales, and gasoline taxes) that proved over the years to be very responsive to economic and population growth and to inflation. The progressive rate structure of the personal income tax provided a relatively painless way to increase

20. Advisory Commission on Intergovernmental Relations, *Significant Features of Fiscal Federalism*, 1981-82 ed. (Washington, D.C.: ACIR, April 1983).

state revenue automatically at a much greater rate than the rate of growth in income or population. The growth rates of revenue from the personal income tax and other state taxes have been significantly greater than the growth rates of revenue from the local property tax during the past fifty years. Although the rates of the personal income tax have not been increased since the highest tax bracket was added in 1937, revenues from the tax have increased from less than \$1 million in 1933-34 to over \$1.7 billion in 1983-84. Total state tax revenue increased from \$44 million in 1933-34 to \$4.3 billion in 1983-84.

This growth in state tax revenue has permitted a phenomenal expansion in the level of state expenditure and in the number and scale of programs administered and financed by state government. Major expansions have been made in state programs in higher education (a large system of community colleges was established and the university system was expanded), mental health, correction, transportation, environmental regulation, and many other areas. New programs have also been established and funding has been increased in areas like public schools and social services that are administered by local governments but financed in part from state funds.

The state also began to share its revenue or tax base with local governments. As mentioned above, the state began allocating proceeds from the gasoline tax to municipalities in 1951, and it increased this share in 1971 and again in 1981. Municipalities' share of the state utility franchise tax was increased from one-sixth to one-half of the proceeds during the 1970s. In 1971 counties were authorized to levy a 1 per cent local retail sales tax (to be collected by the state) on the state's sales tax base and another 1/2 per cent in 1983.

Summary

North Carolina began the twentieth century with a system of government

that, despite the introduction of features of the Pennsylvania plan of government in 1868, had remained largely unchanged since colonial times.

In this century the state has retained the basic organization of local government inherited from colonial times—counties serve primarily as agents of the state for the administration of statewide services applicable to all people of the state, while municipalities provide the additional services needed or wanted by people who live in urban areas. This organization still provides a simple but effective means for delivering government services even where small towns have grown into metropolitan areas. In recent decades, however, as urban development has occurred outside the borders of towns and cities and as people who live in rural areas have come to want more government services, counties have been called on to provide the kinds of services that earlier were provided only by municipalities.

Although the basic organization of local government has remained essentially unchanged, the roles and responsibilities within the system of government have changed radically. The decentralized system of finance and administration that existed in 1900 proved inadequate and inappropriate for modern times. Once the state acted to provide a uniform system of public schools and a better highway and road system, it encountered the fundamental problem with decentralized finance—the inevitable inequality in the level of services and in the burden of taxes required to finance those services that results when local governments with disparate income and tax bases are required to finance as well as to administer statewide programs.

This fundamental problem led the state to centralize responsibility for financing government services during the first three decades of this century, a process that culminated in the fiscal revolution of 1931-33. The state tax system created during this process has permitted a phenomenal expansion in

the size and scope of state-financed programs. Responsibility has been further centralized as a result of federal initiatives in financing government services that in North Carolina are financed largely with federal and state funds but administered by local governments.

The evolution toward more centralized responsibility for government services has produced a system of government with a more uniform distribution of government services and a fairer distribution of tax burdens than had existed. In that system the state government collects almost two-thirds of the total amount of general revenue collected by state and local government. However, administering government services is still largely the responsibility of local governments—they account for over half of direct expenditure and for 70 per cent of total public employment of the state and local governments.

Thus the evolution in North Carolina's state-local governmental relations has produced a highly intricate system in which responsibility for meeting the needs of the state as a whole and the needs of people in local communities is shared by the state government and units of local government. **P**

Paul Woodford Wager

July 24, 1893 — December 4, 1984

Paul W. Wager, a member of the faculty of the University of North Carolina at Chapel Hill, died on December 4, 1984, at the age of 91.

In 1924 when Howard Odum founded the Institute for Research in Social Sciences at the University, he selected county government as the first problem to be investigated. The press at the time was filled with stories of graft and mismanagement in counties across the nation. Paul Wager and two research assistants were assigned to study North Carolina county government. Their studies of 43 North Carolina counties documented the need for reform and were used by a Commission on County Government appointed by Governor Angus McLean in 1925. The Commission's report to the General Assembly two years later resulted in the passage of the fiscal control act, the revision of the financial structure of county government in North Carolina, and authorization of the county manager plan.

Professor Wager's dissertation, *County Government and Administration in North Carolina*, published by the University of North Carolina press in 1928, was declared by Richard S. Childs to be a model for future studies of county government. Childs, the "father of the manager plan of local government," volunteered funds to distribute the dissertation to universities and libraries across the nation. In 1930 Wager was appointed an editorial consultant and reporter on county government to *Public Management*. He also served as editor of the county section of the *National Municipal Review*. For 35 years his reporting helped to keep local officials in all of the states informed of the latest developments in the modernization of county government.

Wager was personally committed to Professor E. C. Branson's dream of a faculty that would carry the University to each corner of the state. He traversed the state each year to consult with local government officials and gather material for his reporting and teaching. He was the first member of the UNC faculty to teach undergraduate courses in county administration (1929) and financial administration (1940) and the first to teach graduate courses in the administration of natural resources (1938) and county administration (1940). He was an original environmentalist. He taught undergraduate courses in public personnel administration and public administration for twenty years and supervised many theses and dissertations. In addition, he served on the Chapel Hill Planning Board and the Chapel Hill Board of Aldermen.

North Carolina leads the nation in the percentage of state population in counties with a manager, at least in part because Paul Wager pioneered in the study of county government. Thousands of his students, his colleagues, the University, the Town of Chapel Hill, and the State of North Carolina are better because he worked quietly among us with humility and intellectual curiosity. —DBH

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Written by Institute faculty members, this new book examines the history and current status of state-local intergovernmental relationships in North Carolina.

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THE INSTITUTE OF GOVERNMENT, an integral part of The University of North Carolina at Chapel Hill, is devoted to research, teaching, and consultation in state and local government.

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