Popular Government

Published by the Institute of Government, The University of North Carolina at Chapel Hill

Spring 1986

Contents

Popular Government Vol. 51/No. 4 Spring 1986

INSTITUTE OF GOVERNMENT The University of North Carolina at Chapel Hill

Cover Photographs: *by Bob Donnan.* Pictured are city and county managers participating in the Institute of Government's Executive Development Program.

Popular Government (ISSN 0032-4515) is published four times a year (summer, fall, winter, spring) by the Institute of Government, Knapp Building 059A, The University of North Carolina at Chapel Hill, Chapel Hill, N.C. 27514 Subscription: per year $8.00. Second-class postage paid at Chapel Hill, N.C.

A total of 7,500 copies of this public document were printed by the Institute of Government, The University of North Carolina at Chapel Hill, at a cost of $4,293, or $.57 per copy. These figures include ***only*** *the direct costs of reproduction. They do not include preparation, handling, or distribution costs.*

Contributions of the City Council to Effective Governance

James H. Svara

Effective governance and management requires that elected officials and staff work together cooperatively. To do so, officials need to understand their distinct roles and responsibilities. A realistic division of responsibilities between council and manager can promote more constructive interaction among officials and thus more effective governance and management. This article identifies the kinds of decisions made in city government and the contributions that city councils make to them as well as the common pitfalls in council performance. In a subsequent article, the responsibilities of the city manager will be assessed.

A division of responsibilities along the lines of "policy" and "administration" has been the common guide to determining who does what in city government. For example, the most recent statement of professional ethics by the International City Management Association (ICMA) repeats the time-honored principle that "elected representatives are entitled to the credit for establishment of municipal policies; responsibility for policy execution rests with the [manager]." This is a useful starting point, but a clearer basis for dividing responsibilities between the council and manager is needed.

With the growing complexity of local government and the increasing contribution of professional staff, the simple division of responsibility between policy and administration can break down. Based on interviews with city government officials in North Carolina, further dimensions of these two categories of decisions have been identified.[1] It is useful to think about the governmental process in terms of four dimensions. The formulation of *mission* can be distinguished from more specific decisions about *policy*. *Administration*, defined as implementation, is distinct from *management*. The dimensions blend to be sure, but seeing them separately helps to clarify what local government officials do.

Four dimensions in the governmental process

Governing the community requires that officials decide on goals, translate those goals into programs and services, and implement those programs. Underlying these decisions and essential for smooth operation is management, the foundation of governance. The term *mission* refers to the organization's purpose and its scope of activities. In city government, aspects of mission include the scope of services provided, philosophy of taxing and spending, and policy orientation—i.e., pro-growth versus limited growth. It also includes "constitutional" issues, such as changes in form of government or method of electing council members, the city's strategy with respect to annexation, and relations with other governments, the division of functions between a city and county government, for example. Aspects of mission are sometimes chosen inten-

The author is a member of the Political Science Department faculty at UNC-Greensboro.

Part of the material in this article was developed for the 1985 Convention of the North Carolina League of Municipalities. Videotapes of the sessions in the program track on "Improving Municipal Teamwork" are available through the League.

1. James H. Svara, "Dichotomy and Duality: Reconceptualizing the Relationship between Policy and Administration in Council-Manager Cities," *Public Administration Review* 45 (January/February 1985), 221-232.

tionally, as when a city establishes goals for itself, and sometimes are accepted as the established orientation of that government—i.e., "we've never provided human services programs in this town." Policy can be understood as the actual programs undertaken within the parameters shaped by mission. For example, a proposal for a community center in a neighborhood with few facilities expresses the city's goal to have recreational services readily accessible to all residents of the city.

Administration concerns the process by which a city completes projects, the processes, for example, that are involved when the city builds a community center, operates programs, and delivers services. Management concerns the control and coordination of resources within the organization. Poor management undermines governance; a city has difficulty accomplishing its goals and implementing programs if money is wasted, staff are hired improperly or inadequately supervised, or departments are disorganized or poorly led. By the same token, a smoothly functioning, well-managed organization will be directionless and ineffective if the governing dimensions are not well handled. Each of the four dimensions will be defined more clearly, with special emphasis on mission.

Any organization—large city, small town, service agency, or business corporation—needs to have clear goals toward which it strives in order to be successful. This point has been made repeatedly, yet it often gets lost in the shuffle of more pressing tasks and immediate decisions. The first of the key city council responsibilities identified by Richard Hughes is "establishing overall municipal goals and service levels."[2] In *Tools for Leadership*, the initial challenges for council members are "assessing community needs" and "setting city goals."[3] Likewise, the first question in a checklist of policy making activities developed by the ICMA for council members is "Does the governing body determine the overall mission of the organization?"[4] The importance of mission has been stressed in popular books on private sector management, and Peter Drucker argues that the first step to increased innovation in the public sector is a clear sense of purpose.[5]

The formulation of mission is particularly difficult in city government. Cities have a wide range of purposes and potentially conflicting priorities. Because the future is unknown, it is natural that officials will sometimes focus on continuing to do what they have always done and respond to crises when they occur. A reactive approach, however, makes cities vulnerable to disruptive changes that could have been anticipated and reduces their ability to compete with other cities in this state or elsewhere.

Mission is shaped by many different decisions. Some of these are longstanding. A new mayor or a city council with changed composition does not sit down before a clean slate to decide "what should the purpose of our city government be?" Rather, city officials usually reconfirm and only occasionally change their goals. The addition of a major new service, such as a city's taking over a private bus service, would be a mission decision as would the privatization of a governmental function. Some decisions to add new service areas are dictated (or induced) by higher levels of government. Also included are major changes in revenue sources, such as the introduction of a payroll tax, if permitted by the state, and other major revenue issues. In other states, local officials have been forced by budget-cutting referenda such as Proposition 13 and 2½ to define their "philosophy" of taxation and service provision. What services should be paid for by general revenues and provided to all without charge, which should have a user fee attached, and which should be abandoned by government completely? Communities must also make choices to shape their future economic and physical development. As changes in intergovernmental relations bring more responsibilities to local governments and fewer dollars, it becomes even more evident that local officials must make critical choices about what they want their government to do.

Thus, the concept of mission refers to a collection of broad decisions and approaches that determine purpose, direction, and organization for the city, and thereby create the framework within which other more specific choices are made. At any given time, such approaches in a city may include some clearly articulated strategies and other generally accepted notions about what the city does and whom it serves, which have not been assessed for many years. The challenge to officials is to make the city's mission coherent and meaningful in light of current conditions.

A unique feature of government in contrast to private sector organizations is that deciding on mission and goals only takes officials part way toward deciding what to do; they must still make a host of difficult policy decisions. For example, when a city decides on a strategy of controlled growth, it faces many

2. Richard A. Hughes, "The Role of the City Council," *Public Management* 54 (June 1972), 3.

3. Hervey L. Sweetwood, *Tools for Leadership: A Handbook for Elected Officials* (Washington: National League of Cities, 1980).

4. International City Management Association, *Make Policy: Who Me?* (Washington: ICMA, 1977), p. 18. See also *Elected Officials Handbook, I*, 2d ed. (Washington: ICMA, 1983), pp. 17-22.

5. Thomas J. Peters and Robert H. Waterman, *In Search of Excellence* (New York: Warner Books, 1982); Peter Drucker, *Innovation and Entrepreneurship* (New York: Harper & Row, 1985).

policy choices with uncertain impact concerning zoning, transportation, utility extension, commercial expansion, housing, parking, etc. The policy dimension refers to middle-range policy choices that define the details of purpose, create programs, and specify plans. Examples are the budget, the land use plan, and a federal government grant application.

When programs have been defined, there is another major point of translation. Most policies are not self-implementing. Additional decisions are required to fill in more details and determine who gets services and at what levels. This is administration, or implementation, the final dimension of governing. For example, a housing rehabilitation program for low-income home owners in target neighborhoods requires definitions of eligibility (how much money can a person make and be considered "low income"?), grant levels, target neighborhood boundaries, and application and screening deadlines and procedures. Such administrative decisions have policy content and must be consistent with the spirit of the policy decision if the intended purpose is to be accomplished. Thus, policy and administration are intertwined in decisions about the specific provisions of programs and the delivery of services.

Distinct from implementation is management—the elements that determine the ongoing operations of city government. Management includes the internal organization and assignment of authority; methods for hiring, developing, and appraising staff; systems for budgeting and fiscal control; procedures for purchasing and contracting; systems for information storing and processing; and the technical details of performing tasks. To look at the housing rehabilitation program once more, no matter how well the program is defined in general or how well it is translated into a set of requirements and procedures, it can fail if housing inspectors do not do their job properly, if plans for improvements have technical deficiencies, or if poor contractors are selected. The program will also suffer if the work of the Community Development department is not properly coordinated with that of public works in making street improvements, and so on. The management dimension, therefore, determines whether it is possible to meet a goal by marshaling resources and controlling their use toward that end.

In conclusion, city officials must determine the goals and purpose of city government—its mission—encompasing the policies, plans, programs, and services needed to accomplish goals; the methods and processes involved in implementing policy and delivering services; and finally, the structure, systems, and procedures for the control and coordination of the human and material resources of the organization.

Division of responsibility

The division of responsibility found in cities both confirms and departs from the traditional model of separate spheres. Although there are differences among cities, there is typically both separation and sharing of responsibility between council and staff at the same time.

Major responsibility for mission is exercised by elected officials. Although staff make substantial contributions in the form of recommendations, planning and identification of problems, and assessment of the feasibility of alternative "futures," the major decisions concerning purpose, scope, and direction are made by the council. The council determines the city's goals with respect to growth or to the decision to add (or eliminate) a major service, such as city assumption of mass transit or the privatization of garbage collection. These decisions over the years create the framework within which specific policy choices are made.

Management, on the other hand, is largely the responsibility of the manager and staff. This is not to say that the council is not interested in operational matters. Change in management practices may originate in the council. For example, the Greensboro City Council pushed the idea of expanded commitment to merit pay in the 1970s and instructed the manager to develop the details of such an approach. Councils are also legitimately interested in questions concerning organizational design and performance—productivity improvement, for instance. The manager, however, takes the lead in providing quality staff and effective management systems. Councils usually refrain from interference in such operational details as who gets jobs, raises, or contracts. Management is the chief executive officer's area of responsibility, although the council is an interested observer potentially capable of intervening when problems that the manager is not correcting arise.

Responsibility for middle-range policy is shared. Although the council is ultimately responsible for all policy decisions, many of these decisions are made or shaped by staff. The manager exercises discretion to make some policies, and staff are largely responsible for determining the formula by which services are distributed, for example, which streets get paved or how many library books go to branch A as opposed to branch B. These formulae represent policy decisions because they determine the quality and quantity of services made available to particular citizens. Furthermore, the council is dependent on the manager for a host of recommendations, the most important of which is the city budget, which contains the policies of the city in dollar terms. Councils cannot "make" all policy; they would be overwhelmed by this task.

Managers also contribute to policy making. As long as the manager makes choices within the framework determined by the mission of the organization, democratic control is maintained. Recognition of the sharing of responsibility for policy encourages the council to get as much assistance as possible from the manager and focuses attention on the necessity for the council to provide clear guidance.

There is also considerable sharing with respect to the implementation of policies. Staff are largely responsible for administration, but councils are and should be interested in how policies are translated into programs and how services are delivered. Thus, the council's "primary implementation responsibility involves effective evaluation."[6] Furthermore, council members frequently get involved in handling complaints from citizens and making specific implementing decisions, for example determining the design and placement of a facility that is part of a larger project. Councils are usually informed by the manager about the development of program "regulations," such as definitions of eligibility for a program, and have the opportunity to accept, reject, or revise these recommendations. Councils need to be careful, however, not to get bogged down with specific choices they may be poorly suited to make.

Thus, two dimensions are handled separately, and two are shared. The ultimate responsibility for mission rests with the council, and for management, with staff. Both the council and manager contribute to policy and administration. A graphic presentation of the division is presented in Figure 1. The line dividing council and staff is based on the typical pattern observed in North Carolina cities. Deviations can occur as one set of officials pushes into the sphere of the other, or as officials fail to fill their roles adequately in a dimension; thus, either pressure or a vacuum can cause the line to shift. Better understanding of the complex nature of the interaction is a start toward identifying problems and solutions with the relationships.

Problems with interaction

Despite good intentions, there is often dissatisfaction with the relationship between council and manager. Interviews with officials in the large cities in the state[7] showed that council members were sometimes critical of the manager for the following "sins" of commission or omission: (1) failure to respond to council concerns or share council priorities, (2) attempts to steer the council toward approaches favored by staff, (3) lack of responsiveness to citizens, (4) lack of innovation in organization and methods, (5) waste and inefficiency, and (6) bureaucratic rigidity. These problems and remedies to them will be examined further in a separate article on the manager's responsibilities. Still, some of these problems with the manager may be traced to shortcomings in the council's performance.

There are also a number of criticisms of the council, including self-criticism by council members. A composite list of these shortcomings, summarized by the governmental dimension involved, is presented in Figure 2. They do not necessarily represent the dominant view of the city council in any given city. Taken together, however, they indicate the difficulties that can result from the failure to discharge constructively the council's responsibilities.

In some cities, there was confusion among many respondents about whether councils made any positive contribution. Some officials felt that the best thing the council did was to stay out of the way of staff, but could not identify any positive contributions. These council members manifested "a vague sense of malaise"[8] about their role. In other cities, the council was assessed positively, and satisfaction was high. The difference appears to be a failure in the former cities to discern the full range of actual and potential contributions the council can make, in particular the significant direction it provides (at least implicitly) through the mission dimension. Managers support more leadership from the council, and council members can increase their sense of efficacy by emphasizing those activities that promote positive relations and eliminating those that obstruct effective interaction.

Responsibilities of the council

A relationship obviously involves at least two parties, but variations in council-manager relations are probably more dependent on the behavior and attitudes of the council than those of the manager. Whereas the manager is guided by a set of professional standards and the expectations of professional peers and subordinates, on the one hand, and the control of his elected superiors on the other, the council defines its own course and sets its own rules. One manager has suggested that managers view council members as

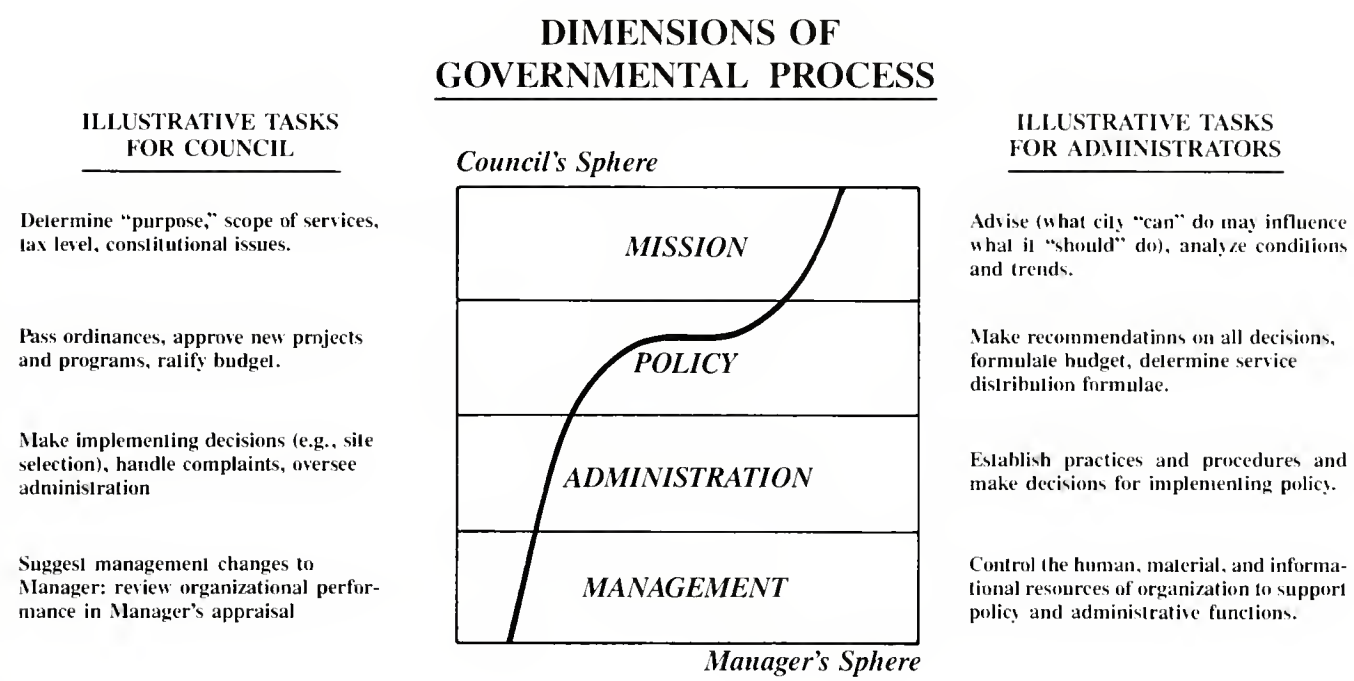
6. Sweetwood, *supra* note 3, p. 18.

7. In 1982 and 1983, interviews were conducted with the mayor, manager, selected council members, department heads, and community leaders in Charlotte, Durham, Greensboro, Raleigh, and Winston-Salem.

8. Jeptha A. Carrell, in "The City Manager and His Council: Sources of Conflict," *Public Administration Review* 22 (December 1962), 204, attributed this dissatisfaction to a sense that the council lacked power. There is no difference, however, in the formal power possessed by councils with a positive and those with a negative self-assessment.

Figure 1. Dichotomy-Duality Model

Mission-Management Separation with Shared Responsibility for Policy and Administration



The curved line suggests the division between the Council's and the Manager's spheres of activity, with the Council to the left and the manager to the right of the line.

The division presented is intended to approximate a "proper" degree of separation and sharing. Shifts to either the left or right would indicate improper incursions.

Source: "Dichotomy and Duality: Reconceptualizating the Relationship Between Policy and Administration in Council-Manager Cities," *Public Administration Review* 45 (January/February 1985), 228.

an "Act of God": at best they are like a "sunny spring day . . . and at worst like a hail storm followed by a plague of grasshoppers."[9] The council is a group of equals wherein each member, acting on his own ideas about role, can affect administrators independently of the whole body.[10]

Council members must take it upon themselves to look critically at their individual and collective roles and seek to make constructive changes. Assuming that the manager is also operating in an ethically responsible way, the council can lessen the weaknesses in its performance and enhance its positive contributions by following certain guidelines, which are organized in terms of the four dimensions.

Mission. Councils need to give more attention to formulation of mission: consideration of questions of purpose, change in the scope of services, and plans for the community's growth and development. For good or ill, mission *is* determined by council members in the council-manager form of government. Through their decisions or non-decisions, councils shape the future of their communities. What is often needed, however, is more deliberate consideration of the *implications* of their actions for the future and the assignment of more time to these decisions. In a study of council decision-making, members allocated 100 points among the various decisions they made according to how important the decisions were. They separately estimated how much of their time is spent on different kinds of decisions. Major choices about future development received 80 per cent of

9. William V. Donaldson, "The City Council's Function/As Seen by a Manager," *Public Management* 54 (June 1972), 8.

10. Jeff Schubert, "Improving Council-Manager Relations," *Public Management* 65 (July 1983), 5-6.

Figure 2. Criticisms of Council Performance

Shortcomings with Respect to—

—Formulation of Mission:

(1) failure to set direction or provide overall leadership

—Policy Making:

(2) arbitrarily rejecting staff recommendations
(3) being overly suspicious of staff in assessing recommendations
(4) inability to decide
(5) ignoring and/or rubber stamping proposals

—Administration:

(6) interference in administrative affairs through complaint handling
(7) obstructing implementation through excessive oversight and approvals
(8) imposing a heavy workload of inquiries and reports (especially in the period preceding elections); "clogging the machinery of government."

—Management:

(9) damaging morale by criticizing staff publicly
(10) sending negative message to staff with pay freeze or cut
(11) interference in contracting
(12) imposing organizational or procedural changes on manager

Source: Interviews with sample of council members, department heads, and community leaders in Charlotte, Durham, Greensboro, Raleigh, and Winston-Salem. These are the negative responses to the question, "What are the greatest contributions of the city council to the performance of city government in this community?"

the points for importance but accounted for only 5 per cent of the time spent by the council.[11] These decisions, ideally made with extensive advice and information from the manager, warrant a greater share of the council's time. They create the framework for policy and administration and represent the council's unique contribution to the governmental process.

Policy. Improvement in the policy function starts with acknowledgement of shared responsibility. Since the council determines mission and oversees implementation, it can accept the manager as a professional policy leader who is responsive to the council and the public. The council, while retaining final responsibility for all policy, should examine how this dimension can best be shared with the manager. Councils should avoid responding erratically to staff proposals, accepting some without sufficient examination and subjecting others to unreasonable scrutiny. From the perspective of staff, careful assessment and thoughtful choice by the council are more important than acceptance or rejection of the manager's recommendations. The council should also organize its policy making coherently. Many cities have an annual goal-setting process that guides the manager's development of the budget and other policy proposals. When councils clearly articulate a policy agenda, the manager and staff respond.

Administration. Improving the council's performance in the administrative function requires shifting emphasis from the specific to the general. Currently, councils do a lot of "checking," but typically this occurs in the form of specific inquiries, pursuing individual complaints, and making random probes. Although there is general assessment of all programs along with the review of the annual budget, there is little opportunity at that time to consider performance questions fully. What is needed is more attention to organized oversight, which entails broad-ranging assessment along with systematic coverage. In a survey conducted by the National League of Cities, almost half of the council members identified program evaluation as the procedural area most needing improvement.[12] Hughes suggests that oversight be accomplished through "regular performance reports to the council on departmental operations to highlight results in relation to the agreed-upon objectives."[13] The objective of council members and administrators alike should be to improve the policy-administration linkage to insure that the process of administration clearly and faithfully translates policy into action.

In addition, council members should alter their complaint handling to reduce the amount of time consumed by this activity and to derive more general feedback about governmental performance. They can maintain their commitment to getting responses to complaints and questions from citizens, while not encouraging constituents to lodge complaints through them or not personally investigating problems. Some council members view complaint handling as not only a constituency service, but also as a major way they keep track of how government is performing. Council

11. International City Management Association, *The Effective Local Government Administrator* (Washington: ICMA, 1983), p. 61.

12. Sweetwood, *supra* note 3, p. 18.

13. Hughes, *supra* note 2, p. 5.

members should see to it that they can assure citizens that complaints directed to staff receive the same treatment as those referred by a council member. The members can receive a follow-up report of the response from staff, as well as information about general patterns of complaints. This comprehensive picture of the nature of complaints and how they are handled will supplement the performance reports from departments.

Management. Although the council needs to refrain from interfering in operations, it should concern itself more with management issues, such as productivity improvement and employee development, and seek to monitor organizational performance more carefully. Involvement should not entail interference with the details of management because such meddling can corrupt; it can also undermine the integrity and effectiveness of management. The most common form of involvement is evaluating the manager's performance, although many managers feel that currently the council's appraisal is not satisfactory in depth and frequency. Beyond appraisal, elected officials should confine their efforts to supporting managerial initiatives and acknowledging accomplishments, but they must also be capable of being catalysts for change. The manager should be recognized as an expert in organizational leadership by the council and given freedom to act as the executive officer. The council should observe management practices and performance, reward good work and encourage improvement, provide resources, back up the manager, and intervene with the manager when necessary to secure change.

The responsibilities of the city council are listed in Figure 3. To summarize changes to improve council performance, councils need to give more attention to formulation of mission, to consideration of questions of purpose, and to plans

Figure 3.

Contributions of the City Council to Effective Governance

Responsibilities of the City Council for Effective Council-Manager Relations

MISSION

1. Clearly formulate the mission of the government. Consider the needs of the entire community and future trends in determining the purpose, scope of services, and direction of city government.

POLICY

2. Clearly formulate goals, objectives, and service priorities as guidelines for the manager. Acknowledge and expect substantial policy contributions from the manager through recommendations and the exercise of discretion consistent with mission and goals.
3. Review recommendations from staff with respect and care. Be aware of implications and consequences of decisions.

ADMINISTRATION

4. Provide general oversight and assessment of the effectiveness of policy implementation and service delivery.
5. Set high expectations for staff responsiveness to citizens. Help constituents to know how to make complaints to the appropriate administrative staff. Review general patterns of complaints and responses.
6. Avoid getting entangled in specific implementing decisions for projects and programs which come to the council for approval by stressing assessment of consistency with mission and policy.

MANAGEMENT

7. Respect the manager's right to exercise executive responsibilities within the city governmental organization. Avoid interference in operational decisions.
8. Periodically appraise the performance of the manager and the organization. Encourage and support the manager in securing improvements in organizational performance and productivity.

for the community's development. In policy, the council should give greater recognition to the manager's policy role accompanied by more attention to setting clear goals and standards, on the one hand, and to providing more careful assessment of staff recommendations on the other. Administrative activities should stress oversight on a regular, systematic basis. The council's role in management involves appraisal of the performance of the manager in particular and the organization in general, along with encouragement and support for organizational improvement by the manager.

Reprise: contributions of the mayor to the council

Councils do not necessarily function well without leadership. The roles of the mayor were discussed in a recent article,[14] but may be briefly reviewed here. Mayors contribute to effective performance by providing leadership within the council, promoting communication between the council and the manager, and increasing cohesion through team building. They help to provide a sense of direction by identifying problems, clarifying goals and priorities, advocating solutions, and building coalitions. In addition, mayors should strive to guide the council toward recognition of its roles and responsibilities, assist the council to organize itself effectively, and maintain positive council-manager relations. The mayor plays an important role in oversight by identifying key areas of performance for council examination.

In the coordination and guidance of officials, the mayor is a leader without portfolio. He should identify problems wherever they exist—in relationships, priorities, accomplishment of functions, etc.—and facilitate (not necessarily take charge of) corrective action. In general, the mayor's responsibilities are (1) to insure that council and staff are performing as well as possible, and (2) to guide the city toward accomplishing its mission.

Summary

In conclusion, officials can ask themselves the following questions to assess the quality of governance and management in their city:

—Do we know our purpose? Do we know in what directions we want the city to go, and where we actually are going?

—Are we doing the right things to accomplish our goals?

—How well are we doing? How effective are our programs and services?

—Are we as efficient and economical as possible given our goals?

In addition, there is another broad question: are we getting the best contribution from each official, elected or appointed? This question leads to efforts to improve the effectiveness of municipal teamwork.

Councils and managers can perform better and improve the effectiveness of city government by raising their mutual expectations concerning attitudes and behavior. The council can be more positive about what it contributes, especially as the formulator of mission for the organization. Council members can ease their anxiety about the activity and influence of manager and staff in policy by accepting the legitimacy and necessity of staff contributions. Furthermore, the council members can acknowledge their interest in administration and move toward more systematic and less incursive involvement in it. Finally, the council can organize and broaden its appraisal of the manager and of organizational performance and, by so doing, be in a better position to support the manager in making management improvements. The manager should benefit from these changes as well. The manager would have a stronger, more aware council to work with, and would also have a clearer and broader mandate of responsibilities with expanded discretion, greater accountability, and more freedom to manage. The result can be higher involvement by both council and manager and more effective governance and management in council-manager cities. **GP**

14 James H. Svara, "Understanding the Mayor's Office in Council-Manager Cities," *Popular Government* 51 (Fall 1985), 6-11.

The Public Trust in Submerged Lands

Daniel F. McLawhorn

Pressures on public resources that increase when the population of an area rapidly swells have been magnified in the environmentally sensitive coastal area of North Carolina. The area's recognized importance as a fisheries and recreational resource has proved a drawing card for large retirement and vacation communities. While a variety of conflicts must be anticipated when so many new users begin to share fragile public trust resources, few people expected the conflicts to involve private claims of ownership in the open waters of the coast. The "public trust doctrine" is generally believed to prohibit private interference with the free use and enjoyment of these resources.

The state precipitated this controversy by enactment of G.S. 113-205 in 1965. That statute required any person claiming ownership of the bed or exclusive fishing rights in coastal waters to register the claim. Over 10,000 such claims were received by the closure date, December 31, 1969. By requiring the registration and failing to respond to claims for over 14 years, the state fostered the deep-seated conviction by many claimants that registration perfected their claims. This misconception is specifically refuted by a provision in the statute that provided it had no such effect.

In 1984, a legislative study committee found that conflicts between the public's use of resources and private claims to those resources had manifested themselves and could only be expected to intensify. The study committee examined the problems that would significantly affect the state's response to the claims. The Secretaries of the N.C. Department of Natural Resources and Community Development (NRCD) and the N.C. Department of Administration identified the legal issues that stymied efforts to finalize state policy and procedure. The study committee's recommendations were introduced as House Bills 111-115. With slight amendments in the House, the bills were enacted as they had been introduced.

The package of bills contained several significant pieces of legislation. Their immediate effect was resolution of the legal questions posed by the secretaries. They also codified common law principles regarding adverse possession of public trust resources and the public trust doctrine that are central to protection of these invaluable resources. Before discussing the bills individually, a succinct introduction to two public trust concepts is provided.

Public trust principles

The public trust doctrine embraces two types of property rights. First, it always acts as a public easement that protects public uses of waters and lands subject to public trust rights. In certain areas of navigable waters, the doctrine also requires public ownership of the submerged bed, or bottom, and prohibits its sale. Where the beds can be privately held, the title is in the nature of a "naked fee," giving the owner limited rights that do not contravene the public trust. Mineral rights and title to any accretion that forms to raise the bed above the mean high water mark

---

This article originally appeared in *Legal Tides* (Vol. I, no. 1, Jan. 1986), a newsletter of The University of North Carolina Sea Grant College Program.

The author, an Assistant Attorney General, North Carolina Department of Justice, served as counsel to the 1984 legislative study commission on coastal submerged lands and was assigned by the Attorney General to advise the House Judiciary IV Committee during its deliberations on this issue.

are among the most significant rights possessed by the fee owner.[1]

Secondly, the public rights secured by the doctrine are not static; rather, they evolve as the needs of society dictate. For example, under English common law, public ownership was only required in waters subject to lunar tides. Early in the 1800s, an American variation extended the public ownership rule to include extensive nontidal sounds and rivers that typified eastern areas of colonization. The American rule was applied as early as 1828 in North Carolina.[2] Another example of evolution in the doctrine involved the right of fishing in sections of rivers where the bed may be privately held. In 1859, the Supreme Court determined that right to be held by the owner of the bed.[3] In the 1965 legislative rewrite of wildlife and marine resources statutes, the right of fishing in the same waters was declared public in G.S. 113-131. In 1975, this public right of fishing was recognized in an opinion by the Fourth Circuit Court of Appeals.[4] Other examples of the doctrine's evolution include the right to navigate in all natural water courses of the state and the right to use the ocean beaches above the mean high water mark.

The remainder of this article discusses the legislative package. The legal issues presented in the package were related to adverse possession of public trust lands, property interests conveyed by deeds issued by the North Carolina Board of Education and the state's interest in lands created by filling below the mean high water mark. Other parts of the package dealt with the procedures for resolution of claims. This analysis is focused on the issues rather than on each bill.

Board of Education deeds

The most vexing legal questions that faced the state arose from deeds issued by the N.C. Board of Education. The majority of the deeds were issued during the 1920s and 1930s for the 24,000-acre complex of marshlands and submerged lands between the Cape Fear River and Topsail Sound. The deeds purported to convey irregularly and regularly flooded marshlands, and lands beneath open, tidal waters to private citizens. The Board of Education reserved a corridor for the Intracoastal Waterway under the erroneous assumption that this action protected the beds of navigable waters from sale in compliance with the public trust doctrine.

North Carolina Supreme Court decisions treating Board of Education deeds for marshlands and the bed under open waters raised substantial questions, particularly when compared to other cases related to the title of land raised from the navigable waters.[5] In the 1938, 1945, and 1954 cases, the Supreme Court upheld private claims of title for areas filled within the bounds of such deeds. In the 1916 case, the court found the state to be the owner of land created by filling tidal areas. In the 1952 case, the Supreme Court refused to uphold a Board of Education deed that included flooded marsh and lands beneath open waters. After the 1952 decision, the legislature passed a local act that purported to validate Board of Education deeds to marshlands in Onslow, Pender, and New Hanover counties.[6] This act was cited in the 1954 Supreme Court decision upholding private title to filled lands created after 1952, within the bounds of the Board of Education deed at issue in the 1952 case. The existing law was so difficult to reconcile that legislation was deemed necessary prior to determination of the claims founded on Board of Education deeds. The remedial legislation came in two bills: one regarding title to raised lands and the other regarding property rights in regularly flooded marshlands.

House Bill 111, "An Act to Establish the Title to Certain Lands Raised from Navigable Waters," was enacted as Chapter 276 of the 1985 Sessions Laws and became effective upon ratification, May 30, 1985. Chapter 276 amended G.S. 146-6, "Title to land raised from navigable water," by adding a new sentence at the end of the statute. By the amendment, the state abandoned any claim it may have had to lands raised within the bounds of deeds issued by the N.C. Board of Education. The statute also abandoned any claim to land raised under permits obtained by private individuals to fill wetlands through the Dredge and Fill statute, G.S. 113-229, or the Coastal Area Management Act, G.S. 113A-100 *et seq.* With this amendment North Carolina will avoid many conflicts between the state and the current owners of filled, developed lots.

The most difficult policy decision that confronted the state during the entire review of the submerged lands issue was the board's authority to convey regularly flooded marshland. The case law is conflicting. For example, under cases holding state ownership to the margin of tidal water bodies, state ownership was mandated to the mean

1. *See* State v. Glen, 52 N.C. 321 (1859); State v. Forehand, 67 N.C. App. 148, 312 S.E.2d 247 (1984).

2. Wilson v. Forbes, 13 N.C. 30 (1828).

3. State v. Glen, *supra* note 1.

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

5. *Compare* Insurance Co. v. Parmele, 214 N.C. 63, 197 S.E. 714 (1938), *and* Kelly v. King, 225 N.C. 709, 36 S.E.2d 220 (1945), *and* Parmele v. Eaton, 240 N.C. 539, 83 S.E.2d 93 (1954), *with* Railroad v. Way, 172 N.C. 774, 90 S.E. 937 (1916), *and* Development Co. v. Parmele, 235 N.C. 689, 71 S.E.2d 474 (1952).

6. Chapter 966, 1953 Session Laws.

highwater line—including regularly flooded marshlands.[7] The opposing cases held that the tidal marshlands were not embraced by the rule of required state ownership after the Board of Education obtained title through legislative actions in 1836 and 1891.[8] Some of the wording in *Land Co. v. Hotel*,[9] and *Perry v. Morgan*,[10] further supported an exception for tidal marshlands from the public trust prohibition on private ownership of lands below the mean high water mark. To provide policy guidance, the General Assembly enacted new legislation.

House Bill 113, "An Act to Validate Conveyance of Certain Marshlands by the State," was enacted as Chapter 278 of the 1985 Session Laws and made effective upon ratification on May 30, 1985. This bill contained the second half of the statutes offered to establish the property rights conveyed by the Board of Education deeds.

Section 1 of Chapter 278 created a new statute, G.S. 146-20.1, "Conveyance of certain marshlands validated; public trust rights reserved." The purposes of this statute were threefold: (1) to remove any legal questions about the validity of Chapter 966 of the 1953 Session Laws; (2) to establish clearly that when the Board of Education received title to marshlands below the mean high water mark, the marshlands were subject to and were conveyed subject to public trust rights; and (3) to reconcile the cases that construed Board of Education deeds. By its enactment, the necessary guidance for resolution has been provided to the secretary of NRCD. Therefore, an exception was acknowledged to the general rule that tidal lands below the mean high water mark could not be conveyed by the state. Certainly, the exeption was contemplated, if not recognized, in the 1938, 1945, and 1954 opinions as well as Chapter 966 of the 1953 Session Laws. The "naked fee," which is now recognized by the act, is similar to the interest held by the owners of river beds subject to public trust rights or the interest that may be vested in the holders of deeds to the bed of Currituck Sound.[11] It would appear that the most substantial value in such marshlands is from mineral rights, tax credits, and title to accreted lands.

Section 2 of Chapter 278 amended a tax credit statute that authorizes state income tax credits up to $5,000 for the donation of lands deemed useful for beach access, access to public waters, fish and wildlife conservation, or other similar land conservation purposes to eligible entities. Under this amendment, marshland claimed through G.S. 113-205 that is donated prior to December 31, 1990, may qualify for the tax credit. The purpose of the section was to stimulate donations of claimed marshlands so that the claims could be resolved efficiently and expeditiously with a financial benefit to the donors.

Codification of public trust principles

By its statutes North Carolina is among the minority of states that allow adverse possession of state lands.[12] The Attorney General's office and the Secretaries of Adminisration and NRCD were concerned that adverse possession might be raised as a defense due to the substantial delay in responding to the claims. This concern existed even though other elements of the adverse possession might have made it very difficult for claimants to establish this defense. The 21-year time period necessary for "color of title" claims begins to expire in 1986. Officials determined, however, that the adverse possession statute was never intended to apply to real property held by the state that was subject to public trust rights.[13]

House Bill 112, "An Act to Declare the Existing Policy of the State That Title to Land Subject to Public Trust Rights May Not Be Acquired By Adverse Possession," was enacted as Chapter 277 of the 1985 Session Laws and was also made effective upon ratification on May 30, 1985. By this amendment, the case law was codified, and the defense has been precluded for claims that were not the subject of pending litigation as of May 30, 1985.

This bill contained the piece of legislation that may have the greatest legal significance in the package of bills. For the first time, the definition of "public trust rights" was codified. By the definition, a significant advantage of the common law was retained: the rights embraced by the definition continue to be "established by common law as interpreted by the courts of this state." Thus, the bundle of rights can be expanded as the needs of society dictate. The "public trust rights" are defined as "those rights held in trust for the use and benefit of the people of the state in common . . . . They include, but are not limited to, the right to navigate, swim, hunt, fish and enjoy all recreational activities in the watercourses of the State and the right to freely use and enjoy the State's ocean and estuarine beaches and public access to the beaches." The

7. Ward v. Willis, 51 N.C. 183 (1858); Development Co. v. Parmele, *supra* note 5.

8. *See* Insurance Co. v. Parmele, *supra* note 5, and Kelly v. King, *supra* note 5.

9. 132 N.C. 517, 44 S.E. 39 (1903).

10. 219 N.C. 377, 14 S.E.2d 46 (1941).

11. *See* Springer v. Schlitz, *supra* note 4; Swan Island Club v. Yarborough, 209 F.2d 698 (4th Cir. 1954).

12. *See* N.C. GEN. STAT. §§ 1-35 *et. seq.*

13. *See* Lenoir v. Crabtree, 158 N.C. 357, 74 S.E. 105 (1912).

enumerated rights are established in case law and prior statutory enactments.[14]

A second amendment in House Bill 111 to G.S. 146-6 addressed a problem that did not arise from the claims to submerged lands. Rather, it relates to the ownership and use of berm projects (beaches rebuilt by sand replacement) along the Atlantic Ocean. The most familiar berms in North Carolina are at Wrightsville Beach and Carolina Beach. The amendment vests title to such created lands in the state if public funds finance the project. Title vests in the adjacent oceanfront owners as littoral proprietors if no public funds are employed. Regardless of the financing utilized, the amendment protects the public right to use these created beaches. " All such raised lands shall remain open to the free use and enjoyment of the people of the state, consistent with the public trust rights in ocean beaches, which rights are part of the common heritage of the people of the state." When this statement is read in conjunction with Article XIV Sec. 5 of the Constitution of North Carolina, the legislative findings in G.S. 113A-134.1, and Chapter 277 of the 1985 Session Laws, a compelling argument can be constructed to support the principle that the public trust rights in North Carolina include a right of free use and enjoyment of the ocean beaches between the mean high water mark and the bulkhead line or first line of stable vegetation (the dry sand beach). This argument should be controlling even though G.S. 77-22(a) provides that ocean beaches (above the mean high tide) are the subject of private ownership unless acquired by government. As with the rule on privately owned river beds, this application of the public trust doctrine could be found to establish a public use easement over the dry sand beach.

Procedures for resolution

House Bill 114, "An Act to Provide That Claims to Land Under Navigable Waters May be Litigated in Superior Court," was enacted as Chapter 762 of the 1985 Session Laws and made effective upon ratification on July 15, 1985. This bill had several impacts on the resolution of the claims. It amended G.S. 113-206, the companion statute to 113-205, which embodied the procedural mechanisms for resolution of the claims. As amended, the procedures for judicial review of a claim determination are the same whether a suit is filed by the state or the holder of a denied claim.[15]

The second section of Chapter 762 directs the Secretary of NRCD to develop a plan that will provide for resolution of all claims by December 31, 1990. Under the original act, there was no clear directive to respond to the claims. The N.C. General Assembly made the first monetary appropriation for resolution of the claims to NRCD in the 1985 session.

House Bill 115, "An Act to Permit Resolution of Claims to Shellfish Beds by Issuing a Shellfish Lease," was enacted as Chapter 279 of the 1985 Session Laws. It was made effective upon ratification on May 30, 1985. Chapter 279 was the simplest of the bills. It allows claims based on shellfish cultivation instruments to be resolved by the issuance of a shellfish cultivation lease for all or part of the area claimed. The lease may be an attractive alternative to claimants who have difficulty showing a connected chain of title to the source instrument, locating the area described in the source instrument, or showing regular compliance with the terms of the statute under which the source instrument was issued.

Conclusion

The submerged lands bills amount to the first significant legislative package concerning coastal waters since the enactment of the Coastal Area Management Act in 1973. Public trust aspects of the package should have the greatest long-term impact. By discharge of the duties imposed by the acts, the Secretary of NRCD has an unparalleled opportunity to protect one of the state's greatest natural resources, its coastal waters and submerged lands. The magnitude of the challenge is surely equalled by the significance of the results that can be achieved. North Carolina must resolve the claims to undertake an overdue, comprehensive management policy to protect the public's interest in these resources.

14. *See, e.g.*, State v. Twiford, 136 N.C. 603, 48 S.E. 586 (1904), Bell v. Smith, 171 N.C. 116, 87 S.E. 987 (1916); Fishing Pier, Inc. v. Town of Carolina Beach, 277 N.C. 297, 177 S.E.2d 513 (1970). *See* also G.S. 113A-134 and G.S. 113-131.

15. *Compare* N.C. GEN. STAT. § 113-206(d).

Living with the FAIR LABOR STANDARDS ACT

Robert P. Joyce

Governments are bound by laws governing all aspects of their relationships with their employees. Federal antidiscrimination laws like Title VII of the Civil Rights Act of 1964 forbid consideration of race, sex, age, and other factors in making employment decisions. The United States Constitution prohibits public employers from withholding employment benefits because an employee exercises basic, protected rights like freedom of speech. Numerous state laws and county and municipal ordinances prescribe standards for dismissing employees. The list of these protective laws is long, and it is about to grow.

Beginning in April 1986, the federal Fair Labor Standards Act (FLSA)[1] will require that public employers keep a much closer eye on the hours and schedules of their employees and, in many instances, pay them time-and-a-half for extra hours worked.

There is good news: The basic concepts at work under the FLSA are simple and easy to express and understand. There is also bad news: Figuring out how a basic concept applies in a particular situation can be frustratingly difficult, and a wrong assessment can lead to unexpected expense.

Now you see it, now you don't

The basic FLSA became law in 1938. Passed in the depths of the Great Depression, it sought to insure that workers could earn a reasonable living by requiring that their employees pay them a minimum wage. Also, by requiring extra pay for overtime work, it provided an incentive for employers to spread the available work around among a maximum number of people. Between 1938 and 1966 the law simply did not apply to governmental employers.

Then in 1966 began a series of flip-flops: Congress that year amended the FLSA to make it apply to public schools, hospitals, nursing homes and local transit systems. The State of Maryland challenged the expansion, but the Supreme Court upheld it.[2] In 1974 Congress relied on this Supreme Court ruling to further expand the FLSA so that it covered virtually all public employees. But within two years the Court changed its mind, reversed the decision in Maryland's case, and held that the Constitution prohibited the application of the FLSA's minimum wage and overtime provisions to state and local government employers that perform traditional governmental functions.[3] For state and local employers, the applicability of the FLSA from that point became a

---

The author is an Institute of Government faculty member whose fields include personnel law. This article is adapted from his article entitled "Schools and the Fair Labor Standards Act," which appeared in *School Law Bulletin* 17, no. 1 (Winter 1986), 1-7.

1. 29 U.S.C. § 201 *et seq.*

2. Maryland v. Wirtz, 392 U.S. 183 (1968).

3. National League of Cities v. Usery, 426 U.S. 833 (1976).

matter of guesswork. Were they performing "traditional" governmental functions or were they, at any particular point, doing something else?

Surprise! In 1985 the Supreme Court changed its mind again.[4] The justices decided that they had been wrong in 1976, that the distinction between "traditional" and other governmental functions was simply not workable, and that on second (really, third) thought, the FLSA *does fully apply* to state and local employers, whatever type of function they are performing.

This unexpected change left public employers, who had been relaxing in the confidence that the FLSA's minimum wage and overtime provisions did not apply to them, suddenly concerned and fearful. When the Supreme Court had let them off the hook in 1976, Congress had left the law unchanged on the books. Now, suddenly, the law applied to them again. Did that mean that they were liable for extra pay for overtime accumulated by workers over the last nine years? If the situation was not that bad, did the new decision at least mean that they were liable to pay time-and-a-half for overtime worked starting with the day the Court announced its reversal? How could public employers be expected to comply immediately with rules and regulations with which they had been unfamiliar for so long?

In November 1985, before the U.S. Department of Labor began enforcing the FLSA against public employers, Congress came to the rescue.[5] Most notably, it delayed the requirement of time-and-a-half overtime pay until April 1986, and it added provisions allowing public employers to use, to a limited extent, compensatory time off at the rate of 1½ hours off for each overtime hour worked rather than pay time-and-a-half in wages.

Overtime

Beginning in April 1986, public employers will have to pay special attention to their employees' schedules, and they will feel the pinch in the pocketbook when some employees become entitled to time-and-a-half pay for extra work. These are the main concerns resulting from the expansion of the FLSA.[6]

The overtime rule under the FLSA can be stated fairly easily: covered employees who work more than 40 hours in a workweek must be paid time-and-a-half (in money or in compensatory time off, within limits) for the overtime worked.

The overtime provisions of the FLSA involve recordkeeping requirements that must be conscientiously adhered to.

The basic concepts that cause headaches are contained right in that statement: Who are "covered employees?" What is "work?" What is a "workweek?" When can an employer use compensatory time off instead of paying time-and-a-half?

"Covered employees"

A few people on the public payroll simply are not covered by the FLSA, and in regard to them there are no overtime or recordkeeping requirements. They are elected officials and the personal staffs, policymaking advisers, and legal advisers to elected officials and legislative employees.[7] Volunteers who perform services for a public agency are not covered, if they receive no compensation (or are paid only expenses, reasonable benefits, or a nominal fee). A public employee may volunteer his services and not be covered for the volunteer work only if the volunteer services performed are not the same type of services he is employed to perform.[8] For example, a county sewer systems inspector may volunteer to work Saturdays at a county senior citizens center; but if a county social services employee who regularly works with senior citizens volunteers for such Saturday work, the county would have to prohibit such work or pay for it—including overtime if necessary.

Some other employees are covered generally by the FLSA but are exempt from the requirement of overtime pay for hours over 40 a week. These are executive, administrative, and professional employees.[9] Generally speaking, a public employer would like to

4. Garcia v. San Antonio Metropolitan Transit Authority, ____ U.S. 105 S. Ct. 1005 (1985).

5. Pub. Law No. 99-150

6. After April 15, 1986, there will be no difference in the way the FLSA applies to public employers in "traditional" governmental functions—like schools—and those in "nontraditional" functions—like ABC stores and mass transit.

7. 29 U.S.C. § 203(e), as amended by Pub. Law No. 99-150.

8. *Id.*

9. 29 C.F.R. pt. 541.

have as many of its employees as possible fit within one of these categories so as to reduce the need to pay overtime.

Executive. If an employee meets either of the two following sets of criteria (the "long" and "short" tests),[10] he is exempt as an "executive." *The long test:* (1) The employee's primary duty (generally taken to mean 50 per cent of a person's time) is management of an enterprise (such as a city) or a customarily recognized department or subdivision (such as a water and sewer department). (2) He customarily and regularly directs the work of at least two employees. (3) He has the authority to hire and fire or has particular weight accorded to his recommendations regarding hiring and firing. (4) He customarily and regularly exercises discretionary powers. (5) He devotes no more than 20 per cent of his time to nonmanagerial duties. (6) He is paid on a salary basis at least $155 per week. *The short test:* (1) The employee is paid on a salary basis at least $250 per week. (2) He regularly directs the work of at least two employees. (3) His primary duty is management of an enterprise or a recognized department or subdivision.

The chief difference between the long and short tests is the 20 per cent requirement. For employees who earn between $155 and $250—and thus do not meet the short test—exempt status is determined week by week. Say, for example, that a city's director of computer programming falls within this salary range. In a particular week he might spend more than 20 per cent of his time on nonmanagerial duties and therefore would not be exempt that week. He would have to get overtime compensation for all time worked that week over 40 hours, even those hours spent on managerial duties. If, on the other hand, his salary is above $250, the 20 per cent limitation does not apply, and he would be exempt so long as his primary duty (more than 50 per cent) is management as described above.

The $155 and $250 salary levels in the long and short tests would have been raised to $250 and $345 in 1983 by regulations proposed in early 1981, but President Reagan, by Presidential Memorandum of January 29, 1981, postponed the change indefinitely.

Administrative. As with the executive exemption, an employee who meets either a long or a short test is exempt as an "administrator."[11] *The long test:* (1) The employee's primary duty must be responsible office or nonmanual work directly related to management policies or the general business operations of the public employer *or* responsible work that is directly related to academic instruction or training carried on in administering a school system or educational institution. (2) He customarily and regularly exercises discretion and independent judgment, as distinguished from using skills and following procedures, and has the authority to make important decisions. (3) He regularly assists a bona fide executive *or* administrator; or works under only general supervision along specialized or technical lines which require special training, experience, or knowledge; *or* executes special assignments under only general supervision. (4) He devotes no more than 20 per cent of his time to other duties. (5) He is paid on a salary basis at least $155 per week. *The short test:* (1) The employee is paid on a salary basis at least $250 per week. (2) His primary duty is responsible office or nonmanual work directly related to management policies or the general business operations of the public employer *or* responsible work directly related to academic instruction or training carried on in administering a school system or educational establishment. (3) His primary duty includes work that requires the exercise of discretion and independent judgment.

The FLSA applies fully to state and local employers, whatever type of function they are performing.

As with the executive exemption, the chief difference between the two tests is the 20 per cent requirement. And, as with the executive exemption, the application of the long test is week by week.

The federal regulations indicate that employees with the following job titles are typically exempt as "administrators:" confidential assistant, executive secretary, assistant to the general manager, and administrative assistant. Also listed as examples are tax experts, insurance experts, statisticians, safety directors, personnel directors, and purchasing agents. These regulations will presumably apply fully to governmental employers, once the 1985 FLSA amendments become effective in April 1986. But, the regulations point out, "Titles can be had cheaply and

10. 29 C.F.R. §§ 541.1 and 541.101.
11. 29 C.F.R. §§ 541.2 and 541.201.

Basic FLSA Concepts That Present No New Problems

Several of the FLSA's basic concepts present no new problems to public employers.

First, they must pay employees no less than $3.35 an hour. This is the FLSA's minimum-wage provision. Very few employees receive less than that amount of pay: most workers who have not been covered by the FLSA have been covered by state minimum-wage provisions. For example, North Carolina's G.S. 95-25.3, provides a minimum wage of $3.35 for employees not covered by the FLSA. (Institutions of higher education—defined as schools above the secondary level—may employ their own full-time students at 85 per cent of the minimum wage. Students so employed may not work more than eight hours in any day or more than 20 hours a week when school is in session and 40 when it is not.[1] In addition, educational institutions may employ student workers at 75 per cent of the minimum wage in shops owned by the institution if the purpose is to enable the student to defray part of his school expenses.[2] Before schools use these special provisions for employing students, they must get a certificate from the U.S. Department of Labor. Strict recordkeeping requirements apply.)

Second, public employers must comply with the child-labor provisions of the FLSA. Children under 14 may be employed in only a few types of endeavors, such as delivering newspapers and acting in movies, which generally do not apply to schools. Children aged 14 or 15 may work in office, clerical, sales, retail, food-service, and gasoline-service jobs such as cashiering, packing, shelving, clean-up, and delivery work. They may not work during school hours, in the early morning, or at night. They also may not work more than three hours a day on school days or more than eight hours on other days. In addition, they may not work more than 18 hours during any school week or more than 40 hours in any other week. At age 16 a child may be employed in any nonhazardous occupation. (The U.S. Secretary of Labor has issued a waiver permitting youths under 18 to drive school buses even though operating a motor vehicle is normally considered a hazardous occupation.) When a youth reaches age 18, all jobs are open.[3] These provisions have fully applied to schools as employers since 1974. The recent expansion of other provisions of the FLSA to cover public employers causes no change.

Third, public employers must not pay men and women at different rates of pay for substantially equal work. The Equal Pay Act of 1963 added to the FLSA the requirement that no employer may discriminate on the basis of sex by paying men more than women (or women more than men) for equal work requiring equal skill, effort, and responsibility performed under similar conditions, unless the difference is based on seniority, productivity, or some factor other than sex. The Equal Pay Act has applied to public employers since 1974. The recent expansion of other provisions of the FLSA to cover public employers causes no change.

Fourth, public employers must not discriminate in employment against persons between 40 and 70 on the basis of age. The Age Discrimination in Employment Act of 1967 added this provision to the FLSA. Like the Equal Pay Act, the Age Discrimination Act has applied to public employers since 1974, and the recent expansion of the FLSA causes no change.

And ***fifth***, it is important to keep in mind what the FLSA does *not* do: it does not require employers to give vacation, holiday, severance, or sick pay (state law addresses these issues for schools); it does not mandate meal or rest periods, holidays off, or vacations off (state law again); it does not require notice of discharge or the giving of reasons for discharge; it does not apply to pay raises or fringe benefits; and, except for special rules relating to minors and student workers, it does not limit the number of hours that an employee can be required to work.

1. 29 C.F.R. pt. 519
2. *Id.*
3. *Id.* pt. 570.

are of no determinative value."[12] The existance of an exemption turns on the actual duties and responsibilities of the employee.

Professional. The professional exemption also contains long and short tests.[13] A person who fulfills either is exempt as a "professional." *The long test:* (1) The employee's primary duty must be work requiring advanced knowledge in a field of science or learning customarily obtained by a prolonged course of specialized study; *or* work that is original and creative in a recognized field of artistic endeavor, the result of that work depending primarily on the employee's invention, imagination, or talent; *or* work as a teacher certified and recognized as such by the school system or educational institution. (2) He consistently exercises discretion and judgment. (3) He does work that is predominately intellectual and varied. (4) He devotes no more than 20 per cent of his time in a workweek to other duties. (5) He is paid on a salary or fee basis at least $170 per week. *The short test:* (1) The employee is paid at least $250 per week. (2) His primary duty consists of work requiring advanced knowledge in a field of science or learning; or he works as a teacher imparting knowledge, that work requiring consistent exercise of discretion and judgment; or he does artistic work requiring invention, imagination, or talent in a recognized field of artistic endeavor. *Lawyers, Doctors, and Teachers:* The salary requirement of $170 per week in the long test does not apply to lawyers, doctors and teachers. They are exempt professionals even if paid less than that salary.

The federal regulations provide that the following types of employees generally fit within the professional exemption: law, medicine, nursing, accounting, actuarial computation, engineering, architecture, teaching, and various types of physical, chemical, and biological sciences, including pharmacy and certified medical technology.[14]

Most common problem. Officials with the U.S. Department of Labor report[15] that with public employers one problem arises more than any other in applying the overtime provisions of the FLSA: the determination of exempt status for administrative employees. The chief officer of a unit (a city manager, say) will want to claim that his assistant is exempt. That suits the chief officer's purpose in removing the concern about overtime pay. And it may suit the employee's needs by reinforcing that person's sense that his or her work is important and "high level." But the exemption is simply not available if the person, in the estimation of the U.S. Labor Department official who makes the determination, does not "regularly exercise discretion and independent judgment" (interpreted to mean "the authority or power to make an independent choice, free from immediate direction or supervision and with respect to matters of significance") or if the person is paid less than $250 per week and spends more than 20 per cent of his or her time on work that is not directly and closely related to administrative duties that require such judgment.

"Work"

To determine whether a covered employee is entitled to overtime compensation in a particular week, an employer must be able to figure how many hours that person worked in that week. That is not quite so easy as it sounds.

The FLSA does not define "work," but it does define "employ" as "to suffer or permit to work."[16] An employer who allows an employee to continue working after that person's normal quitting time (or to begin work before normal starting time) has allowed that person to build up hours that can eventually total more than 40 for the week, so that overtime compensation becomes necessary. If a sanitarian, for example, stays late on an inspection tour to finish up his route, that extra time counts as hours worked and can build up to overtime. To avoid having these hours build up, an employer, must not "suffer or permit" extra work. The burden is on the employer to make sure employees understand that building up *unauthorized* overtime hours cannot be tolerated, and that they can be disciplined if they disregard the warning. The situation can be distasteful.[17]

What about time spent in waiting? Is it work? Generally speaking, if the employee is completely

12. 29 C.F.R. § 541.201(b)(1).

13. 29 C.F.R. §§ 541.3 and 541.301.

14. 29 C.F.R. § 541.302(e)(1).

15. Conversation with James C. Stewart, Director, Raleigh Area Office, U.S. Department of Labor, November 7, 1985.

16. 29 U.S.C. § 203(g).

17. "[I]t is the duty of management to exercise its control and see that the work is not performed if it does not want it to be performed. It cannot sit back and accept the benefits without compensating for them. The mere promulgation of a rule against such work is not enough. Management has the power to enforce the rule and must make every effort to do so." 29 C.F.R. § 785.13.

relieved from duty and the time is long enough (and the employee has enough advance notice) to be useful for purposes other than work, then the time spent waiting need not be counted as work. Rest periods of under 20 minutes generally are counted as work time. Meal periods of 30 minutes or more are not work time (if the employee is completely relieved of duties). Shorter meal times may be acceptable in some circumstances.[18]

Special consideration must be given instances in which an employee is on duty for 24 hours or more at a stretch or resides on the employer's premises. In the former case, eight hours of sleep time may be deducted from the hours worked if sleeping facilities are provided and the employee is not interrupted during the sleep period. In the latter case, it is difficult to determine hours worked, and federal regulations state that "any reasonable agreement of the parties which takes into account all the pertinent facts will be accepted."[19] (See discussion of special rules that apply to law enforcement and fire protection employees.)

Attendance at lectures, meetings, training programs, and similar activities need not be counted as working time if (1) attendance is outside regular working hours; (2) attendance is voluntary; (3) the lecture, meeting, or program is not directly related to the employee's job, and (4) the employee does no productive work while in attendance. If the employee is led to believe that his employment will be adversely affected if he does not attend, attendance is not "voluntary."[20] According to U.S. Labor Department officials, experience indicates that almost always meetings and training programs *do* count as working time.

When a public employee undertakes, on an occasional or sporadic basis and solely at the employee's option, part-time employment for his regular public employer that is in a different capacity from any capacity in which the employee regularly works, the hours worked in such different employment do not count in calculating the hours for which the employee is entitled to overtime compensation.[21] This new provision of the FLSA has not been interpreted by the Department of Labor, and its future impact is unclear. But apparently it would apply, for example, to a building inspector who works occasionally as a monitor at night football games. His or her 40 hours during the week in the regular job would not be added to the hours worked occasionally as a monitor to require overtime pay.

"Workweek"

An employee's workweek is a fixed and regularly recurring period of 168 hours—seven days times 24 hours. It typically runs from the start of work on Monday to the start of work on the next Monday, but it may run from any hour on any day—say, 11 p.m. Thursday to 10:59:59 p.m. the next Thursday. The workweek may be different for each employee. Once set, it does not change unless the employer changes it with the intention that the change is to be permanent. That is, the employer may not change the workweek every week.[22]

What constitutes the workweek is important. Whether an employee subject to the overtime provisions of the FLSA has worked more than 40 hours in a workweek depends on when he worked and when the workweek began and ended.

If a public employee, at his own option, chooses to swap time with another employee, the employer does not incur overtime liability even if the swap causes either employee to work more than 40 hours in a workweek.[23]

A special rule allows hospitals and nursing homes to establish "workperiods" of 14 days rather than "workweeks" of seven days.[24]

"Time-and-a-half": Compensatory time or money?

Beginning in April 1986, public employers must provide premium compensation for the time that their covered employees work beyond 40 hours per workweek.

Overtime premium pay. The general rule under the FLSA is that the employee must be paid at 1½ times his regular rate for all overtime hours worked. The regular rate is the employee's normal hourly rate, if he is compensated solely on an hourly basis. So an employee who earns $6 per hour and works 46 hours in a week must be paid as follows: (40 hours x $6) + (6 hours x $9 [the overtime rate]) = $294. If

18. 29 C.F.R. § 785.19.
19. *Id.* § 785.23.
20. *Id.* §§ 785.27 and .28.
21. 29 U.S.C. § 207(p)(2), as added by Pub. Law No. 99-150.
22. 29 C.F.R. § 778.105.
23. 29 U.S.C. § 207(p)(2), as added by Pub. Law No. 99-150.
24. 29 U.S.C. § 207(j).

an employee is paid on a salary basis, the regular rate is determined by dividing the weekly salary by the number of hours it is intended to compensate him for. For example, a weekly salary of $220.80, designed to cover a workweek of 40 hours, yields a regular rate of $5.52 ($220.80 divided by 40). For every hour after 40, the employee would be entitled to $8.28 per hour ($5.52 x 1½). If the salary is stated for other than a weekly period, it must be adjusted mathematically to get the weekly equivalent. If an employee is paid a fixed weekly salary for fluctuating hours of work, his base rate and overtime rate will vary, depending on how many hours he actually worked. In such a case, the overtime rate for hours worked over 40 is one-half time, not time and a half, since the weekly salary is already intended to pay for all hours, even those over 40. If an employee works in a single workweek at two or more jobs that have different hourly regular rates, his regular rate is the weighted average of the rates.

Many kinds of employer payments do not count in figuring the regular rate. Chief among these are contributions made irretrievably to a bona fide retirement or life, accident, or health insurance plan. Others include special premiums paid for working on Saturdays, holidays, or more than eight hours on particular days, and special discretionary performance bonuses. Longevity payments based solely on length of service do count, however, in figuring the regular rate of pay.[25]

The compensatory-time option. When in 1985 the U.S. Supreme Court made the FLSA overtime provisions apply to public employers, many public employers realized that their payroll budgets would have to go up. They had been giving compensatory time off to employees who worked overtime rather than paying them an overtime premium. That way is cheaper.

Recognizing the potential impact on public treasuries, Congress in November 1985 amended the FLSA to provide that, unlike private employers, public employers may provide compensatory time off at a rate of at least 1½ hours off for each hour of overtime worked "in lieu of overtime compensation."[26] There are three chief rules in giving time-and-a-half compensatory time off.

First, employers who wish to take advantage of this compensatory time-off option must inform their employees of their intention and must establish a policy before April 15, 1986.

The U.S. Department of Labor investigates complaints about violations of the overtime or minimum wage provisions of the FLSA.

Second, compensatory time may be accrued and stored over any length of time but may not accumulate to more than 240 hours (the time-and-a-half compensation for 160 hours of overtime worked). Any overtime hours worked by an employee who has already accrued 240 hours in his comp-time "bank" must be paid for in money at time and a half.

Third, the employee with accrued compensatory time must be permitted to use it within a reasonable time after he asks to do so if the use does not unduly disrupt the operations of the public agency.

Public employers may defer until August 1, 1986, the payment of monetary compensation for overtime hours worked after April 1986. Congress set up this grace period to allow sufficient time to revamp computer systems to make FLSA-related calculations and to budget for overtime pay. As long as payments are made by August 1, 1986, retroactively to April 15, 1986, the delay is authorized.

Recordkeeping

Public employers that in April 1986 find themselves subject to the overtime provisions of the FLSA will also find themselves subject to its recordkeeping requirements. In themselves, those provisions are not onerous. Indeed, much of the information asked for is probably already being kept. But the requirements must be conscientiously adhered to, and they may represent a level of recordkeeping that public employers have not previously had to bother with. The federal regulations specify that no particular form of record is required, but the following information must be recorded.[27]

Nonexempt employees. For covered employees who do not fall within the executive, administrative,

25. 29 C.F.R. § 778.200.
26. 29 U.S.C. § 207(o)(1), as added by Pub. Law No. 99-150.
27. 29 C.F.R. pt. 516.

Special Rules For Law Enforcement and Fire Protection Employees

Under the Fair Labor Standards Act, five special rules apply to public employees engaged in law enforcement and fire protection.

Employees engaged in law enforcement include police of all ranks, deputy sheriffs, state troopers and others who by statute or ordinance have been given the power of arrest. The term also includes employees in jails and prisons who have responsibility for custody of prisoners, even if they do not have the power of arrest. Employees engaged in fire protection include members of organized fire departments and districts who are trained in and have the legal authority and responsibility to engage in fire prevention, control, or extinguishment. If duties other than law enforcement or fire protection take up more than 20 per cent of an employee's time, the employee is no longer considered a law enforcement or fire protection employee. Employees without direct responsibility for law enforcement or fire protection, such as dispatchers, radio operators, maintenance and repair workers, janitors and clerks are not included as employees engaged in law enforcement or fire protection.

The first rule: **overtime exemption for small departments.** If a law enforcement or a fire protection agency employs fewer than five employees in law enforcement or fire protection activities, the agency is completely exempt from the FLSA's requirement to pay overtime pay. The sheriff, as an elected official, does not count in determining whether the limit of five has been reached, since the FLSA does not apply to elected officials. Also not included are dispatchers, radio operators, etc., as listed above.

The second rule: **"workweek" exemption for larger departments.** If a law enforcement or fire protection agency does not qualify for the complete overtime exemption because it is too large, a special overtime provision applies. The regular FLSA rule states that employees must be paid time-and-a-half for hours worked over 40 in a workweek, and provides that a workweek is a consecutive period of 7 days (totalling 168 hours). Law enforcement and fire protection agencies may substitute a "work period" for the standard "workweek." The work period may be any length from 7 days up to 28 days. An agency may have one work period for all its law enforcement or fire protection employees or may have different periods for different employees. If the work period is 28 days, law enforcement employees are entitled to overtime compensation for hours worked over 212 in the work period and fire protection employees for hours worked over 171. If the work period is less than 28 days, then the number of hours is figured as the proportionate amount based on 212 or 171. A work period of 20 days, for example, would encompass hours of 151 and 122 for law and fire, respectively.

The third rule: **overtime bank.** The most recent amendments to the FLSA, signed in November 1985, provide that public employers may compensate their employees who work overtime hours either by paying them in money at time-and-a-half, as private employers are required to do, or by granting them compensatory time off, to be used within a reasonable time, at the rate of one-hour-and-a-half off for every overtime hour worked. For regular public employees, the compensatory time off provision applies only until the employee has built up a "bank" of 240 compensatory time hours (compensating him for 160 overtime hours worked). After that, the employee must be paid in money for overtime worked. The rules are the same for law enforcement and fire protection employees except that the bank is larger. These employees may accumulate up to 480 comp-time hours.

The fourth rule: **special details.** The November 1985 FLSA amendments added a provision with respect to special details worked by law enforcement and fire protection employees. If the employee, solely at his own option, agrees to be employed by an independent employer on a special fire protection or law enforcement detail (such as security guard at a city school football game) the hours worked on the detail do not count in figuring overtime.

The fifth rule: **sleep and meal time.** For law enforcement and fire protection employees, employers may deduct sleep time if the shift is greater than 24 hours. Deductions of up to 8 hours per shift for sleep time may be made as long as the employee actually receives at least 5 hours of sleep. This sleep does not have to be consecutive. Mealtimes may be deducted for public safety officers if they are totally relieved of their duties during the meal period. See Wage/Hour Administrator letter ruling (W.H. 525), July 29, 1985.

In applying these rules, two special problems arise.

The first problem: **emergency medical services.** Can public emergency medical service (EMS) personnel be scheduled on the basis of a "work period" of up to 28 days, or must they be scheduled, like employees other than law enforcement and fire protection, on the basis of a 40-hour, 7-day week? The federal regulations provide that ambulance and rescue service employees may be put on the "work period" schedule if they have received special training in the rescue of fire and accident victims or firefighters injured in the performance of firefighting duties and they are *regularly dispatched* to fires, riots, natural disasters, and accidents.

The second problem: **public safety officers.** Some jurisdictions combine their law enforcement and fire protection services in one public safety agency. Such employees are still eligible for the "work period" scheduling if both their fire protection and law enforcement duties meet the criteria outlined above. Whether they would be on the 212-hour fire protection schedule or the 171-hour law enforcement schedule would depend on which activity—fire protection or law enforcement—occupies the greater part of the individual's active response time.

These special rules applicable to law enforcement and fire protection employees can be found generally in the federal regulations, 29 C.F.R. Part 553.

or professional exemptions, the following records must be kept:

—Name, home address, and birth date if the employee is under 19,
—Sex and occupation of the employee,
—Time of day and day of week on which the employee's workweek or (for law enforcement and fire protection employees and for certain hospital and nursing home employees) work period begins,
—Regular hourly rate in any workweek in which overtime is worked,
—Daily and weekly hours worked,
—Total daily and weekly straight-time earnings,
—Total overtime pay for the workweek (or work period),
—Total additions (such as tuition assistance or holiday premium pay) or deductions (such as charitable contributions and employee pension contributions),
—Total wages paid each pay period,
—Date of payment and pay period covered.

Exempt employees. For exempt employees such as city managers or staff attorneys, only the first two items listed above must be kept, in addition to information indicating the place or places of employment.

Retention. Retention requirements for records depend on the type of records, but employers should keep all payroll records and all records of the type listed above for three years. Microfilm copies are generally acceptable.

"The Labor Department is here"

The U.S. Department of Labor is responsible for enforcing the FLSA. It does so chiefly by investigating complaints that the overtime or minimum-wage provisions are being violated. The complaints come primarily from employees who believe they have not been paid what the law requires, but they can come from other sources as well. In private industry, those other sources are chiefly competitors. For example, a manufacturing company that is investigated and knows that a competing manufacturer has similar practices is likely to sic the investigators on that other company. Whether this syndrome will develop among cities and counties, school districts, and sheriff's departments waits to be seen.[28]

28. Conversation with James C. Stewart, Director, Raleigh Area Office, U.S. Department of Labor, November 7, 1985.

The North Carolina offices of the Department of Labor have under their FLSA jurisdiction more than 35,000 establishments. The April 1986 expansion to include public employers like cities, counties, and schools (collectively far less than 1,000 jurisdictions in North Carolina) does not significantly increase their load.

The basic concepts under the FLSA are easy to express and understand, but applying a basic concept in a particular situation can be frustratingly difficult.

An investigation typically begins with a form sent to the employer, followed by an on-site visit by a Department of Labor investigator, who will review the employer's records and interview selected employees privately to confirm the accuracy of records and to identify duties well enough to assess whether claimed exemptions apply.

An investigation by the Labor Department is not a prerequisite to a suit by an employee. An employee may bring his own suit to recover twice the wages due but not paid and may, if successful, have his attorneys fees paid. The Secretary of Labor may sue instead of the employee. Or the Justice Department may bring a criminal prosecution against an employer who commits a willful violation; a first violation is punishable by a fine of up to $10,000 and subsequent violations by a similar fine and imprisonment for six months. Generally speaking, suits must be brought within three years of a claimed violation.

What to do now

Now is the time to begin implementing the FLSA requirements. Employers should:

—Determine which employees are eligible for the executive, administrative, and professional exemptions and make sure that all documentation that outlines the duties those employees perform is current and accurate;
—Put into place a clear policy regarding use of compensatory time and distribute copies of the policy to employees;
—Make sure that record-keeping officials understand the kinds of records that are required under the

FLSA and also understand that they are responsible for keeping those records;

—Establish for each employee a "workweek" within the meaning of the FLSA (or "work period" for law enforcement and fire protection employees);

—Make sure that all employees are being paid at least the minimum wage (or get certificates for special subminimum wage rates for students);

—Make sure employees understand their rights under the law by communicating to them the intended policies that will be put into effect on April 15, 1986;

—Telephone the U.S. Department of Labor with any questions. The proper offices can be reached at Raleigh (919-856-4190), Goldsboro (919-734-2651), Wilson (919-243-4431), Greenville (919-758-5385), New Bern (919-637-4013), Greensboro (919-333-5494), Durham (919-541-5300), High Point (919-882-8826), Wilmington (919-343-4947), Charlotte (704-371-6120), Fayetteville (919-483-7491), Gastonia (704-864-4326), Hickory (704-327-8381), Salisbury (704-633-1195), Winston-Salem (919-761-3155), and Asheville (704-258-2850). ☙

Relationship Between University Research and State Policy: Division TEACCH— Treatment and Education of Autistic and related Communication-handicapped CHildren

Eric Schopler

Early during my professional career as a psychologist it was assumed that parents were responsible for the problems of their children, and if these problems were severe, as in the case of autism, so was the parental mismanagement. This was the conventional wisdom expressed directly from psychoanalytic theory and widely accepted in the practice of psychotherapy and family counseling. Moreover, this trend was reflected in the growing academic research in child development. Unidirectional research, designed to investigate the many ways in which parents influence and shape their children's behavior and adaptation, rarely investigated the other side of the interaction—how children shape the behavior of their parents, especially when these children have severe peculiarities and delays in their social relationships and their communicative behavior, as in the case of autism and related developmental disorders.

It was no doubt one of my better ideas to question the assumption that parental pathology causes autism. The purpose of this article is to describe how that idea caught on in North Carolina and worked into both the clinical procedures of the Psychiatry Department of the UNC-CH Medical School and into our state agency structure.

Background

My own higher education took place at the University of Chicago after World War II, a time when psychoanalysis was widely believed to be the solution to internalized conflict, or neurosis, and by extension, the solution to most other forms of unhappiness. Human genetics had been hopelessly politicized by Hitler's master race ideology, and our social science hypotheses were largely based on the assumption that any social change worth making could be made with appropriate environmental manipulation.

It was in this intellectual climate that we learned about the psychogenesis of autism and of other severe disorders of childhood from Bettelheim.[1] The unconscious feelings of rejection and hostility of emotionally cold "refrigerator mothers" were considered the primary mechanisms by which children became autistic, and a "parentectomy," or removal of the child from the home to a residential institution, was considered the best hope for recovery and rehabilitation.

Fortunately my education had emphasized empirical research and reliance on evidence, so that when I began accumulating clinical experience, it became difficult to see how the symptoms of autism could be produced by errors of thought and feeling about child rearing. Autistic children had severe problems of communication and responsiveness, and their parents had other perfectly nor-

---

The author is a Professor of Psychiatry and Psychology at the University of North Carolina at Chapel Hill and Director, Division TEACCH.

1. Bruno Bettelheim, *Love is Not Enough* (Glencoe, Illinois: the Free Press, 1950).

mal children. Surely the contribution of biological factors was not adequately understood or studied.

My first position after completing graduate studies at the University of Chicago was on the faculty of the Department of Psychiatry at the University of North Carolina School of Medicine, with a primary assignment to a group therapy project for psychotic and autistic children. The purpose of this federally funded research project was to see if such children could be treated in group psychotherapy based on psychodynamic principles and assumptions.[2] During these group therapy sessions, the children were allowed maximum freedom from structure with the expectation that their resulting play, correctly interpreted, would free them of their disabling symptoms. Unfortunately, freedom from structure, often as not, increased their difficult behavior, such as removing their clothing, urinating and defecating in the room, and spreading anxiety to both staff and other children.

During the period summarized above, autism was considered an emotional disorder, a form of social withdrawal from pathological parenting. It was thought that affected children belonged under psychiatric care, or should be removed from their parents for residential treatment, and at the same time they were excluded from education in public schools.

Child research project

During the next five years I initiated a research project, supported by the NIMH, designed to investigate the kind of evidence ignored or denied by proponents of the psychoanalytic interpretation. In collaboration with a young child psychiatrist, Robert Reichler, we investigated the proposition that autism was not caused by parental pathology, but by some form of brain abnormality. We learned that parents of such children were no more or less pathological than the general population, and were quite similar to them with the exception that they had a handicapped child.[3]

The autism handicap, on the other hand, was not so much a form of social withdrawal as a developmental disability with certain characteristics. The children were impaired in their relationships and communication skills from the beginning of life. They engaged in repetitive preoccupations and became upset when their rituals were interfered with. Moreover, what made these children both fascinating and perplexing was that their intellectual levels ranged all the way from severe mental retardation to normal functioning with certain peak skills. Therefore, their autistic symptoms varied considerably with the degree of their mental handicaps.

The rapidly developing empirical research indicated that the autism syndrome could be caused by a variety of biological factors. However, the specific causes in individual children were usually unknown. With this level of incomplete knowledge, it seemed especially important to form a collaborative relationship with the parents of these children in order to develop an individualized treatment plan that could capitalize on the best information available for each child. This could probably best be accomplished in the context of special education, using behavioral principles within a developmental perspective.

During the period of our Child Research project, we conducted a number of clinical and empirical studies to answer questions raised by these new formulations, including diagnosis and assessment, educational structure, special curricula, and collaboration with parents. To summarize these studies: we found that autism could be diagnosed by a rating scale used by trained clinicians.[4] We found that the individual characteristics of each child, not necessarily related to the autism syndrome, could be measured by the psychoeducational profile,[5] and that these assessment procedures could be extended to adolescents and adults.[6] The resulting evaluation could be translated into an effective teaching program, to be used by both parents and teachers.[7] We also found that these children needed a special educational structure, shaped by their developmental levels, rather than the unstructured special

2. R. W. Speers and C. Lansing, *Group Therapy in Childhood Psychosis* (Chapel Hill: The University of North Carolina Press, 1965).

3. Eric Schopler and J. M. Loftin, "Thought Disorders in Parents of Psychotic Children: A Function of Test Anxiety," *Archives of General Psychiatry* 20 (January 1969), 174-181; *see* also S. Chess and A. Thomas, eds., *Annual Progress in Child Psychiatry and Child Development* (New York: Bruner/Mazel, 1970), pp. 472-86, and Schopler, "Parents of Psychotic Children as Scapegoats," *Journal of Contemporary Psychotherapy* 4 (Winter 1971), 17-22.

4. Schopler, R. J. Reichler, R. F. DeVellis, and K. Daly, "Toward Objective Classification of Childhood Autism: Childhood Austism Rating Scale (CARS)," *Journal of Autism and Developmental Disorders* 10 (March 1980), 91-103, and Schopler, Reichler, and B. R. Renner, *The Childhood Autism Rating Scale (CARS)* (New York: Irvington, 1985).

5. Schopler and Reichler, *Individualized Assessment and Treatment of Autistic and Developmentally Disabled Children*, vol. 1, 2d ed., *Psychoeducational Profile* (Baltimore: University Park Press, 1979). Pro-Ed.

6. G. B. Mesibov, E. Schopler, and B. Schaffer, *Adolescent and Adult Psychoeducational Profile (AAPEP)* (Hillsborough, N.C.: Orange Industries, 1984).

7. Schopler, Reichler, and M. Lansing, *Individualized Assessment and Treatment for Autistic and Developmentally Disabled Children*, vol. 2, 2d. ed. of *Teaching Strategies for Parents and Professionals* (Baltimore: University Park Press, 1980); also Schopler, Lansing, and L. Waters, *Individualized Assessment and Treatment for Autistic and Developmentally Disabled Children*, vol. 3, 2d. ed. of *Teaching Activities for Autistic Children* (Baltimore: University Park Press, 1983). Pro-Ed.

education approach advocated by the proponents of autism as an emotional illness.[8] With the educational structure, special emphasis on training communication and social skills was needed.[9] Most importantly, we found that parents could make effective collaborators and co-therapists, educational consultants, and community advocates.[10]

Relationship between university research and legislation

When this combination of clinical research, application, and training terminated in 1971, the parents were especially eager to have the program continue. This became evident during our regular parent group meetings, which were used for the discussion of special problems encountered by families dealing with the stress of an autistic child. When the termination of this program came in sight, the parents changed the emphasis of the group sessions from clinical problems to advocacy for their children. They rapidly developed a proposal for requesting the state to continue the program and to institutionalize our research findings. Towards this end, they advocated what appeared to be a "long shot" indeed, and invited members of the North Carolina General Assembly to a Sunday breakfast in Raleigh. They would bring their autistic children and our research team to the breakfast so that their representatives could see both the nature of their special family stresses and the kind of help we could offer them. Both the attendance and interest of the legislators was substantial. With the testimony of Leo Kanner, the first child psychiatrist in this country and the discoverer of childhood autism at Johns Hopkins Medical Center, who referred to our parental collaboration project as "the best possibility available to autistic children to date," the 1971 General Assembly passed Senate Bill 383 (Chapter 1007).

This legislation mandated the establishment of three regional TEACCH Centers (the number was increased to five centers in 1977) for the purpose of delivering the parent collaborative services to families with autistic and communications handicapped children, and it also mandated ten classrooms located in the public schools for these children, each classroom to include four to six students, a teacher, and an assistant teacher.

This legislation was remarkable in several respects. First, when our research showed that autistic children needed and could use special education programs along the lines that we had demonstrated, we proposed to the Department of Public Instruction that these be incorporated into their current structure. Moreover, when Chapter 1007 was passed, providing for funds for these special classrooms, the Department of Public Instruction turned down the offer for the establishment of these classrooms, apparently because they saw it as their task to maintain continuity in their current way of functioning, which meant including autistic children under the emotionally disturbed category. However, the legislation was unique in that it provided for the Dean of the University of North Carolina School of Medicine to run these

What Is Autism?

Children who are treated in the TEACCH program have in the past been variously described as suffering from childhood psychosis, childhood schizophrenia, infantile autism, developmental disabilities, severe emotional disturbances, and aphasia with behavior disturbance.

Some children who suffer from these disorders are often unreponsive to their parents, neither smiling nor seeming to recognize them. Others cling to their parents excessively. Speech is often impaired or absent. Some autistic children who do speak play with words and phrases without meaning or only repeat words or phrases said to them. They are preoccupied with certain objects or routines, and become upset when these are interfered with. Various unusual physical movements are very common, such as spinning, rocking, walking on tiptoe, or flapping movements of the arms, especially when excited. Some children are overactive, while others seem withdrawn or unusually slow in their movements. Many such children are suspected of being deaf at some time in their lives because they pay no attention to speech. On the other hand, some children may be aware of specific sounds like a candy being unwrapped across the room.

8. Schopler, S. Brehm, et al., "Effect of Treatment Structure on Development in Autistic Children," *Archives of General Psychiatry* 24 (October 1971), 415-421.

9. L. R. Watson, "The TEACCH Communication Curriculum," in Schopler and Mesibov, eds., *Communication Problems in Autism* (New York: Plenum, 1985), pp. 187-206.

10. Schopler and Reichler, "Parents as cotherapists in the Treatment of Psychotic Children," *Journal of Autism and Childhood Schizophrenia* 1 (January 1971), 86-102; also Schopler, Mesibov, et al., "Helping Autistic Children through their Parents: The TEACCH Model," in Schopler and Mesibov, eds., *The Effects of Autism on the Family* (New York: Plenum, 1984).

Program Structure

The TEACCH Administrative and Research offices, located at the University of North Carolina School of Medicine in Chapel Hill, provide staff training and coordination of centers and affiliated classrooms throughout the state. This section also conducts and coordinates TEACCH research and professional training activities. Five regional centers and sixty public school classrooms are distributed throughout the state in order to make services easily accessible to the state's population. A demonstration classroom is located at the School of Medicine in Chapel Hill. The five regional centers are located in cities housing a campus of the University of North Carolina, a Developmental Evaluation Clinic, and an Area Health Education Center to facilitate collaboration in research and training.

ten classrooms because that kind of service was not currently provided and because our medical school research team had found it appropriate. The second interesting point about this legislation was that it provided for the collaboration of parents with the school system towards the development of an individualized educational program for their children. These provisions of special classrooms and of the parent collaboration and contributions to the individualized educational program were to become federal law five years later under Public Law 94-142.

After Public Law 94-142 was implemented in 1977, the North Carolina Department of Public Instruction agreed to pick up and continue and extend the current system of special classrooms for autistic and similar developmentally handicapped children so that at this time there are approximately sixty such classrooms in operation in our state public school system. The teachers in these classrooms are trained, supported, and advised by Division TEACCH.

Chapter 1007 reflected the need for developing comprehensive services for autistic children and adults. Furthermore, we recognized that in order to improve the adaptation of developmentally handicapped children, this must occur in the three major areas of the child's life: home and family life, school and special education, and the community and its shared responsibility. It was clear that parental involvement would have to play an important role in each of these three areas.

Home and family adjustment

The main location for improving home adjustment with individual children and their families is the TEACCH Center. North Carolina has been divided into five areas, each served by a regional TEACCH Center (see map). All five centers are located near campuses of the University of North Carolina, thus enhancing the potential for student involvement through training and research. Center staff (therapists) collaborate with parents in diagnostic assessment, the development of behavior management techniques, and special education procedures.

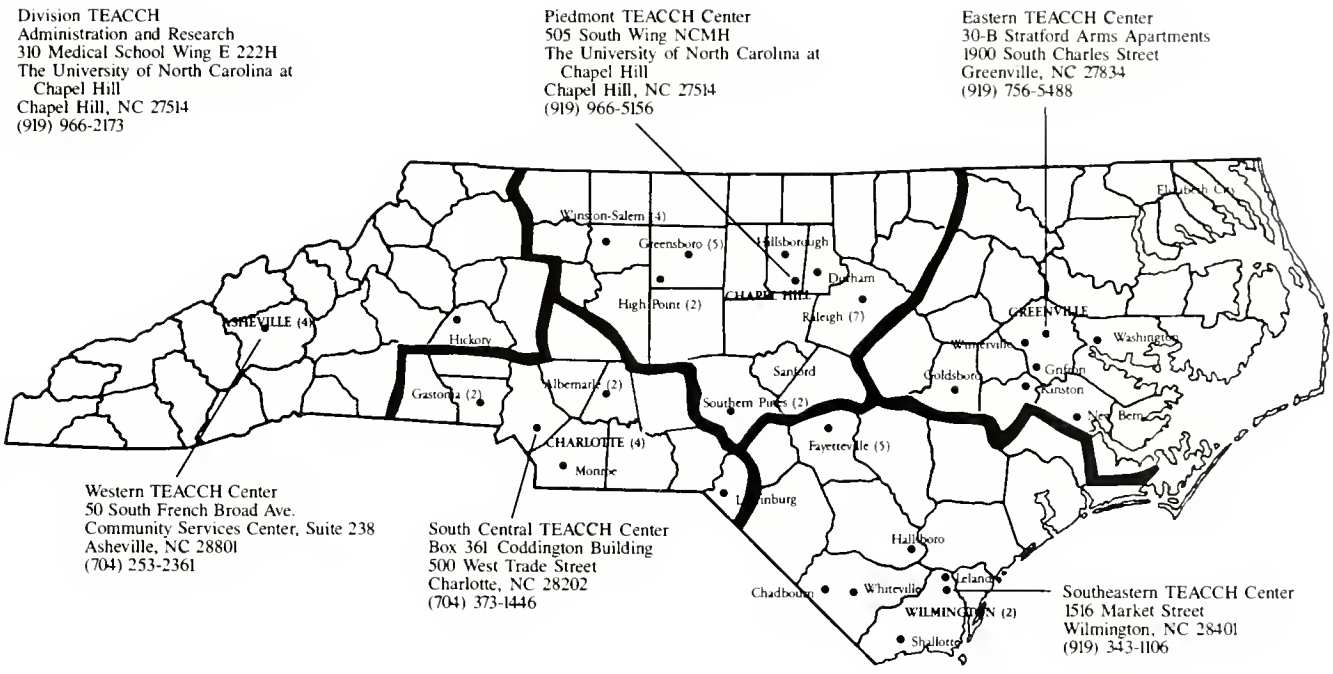
The diagnostic process at each center occurs mainly in a one-way observation room. This will be described in greater detail later. After completing the evaluation, the therapist demonstrates certain special education procedures and behavioral techniques while the parents observe. These are written out in a home teaching program, implemented by parents and siblings at home. In subsequent sessions parents demonstrate their use of the home program while the therapist observes. Parents frequently introduce new procedures from their own observations and experience aimed at finding the optimum individualized teaching program for each child. An indexed collection of these teaching activities has recently been published as part of the TEACCH assessment series.[11]

School and special education

During the research phase of the TEACCH program, while the parents-as-co-therapists model was being developed, it became unavoidably clear that the child's special education was a central concern for each and every family. As their part of the co-therapy team, the professional staff found it necessary to develop a good working relationship with every teacher who had one of our children in his or her classroom. Two developments during this period deserve special note. One was that the staff was surprised by how frequently teachers were willing to take special pains with autistic children, even though (maybe because) they had no previous training or experience with such children. When consultation and information were offered, most teachers were eager to collaborate. The second observation was that as mothers became more effective in using and developing home teaching programs, they became more interested in pursuing a special education career. Four out of ten mothers from the original co-therapy research sample became special education teachers.[12]

11. See Schopler, et al., *supra* note 7.
12. See Schopler and Reichler, *supra* note 10.

TEACCH Regional Centers with Affiliated Classrooms and Group Homes



We established public school classrooms for autistic children in North Carolina five years before it became a federal requirement, after answering two questions: (1) Was it feasible to teach autistic children in the public schools? (2) Was there a defensible public policy reason for including such children? After all, most of the mental health rhetoric suggested negative answers to both of these questions. However, we had learned otherwise from two sources. During the research phase we saw that a surprising number of teachers were willing to include such difficult children in their classrooms and provide for them individually when appropriate support was supplied. From the parents we learned the importance of having their handicapped child included in public schools, not just because the families recognized the importance of education, but also because they knew that the society shared child-rearing efforts through the schools with parents of other children. Exclusion of autistic children from public education was to subject these families to one of the severest forms of social isolation possible in the United States during the 1970s.

After the state extended the co-therapy project statewide through special legislation in 1972, special education classrooms became a structural part of the TEACCH program. Their number and administrative organization have changed with time. The original legislation provided for nine TEACCH classrooms located in public schools. This was part of the research, testing to see if autistic children could be taught in public schools. When the results were positive, these nine classrooms were gradually increased by fifty more, but were funded by the local school authorities. With the acceptance of these classrooms as part of the state special education program, funding for all TEACCH classrooms was covered by the North Carolina Department of Public Instruction and local education authorities. Regardless of these changes, however, the involvement of parents in their children's education was always maintained as central to the child's educational program. The reasons for this program emphasis were neither obscure nor mysterious. One of the central educational problems for autistic and similar children is their inability to generalize learned experience from one situation to another. Their tendency to repetition is usually anchored in attachment to some concrete feature of the situation. For example, such a child can learn that the teacher is wearing a red sweater. But when

a sister wears a red scarf, the color identification becomes a new problem. Clearly, the parents are central agents in generalizing their child's learning from school to home and community.

The degree and kind of parental involvement with TEACCH classrooms varies both among families and among school systems for many reasons. Families with greater financial resources and fewer children often have more classroom involvement time than more pressured families. The age of the child is another important factor, with young children often evoking more consistent parental involvement than adolescents. Four different levels of parental involvement are used in TEACCH classrooms.

At the most intense level, parents will function as assistant teachers and work in the classroom on a regular basis, usually with children other than their own. The second level of intensity involves parents working in the classroom at irregular intervals and at special events like birthday parties or field trips. At this level parents may also collaborate with the teacher by engaging in certain teaching activities.

The third level involves weekly meetings with the teacher and occasional visits to the classroom when the teacher wants to demonstrate a newly discovered, effective teaching intervention. Conversely, as parents are involved in the classroom, teachers are encouraged to make home visits to improve their understanding of the child and also to build their collaborative relationship with parents.

The fourth and least intensive level of parent-teacher collaboration is a monthly conference between parents and teacher. This is considered a minimum requirement because even when parents lack transportation to the school, they can at least make a monthly phone call to the teacher.

Parental involvement with the classroom has varied over time. Before the passage of Public Law 94-142, parents and teachers were frequently eager for collaboration. After 1977, when handicapped childrens' rights to education were guaranteed by federal statute, fewer parents wanted to be in the classrooms. Both they and the teachers now saw their child's education as a legal right rather than as the result of a collaborative effort. This response did not come as a surprise. For the teacher, having a parent in the classroom often meant extra work in organizing another adult into the daily schedule. For the parent, it meant giving up time from other activities and family needs. However, in nearly every case where intense parent-teacher collaboration was seen as a special opportunity, the result was a well-integrated educational program, providing a deeply satisfying experience for those involved. More detailed information on the school program is available in Schopler and Bristol (1980) and Schopler and Olley (1982).[13]

Advocacy and community relations

If our concern with autistic children's adjustment within their families led immediately to working with the school system, then our work with the school led directly to community relations. It was clear that special services were needed beyond what the schools could supply.

In order to facilitate the autistic child's access to community facilities that are taken for granted by nonhandicapped people, several kinds of parent-professional groups were developed to advocate such access. Each of our TEACCH classrooms has a parent group attached to it. The groups meet to consider special activities, needs such as transportation, and special education procedures or behavior modification techniques. Conflicts and differences between teachers and parents are often mitigated by the presence of therapists in school-related parent groups. Each of the five regional TEACCH centers also has a parent group affiliation. These groups meet for special seminars, lectures, and social occasions. The center staff usually organizes the program and makes babysitting or child care provisions for parents who have to bring their children.

Each parent group attached to a classroom or center is also part of the North Carolina Society for Autistic Adults and Children (NCSAAC), a chapter of the National Society for Children and Adults with Autism (NSAC). NCSAAC's executive board meets every other month, and the meeting place rotates to different regions in the state. TEACCH staff participate in these meetings, which are usually aimed at developing needed services and informing the community about the needs and problems of autism. Program development and changes in the TEACCH program have had their beginnings in these parent group meetings. This has included the development of summer camp programs, adding two regional TEACCH centers to the original three, and adding both research and services for adolescents and adults with autism.

The need for adolescent and adult services became especially clear during more recent years. And our staff,

13. Schopler and M. M. Bristol, *Autistic Children in Public School: An ERIC Exceptional Child Educational Report* (Reston: Council for Exceptional Children, 1980; *see* also Schopler and J. G. Olley, "Comprehensive Educational Services for Autistic Children: The TEACCH Model," in C. R. Reynolds and R. R. Gutkin, eds., *The Handbook of School Psychology* (New York: John Wiley & Sons, 1982).

under the leadership of Dr. Gary Mesibov, took an active role in planning and developing such services. First came a group home for autistic adolescents, soon followed by three more. The program developed a fuller spectrum of services.[14] These included respite care programs, vocational training, social skill training groups, vocational job advocacy, and better integration of autistic clients with sheltered workshops and group homes already established for other developmental disabilities.

Another aspect of parental involvement relates to TEACCH's training efforts. Each year new teachers, group home staff, and therapists are trained during our annual in-service training program. This is an intensive two-week training effort that covers the main topics new staff should know about when working with autistic clients. Central to this training experience is the direct participation of trainees with some of our autistic children and their parents. Beginning with our first in-service training in 1972, parents have been willing to bring in their children and answer questions on topics they have discussed many times before. Classrooms are set up for the purpose of training new staff, and parent panels are used to teach the valid distinctions and commonalities between parent and professional perspectives. Parental participation in our training program has always been enthusiastic. Parents are quick to recognize that any inconvenience to them by having their children used as training "subjects" is well repaid by having appropriately trained professionals available in the future.

I have discussed some of the administrative structures designed for the purpose of fostering and promoting parent-professional collaboration in the area of family adjustment, special education, and advocacy in the community. In the next section we will discuss some of the clinical procedures and how these foster the parent-professional collaboration pioneered and developed by the TEACCH program.

CLINICAL PROCEDURES

An appropriate and thorough evaluation involves intensive contact with several sources of information, including the child, the family, and the school. The two major purposes for carrying out these diagnostic evaluations are classification and individualized assessment.

Diagnosis and assessment

Diagnostic classification involves identification of the characteristics that children in a diagnostic group share. The purpose of the labeling is primarily administrative, to decide whether the referred child may be accepted in a program for autistic children. A diagnostic label is also part of the answer to the parents' question, "What's wrong with my child?" For this part of the assessment we use our diagnostic rating scale, the Childhood Autism Rating Scale (CARS).[15] Parents rely heavily on professional expertise during the classification phase and assume mainly a trainee-like role.

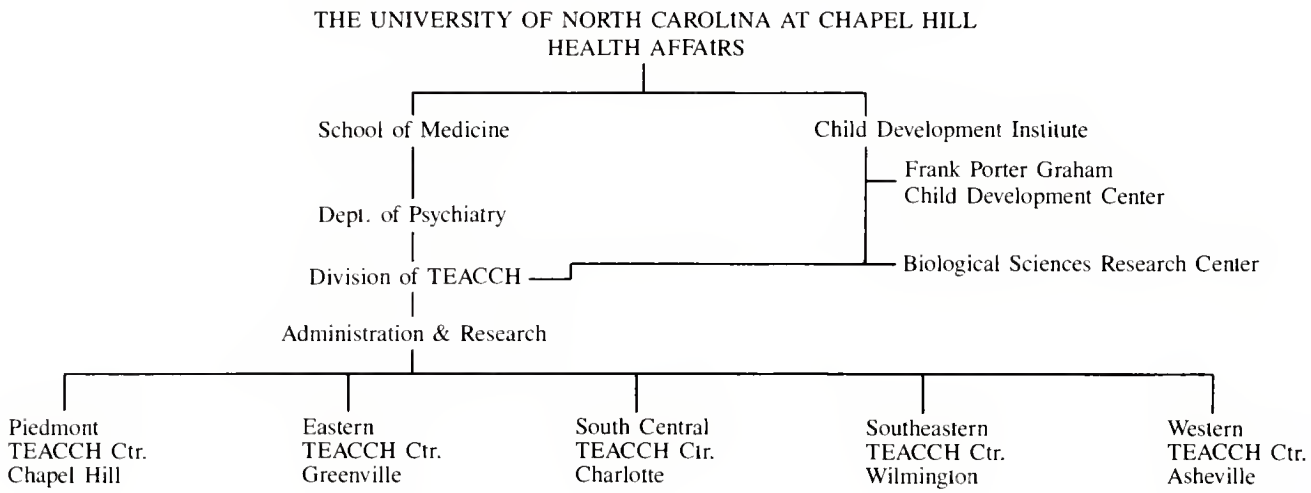
Although parents often attach great significance to the diagnostic label, the best help to improve home adjustment usually comes from improved understanding of the child. This is best accomplished through individualized assessment of the child's unique learning problems and behavioral characteristics. The primary instrument used in our developmental assessment of the child is the Psychoeducational Profile (PEP)[16], which provides the basis for the teaching strategies[17] needed for an optimum individualized teaching program.[18] In addition to the assessment based on the testing or direct observation of the child, assessment information from the teacher is important for developing an effective special education program. However, the most frequently overlooked source of information is the child's parents. Too many professionals have a negative attitude about parents who are not managing their difficult child most effectively. They draw the erroneous conclusion that such parents are not a reliable source of information. This is unfortunate since parents have spent the most time with their children. They usually know them best and also have the highest motivation for developing the best possible family adjustment, even when they have difficulties managing the child. Parents usually provide the most useful information about development history and the clearest picture of current behavior problems. They also have the most extensive information for distinguishing the teaching techniques that worked for them from those that were ineffective. Moreover, effective and relevant help cannot be given without knowing family priorities, concerns, and expectations. For this phase of the relationship it is well for staff to take a trainee role, while parents inform them on these important issues.

---

14. Mesibov, Schopler, and J. L. Sloan, "Service Development for Adolescents and Adults in North Carolina's TEACCH Program" in Schopler and Mesibov, eds., *Autism in Adolescents and Adults* (New York: Plenum, 1983), pp. 411-432.

15. Schopler, Reichler, and Renner, *supra* note 4.
16. Schopler and Reichler, *supra* note 5.
17. Schopler, Reichler, and Lansing, *supra* note 7.
18. Schopler, Lansing, and Waters, *supra* note 7.

Organization of Division TEACCH



Extended diagnostic

Once our evaluation has been completed and the results interpreted to the family, we offer parents the opportunity for extended diagnostic sessions where they can extend their skills and understanding of their child. The extended diagnostic usually involves weekly sessions for a period of six to eight weeks. Once a family enters this phase, two therapists are assigned to it; one assumes the role of the "child therapist" while the other is designated the "parent consultant."

The child therapist is responsible for working with the child and learning how to work with him or her more effectively. Using test results, direct work with the child, and information from the parents, the child therapist proposes cognitive and behavorial goals, which are outlined and implemented in home teaching programs. These programs specify activities and techniques that involve the parents in teaching and managing their children in structured work sessions. The child therapist discusses the suggested goals with the family to make sure they are acceptable and meaningful. The child therapist then proceeds to teach the parents how to carry out these teaching programs. The parents learn from the written instructions in the program as well as from observations of the child therapist working with their child. The parents also demonstrate their efforts with their child in the clinic during these extended diagnostic sessions and receive direct feedback from the child therapist. Through ongoing dialogue between the parents and the therapist, the parents participate in the development of new responses that bring about desirable changes in the child's learning and behavior patterns. Therefore, treatment gains are not exclusively credited to the child therapist's efforts and skills, but are the result of parent-professional collaboration.

The parent consultant is the therapist who continues to gather information from the parents and who works to improve their understanding of their child's disability. The parent consultant has a listening, supporting, understanding role with the family. The consultant helps the parents organize their priorities for their home setting. Current problems and past experiences are reviewed with the parents to extract useful information for effecting change. The parent consultant sits with the parents while they observe the child therapist working with their child. The consultant calls the parents' attention to relevant issues, management and teaching techniques, and changes in strategy during the session. It is the parent consultant who usually has the major responsibility for enlisting the parents in the co-therapy process. The parent consultant also helps the parents realize that they are the major resources for bringing about enduring change.

The extended diagnostic provides a structure for getting to know a family and learning from them. The child therapist and the parent consultant may also draw from other information sources such as teachers or relatives who have had meaningful contact with the child. The extended diagnostic is a time for gathering any information that contributes to a better understanding of a child and his or her family.

During the extended diagnostic, efforts are directed toward the accomplishment of specific teaching and behavioral goals. Using assessment data and other information that has been accumulated during the diagnostic evaluation, the therapists select goals that are developmentally appropriate as well as relevant to the child's functioning in the family. Another criterion in choosing goals is a high probability for successful attainment within the contract period.

The first visit during the extended diagnostic phase might typically involve the parents meeting with the parent consultant while the child's therapist interacts with the child in another room. During this and subsequent sessions, the child therapist conceptualizes ideas for an initial home teaching program, a written version of the proposed goals, and specific activities and techniques, which are then discussed with the parents. This sequence is usually completed by the second or third clinic meeting. Then the child therapist demonstrates the program while the parents and the parent consultant observe through a one-way mirror.

During the next few weeks, the parents carry out the program at home. Usually the program requires thirty to sixty minutes each day, depending upon the child's developmental level and attention span and the specific family situation. Ideally, both parents are involved, but more often it has been the mother who has carried out the home program sessions.

Parents are encouraged to demonstrate their home program during a clinic session as soon as possible. These demonstrations provide opportunities to reinforce parental competency. Initiative and generalization of concepts and skills are encouraged. When there are problems, the parents examine them together with the parent consultant and the child therapist so that everyone participates in the learning process.

At the end of the extended diagnostic period, the director of the clinic meets with the parents and therapists to review problems and progress from each person's perspective. A decision is reached on strategies for the future. This may involve an additional extended diagnostic period, another agency, or special classroom placement without clinic contact.

This way of working with autistic children and their parents has been extended and adapted to our increasing numbers of autistic adolescents and adults. The Psychoeducational Profile has been extended and developed into an assessment instrument for adults, the Adolescent and Adult Psychoeducational Profile.[19] It evaluates the older client's work and living skills, and is used for finding the optimum placement. Parental involvement is supported, but adapted to the changing needs of older families.

Since its beginning in 1972, Division TEACCH has conducted 4,064 diagnostic evaluations of 1,624 children and adolescents. The annual number of test sessions has increased as TEACCH services have become better known. The number of evaluations has risen from 61 in 1972 to 153 during 1983-84. Around 80 per cent of those evaluated continued in the program. Extended diagnostic sessions were carried out for 139 clients during 1983-84. A total of 563 clients were seen by the five TEACCH centers during this year.

Of the TEACCH client population, 78.4 per cent are male and 21.6 per cent female, a similar ratio reported from other groups of autistic persons. All socioeconomic classes are represented. The client population is made up of 66 per cent white, 33 per cent black, and 1 per cent other racial groups. This broad racial and socioeconomic distribution distinguishes TEACCH from other programs, which often serve autistic clients who are predominantly white and middle class. The accessibility of TEACCH services, afforded by its status as a statewide program, contributes to the diverse makeup of the TEACCH population. TEACCH clients range in age from under 1 year to 40 years, with an average of around 6.5 years at entry into the program. Of cases active at the end of the year, the average client age was 10.4 years. The average length of participation in the program was about 3 years for these individuals. Clients who left the program had been in the program an average of 41 months.

About 58 per cent of the persons seen are primarily autistic, while the remaining cases manifest communication handicaps without the autism syndrome. IQ scores range from below 20 to 128, with an average between 55 and 60. Most of the TEACCH clients are both autistic and mentally retarded.

Outcome studies

I have given a brief review of the history and development of the TEACCH Program, as an example of integration between academic empirical research and social policy. Our evaluations of program effectiveness have included empirical studies of different program funcions. First, we found that these children learned better in structured than in unstructured settings, with variations of structure depending on the child's developmental levels.[20]

19. Mesibov, Schopler, and Schaffer, *supra* note 6.

20. Schopler, *supra* note 8.

It has been demonstrated that parents can indeed effectively learn to teach their own children, and that the less educated do as well or better than the more educated families with our demonstration methods.[21] Short showed that even short term participation in the program showed improvement in the child's behavior when before and after treatment sessions were compared.[22] Noteworthy also is the outcome finding comparing follow-up studies of autistic children.[23] Six such studies reported that when autistic children pass adolescence, between 40 and 78 per cent of them end up in institutions. In our TEACCH Program with community support and public school education, only eight per cent required institutional placement, while the remainder can live within our community facilities.

Conclusion

This article is a summary of the history and development of the Division TEACCH, a program for the study and treatment of autism, unique because it represents an innovative treatment approach that bridged the frequently yawning gap between academic research and governmental agency implementation. While the research findings were disclosed and disseminated by a well trained research group, it is clear that this program could not evolve with equal ease in all states. North Carolina has a history of a populist orientation with regard for state supported higher education, even when the resources are meager. This experience also shows unusual responsiveness on the part of legislators to a proposal based on academic research.

21. L.M. Marcus et al., "Improvement of Teaching Effectiveness in Parents of Autistic Children," *Journal of the American Academy of Child Psychiatry* 17 (Winter 1978), 625-639.

22. A. B. Short, "Short-term Treatment Outcome Using Parents as Co-therapists for Their Own Autistic Children," *Journal of Child Psychology and Psychiatry and Allied Disciplines* 25 (October 1984), 443-458.

23. Schopler, Mesibov, and Baker, "Evaluation of Treatment for Autistic Children and Their Parents," *Journal of the American Academy of Child Psychiatry* 21 (Winter 1982), 262-267.

Questions I'm Most Often Asked:

To what extent may North Carolina cities and counties make use of lease-purchase financing in real estate transactions?

A. Fleming Bell, II

As the popularity of lease-purchase financing for equipment acquisition has increased in recent years, many local governments have started examining the potential of this financing tool as a means of meeting their land and building needs as well. Real estate lease-purchase or installment purchase transactions typically are proposed in two contexts: (1) the acquisition of vacant land or land with an existing building, and (2) the financing of building construction, often on land owned by the local government. The first fits neatly within the existing statutory framework; the second is more troublesome. (The terms *lease-purchase* and *installment purchase* are used interchangeably in this article to refer to transactions in which a purchaser of property gives a security interest in that property to secure its promise to pay for the property.)

Lease-purchase of vacant land or land with an existing building

Under the first type of arrangement, the local government selects a tract of vacant land or land occupied by a building that it needs for governmental purposes. It then enters into an agreement with the owner of the real property to purchase it through an installment purchase arrangement, paying the purchase price plus interest in a series of installments. As security for the transaction, the city or county receiving title to the property executes a purchase money deed of trust. If the local government fails to make its installment payments, the seller may order the trustee to foreclose the deed of trust and sell the property.

Statutory and constitutional authority. This arrangement is specifically authorized by G.S. 160A-20, which allows cities and counties "to purchase real or personal property by installment contracts which create in the property purchased a security interest to secure payment of the purchase money." As I explained in "Lease-Purchase Agreements and North Carolina Local Governments," *Popular Government* 49, no. 4 (Spring 1984), 11-12, this arrangement does not violate the restrictions on local government borrowing found in Article V, Section 4 of the North Carolina Constitution, since the city or county receives no money from the seller and since, in accord with the requirements of G.S. 160A-20, the local government makes no pledge of its taxing power to secure its payment obligation. Lease-purchase of land or an existing building involves a straightforward application of a constitutionally permissible statutory scheme.

Using a lease-purchase arrangement to finance building construction

In the second type of transaction, a city or county proposes to finance construction of a building or other facility through a lease-purchase arrangement, often on land already owned by the local government. The local government proposes to give the construction lender a security interest in or mortgage on the building it plans to construct. Such a scheme is more troublesome legally than the lease-purchase of an existing building.

Statutory authority questions. The principal problem that a construction financing proposal presents is the lack of statutory enabling authority for the specific type of transaction contemplated. Under "Dillon's Rule," a principle followed by North Carolina's courts in determining whether a local government has authority to engage in a specific activity, a local government as a creature of the state legislature has only certain powers: (1) those granted to it by the legislature in express words;

(2) those necessarily or fairly implied in or incident to the powers expressly granted; and (3) (a type not relevant here) those essential to the local government's declared objects and purposes. In accord with Dillon's Rule, the North Carolina Supreme Court has held that local governments in this state have no inherent authority to mortgage or encumber public property. *Vaughn v. Commissioners of Forsyth County*, 118 N.C. 636, 640-42 (1896). A local government needs specific legislative authorization to give a mortgage or any other type of security interest in property it owns or is acquiring or constructing.

There is at present no such statutory authority for a local government to grant a security interest in a structure as part of a construction financing transaction. G.S. 160A-20 is the only enabling statute that even arguably authorizes a city or a county to obtain a loan secured by a lien or mortgage on a building being constructed. Yet, that statute's wording is quite specific, and cannot be pushed far enough to uphold this type of transaction. As noted above, G.S. 160A-20 merely authorizes the *installment purchase* of real property, not the *financing of construction of buildings* on real property. It is assumed in a G.S. 160A-20 financing that the land, building, or equipment being purchased already exists, so that a security interest in it can be granted by the local government at the time that the purchase is made.

Other issues. Apart from the matter of statutory authority, other unanswered questions are presented by construction lease-purchase financing. I will present a few of the more important of these other issues to aid the reader in further reflection on construction financing and other real estate lease-purchase proposals.

1. Bidding law questions. Whenever North Carolina local governments construct buildings, they must follow statutorily prescribed competitive bidding procedures. It is likely that such procedures must also be followed if a structure is built to a local government's specifications by a lender, contractor, or other interested party. The key distinction to keep in mind is the difference between (1) the disinterested contractor that constructs a building on its own initiative, according to its own plans, and then sells it in an arm's-length transaction to a buyer that happens to be a local government, and (2) the builder or lender that constructs a building with a local government's needs in mind, under circumstances that indicate that it is acting directly or indirectly on the city's or county's behalf. No bidding is required in the first case, while bidding is generally needed in the second situation, particularly if the local government is buying, rather than renting, the building being constructed.

2. "Obligation" questions under the preaudit statute (G.S. 159-28). North Carolina local governments are required, whenever they incur obligations requiring the payment of money, to encumber each fiscal year sufficient funds to meet their payment obligations coming due during that year. Cities and counties must carefully check the wording of their lease-purchase documents and the structure of their lease-purchase transactions to guard against accidentally making an explicit or implied commitment during one fiscal year for sums that they intend to pay during future years. The risk of accidental overcommitment is present both in construction financing schemes and in clearly authorized G.S. 160A-20 transactions. See pages 12-13 (including footnote 5) of "Lease-Purchase Agreements and North Carolina Local Governments" for a general discussion of how this problem can be avoided in the case of equipment lease-purchases.

3. Long-term land lease questions. A lender often seeks to provide additional security for itself when it purports to enter into a financing agreement that involves construction of a structure for a local government on publicly owned land. Since the city or county cannot mortgage land it already owns, the bank may propose that the local government give it a long-term lease of the land on which the building is to be built, cancelable in the event that the local government lease-purchases the completed building and repays the bank for the cost of construction.

If such a lease (including any renewal periods) extends for more than ten years, it is subject to the real property disposal rules in Article 12 of G.S. Chapter 160A. More importantly, however, the lease is of dubious legality regardless of its duration, since the lease is obviously intended to serve as security for the bank. A lease intended as security is in substance a mortgage. As noted above, the North Carolina courts have generally forbidden the mortgaging of governmentally-owned property without specific statutory authorization, which is lacking in this case. (Note that the limited exception to the "no mortgage" rule made by G.S. 160A-20 only applies to property *to be acquired* by a local government, and not to property *currently owned* by a city or county.)

4. Escrow questions. Construction lease-purchase agreements proposed to North Carolina cities and counties often require the local government to enter into an escrow agreement, under which the city or county borrows all of the money required for construction of the building in advance of the time that the money is actually needed. The city or county pays the bank interest on the borrowed funds until they are actually needed to make construction payments. (The cost of the interest payments is often partially offset by interest that the local government earns by investing the borrowed money until it is actually used to pay the contractors.)

Such an escrow arrangement clearly involves "borrowing money," as that term is used in the rules dealing with local government debt in Article V, Section 4 of the North Carolina Constitution. If an escrow provision were to be challenged, a court might well hold that it violates the constitutional prohibition on borrowing money

secured by a pledge of the taxing power without a vote of the people, since there is probably at least an implicit promise by the local government to use its taxing power if necessary to repay the amount escrowed.

Conclusion. North Carolina local government officials should be extremely cautious in considering lease-purchase arrangements for financing building construction. A major difficulty with such proposals is the fact that North Carolina's existing statutes provide no authorization for a local government to give a security interest as part of a construction financing transaction. Apart from this problem, many important questions remain unanswered about the proper way to structure any but the most straightforward real estate lease-purchase transactions.

Two New Institute FACULTY MEMBERS

The Institute of Government welcomes two new faculty members—one in the area of governmental accounting and one in courts and judicial administration.

S. Grady Fullerton received a B.S. degree from Samford University and an M.B.A. from the University of Alabama. He is a certified public accountant in Alabama and Texas and is a C.M.A. During his career as an accountant and finance officer, he has served as Director of Finance for Birmingham, Alabama and County Auditor (chief financial officer) for Harris County, Texas. He also taught accounting courses at the University of Alabama and the University of Houston. He has served as president of the Governmental Finance Officers Association of the United States and Canada.

Since joining the Institute of Government faculty on September 1, 1985, Mr. Fullerton has worked on a number of governmental accounting projects. He is currently designing courses on governmental accounting and financial reporting for county and municipal finance officers and for school finance officers.

Dona Lewandowski is a summa cum laude graduate of Middle Tennessee State University, from which she also received the M.A. degree in psychology. Before attending law school, she worked as a counselor at a shelter for runaways and as school psychologist for the Manchester City School System in Manchester, Tennessee. She received her law degree from The University of North Carolina School of Law, where she served as Note and Comment Editor of the *North Carolina Law Review* and was selected for membership in the Order of the Coif.

Before joining the Institute faculty on July 1, 1985, she served for two years as clerk to Chief Judge Robert A. Hedrick of the North Carolina Court of Appeals. At the Institute of Government, Mrs. Lewandowski works in the field of courts and judicial administration. She has a special interest in domestic relations law and equitable distribution issues.

STRATEGIC PLANNING: Taking Charge of the Future

Kurt Jenne

How are a county trying to build a robust economy, a city reverberating with complaints about rapid growth, and another county worried over its dependence on a troubled national industry all alike? In North Carolina right now, the answer is that, affected by events beyond their control, they are all struggling to decide what they want to become and what they have to do to get there. Each is either using or considering a process called "strategic planning" to do that.

Strategic planning is a method of preparing for the future that has been used successfully by businesses for the last twenty years. Many local governments feel it is suitable to today's conditions in the public sector. Local governments are becoming very sensitive to their roles in a large, changing social and economic system. The long period of economic expansion and stability that we enjoyed after World War II has been replaced by a series of fundamental changes, shocks, and realignments of power. These have left many local governments without the benefit of ever-expanding resource bases and wondering what they must do to survive and prosper in the years to come. Similar to firms in a competitive market, local governments are having to sharpen the focus of their underlying values and purposes and to take decisive action on the basis of them.

Strategic planning is a process that is designed for a risky, demanding environment where hard choices must be made about what should be done and where good results, not just good intentions, define success. Applied to local government, it consists of taking stock of how major social and economic trends—"megatrends"—will affect the community, deciding on the most important issues and goals, and then laying out specific, feasible steps to reach those goals. It is different from comprehensive planning, the method most used today by local governments to prepare for the future. Because of its difference, using it can add to both the vitality and the success of a local government's planning efforts.

Planning, but with some differences

Comprehensive planning deals chiefly with physical space and evolves from a tradition of stable physical and economic growth. Local government planning originated in cities and towns and concentrated on the design of downtown boulevards and on civic beautification. As cities expanded to the suburbs, attention shifted to describing the pattern in which new development should take place. In the 1950s and 1960s, community leaders began to sense definite relationships among physical development, the local economy, and social problems in urban areas. This led local governments to produce "comprehensive" visions of the future by suggesting worthy goals for every aspect of community life. Supported almost wholly by federal grants, action plans were made to tackle selected economic, social, and service delivery problems. However, local government planning departments remained largely concerned with physical development, and most of the functional action plans were produced by line departments or by special organizations like community action agencies and model cities programs.

The author is an Institute of Government faculty member who specializes in management training.

As federal funding dried up, so did most of the planning it supported. The remaining physical planning, standing alone, has frustrated many local governments who want to have some control over other aspects of their communities' futures. There are at least four reasons for this: (1) a comprehensive plan typically does not acknowledge either the tremendous importance or the uncertainty of events outside of the community; (2) it does not concentrate effort only on the most important goals of the community; (3) it does not consider the local government's ability to make the things happen as planned; and (4) it does not show what steps must and can be taken to achieve the goals.

Strategic planning is different from comprehensive planning in each of these areas. First, *strategic planning looks outward* at trends that are beyond the community's control but that will help to shape its destiny. For example, the comprehensive plan for a community with a past record of industrial growth would most likely project that trend into the future. It would plan and zone ample land for continued industrial development. But if that same community realized that its industries were among those that were withering from overseas competition, it might do something very different. It might act now to redefine its role in the state, regional, and national economies. Its land-use plans, zoning, and plans for public services might be designed to attract over the years a very different kind of industrial or commercial base for the community. It would be planning strategically to make uncontrollable future events work for it, not against it.

Second, *strategic planning focuses* on a few critical issues and goals that are more important than any others instead of shouldering the hopeless task of trying to deal with everything and satisfy everyone's concern at once. For example, a county's comprehensive plan would normally include fairly detailed goals for the economy, land use, housing, transportation, other infrastructure, public safety, leisure services, human services, cultural services, and more. All of these would be loaded with important issues. But if the county decided that, out of that full spectrum of community concerns, recruiting research firms, improving the quality of public education in the county, and unsnarling traffic around its urban area were critical to keeping a growth momentum, it might concentrate its resources on those three issues and admit that others would have to get less attention for awhile. It would be planning strategically by being clear about what is most important and most urgent for the county to achieve.

Third, *strategic planning is realistic* about what resources are available to achieve goals and who controls them. For example, a county's comprehensive plan might typically show a number of areas to be preserved as parts of a system of natural open space. But unless the county owns the land, it is not enough to stop there. What if the land is highly desirable for residential development and is zoned that way? It would be unlikely that the land would be preserved. But the county could go further. It could analyze the goal of preserving the open space realistically. It could take account of the clear threat of development and the fact that the county's opportunity to preserve the land exists only before that happens. It could face the weakness of depending on planning and zoning to achieve the objective and assess the strength that existing public support would lend to a series of appropriations to buy rights to the land. It would be planning strategically by considering whether a goal, no matter how desirable, could actually be accomplished, given the situation and the resources at hand.

Finally, *strategic planning is action-oriented.* Its product is a set of actual steps that can be taken to achieve the goals. For example, a town's comprehensive plan might show an urgently-needed thoroughfare even though the town has no idea how or when it could actually get the road built—the town has no funds for right-of-way, and the road's priority among all planned state projects places its consideration well into the next century. But if the road were an integral part of the town's strategy to improve transportation services, it might plan a schedule of appropriations for right-of-way and perhaps even some share of engineering and construction costs in order to make things happen the way it wishes. It might also plan a series of contacts with various appointed and elected state officials to influence the road's inclusion in the next State Transportation Improvement Program. The town would be planning strategically by specifying a set of tangible actions to take that would move it toward its goal.

The major components of strategic planning

There are seven major components in good strategic planning. Each one is important. There are many ways to accomplish each component, but to obtain good results requires some attention to all of them. The major components of strategic planning are:

1. *The Environmental Scan:* taking stock; looking outward.
2. *The Mission Statement:* focusing on a few key issues and goals.
3. *The External and Internal Analysis:* sizing up opportunities and threats; strengths and weaknesses.
4. *Strategy Development:* deciding what to do, using opportunities and strengths; countering threats and weaknesses.

5. *The Action Plan:* who will do what, by when, for how much.
6. *Implementation:* doing it.
7. *The Update:* asking "how are we doing? and making changes if necessary.

The environmental scan. The environmental scan is an attempt to see the big picture—where the community stands in the context of past trends, current situations, and future possibilities. Among the many diverse factors a community might look at are changes in the size and makeup of the population, trends in credit and finance, prospects of particular industries or whole sectors of the economy, advances in technology, social attitudes, political trends, and the physical characteristics of the community.

Outward orientation is an important feature of the environmental scan. It recognizes that future events in the state, the region, the nation, and even the world can have powerful effects on the well-being of the local community. For example, international shifts in the location of major industries such as steel, electronics, textiles, or automobiles are important to communities whose local economies are built around those industries. However, the environmental scan does not exclude internal factors. A comparison of local trends in population, economy, government, and physical development to those outside the community can give clues to which external trends might have the most effect on the city or county.

There are many sources of information for the environmental scan. It has been popular to use general observations of futurists like John Naisbitt's *Megatrends* as a starting point and to think through their implications for the local community. Communities often use experts in various fields to help make predictions or to interpret data. There usually exists a wealth of data that have been collected over time by businesses and government agencies in the area, including that contained in the comprehensive plan. Both these data and information gleaned from a systematic combing of outlook literature available in the public library and nearby universities can provide the basis for interpretation, discussion, and debate about what the future holds.

The trick to doing a good environmental scan is to gather enough information to decide whether an issue is a key one, but to gather no more than is needed to do that. The decision makers must know enough about each issue to decide whether it will upset the fundamental values and beliefs that govern the community if events are allowed to take their own course. Usually, exhaustive and detailed data are not needed to make that decision. Complete examination of issues is more helpful in and is better saved until after the important issues are singled out.

Also, excessive use of detailed information can cloud issues rather than clarify them. Communities that do strategic planning are finding that it is productive to distill information as much as possible; to highlight issues and provide sharp focus for discussion and debate. For example, the important features of demographic trends might leap out in graphs but be hard to see in tables of figures. Reducing information collected to short, cogent, even opinionated essays of a few pages might do more to stimulate a lively discussion of the issues than thick, fact- and figure-filled reports. The purpose of the environmental scan is not to find absolute truth; it is to achieve consensus as to what are the most important issues on which to base plans for the future. Therefore, the data are only valuable so far as they can be understood and related to basic community values by all of the people who are involved in the strategic planning process.

The mission statement. In order to use the community's resources where they count, a community must narrow its focus to the few issues that are most critical to its well being. This is a difficult but necessary task. It is difficult because almost all of the issues that are raised and discussed in the environmental scan are likely to be important to some segment of the community. The decision to devote serious effort to only a few of those might leave many people disappointed. However, it is necessary because an attempt to tackle too many issues at once dissipates energy and resources and makes it much harder to obtain commitment to a clear action strategy that will achieve results. A few of the most important things done well can benefit the community far more than many desirable things done incompletely, ineffectively, or not at all.

Some cities, like Memphis, Tennessee, have tried to handle as many as fourteen issues, but it is more common to focus on three or four. This requires very hard choices that might involve hairsplitting between issues like the economy, housing, education, and others in which each seems to be about as compelling as the others. One way to ease this difficulty is to acknowledge the importance of other issues, while putting them on the "back burner," perhaps even with a schedule for consideration in a later cycle of strategic planning. The choice of issues can also be made harder by relationships between them. For example, housing might not be a compelling issue itself in a community, but if it is inextricably related to the top issue, labor force development, it might not be possible to exclude housing.

Once the issues are chosen, the strategic planning group can develop general statements that express the community's overall missions or goals in those areas. For example, if the community chooses new job and business opportunities as a strategic issue, its goals or missions might be to attract certain industries, or to increase the opportunities for certain types of jobs, or to increase production value of existing businesses. Each of these represents a different approach to job and business development and responds to different community values and circumstances. Attracting new industry might reflect primary concern for economic growth that would benefit everyone in the community. Increasing local job opportunities might reflect primary concern for creating good jobs for people who don't have them. Increasing production value might reflect primary concern for improving the jobs of people who already have them. Stating the broad missions or goals sets a general direction for the rest of the strategic planning effort to take. Different mission statements might lead the community to concentrate on different features of the environment when it starts to delve more deeply in the external and internal analysis.

The external and internal analysis. Once the critical issues are chosen, the planners should conduct a more detailed and probing examination of the situations related to them—trends and future events. This is where the planning group really works hard to forecast the actual effect of the trends that it has identified earlier during the environmental scan. This analysis needs to look both outward and inward. On the one hand, trends outside the community may pose threats, like the federal government radically changing its program funding, or opportunities like microchip or other emerging new-technology industries that are not tied to traditional industrial locations. On the other hand, the strategic planners must assess how good a position the community is in to respond to these threats and opportunities. For example, it would be important to know whether the community's current and prospective tax bases could absorb shifts in program responsibilities from the federal government; how competent and innovative the local administration is to deal with new ways of doing things; and what kind of features, like a good university base, the community has to attract more emerging high-technology industries.

The external analysis—the forecasting of outside trends and events—requires the planners to deal with two aspects of future events: how likely they are to occur and how much it will matter to this particular community whether or not they do occur. A stockbroker who lives in the city probably doesn't care whether the forecast of ample rain next year is right or wrong, but a predicted shift in automobile market share to foreign manufacturers might hold the key to his or her livelihood. On the other hand, a farmer would have little interest in worldwide auto market share projections, but would be gambling his livelihood on whether or not that ample rain actually arrived. It might mean success or failure in the year to come. Likewise, a community must decide which of the many trends and events related to its priority issues are important enough and likely enough to do something about. If the decline of basic steel manufacturing is very likely but not important to a rural North Carolina town whose top issue is continuing to build an industrial base in textiles, it should not spend any more time worrying about it. Similarly, if that town would be devastated by the obsolescence of a particular textile process, which is not very likely to be eclipsed, it would not worry about that either. The planners should focus on the high-impact and high-likelihood events, for it is those, combined with what the community does about them, that will determine its fate.

Strategic planning considers trends and events beyond the community, focuses on a limited number of critical issues, takes realistic account of available resources, and produces actual steps that can be taken to achieve the community's goals.

What the community *can* do about these trends and events is important too. To be sure, most of the things that will happen in the world, the nation, and the state will be beyond the ability of local governments to control. But control is not the issue in strategic planning. The issue is what the community can do to take advantage of opportunities that it thinks will present themselves and to minimize the damage that can be done if predicted threats actually materialize. To do that, it is essential that the planners make a very honest assessment of the community's strengths and weaknesses. One of the real shortcomings of comprehensive plans has been the failure to acknowledge what is evident from their record of implementation: that the control over physical development implied by the plan is much less than exists in reality. For example, planning and zoning for additional commercial activity does not make it happen; it only allows it to happen if somebody else (a developer) wants to do it.

The gap between the ambition of plans and the power of local governments to carry them out, has led to surprise, frustration, and recrimination over their ineffectiveness in controlling physical development. A realistic assessment of legal powers, political situations, quality of staff, physical features, and other things the community has going for it or against it can save a lot of time and effort that might be wasted developing strategies that are just not feasible, given what the community has to work with.

Strategy development. At this point, in each key issue area, the strategic planning group must decide what to do to make the most of the likely and important events it has forecast. It should look for strategies that respond to costly events such as failure to be prepared for plant closings or failure to prepare for the opportunity to develop a convention trade that would naturally gravitate toward the community. The strategies must be both effective and feasible. They will be effective if they are based on a good external analysis of future events. They will be feasible if they are based on a good internal analysis of the community's resources. An effective strategy will not be useful if it cannot be carried out, and a feasible strategy will not be useful if it does not accomplish something that needs to be done. Both features are important in any strategy that is developed. For example, a strategy of preparing for more tourism is not effective if rising oil prices and devaluation of foreign currencies promise less local tourism. By the same token, a strategy of rezoning selected areas of the city for high density housing to increase opportunities for low and moderate income citizens would probably not be feasible in a town where there is a clear political mood to stop growth.

The development of strategies that are both effective and feasible does not guarantee success. Events still might not work out as expected, either worldwide or locally. This risk must be recognized because it comes with the central feature of strategic planning—decisive choice and commitment to a course of action based on a best estimate of future events. One way to hedge on this risk is to consider back-up or contingency plans, which can be used if a chosen strategy does not work. The disadvantage of well-prepared contingency plans is that they might offer too much of a psychological fall-back from the primary strategies. They might cause people to work less hard to make the primary strategies succeed because they know that there is an alternative if the first try does not work. The planning group might think of a number of alternative strategies to deal with expected events. Each community will have its own idea of what features should be used to compare and choose from among alternative strategies. However, the criteria developed by San Francisco, one of the first cities to try strategic planning, probably includes the most vital ones. Strategic planners there rated strategies as positive, neutral, or negative with respect to six criteria:

1. *Will it be effective?*
2. *Will it be feasible?*
3. *Can the private sector help?*
4. *Is it consistent with city policy?*
5. *Is it compatible with other strategies?*
6. *Will it produce results within a reasonable time?*

Action plans. A strategy shows how a goal will be achieved but not exactly how. After the strategies are developed, the strategic planning group should develop a detailed plan for each one. At a minimum, these action plans should specify *what* things will have to be done; *who* will be responsible for doing them; by *when* they have to be done; *how much* they will cost; and *where* the funds will come from. Without these details it is too easy to let things slide in the crush of daily business. It is hard to imagine only one institution or organization being able to develop and implement a strategic plan by itself. Therefore, many government agencies, non profits, and private sector firms and organizations are usually involved. Consequently, there is usually no established means of routine assignment, monitoring, and supervision of tasks. This makes it even more important than usual for responsibilities and tasks to be made clear at the outset and to be communicated to everyone involved in the process. In Memphis, the strategic planning group actually executed performance contracts with a number of firms and agencies for various strategies aimed at creating new jobs in the Memphis area.

The action plan can be very simple or very sophisticated. It can range from cross-referenced lists of tasks to computerized project management systems. The best form is that with which the people using it are comfortable and confident. The essential feature of the action plan is that everyone knows what has to be done, when it has to be done, and that it will not be held up for lack of resources.

Implementation. All of the realism and the action-orientation of the strategic planning process described so far is ultimately aimed at one thing: to pave the way for implementation. By choosing a few well-focused missions to concentrate resources on, by realistically assessing the effectiveness of chosen strategies, and by specifying detailed tasks and responsibilities, the strategic planning group creates confidence that taking specific steps will achieve the missions and goals, and it gives the participants a stake in making things happen as planned. This

suggests that the strategic planning group should be made up of the persons or representatives of the organizations that have the interest and the resources to carry out strategies. Moreover, the strategic planning group should identify and give major responsibility to those among the potential implementors who can be enthusiastic advocates

Strategic planning is appropriate when hard choices must be made about what should be done and where good results, not just good intentions, define success.

of each strategy and provide the leadership and determination needed to see them actually executed. No matter how well the strategies are planned, carrying them out will be as hard as any collective activity the community has undertaken, and someone must be a patron and a leader to rekindle the fire of enthusiasm when progress is slow or resistance is high.

While the individual energy of strategy advocates is important, the institutions that can make or break the plan's results must incorporate the strategies into their own operating systems. Firms, government, and other organizations and agencies should include the strategic planning tasks in their own planning, program budgeting, and management activities. Parts of the strategic plan taken on as "extra" activities by these institutions will soon fall by the side as the urgency of the institutions' other normal day-to-day activites demand time, funds, and effort.

The update. No strategic plan is certain to succeed. The events it assumes will take place may never happen or may come about in unexpected ways. The effect of strategies may be different from what was expected. Finally, over time, attitudes, goals, and overall missions might change. All of this suggests that it is wise for a community to keep a sharp eye on how things are going relative to what was intended. Like many things, this is easy to conceive and hard to achieve. Most communities find it very hard to update their comprehensive plans even every five years, yet strategic planning, because it is so dynamic and action-oriented, needs much closer attention than that.

Both the environment and implementation of the plan should be monitored continuously. One person, one agency, or a committee meeting regularly should have clear responsibility as a sentinal who calls attention to events that might change the assumptions underlying the plan or the short-falls in progress that threaten to slow down or halt the momentum of implementation. In some ways this is easier to do than it would be for a comprehensive plan. Because results are clearly spelled out and usually expected sooner than with comprehensive planning, problems may be easier to spot and easier to correct in a continuous process of small adjustments as the planning group follows the progress of the action plan.

Organization for strategic planning

Organizing to carry out a strategic planning process is an important first step, and it is well worth taking the time to do it carefully. The process in the end yields no magic answers: it is a means of bringing people together, inspiring them to think creatively, and motivating them to act assertively in carrying out whatever they decide to do.

Who should participate? The only clear answer to this question is more than one agency or institution. The resources—legal, political, financial, or human—to make significant and fundamental changes in a community are never lodged in one place. The most effective community strategies always come from cooperative efforts. People are most enthusiastic about carrying out plans they have helped to make themselves. Therefore, the strategic planning process should at least involve those persons or institutions who will be needed to implement whatever is planned. Of course, there is always a tradeoff between participation and efficiency. The more people who are involved, the more conflict will have to be dealt with, and the more time it will take. But going through the process of confronting conflict and of resolving it to make clear decisions can have lasting benefits in the community beyond what is put into the plan. The experience itself can strengthen the community. Thus, more participation, if it is done in good faith, can also produce more benefits. Public Technology Inc., a non-profit institution, which has helped with most of the local government strategic plans that have been done in the country, suggests the following list of possible participants:

—Elected officials
—Chief administrator for the local government
—Corporate CEOs and other key business leaders
—Chamber of commerce or other business organization members
—Board of Education and/or school system officials
—Representatives from local education/research institutions
—Neighborhood representatives
—Civic organizations (e.g., League of Women Voters)
—Local government department heads

—Executives of independent nonprofit insitutions (e.g., hospitals, United Way) and foundations
—Representatives from other area jurisdictions (e.g., city, county, regional, special districts)
—State representatives
—Special interest groups
—Religious leaders
—Local media executives.[1]

How should participants be organized? A typical way to organize participants from these sources is to use a steering committee for overall direction and decisions, task forces to work in issue areas, a small staff to serve these groups, and public forums at appropriate points to gain public input. The steering committee is often formed first to choose the issue areas to be included in the scan, to choose the critical issues, possibly to develop mission statements, and to appoint task forces. Later the steering committee can serve as the central guiding force and final decision-making group. The task forces are formed to do the external and internal analysis and to propose strategies and action plans. Experience has shown that the task forces tend to subdivide into work groups as well. When there are too many issues and therefore too many task forces, the process can become extremely complex and cumbersome and can overwhelm staff resources. The most critical staff member is the project director who must be expected to give almost full time to keeping the work of everyone going on schedule. He or she should be a good organizer, action-oriented, and of enough stature to be taken seriously. Other staff members can be part time and can be contributed by participating organizations. Finally, the many people who are not on committees or task forces but who have an interest and a stake in the results of the plan can be involved through public forums. When these occur and how often they occur is up to the strategic planning group, but such public participation should be carefully planned, structured, and purposeful to avoid being an unproductive end in itself.

Conclusions

The main idea behind strategic planning is to raise the likelihood of accomplishing the most important things by concentrating attention and resources on them and by not being distracted by the myriad other concerns that will always face a community. Hard choices are required throughout the process: which issues to include in the scan; which issues to focus on in the mission statement; which trends and events to concentrate on in developing a strategy; and finally, which strategies to pursue. It is the discipline of choice and focus that leads to achievement and avoids the dissipation of resources. And it is the discipline of serious analysis with the promise of real consequences that leads to choosing the right things to achieve.

Strategic planning can have another benefit that comes entirely from the process itself. Because it calls for sensible and realistic assessments of who can do the necessary tasks, it will inevitably require cooperative efforts among a lot of people, organizations, and institutions. The process can promote public/private cooperation in a common cause. By publicizing the ideas and decisions that come out of each step of the process, it can help to educate and unite the community in a common vision of the future. Finally, by involving many people who are clearly responsible for carrying the process through to accomplishment in forums, task forces, and committees, it can create widespread vested interest in success and results.

These benefits do not come without cost. Strategic planning poses some problems that might be difficult or even impossible for a community to overcome. One problem it shares with traditional planning is that it takes a lot of time to do it right. Most communities are finding that it takes at least eighteen months to complete the action plan and start implementation. Those communities that have tried to deal with more than a few issues (requiring more task forces and committees) or that have made special efforts at extensive citizen involvement have needed still more time. Because quick visible results are demanded so often in business and politics, it is hard to maintain the legitimacy of time spent on planning. But strategic planning presents an additional problem. Making decisions now based on a vision of the future requires that disagreement over what should be done and how it should be done must be faced squarely and resolved—one of the hardest things to accomplish in local government short of a crisis situation.

This suggests that there are several things a local government should consider at the outset that could help it decide whether it could use strategic planning successfully. First, because of the need to confront and resolve conflict and to inspire many people and institutions to sustain the effort, strong political leadership is essential. Equally important on another level is the availability of a clearly designated responsible project director who can keep things moving on schedule, coordinate many related

1. This list is taken from the excellent how-to-do-it manual on local government strategic planning by Donna L. Sorkin, Nancy B. Ferris, and James Hudak, *Strategies for Cities and Counties: A Strategic Planning Guide* (Washington, DC: Public Technology Inc., 1985), pp. 19-20.

activities that will be going on simultaneously, and help to publicize and celebrate interim products along the way when energy and enthusiasm start to wane among participants and the public.

Several aspects of attitudes in the community and in the local government probably matter too. Strategic planning has a better chance to succeed when citizens think that spending time and money to develop foresight and to plan for future events is legitimate and worthwhile. Also, because making an action plan and predicting what results it will have is risky, being wrong part of the time has to be acceptable; otherwise neither political leaders nor most of the other participants would want to take the risks that often go with decisive action. Both anti-planning bias and aversion to risk-taking can be counteracted by political leadership, but if these are too strong, strategic planning just might not be possible for the community to undertake. Finally, communities do vary in their willingness and ability to confront disagreement and resolve it. If conflict tends to be divisive in the community, strategic planning, with its need to produce decisive choices, might not produce positive results.

What about comprehensive planning—should local governments give it up? The answer is clearly "no!". Strategic planning has many advantages over comprehensive planning in its focus and its orientation on action and results. But local governments still need to deal with the very broadest (comprehensive) range of community concerns as a part of deciding what results should be sought. Also, there are issues of physical development and many activities of cities and counties—such as zoning decisions, facilities locations, and utilities extensions—that rely on the comprehensive plan for guidance. But if the community appears to have the ability to do it well, strategic planning can be a very effective process to provide the concentrated action needed to move the community assertively toward what it wants to be. ☙

Seven Options for Financing Water and Waste Water Facilities in North Carolina

Sheron Keiser Morgan

The purpose of this article is to outline the problems confronting local governments in the face of declining federal funds for water and waste water facilities, to examine possible new directions for state and local policy, and to evaluate the usefulness of various financing options in meeting the needs of state and local government.[1]

Problems facing local governments

Federal funding for waste water treatment in North Carolina has declined from a high of $110 million in 1976 to only $40 million in 1985. Only $11 million is proposed for 1986; as this goes to press, none has been authorized or appropriated. Of great importance to individual projects, the federal matching share has declined from 75 per cent to 55 per cent; moreover, the costs eligible for federal match are limited to "current need," even though plants are generally built to meet anticipated twenty-year need. This means that the effective rate of federal match is now somewhere between 35 per cent and 45 per cent. Funds available under the state Clean Water Bond program were exhausted in 1984, leaving local governments to bear the full cost of the growing non-federal share.

The most recent Needs Survey by the Environmental Protection Agency (EPA), completed in 1984, indicates that an investment of approximately $1 billion is required to bring North Carolina into compliance with prevailing water quality standards.[2] An additional $540 million will be required by the year 2006 to provide capacity for anticipated growth in population. These figures were compiled to provide EPA a basis for allocating among the 50 states those grant funds available in 1986 and 1987 under the Clean Water Act.

The 1981 Amendments to the Clean Water Act set July 1, 1988 as the deadline for bringing *all* municipal systems into compliance. Moreover, EPA's 1984 National Municipal Policy requires municipalities to submit compliance plans—plans specifying a method of financing construction with *or* without federal assistance. Both the Clean Water Act and the National Municipal Policy require communities to meet applicable National Pollution Discharge Elimination System (NPDES) permit re-

The author is a senior policy analyst in the Office of Policy and Planning, State Department of Administration.

1. The research discussed in this article was carried out under the auspices of the North Carolina State Goals and Policy Board, Water Resources Committee, chaired by Kenneth Dews. Preliminary findings were presented to two Legislative Study Commissions: the Commission on Water Pollution, chaired by Senator Russell Walker and Representative Charles Evans, and the Commission on Falls of the Neuse and Jordan Lakes, chaired by Senator Russell Walker and Representative Joseph Hackney. Louise Zorowski and Susan Straw of the Division of Policy and Planning provided invaluable assistance in tracking down research materials, developing the massive data base, and analyzing the needs and financial capabilities of local governments in North Carolina. David Moreau, Director of the Water Resources Institute, and Jake Wicker, Assistant Director of the Institute of Government, shared valuable insights, advice, and counsel, which helped to guide this project to a satisfactory conclusion.

2. EPA includes seven categories of investment in its needs survey: (1) secondary treatment and best practicable waste water treatment technology; (2) advanced treatment; (3) infiltration/inflow correction; (4) major sewer system rehabilitation (5) new collectors and appurtenances; (6) new interceptors and appurtenances; (7) correction of combined sewer overflows. Only categories 1-3 and 6 are eligible for EPA matching grants.

quirements by July 1, 1988. EPA has indicated that it intends to enforce this deadline and will begin taking any local governments failing to comply with this deadline to federal court.[3]

Prior to the federal Clean Water Act (1972), the construction and operation of waste water treatment facilities were solely a local government responsibility. The federal legislation brought higher water quality standards, which required larger investments than might otherwise have been made by local governments left to their own discretion. As an incentive to conform to these higher standards, the federal government offered to match local expenditures at a ratio of 75 per cent federal to 25 per cent local. At the same time, the State of North Carolina offered to contribute one half of the local share through the Clean Water Bond programs of 1972 and 1977. As a result, local governments have come to expect that the largest share (as much as 87½ per cent of the total investment) might be financed from federal or state sources. Now, suddenly, the federal share is declining below 50 per cent, and no state matching grants are available. Local governments that did not receive EPA 201 construction grants before October 1, 1984, are faced with substantially larger local investments than they had anticipated. The average federal contribution for projects on the EPA priority list for funding in fiscal 1985 was 42 per cent, leaving local governments responsible for an average of 58 per cent of the total cost of construction, compared to 12.5 per cent in the past.

A similar pattern has emerged in the financing of water supply. A major difference, however, is that the purpose of federal and state participation in water supply financing was to promote economic development and, in emergency situations, to protect public health. Recent declines in federal funds for water supply—from the Farmers Home Administration, the Department of Housing and Urban Development, and the Economic Development Administration—have paralleled the cutbacks in EPA waste water treatment funds. In the case of the Farmers Home Administration, which is the most important source of funds for smaller communities, the problem is aggravated by the fact that a growing number of small communities in North Carolina are no longer eligible because of rising per capita incomes. On the other hand, these local governments should be in a better position to finance the projects themselves.

In 1981, the General Assembly authorized a referendum on a third Clean Water Bond program. Recession in the national economy accompanied by high interest rates discouraged the Governor from calling for the referendum in 1981 and 1982. In 1983, the General Assembly rescinded the authorization for the Clean Water Bond referendum and adopted, instead, an additional half-cent local option sales tax and stipulated that 40 per cent of the municipal receipts be allocated to water and waste water treatment facilities for the first five years and 30 per cent for the next five years.

Estimated revenues from that portion that the half-cent sales tax dedicated to water and waste water treatment will total $164.5 million over a ten-year period, or about 10.3 per cent of the $1.6 billion in waste water treatment needs identified on the 1984 EPA Needs Survey. Water supply needs have been estimated to require an additional $1.8 billion by the year 2000.[4] Even if total receipts from the half-cent sales tax are adequate to supplement local resources in meeting both water and sewer needs, the fact that the tax revenues are spread across all communities regardless of need results in inadequate assistance for many communities with immediate needs. For example, the 90 communities subject to a moritorium on new sewer connections have immediate critical needs, while other communities also receiving tax revenues have less pressing obligations.

By 1984, there was a growing sense that revenues generated by the new half-cent sales tax represented an inadequate state investment in water quality. Local officials feel strongly that if the state is to continue regulating waste water effluent, it ought to contribute a reasonable share of the capital costs of new plants. No clear consensus has been reached as to what constitutes a "reasonable" or "fair" share, but discussions with members of the North Carolina League of Municipalities' policy committee on energy and environment suggested that a state contribution of 25 per cent of the total cost (i.e., construction costs plus interest on debt) of the project might be acceptable to local governments.

The amount of revenue from the half-cent sales tax that many local governments receive in any given year is small. But because it is a stable source of revenue, it can be used for long-term debt financing. Assuming a market interest rate of 10 per cent and using 40 per cent

3. Jack Ravan, *Study of Future Federal Role in Municipal Wastewater Treatment, Report to the Administrator*, (Task Force on Municipal Wastewater Funding, U.S. Environmental Protection Agency, Washington, D.C., December 1984), pp. 2-6.

4. Edward J. Kaiser, et al., *An Inventory of Public Works Needs for North Carolina, Its Counties and Planning Regions: A Compilation from Available Sources*, prepared for the N.C Department of Natural Resources and Community Development by the Department of City and Regional Planning, The University of North Carolina at Chapel Hill, January 1983.

of the half-cent sales tax revenues for debt service for 20 years, only 24 per cent of the local governments could finance more than 20 per cent of their waste water treatment needs—allowing nothing for water supply investments.[5] Seventy-six per cent of the local governments could finance less than 20 per cent of their anticipated waste water treatment project costs. Of these, 54 per cent (166 communities), could finance less than 5 per cent of their waste water treatment needs. (Note: in contrast to the foregoing example, the law only requires local governments to dedicate half-cent sales tax revenues to water and waste treatment investment for 10 years, and in the last half of this period, only 30 per cent is dedicated as opposed to 40 per cent in the first five years. On the other hand, municipal governments have the prerogative to use 100 per cent of these revenues for water and waste water treatment for an unlimited period.)

In response to concern among local officials that the state's contribution to water quality investments was inadequate, the Legislature enacted a two-year grant program in 1985, authorizing $60 million per year to be available to municipalities on the basis of population. Because the grants are to be allocated on the basis of population, the resulting distribution closely resembles the distribution of the half-cent sales tax. The funds available to many small communities are not sufficient to encourage the local governments to undertake construction of a major capital facility. For example, the town of Highlands needs to invest $177,000 in a waste treatment facility; its allocation this year from the $60 million amounts to $12. Preliminary evidence suggests that where the funds are being used at all in the absence of federal funds, they are being used to extend water supply and waste water collection lines, rather than to expand or upgrade treatment facilities. It should be noted that in those cases where individual municipalities choose not to use their allocation, the county commissioners have the option to pool the allocations of all communities in the county in a single project. In rural counties, however, the amount available is still relatively small.

Another problem with the method now used to allocate state grant assistance is that it treats communities with different populations, but similar needs, very differently. For example, the cities of Durham and Oxford are both on the EPA Priority List for receiving EPA 201 construction grants in fiscal year 1986. Both projects are for $2.5 million. Each is scheduled to receive $1 million in federal matching funds. Oxford will receive $51,000 in state funds; Durham will receive $675,000.

Historically, local governments have been unwilling to finance water and sewer facilities from local revenue sources. User fees in North Carolina have traditionally been very low, frequently subsidized out of general revenues and more recently by state and federal grants for capital construction. Under-pricing of services has inflated demand while reducing the revenue available to finance future capital construction.[6] Voter disaffection with the property tax has made elected officials understandably reluctant to raise property taxes. This is reflected in the fact that of the 547 counties and municipalities on the EPA needs list, if all were to finance 100 per cent of their twenty-year waste water treatment needs with bonds, 39 per cent would have to raise taxes or user fees in order to lower their "market ratios" (the ratio of current debt service to current revenue) to levels necessary to make their new bond issues attractive to Wall Street.[7] But this

5. Data from the North Carolina Department of Revenue. Analysis by Susan Straw, Division of Policy and Planning, North Carolina Department of Administration, Raleigh, North Carolina.

It should be noted that the assumption of a 10 per cent market rate is somewhat high in today's capital markets. The Data Resources, Inc., forecast of the Bond Buyer Index of 20 General Obligation Municipals averages only about 7.2 per cent into the 1990s. However, this forecast assumes the continuation of municipal bonds' tax exempt status. In contrast, the Executive Director of the National Governors' Association, Raymond C. Scheppach, has indicated in briefing the governors that he expects states and municipalities to lose the tax exempt status of their financial instruments within five years. In that case, local governments would be paying rates comparable with what corporations are paying. Data Resources forecasts interest rates on new corporate AAA bonds to average around 9.5 per cent into the 1990s. *U.S. Long-Term Review* (Winter 1985-86), Data Resources, Inc., Lexington, Mass., I47.

6. A recent study published by the U.S. Army Corps of Engineers reviews the results of 50 previous studies of the sensitivity of water use to price. It concludes that in the long run, winter residential water use will decline by 0.00 to 0.10 per cent for each 1.00 per cent increase in price. Industrial use will decline over the long run by 0.30 to 6.71 per cent for each 1.00 per cent increase in price. Commercial water use will decline over the long run by 0.20 to 1.40 per cent for each 1.00 per cent increase in price. Using the overall elasticity of 0.20 suggests that increasing rates by 25 per cent would yield a 6 per cent decline in demand, while producing a 19 per cent increase in revenues. Similar, perhaps slightly lower, elasticities can be inferred for waste water treatment use in response to price. John J. Boland, et. al., *Influence of Price and Rate Structures on Municipal and Industrial Water Use* (Fort Belvoir, Virginia: U.S. Army Corps of Engineers Institute for Water Resources, June 1984, Contract No. DACW 72-84-C-0004.

7. The "market ratio" is one of several factors used by analysts on Wall Street to evaluate a municipality's ability to repay a bond issue. Generally, a market ratio of less than 10 per cent, including debt service on the new issue, is required for small communities; ratios as high as 20 per cent may be allowed for larger cities.

Statistics presented are from an unpublished analysis by the author and Susan Straw carried out in early 1985, using data from the Local Government Commission on local government revenues and debt service obligations for fiscal 1984 and estimates of waste water treatment investment needs from the 1982 EPA Needs Survey. (The 1984 EPA Needs Survey was not available at the time the analysis was completed. Subsequent review indicates that the

Table 1. Municipal Debt Plus Twenty-Year Waste Water Treatment Needs as a Percentage of Assessed Property Valuation, 1984

Percentage	Number of Municipalities (average pop.)
>8%	8 (307)
>6% but <8%	7 (1,056)
>4% but <6%	26 (2,072)
>2% but <4%	85 (4,934)
<2%	295 (4,582)
* No Property Valuation	28 (273)

*Inactive municipalities

only means that a number of local governments lack the flexibility in their *current* budgets to undertake large capital investments. It does not say anything about their ability to finance investments over the long term. Further analysis suggests, however, that the traditional tax base available to counties and municipalities is, with very few exceptions, adequate to meet anticipated need.

Local governments are prohibited from issuing general obligation debt in excess of 8 per cent of their assessed property valuation. However, investments for water supply and for sewer, if the latter are self-supporting, are exempt from the 8 per cent limitation. Even if this exemption is not taken into account, most local governments in North Carolina, given their current levels of bonded indebtedness, would be fully able to finance 100 per cent of their anticipated waste water treatment needs by borrowing. It was calculated what the level of local government indebtedness would be if, in addition to their current debt, they financed their projected twenty-year waste water treatment needs entirely by local government borrowing in the form of general obligation bonds. Of the 100 counties, 3 would exceed 2 per cent of their assessed property valuation. Of the 447 municipalities on the 1982 EPA Needs Survey, *only 8 would exceed the statutory debt* limit of 8 per cent of their current assessed property valuation if, in addition to their current indebtedness, they borrowed enough to finance the full cost of their projected twenty-year waste water treatment needs. The average population of these 8 communities was 307. Only 7 communities would exceed 6 per cent (but fall below 8 per cent) of their current assessed property valuation. The average population of these communities was 1,056. Twenty-six communities would exceed 4 per cent (but fall below 6 per cent) of their assessed property valuation. The average population of communities in this last group was 2,072.[8] (See Table 1.) In short, as Jake Wicker, Assistant Director of the Institute of Government, told a meeting of water pollution control and waterworks officials, "We can afford first-rate water and sewerage services."[9] He went on to say that *the real issue at stake is what constitutes a fair and reasonable way to pay for these services.*

There is no question that communities in North Carolina will have to build substantial new water and waste water treatment facilities in the coming years just to keep up with the growth of population and the expansion of local economies. Pressure on local officials is reinforced by heightened public awareness of the threats to public health posed by inadequate or poorly run facilities.

The most difficult factor in the current decision-making environment for local public officials to deal with is uncertainty: uncertainty about the rapidly changing roles of federal, state, and local government; uncertainty about the pace and direction of anticipated growth; and uncertainty about the future of municipal financing, especially in the face of federal tax reform, which over the long term threatens to eliminate the tax exempt status of *all* municipal bonds and in the short term, to reduce substantially commercial banks' demand for tax exempt bonds.

The Tax Reform Act of 1981 excluded 15 per cent of commercial bank earnings from municipal bonds from tax exempt status. This was an early signal that the tax exempt status of municipal bonds was coming under attack in the Congress. The Tax Reform Act of 1984 increased the exclusion to 20 per cent, effective December 31, 1984. The tax reform package (HR 3838), which

estimated investment needed by individual communities did not change substantially between 1982 and 1984; therefore, the results of this analysis remain essentially unchanged.) Data and analysis available in the Division of Policy and Planning, North Carolina Department of Administration, Raleigh, N.C.

8. *Id.*

9. Jake Wicker, "Doing More with Less in the Water Resources Industry: Some Organizational and Financial Considerations," speech before the North Carolina Water Pollution Control Association and North Carolina Section, American Water Works Association, Wilmington, N.C., November 6-9, 1983, p. 6.

passed the House of Representatives in December 1985 and is now awaiting senate action, includes a provision that would eliminate entirely the tax exempt status of commercial bank earnings from municipal bonds, *effective January 1, 1986.*[10] The Senate Finance Committee will begin markup of the House bill in April. Meanwhile, Senate Finance Chairman Packwood sought to delay the effective dates of the bill. House Ways and Means Chair Rostenkowski initially opposed any change. However, on March 14, Packwood and Rostenkowski joined Treasury Secretary James Baker in an announcement delaying the House bill's effective dates until September 1, 1986, but only as it applies to tax exempt bonds for governmental purposes. Like the House bill, the Senate's draft tax package would no longer exempt from taxation commercial banks' earnings from municipal bonds.[11] President Reagan has expressed strong displeasure with some elements of HR 3838, but this particular provision is not among those he hopes to see changed by the Senate. In all likelihood, the provision will remain in the final bill. Bankers in North Carolina have indicated privately that if they lose the tax exemption, they will be out of the municipal bond market.[12]

A study published by the national Municipal Finance Officers Association indicates that as of December 31, 1981, commercial banks held 43 per cent of outstanding state and local municipal bonds and other credit instruments. Property and casualty insurance companies held 23 per cent, and "individuals" held 27 per cent.[13] If commercial banks leave the municipal credit market, it will, in the short run at least, drive up the interest rates on all municipal issues as cities and states scramble to find new buyers. Hardest hit will be small towns, which frequently market their issues to hometown banks.[14]

Over the longer term, the eventual elimination of the tax exempt status of municipal bonds would further raise the cost of debt financing by state and local governments to rates at least identical with, if not higher than, the corporate bond market, or an increase of approximately two points in current markets.

New directions for state and local policy

In this environment of high uncertainty, the most important role for state government is to be a steadying influence, to adopt a posture that can be sustained over the long term in the face of changes in federal policy. It is also reasonable to expect that state policy makers, in framing a direction for the future, ought to set out consciously to avoid the most glaring mistakes of the past:

—*inefficiencies in investment,* which have accompanied high levels of subsidy, especially when the subsidy took the form of grants;

—incentives to "wait in line," *putting off needed investments* and forgoing growth;

—*lack of attention to* the special problems of *small communities* in building capital facilities;

—unrealistically *low user fees;*

—*subsidy of water supply development,* except when there is a clear danger to public health or where tangible economic development benefits are already evident;

—*uneven levels of program funding,* which drive up costs because the private sector cannot gear up for a sustained level of activity;

—*failure to plan* and make provision for needed investments.

Inefficiencies in investment. In analyzing the factors that contribute to efficiency in public investments, a recent national study issued by the Congressional Budget Office states unequivocally, "There is no substitute for rigorous local project oversight. The experience and involvement of local officials as well as their interest in cost control can be the most significant source of cost savings. *Local concern for cost control results directly from the share of total project costs paid from local sources*" (emphasis added).[15]

10. George D. Friedlander, "The Ways and Means/Joint Proposed Provisions on Municipal Bonds: An Assault on State and Local Government Finance," *Municipal Bond Research: Special Report* (Smith Barney, Harris Upham and Co., New York, October 9, 1985), 5.

11. *The Tax-Exempt Finance Legislative Report,* Memorandum No. 79, (Kutak Rock, and Campbell, Washington, D.C., March 14, 1986).

12. Everett Chalk, Assistant Director, Local Government Commission, Raleigh, North Carolina.

13. John E. Petersen and Wesley C. Hough, *Creative Capital Financing for State and Local Governments* (Chicago, Ill.: Municipal Finance Officers Association, Government Finance Research, 1983), p. 10.

Everett Chalk disagrees with this estimate, suggesting that banks resell some of their bonds to individuals; Chalk estimates the banks end up holding only about 30 per cent of the total. This is nonetheless a substantial market.

14. As a result of current uncertainty about their tax status, the market for municipal bonds has already "gone flat." Officials in cities across the state have delayed bond sales. On 11 February 1986, the Raleigh *News and Observer* reported that "Statewide the value of municipal bonds issued dropped from $2.2 billion in the last three months of 1985 to about $1.1 million last month."

15. *Efficient Investments in Wastewater Treatment Plants* (U.S. Congress, Congressional Budget Office, June 1985), p. 18.

Local officials in North Carolina agree. They are candid in admitting that when the share of local funds in a project reaches 60 and 70 per cent, they are likely to be much more careful in determining the size of the facility and overseeing its construction. They also are quick to add that even though the levels of subsidy may be identical, their perception of their own responsibility is substantially different in the case of a loan, even a no-interest loan, as opposed to a grant. The loan signals a long-term obligation that injects a note of caution not necessarily present with a grant.

Putting off needed investments. Federal experience suggests another lesson to be learned in framing future state policy: high levels of subsidy discourage local expenditures. A federal task force headed by Jack Ravan, EPA's Assistant Administrator for Water, found that federal outlays for waste water treatment peaked at $5.38 billion in 1976, while state/local spending dropped to under $1 billion, a decrease of more than 75 per cent from state and local funding levels in 1960 (measured in constant 1982 dollars).[16] Most damaging is the tendency for communities to "wait in line" until it is their turn to receive a grant.[17] It is very difficult for local elected officials to make the case for a local community's proceeding on its own so long as there is a prospect, however distant, that a large share of the cost might be covered by funds from outside sources. Meanwhile, plans and provisions for long-term needs are held in suspension for fear that they might jeopardize the community's eligibility for a grant.

Lack of attention to small communities. Analysis of the projects on the EPA twenty-year waste water needs list suggests a third important lesson: that special attention may be required to meet the needs of small communities. The largest share of EPA 201 expenditures since 1972 has gone to larger urban communities. These cities generated the most waste and had the most devastating effect on the nation's rivers and streams. In order to realize the basic objective of the Clean Water Act—cleaning up these rivers and streams—many of these big projects were completed first. EPA readily admits that a troublingly large proportion of the projects now remaining are located in small communities, which can least afford to build facilities; moreover, these small communities face costs *substantially higher* in proportion to the size of the facility than did their wealthy urban neighbors.[18]

Among projects on EPA's twenty-year needs list for North Carolina, the cost per 1,000 gallons of treatment ranges from around $1,500 to $44,000. Using the EPA rule that sewage treatment fees should not exceed one and one-half per cent of the community's median household income, the maximum acceptable user fee per month in North Carolina (using the statewide median household income for 1984) is $18.36.[19] Assuming that debt service on capital construction was financed entirely from user fees and assuming that the full cost of the project was financed with borrowing, the maximum cost that a community could afford without exceeding EPA's maximum user fee would be $3,280 per thousand gallons of treatment capacity.

One hundred and sixty-six projects on the 1984 EPA Needs Survey exceed $3,280 per thousand gallons of capacity. With two exceptions, all of these projects are located in communities with populations of 5,000 or less. The average cost of these projects is $2.5 million. The average amount that the communities could raise from user fees is $1.5 million. In the absence of a state program that specifically addresses the problem of high unit costs in small projects, it is unlikely that many of these projects will be built.[20] (This analysis is based on estimated costs. If a program of state assistance is developed to address this problem of high unit costs, it should base eligibility on costs determined when a project reaches the design stage. Provision also should be made to insure that the lowest-cost technology is used.)

Low user fees. In its study, *Public Works Infrastructure: Policy Considerations for the 1980's*, the Congressional Budget Office concludes that "The direct beneficiaries of infrastructure services often pay fees that recover less than the cost of providing those services, thus leading to excessive demand for infrastructure services. This in turn can lead to overestimates of investment needs."[21] The difference between the user fees charged and the actual cost of providing the service is financed by subsidies from general tax revenues. In North Carolina, a recent study published by the Water Resources Research Institute found that in the state's 51 largest cities, sewer charges would have to increase by 55 per cent in the future to compensate for the loss of state and federal grants.[22]

16. Ravan, *supra* note 3, pp. 3-1 to 3-3.
17. *Id.*, pp. 2-3.
18. *Id.*, p. 307.

19. This analysis uses the average sewage treatment operating costs reported by 51 communities in a recent survey by the Water Resources Research Institute. David H. Moreau and Dale Whittington, *Financing Water Supply and Waste Water Services in North Carolina in the 1980s* (Raleigh: Water Resources Research Institute, North Carolina State University, February 1984), p. 17.
20. Analysis by the Division of Policy and Planning, N.C. Department of Administration, Raleigh, N.C.
21. *Public Works Infrastructure: Policy Considerations for the 1980's* (U.S. Congress, Congressional Budget Office, April 1983), pp. 10-11.
22. Moreau, *supra* note 19, p. 20.

Water supply development. Water is a scarce economic resource. In contrast to waste water treatment, where the benefits of the service accrue in large part to the residents downstream, the users of a public water system are its principal beneficiaries. Subsidy of water supply by another level of government for reasons other than removing a threat to public health may result in the development of some very expensive water projects, projects that in the absence of the subsidy would not be built.

Uneven levels of program funding. Federal funding for waste water treatment construction has varied by as much as 100 per cent from one fiscal year to the next. As a result, the private sector has experienced increased costs in adding and then having to lay-off expensive employees and equipment. These increased costs are reflected in higher bids received by local governments.[23] A state policy adopted with a clear long-term commitment would signal the private sector what to expect in the way of construction activity and would help to hold down inflation in construction costs.

Failure to plan. It is difficult for local officials to plan when the rules of the game at the state and federal levels are constantly changing. A state policy with a clear, long-term commitment would provide local governments with a much-needed framework within which to plan local investments.

Reasons for a new program of state assistance

We appear to have entered a new period of construction financing—no complicated federal grant regulations, but no federal money either. State government now has an opportunity to chart a new course in addressing a serious problem. It also has a responsibility to reduce confusion and uncertainty by carving out a policy and a program that state and local leaders can live with for the long haul.

Outlined below are eight specific reasons why the state ought to undertake a new program to encourage and supplement local governments' efforts to meet their long-term water and waste water needs:

1. Local governments must bring their waste water plants into compliance with their NPDES permits (or at a minimum file acceptable plans with EPA) by July 1, 1988, or face action in federal court.

2. North Carolina needs to build a large number of waste water treatment facilities in a relatively short period of time. But it is important to recognize that this is not simply a matter of addressing a short-term crisis. One-third of the effort required over the next 14 years is for future growth. Moreover, by the 1990s the facilities built in the 1970s will need major rehabilitation or replacement.

3. A policy that clearly articulates a continuing state commitment to share with local government responsibility for protecting water quality would not only be perceived as fair by local officials, but would enhance the state's ability to enforce water quality standards.

4. Each year several communities face serious threats to public health as a result of contaminated water supply. Occasionally, a community has an opportunity to attract a manufacturing plant, but it lacks the resources to extend its public water supply service to meet the needs of the new company. State assistance may be appropriate in these cases. However, the state should take care to avoid encouraging communties to allow a public health crisis to develop in order to become eligible for state assistance.

5. The traditional primacy of local government in providing the public services that shape the direction and determine the pace of urban growth ought to be supported and reinforced by a state policy that encourages local officials to make needed investments, while leaving the responsiblity for financing and managing these investments squarely on their shoulders.

6. Local governments ought to be encouraged to adopt user fee rate structures that cover the full cost of providing water and sewer services. Debt service or provisions for a capital reserve should be included in the rate base employed in determining user fees. The rate structure ought to encourage conservation, especially among commercial and industrial users where demand is considerably more sensitive to price than is residential demand.[24] This is a difficult issue to address in the context of local politics. Strong state leadership can make it easier for local elected officials to stand up to political pressures to keep user fees unrealistically low.

7. Wide variations in construction costs due to economies of scale result in serious inequities among communities of different sizes. Only a program of state assistance can compensate for these inequities.

8. The method of financing the construction of capital facilities has implications for equity among taxpayers over time. Economists generally agree that public capital expenditures ought to be paid for, wherever possible, by users, and that these expenditures ought to be financed over the life of the facility. Long-term bond financing,

23. Walter Taft, Chief, Construction Grants Section, Division of Environmental Management, N.C. Department of Natural Resources and Community Development, Raleigh, N.C.

24. See *supra* note 6 for a discussion of sensitivity of demand to changes in price.

if it can be obtained at reasonable rates and if total indebtedness is constrained to prudent levels, is accepted as the best mechanism for insuring equity among taxpayers over time.

A prudent level of debt financing for capital facilities also plays a very positive role in improving the long-term productivity of the economy. It frees current revenues for expenditures on services for which debt financing is not appropriate, but which may be crowded out by so-called "pay-as-you-go" programs of capital investment. These are in fact "pay-before-you-go" programs because they require today's taxpayers to pay the entire cost of facilities to be used over the next twenty years. Such capital expenditures are appropriate in periods of temporary revenue surplus. But if they are made at the expense of current services, the productive capacity of the economy in the future may be compromised.

Federal tax reform proposals have created confusion and uncertainty in long-term municipal capital markets. Just as state government intervened in North Carolina in the 1930s to create the Local Government Commission, bold state action may be required to provide a stable, reasonably priced market for municipal water and sewer bonds, especially those issued by small communities.

Options for financing water and waste water treatment facilities

Seven options for state assistance are presented in the discussion below. With the exception of Option 2, the level of program activity is held constant across all options to permit easy comparison, especially with reference to cost. The range of options includes: (1) a grant program modeled along the lines of earlier Clean Water Bond programs, using either bonds or direct appropriations as a source of funds; (2) a small grant program for high cost projects; (3) a bond/loan program with the state subsidizing a portion of the interest; (4) a subsidized interest program; (5) a revolving loan fund; (6) a dedicated sales tax; and (7) a tax on water and sewer services.

In framing the options for financing, it was assumed that between now and the year 2000 North Carolina ought to spend $100 million per year on waste water treatment facilities and $20 million per year on water supply facilities. It was also assumed that the EPA 201 construction grant program would end in Fiscal 1988, if not before.

In costing the various options discussed below, it was assumed that the Legislature authorized a program of state assistance for five years.[25] Where bonds were involved, it was assumed that the bonds were issued in five equal increments with each issue being repaid over a period of 18 years. All issues were structured with constant principal payments, as preferred by the Local Government Commission. In all options involving borrowing, the market rate of interest was assumed to be 10 per cent.[26] The average household is assumed to have 3.2 persons with each generating 109 gallons of waste water per day.[27] Construction of 1,000 gallons of treatment capacity was assumed to cost $3,000.[28]

Four criteria stand out as useful in evaluating each option:

(1) Does it expedite local investments?

(2) Does it promote efficient investments by encouraging reliance on user fees and by reinforcing local officials' sense of responsibility?

(3) Does it promote equity?
—among communities of different sizes?
—among taxpayers over time?

(4) Is it affordable? Does it represent a "fair and reasonable" state contribution to the protection of water quality without placing an unsustainable burden on state revenues?

Option 1.

CLEAN WATER BOND/GRANT PROGRAM: State appropriates or borrows funds in bond market and makes grants to local governments to provide up to one-half of the non-federal share, or a maximum of 50 per cent where no federal funds are available.

Advantages: Program is familiar, widely accepted by local governments.

Helps to close the gap created by the decline in federal funds.

Disadvantages: Leaves a substantial amount of money to be raised by local governments, probably by borrowing in the bond market.

Discourages local governments from raising user fees to levels covering the full cost of service.

25. Estimates of cost were developed with the assistance of David Moreau, Director, Water Resources Institute, North Carolina State University.

26. See *supra* note 5.

27. Average household size was calculated using 1980 Census data for North Carolina. The average waste water per person was calculated on the basis of 1980 U.S. Geological Survey estimates of publicly treated residential waste water for North Carolina.

28. Division of Environmental Management, N.C. Department of Natural Resources and Community Development, Raleigh, N.C.

Continues the precedent of providing a large share of the cost of construction from non-local sources.

Cost to State Taxpayers: Sale of $300 million in bonds at 10 per cent will cost $585 million. An average cost of $27 million per year for 22 years, with a peak payback of $44 million in the sixth year, or appropriation of $60 million per year for a total of $300 million over 5 years.

Cost to Local Government Taxpayers: Sale of $300 million in bonds at 10 per cent would cost $585 million, plus cost of bond counsel and investment bankers. (Interest rate for smaller communities may be slightly higher.)

Impact on User Fees: An increase of $.40 per thousand gallons or $3.96 per month per average household would be necessary to finance the local share of project costs, assuming local funds were borrowed in the bond market at 10 per cent and debt service was paid entirely from user fees.

Option 2.

GRANT PROGRAM FOR HIGH COST PROJECTS: State makes grants to local governments where costs of construction exceed an established maximum per unit.

Advantages: Reduces inequities created by wide variation in unit costs of construction due to economies of scale.

Disadvantages: Provides benefits primarily to small communities.

Cost to State Taxpayers: Appropriation of $5 million per year, or $25 million over five years. Need for continuation of program should be reviewed and evaluated on a biennial basis.

Cost to Local Government Taxpayers: One hundred per cent of cost of construction above a maximum to be determined on the basis of local median household income.

Impact on User Fees: User fees, based on 1984 statewide median household income, would not exceed $18.36 per month for waste water treatment for the average household.

Option 3.

CLEAN WATER BOND/LOAN PROGRAM: The state borrows funds in the bond market and makes loans to local government for the full amount of the non-federal share and provides an interest subsidy of half the market rate.

The Environmental Management Commission could allocate loan funds using the State Priority System already established in NRCD's Administrative Procedures. The system gives numerical weight to water quality, economic development, and ability-to-pay considerations.

Local governments would be required to meet the same terms and conditions stipulated in the statutes as prerequisites to borrowing in the private capital market. A local public referendum would be required to approve the issuance of local general obligation bonds, which would be bought by the state. The Local Government Commission would have the same power and responsibility to monitor repayment of the bonds held by the state as it would if these bonds had been bought by private investors. This includes the power to insist that debt service obligations have priority over all other local expenditures and, if necessary, the power to raise local taxes and/or user fees to levels sufficient to cover debt service.

Advantages: Simplifies the funding process if the state provides loans covering the full amount of non-federal share. Expedites local government moving ahead with projects.

Reduces cost of borrowing since the state has a slight interest rate advantage over local governments (at least in the case of smaller units) and eliminates the need for the local governments to pay bond counsel and investment bankers.

Sets a precedent for shifting the major portion of financing responsibility back to local governments.

Can be structured to encourage communities to proceed on their own where growth pressures dictate, allowing refinancing from the state loan fund when the project becomes eligible on the basis of its priority for water quality.

Would encourage and might require that user fees be raised to levels reflecting the full cost of service.

Reduces the cost to state government by half, when compared with a bond/grant program (Option 1), to build the same number of projects.

Could be administered in a manner similar to the earlier Clean Water Bond programs.

Disadvantages: Requires that state government borrow more funds in the bond market ($600 million as compared to $300 million required by the bond/grant program). However, the actual cost to the state is only about half the cost of the bond/grant program in Option 1.

Administrative costs may be somewhat higher since the loans would have to be serviced over a twenty-two-year period. However, it should be noted that the Local Government Commission already monitors local government

repayment of bonds sold on Wall Street. Administration of the loan program should not be substantially more expensive than costs currently incurred.

Cost to State Taxpayers: The sale of $600 million in bonds at 10 per cent, with half of the interest being paid by the state and the remaining interest and principal being paid by local governments, would cost the state a total of $285 million, or an average of $13 million per year for 22 years, with a peak payback of $27 million in the sixth year.

Cost to Local Government Taxpayers: Repayment of $600 million in loans for 18 years at 5 per cent would cost $885 million.

Impact on User Fees: User fees would increase by $ .60 per 1,000 gallons, or $5.94 per average household per month.

Option 4.

SUBSIDIZED INTEREST PROGRAM: The state makes grants to local governments to cover one-half of the interest.

Advantages: Lowers cost of borrowing to local governments.

Eliminates need for large state bond issue, as compared to Options 1 and 3.

Disadvantages: Cost to local government would be slightly higher than in Option 3.

Would involve issuance of payments to local governments over the life of their loans.

Does not address problems that small local governments may encounter in marketing their bonds in the future.

Cost to State Taxpayers: Same as Option 3—$285 million over twenty-two-year period, an average of $13 million per year with peak payment of $27 million in the sixth year.

Cost to Local Government Taxpayers: Same as Option 3, except that interest rates for smaller communities may be higher, and participating local governments will pay fees for bond counsel and investment bankers.

Impact on User Fees: Same as Option 3—an increase of $.60 per thousand gallons, or $5.94 per average household.

Option 5.

REVOLVING LOAN FUND FINANCED BY BONDS: The state borrows a total of $533 million in the market over a period of 5 years to establish a permanent revolving loan fund. Borrowing would begin with $120 million per year and decline as repayments from local governments revolved back into the fund. Fund provides loans up to 100 per cent of the total cost of project. General appropriations are used to pay debt service. Loan repayments from local government are returned to permanent loan fund.

Interest rate charged to local government should be sufficient to cover administrative costs and erosion of fund value due to inflation. The estimate below assumes a 5 per cent interest rate for costing this option. It should be noted, however, that inflation in public works in recent years has averaged around 11 per cent. If the fund charged interest rates necessary to cover this level of inflation, there would be no advantage to borrowing from the revolving fund over private capital markets. The alternative is to charge a lower interest rate and allow the value of the fund to be eroded by inflation.

Advantages: Simplifies financing process for local governments by covering the non-federal share with a single loan from state government.

Reduces interest cost to local government.

Shifts responsibility to local government for repaying principal.

Establishes a permanent fund available for financing projects in the future.

Disadvantages: Substantially higher costs to state.

Shifts the burden of financing long-term investments to state taxpayers in the near-term.

Puts the state in the position—over the long term—of incurring all of the "opportunity" costs and assuming all of the financial risk, rather than sharing risk with private investors as is the case in Option 3, the bond/loan program.

Cost to State Taxpayers: The sale of $533 million in bonds at 10 per cent would cost $1,039 million or an average cost of $24 million per year for 22 years with a peak payback of $50 million in the 6th year.

Cost to Local Government Taxpayers: Costs would be the same as in Option 3, except that the interest rate might vary with inflation.

Impact on User Fees: Same as Option 3—An increase of $.60 per thousand gallons or $5.94 per average household per month.

Option 6.

DEDICATED SALES TAX/GRANTS: The state levies an additional one-cent tax with the stipulation that 43 per cent of the revenues are to be used for grants to local

governments for water and wastewater treatment facilities. Grants would be for 100 per cent of nonfederal share and would be allocated on a project basis with priority given to those that have the greatest impact on water quality.

Advantages: Dedicates a stream of revenue to meet identified long-term needs.

Disadvantages: Subsidizes water and sewer rates, tending to keep them artificially low, with the result that conservation is discouraged, and larger investments in capacity are needed than might have been the case if user rates reflected the full cost of service.

Shifts more responsibility for planning long-term financing of water and waste water facilities to state government.

To the extent the sales tax is regressive, the cost of water and sewer facilities would fall more heavily on low-income taxpayers.

Shifts burden to taxpayers in the near term for facilities that will be used over 20 years.

Cost to State Taxpayers: 43 per cent of revenues from 1 per cent sale tax amount to $120 million per year or $600 million over a period of five years.

Cost to Local Government Taxpayers: None

Impact on User Fees: None.

Option 7.

TAX ON WATER AND SEWER SERVICES/ GRANTS: State levies a tax on water and sewer services as a means of generating revenue to finance future construction and makes grants to localities to cover the nonfederal share of construction costs.

Advantages: Provides a mechanism, which in effect, raises user fees to a level sufficient to cover the cost of plant and equipment.

Provides a source of revenue directly related to the service being financed.

Disadvantages: Penalizes those communities that have already raised their water and sewer rates to levels sufficient to cover long-term capital costs.

Would probably generate pressure to give communities the option of not participating in the program if they could demonstrate that they intended to be self-sufficient over the long term.

Taxes users in the near term for the full cost of facilities that will be used for 20 years.

Tax on user fees would be regressive, falling more heavily on low-income users.

Cost to State Taxpayers: Tax of $ .28 per thousand gallons of publicly supplied water and $ .28 per thousand gallons of publicly treated waste water would generate $120 million per year. (Revenue estimate based on a 1980 U.S. Geological Survey estimate of 570 gallons per day of publicly supplied water and 460 million gallons per day of publicly treated waste water.)

Cost to Local Government Taxpayers: None.

Average Tax per Household: Assuming 109 gallons per person per day and 3.2 persons per household, the average tax per household would be $5.30 per month, or $63.66 per year.

Impact on Local User Fees: None.

Summary comparison and conclusions

Four criteria were identified at the beginning of this section as useful in evaluating the financing options presented. These criteria were: (1) the ability to expedite local investments; (2) efficiency; (3) equity; and (4) affordability. Of these, the notion of "affordability" ought to receive foremost attention if, as is argued above, this new state policy is to be framed as a long-term commitment to share with local government the cost of the infrastructure to protect water quality. If the state cannot afford to sustain the policy through the 1990s, then it doesn't really matter whether or not the policy promotes efficiency and equity, because the lack of a long-term commitment will undermine its overall effectiveness.

Table 2 compares the costs of all seven options with respect to both state and local governments. When evaluated on the basis of both annual and total costs to taxpayers, Option 2—the grant program for projects with high unit costs—is by far the least expensive, but it is also the narrowest in focus. Less than half of the projects on the EPA twenty-year Needs Survey might conceivably be eligible. By itself, it would probably not be perceived by local officials as a "fair and reasonable" state commitment. Options 3 and 4, the loan program financed with bonds and the interest subsidy program, rank second lowest in cost to state taxpayers both in annual and total costs. The highest average annual costs are for Options 6 and 7, the grant programs financed with a dedicated sales tax and with a tax on water and sewer services. Option 5, the revolving loan fund, has the highest total cost because the state government is repaying 100 per cent of the debt service on its bonds (as compared with Option 3 in which the state pays only half of the interest) with local governments paying the other half of the interest plus the principal.

Table 2. Comparison of State and Local Costs for Seven Financing Options (in millions)

Option	Description	Cost/State Ave. Annual	Cost/State Total	Cost/Local Total	Total Cost State & Local	Impact on User Fees
1	Grant financed with bonds Grant appropriations	$27(22 yr) $60 (5 yr)	$585 $300	$585 $585	$1,170 $885	$3.96/mo. $3.96/mo.
2	Grants for projects with high unit costs	$5 (5 yr)	$25	$75	$100	to maximum of $18.36/mo.
3	Loans financed with bonds	$13(22 yr)	$285	$885	+ $1,170	$5.94/mo.
4	Interest subsidy	$13(22 yr)	$285	+ $885	+ $1,170	$5.95/mo.
5	Revolving loans financed with bonds	$24(22 yr)	$1,039	$885	$1,924	$5.94/mo.
6	Grants financed with dedicated sales tax	$120 (5 yr)	$600	0	$600	0
7	Grants financed with tax on water & sewer services	$120 (5 yr)	$600	0	$600	$5.30 tax/mo.

It should be remembered that the higher cost of Option 5 is due to a "permanent" fund being capitalized. At the end of 22 years, when the bonds have been paid off, the state would have a fund with a nominal value of $553 million. The real value of the fund can be maintained only if the interest rate charged local governments equals the inflation rate in public capital construction—about 11 per cent in recent years. At a lower interest rate, the real value of the fund will be eroded by inflation over time. Given the State of North Carolina's AAA credit rating and its history of prudent borrowing, there is no reason to expect—even with continued turmoil in the municipal capital markets—that the state might experience serious problems in marketing its bonds to the private sector in the future. Interest rates are likely to be higher with the eventual loss of tax exempt status for municipal bonds, but there will continue to be a strong market for the State of North Carolina's bonds. In the absence of a serious threat to North Carolina's borrowing power in the future, a strong case for the revolving fund cannot be made.

On the basis of "affordability," Options 3 and 4—the bond-financed loan program and the interest subsidy program—appear to be the most attractive. But how do they measure up in terms of efficiency, equity, and the ability to expedite local investments? Table 3 summarizes the evaluation of all seven options on the basis of all four criteria.

Both Options 3 and 4 rank high in promoting efficiency and local responsibility. In both cases local officials are borrowing the full cost of project construction, incurring a binding, long-term obligation to repay this debt. Evidence suggests that under these circumstances, local officials are likely to make greater efforts to hold down construction costs and that they are more likely to raise user fees to levels sufficient to cover debt service as well as operating costs than they would be if state assistance were provided in the form of an outright grant.

Both Options 3 and 4 rank very high in terms of equity among taxpayers over time since both offer local governments assistance in obtaining long-term debt financing, which in turn permits them to charge the capital construction costs to the users of the facility over its productive life. Neither option addresses the problem of equity among communities of different sizes and the disparities that arise as a result of economies of scale. Thus, either Option 3 or 4 ought to be paired with Option 2, the grant program for projects with high unit costs, in order to satisfy fully the equity criterion.

Both Options 3 and 4 encourage local governments to move ahead with needed investments by lowering the cost of borrowing the necessary capital. The bond-financed loan program (Option 3) has the additional advantage of simplifying considerably the process of issuing local general obligation (GO) bonds. Because state government buys the local government's GO bonds, Option 3 eliminates the need for local officials to obtain the services of bond counsel and investment bankers. This option would also shift to state government the responsibility for navigating the rough waters of the private municipal bond market over the next few years. This would be particularly attractive to small units of govern-

Table 3. Evaluation of Seven Options Based on Four Criteria

Option	Description	Expedites Investment	Promotes Efficiency/ Local Responsibility	Promotes Equity -Among Communities -Among Taxpayers	Affordable/ Sustainable
1	Grants	good (local governments still have to raise ½ cost)	fair	poor	fair, if bond financed; poor, if financed by appropriations
2	Grants for projects with high unit costs	good, but only for some projects	good, but only for some projects	good, but only for some projects	good, but very limited program
3	Loans financed with bonds	excellent	excellent	excellent re taxpayers over time; poor re communities lacking economies of scale	excellent
4	Interest Subsidy	good (local governments still have to borrow the money on Wall Street)	excellent	excellent re taxpayers over time; poor re communities lacking economies of scale	excellent
5	Revolving loans financed with bonds	excellent	excellent	poor	poor
6	Grants financed with dedicated sales tax	excellent	poor	excellent re communities; poor re taxpayers over time	good, but with higher taxes
7	Grants financed with tax on water & sewer services	excellent	excellent re efficiency; poor re local responsibility	excellent re communities; poor re taxpayers over time	good, but with higher taxes

ment for whom Wall Street appears awesome and forbidding even in the best of times.

In conclusion, the bond-financed loan program (Option 3), especially when paired with a grant program for projects with high unit costs (Option 2), offers state government a powerful, low-cost mechanism to encourage local governments to undertake needed investments, to promote efficiency through increased local responsibility and increased dependence on user fees, and to promote equity among communities of various sizes by compensating small communities for high unit costs and among taxpayers over time by assisting local governments in obtaining prudent levels of reasonably priced, long-term debt financing. ☙

Recent Publications of the Institute of Government

Construction Contracts with North Carolina Local Governments. By A. Fleming Bell, II. $5.00

Analysis of HB1314—A Report Prepared for the State Treasurer. By Charles D. Liner. $5.00.

North Carolina Crimes: A Guidebook on the Elements of Crime. Third edition. Edited by Benjamin B. Sendor. $10.00

North Carolina Legislation 1985: A Summary of Legislation in the 1985 General Assembly of Interest to North Carolina Public Officials. Edited by Robert P. Joyce. $12.50.

1985 North Carolina Legislation on Child Day Care. By Mason P. Thomas, Jr. $1.00.

Summary of 1985 North Carolina Legislation Affecting Children. By Janet Mason and Mason P. Thomas, Jr. $1.00.

1985 Index of Computer Hardware and Software in North Carolina Local Governments. By Charles D. Liner. $12.00

A Model Equipment Lease-Purchase and Security Agreement for North Carolina Local Governments With Annotations and Appendices. By A. Fleming Bell, II. $10.00.

Form of Government in North Carolina Cities. By David M. Lawrence. $4.50.

Providing Government Services: State and Local Government Responsibilities in North Carolina. By Charles D. Liner. $1.50.

Orders and inquiries should be sent to the Publications Office, Institute of Government, Knapp Building 059A, The University of North Carolina at Chapel Hill, Chapel Hill, N.C. 27514. Please include a check or purchase order for the amount of the order, plus 3 per cent sales tax (4½ per cent for Orange County residents). A complete publications catalog is available from the Publications Office on request.

Popular Government (ISSN 0032-4515)
Institute of Government
Knapp Building 059A
The University of North Carolina at Chapel Hill
Chapel Hill, North Carolina 27514

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.

Since 1931 the Institute has conducted schools and short courses for city, county, and state officials. Through guidebooks, special bulletins, and a magazine, the research findings of the Institute are made available to public officials throughout the state.

Each day that the General Assembly is in session, the Institute's Legislative Reporting Service reports on its activities for both members of the legislature and other state and local officials who need to follow the course of legislation.

Over the years the Institute has served as the research agency for numerous study commissions of the state and local governments.