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How the State Prepares Its Budget

Frank R. Justice

NORTH CAROLINA'S Constitution requires a session of the General Assembly in odd-numbered years. Until the mid-1970s, the state operated under a biennial budget. In 1973 the General Assembly decided to experiment with annual sessions and appropriations.[1] It met in 1974 for an off-year session that lasted approximately three months. During this period it constructed a completely new budget for the 1974-75 fiscal year.[2] Since that time the legislature has met in short (reconvened) sessions of two to three weeks in even-numbered years in order to adjust the biennial budget enacted during the long session of the previous year. The short-session budgetary process is described later in this article and appears in simplified form in Figure 1.

The principal participants

The Governor. The State Constitution directs the Governor to prepare and recommend to the General Assembly a comprehensive budget of the anticipated revenue and proposed expenditures for the ensuing fiscal period.[3] The Executive Budget Act,[4] which was enacted more than forty years before the corresponding constitutional provision was adopted in 1970, designates the Governor as ex officio Director of the Budget and sets forth the specifics of his role in budget preparation and execution. The Governor dominates the budget-making process in the pre-legislative stage. He continues to exert a significant influence during the legislative phase, but he is less of a force at this latter time because he lacks the veto power and because the offices of President of the Senate[5] and Speaker of the House continue to grow in strength.

State Budget Officer. The Executive Budget Act authorizes the Governor to employ the help he needs to carry out his budget responsibilities and to delegate selectively his budget-related powers. Historically, governors have exercised their policy-making powers to the fullest and have delegated administrative authority for budget matters to the State Budget Officer, who heads the Office of State Budget and Management. The Executive Budget Act also provides that the Governor's designated representative, the State Budget Officer, has the right to attend meetings of the General Assembly's Joint Appropriations Committee and to be heard on all matters that come before the committee or its subcommittees.

The Advisory Budget Commission. The Executive Budget Act creates the Advisory Budget Commission (ABC) and provides for its participation in preparing the recommended budget, but it specifies that the ABC is to be only advisory to the Governor during the process. The ABC has twelve members: the chairmen of the House and Senate Appropriations and Finance committees, two other senators appointed by the President of the Senate, two other representatives appointed by the Speaker of the House, and four persons appointed by the Governor. During recent years, governors' appointees have usually been past or present members of the General Assembly.

Lieutenant Governor and Speaker of the House. The Lieutenant Governor and the Speaker of the House have considerable influence on the state budget because each (1) is the presiding officer of his house of the General Assembly; (2) designates which committees will receive bills; (3) appoints all committees of his house and the committee chairmen and vice-chairmen; (4) appoints one-third of the membership of the Advisory Budget Commission; (5) meets frequently with the Appropriations Committee chairman of his house when the General Assembly is in session; and (6) appoints members of numerous commissions, interim committees, and study groups. In addition, the Lieutenant Governor is chairman of the Joint Legislative Commission on Governmental Operations[6] and the Speaker is vice-chairman. The Lieutenant Governor is also a member of the State Board of Education[7] and the Council of State,[8] which means even more involvement in state fiscal policy.

The author is director of the General Assembly's Fiscal Research Division.

Editor's note: This article describes North Carolina's current state budgetary process. Figure 1 uses the 1979-81 biennium as an example and eliminates the need for a detailed explanation of some budget procedures.

1. N.C. Sess. Laws 1973, Res. 58.
2. North Carolina's fiscal year begins on July 1 and ends on June 30 of the next calendar year (N.C. Gen. Stat. § 147-85).
3. N.C. Const. art. III, § 5(3).
4. N.C. Gen. Stat. Ch. 143, Art. 1.
5. The President of the Senate is the Lieutenant Governor unless that office is vacant, in which case the President Pro Tempore of the Senate becomes the President of the Senate. N.C. Const. art. II, § 14(1).
6. This commission examines and evaluates public policies, programs, expenditures, and governmental organization. N.C. Gen. Stat. Ch. 120, Art. 13.
7. N.C. Const. art. IX, § 4(1).
8. N.C. Const. art. III, § 8.

Read On . . .

THIS ISSUE OF *Popular Government* deals with subjects of special interest to General Assembly members, as they prepare for the 1981 session, as well as other state and local government officials and the news media. All of the articles focus on matters of statewide concern.

Three articles deal with the always-important subject of money: Frank Justice's description of the state budgetary process, David Crotts' discussion of the state highway finance crisis, and Charles Liner's summary and critique of the recent report of the Governor's Commission on School Finance. (Legislators and others interested in a definitive history of the state's tax system should read Liner's article in the Summer 1979 issue of this magazine.)

A. W. Turner writes about gasohol — its pros and cons and the General Assembly's actions thus far.

David Jones' article on recent crime trends in North Carolina poses the challenge of keeping crime under control while moving forward with economic development.

In 1977 the General Assembly decriminalized public drunkenness; what was the result? Lynn Gunn bases her article on this subject on a recent legislative study (the actual result of new legislation is a topic that readers will be seeing more of in this magazine).

One rarely hears any good news about local jails, but Nancy Taylor and Carleen Massey describe an encouraging response by the state's medical profession to the problem of health care for jail inmates.

Now that parole of prisoners is about to be sharply curtailed, if not abolished, in North Carolina, it may be interesting to read how the Parole Commission sees its function, as described in this issue by Rae McNamara and Michael Smith.

Governmental personnel records and privacy are areas of problems for both the state and local governments that may well come to the General Assembly's attention in 1981; Donald Hayman's article explains why.

Jake Wicker's article concerning on-site wastewater systems describes an encouraging cooperation of state and local government — assisted by the 1979 General Assembly — in bringing these systems under effective local control. —SHC

Chairmen of the Appropriations committees. The Appropriations committees' principal work is to add to and take from the Governor's spending recommendations, rebalance the budget, and report the budget bills out for floor action. The committee chairmen's heavy responsibilities include presiding at committee meetings; scheduling activities; appointing subcommittees; coordinating the work of the legislative fiscal staff; keeping the legislative leaders informed of developments; dealing with the news media; and explaining, defending, and guiding the budget bills to enactment. Throughout the process the chairmen are under pressures from those who seek to influence budget decisions.

Budget components

Expenditures. The Executive Budget Act authorizes the Governor to prescribe the budget format but requires a clear differentiation between General Fund expenditures for current operations, General Fund expenditures for capital improvements, and special fund[9] expenditures. Since Governor Luther Hodges' administration, the budget for current operations has had two parts: the *continuation budget* (formerly known as both the "A budget" and the "base budget") for support of state programs at existing levels of service; and the *expansion budget* (formerly known as the "B budget") for changes in enrollment and caseload, additional positions, new and improved programs, incremental increases to phased operations (programs that are funded in stages over a period of years until they are fully operational), salary increases, and other enrichment.

Resources. The state budget is supported by the following four types of revenue (in approximate percentages): General Fund (57%), Highway Fund (10%), federal funds (25%), and departmental receipts and special funds (8%). Since the uses to which all budget resources except the General Fund can be put are restricted, the budget-balancing operation is almost totally concerned with accommodating competing demands for support from limited General Fund money.

General Fund resources for a typical biennium have been in the following approximate proportions:

	Percentage of Total
Tax revenues estimated for the upcoming biennium	92.5%
Nontax revenues estimated for the upcoming biennium[10]	3.2
Beginning credit balance[11]	2.8
Federal revenue-sharing[12]	1.5
	100.0%

9. Special funds are state operating accounts that receive no direct General Fund appropriations. They operate on their own receipts, and their cash balances do not revert at the end of a fiscal year.

10. Nontax revenues consist of returns from the Treasurer's investments, court fees, and a number of other sources.

11. The beginning General Fund credit balance consists of unspent appropriations (reversions) and revenues collected in excess of amounts estimated by the previous General Assembly.

12. No longer available.

Preparing the budget

Budget instructions and preliminary activities. About nine months before the next legislative session, the State Budget Office issues instructions to state departments for making biennial budget requests. These instructions include forms to be used; allowable price and rate increases; and requirements for supporting schedules, statistics, narrative justifications, priority listings, and so on. The Budget Office also distributes information on demographic, economic, and inflationary trends and on the implications of relevant administrative rulings, court decisions, and federal legislation.

Before the General Assembly convenes, the Governor gives his budget priorities to department heads who are under his immediate control; departments conduct comprehensive internal reviews of program needs and aspirations; the Budget Office studies and analyzes matters that are not exclusively related to the budgets of particular departments (salaries, retirement, tax changes, state aid to private higher education, and the like); and budget analysts negotiate with departmental budget officers regarding acceptable levels for continuation budgets.

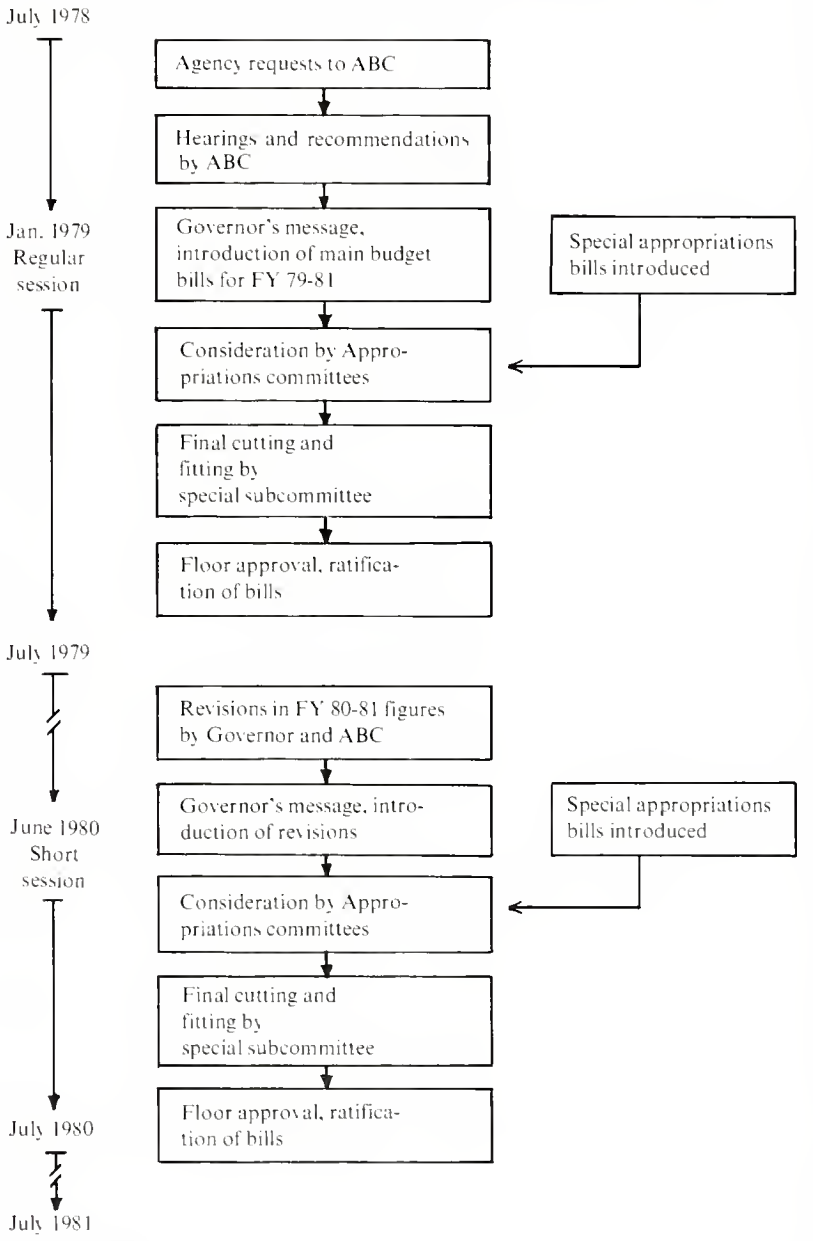
Inspection tour and public hearings. In the summer of even-numbered years the ABC tours state facilities to learn more about specific capital needs; in the early fall department heads and other interested persons appear before the Commission to explain and justify their budget requests.

Revenue estimates. Before intensive budget deliberations begin, the Budget Office prepares a set of medium-range forecasts of state revenues on the basis of varying economic assumptions and gives these to the Governor and the ABC. The estimates are presented as high, middle, and low options, and the budget-makers usually select the middle option or a slight modification of it. Only once in recent times have the estimates for the recommended budget been too high: Because the severity of the approaching recession was underestimated, the General Assembly had to reduce the projections for 1975-77 by over $250 million over the biennium.

Constructing the recommended budget. Some governors have sat with the ABC during the entire budget deliberations, while others have participated mostly by proxy and through informal meetings with individual Commission members. Although the Commission meets in executive session while considering the budget, the Governor and Commission members feel the pressure of special interests in the form of calls, letters, and direct contacts.

The usual procedure for balancing the recommended budget is to subtract the aggregate continuation budget requirements from the total estimated General Fund resources and then apportion the remainder among capital improvements, tax reductions, salary increases, and expansion budget items. Just once in recent history did the recommendations

Figure 1
The Budget Process in North Carolina



Prepared by Michael Crowell (Chapel Hill, N.C.: Institute of Government, May 1980).

not propose uses for all the foreseeable funds. The accelerating effect of rampant inflation on the state's tax collections and a backlog of unappropriated federal revenue-sharing funds presented the framers of the recommended 1973-75 budget with an embarrassment of riches. They recommended a tax cut of $190 million and then left $135 million unaddressed, calling it simply "uncommitted resources."

Budget report. If the Governor and the ABC agree on the budget recommendations, the Governor has the budget printed and includes a unified report. If they disagree, the Governor prepares the proposed budget on the basis of his own conclusions, but the Executive Budget Act requires him to include any statements of disagreement by the Commission members.

In the legislature

A dry narrative of what happens to the recommended budget after it reaches the General Assembly is certain to be misleading because the human element will be missing. The same script may be used again and again, but the directors, the actors, and the stagehands change from session to session and the production is never the same. Even a veteran observer is often mystified by unexplained changes in the rhythm of the process and can only speculate as to what strange forces are at work. On paper, the legislative budget process is as follows.

The Appropriations committees. As the Executive Budget Act prescribes, the House and Senate Appropriations committees (and their subcommittees) sit jointly in open sessions while considering the budget. The number of legislators appointed to these committees has steadily increased over the years from less than thirty in the early 1900s to half or more of the membership of each house by the mid-1940s. In recent years the number of House appointees has remained relatively constant at about sixty members (50 per cent of total House membership), while the number of Senate members has increased to thirty-three (66 per cent of total Senate membership) by 1979. Ninety-nine per cent of the committee's decisions are reached by joint vote, but the rules of both houses permit their committees to vote separately when sitting jointly. An interhouse disagreement resulting from separate votes would require a conference committee to work out a compromise.

Subject-matter appropriations/base budget committees. For the past several legislative sessions the membership of the full Joint Appropriations Committee has been divided into smaller joint committees of approximately equal size, each with specific subject-matter assignments. In 1979 there were three such committees relating to general government and transportation, education, and human resources and correction.

These committees were constituted as "base budget" committees when they considered continuation budgets and reconstituted as appropriations committees with different chairmen when they considered expansion budgets. This procedure saves time that was formerly required to reconcile differences between separate base budget and appropriations committees; it also provides better staff coverage and improves communications and continuity.

Requests for supplemental appropriations. After the subject-matter appropriations/base budget committees study the recommended budget for about six weeks, the full Joint Appropriations Committee reconvenes to hear requests for appropriations over and above the recommendations of the Governor and the ABC. These hearings last approximately a week and generally include about twenty presentations. Typically, departments re-request all of the items originally passed over by the Governor and the Commission, and the total requested amount far exceeds the foreseeable available funds.

Subject-matter committee actions. After the hearings on requests for supplemental appropriations, the three subject-matter committees – general government and transportation, education, and human resources and correction – finish their deliberations and prepare reports of their recommendations to the Joint Appropriations Committee. These reports discuss (1) proposed reductions in the continuation budgets; (2) proposed reductions in or elimination of items in the recommended expansion budgets; (3) recommendations to add items from the supplemental requests if funds are available; (4) proposed special provisions to be placed in the two main appropriations bills – for current operations and for capital improvements.

Revised estimate of budget resources and the special subcommittee. By the time that the subject-matter appropriations/base budget committees complete their deliberations, more money is usually available because of higher revenue estimates, acceptance of proposed cuts in the recommended budget, and an increase in the estimated reversions for the fiscal year that is ending.

When a newcomer to the budget-balancing operation compares the modest amount of additional funds — perhaps $50 million — with the subject-matter committees' combined recommendations for additional appropriations — which may total hundreds of millions — he is likely to be dismayed. He will be particularly unhappy if his political future depends on safe passage of an item that has less than universal appeal. His fears mount with rumors of recession, demands for tax cuts, and the announcement that special appropriations bills[13] that call for perhaps $200 million are waiting until the main bills are enacted.

When the newcomer hears in committee reports that state buildings are crumbling, huge masses of shoreline are being swept into the sea, forest fires are raging out of control, teachers and state employees cannot make ends meet on their meager salaries, faithless federal agencies are terminating grants for indispensable programs, crime is rampant in the streets, an invasion of killer fire ants is imminent, rivers are choked with black wastes, and citizens across the state are crying out for art and culture, he may wonder why he asked to be appointed to the Appropriations Committee in the first place.

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13. These are bills introduced in the General Assembly that call for appropriations in addition to those in the recommended budget. Such bills may or may not duplicate items in the supplemental requests. Special appropriations bills are usually enacted separately, but on occasion their provisions may be incorporated in one of the main appropriations bills. The Executive Budget Act provides that no special appropriations bill can be considered until the main bills have been enacted unless the Governor recommends early consideration because of an emergency.

Each joint committee member's interest in a few special issues makes budget balancing by so large a group almost impossible. Early recognition of this difficulty generally leads to the appointment of a special subcommittee that is charged with developing a balanced package for full committee action. In 1979 the special subcommittee consisted of twenty-four members, with all the subject-matter committees well represented.

The special subcommittee's budget package compresses and merges the recommendations of the subject-matter committees with major emphasis on statewide priorities; adds items that are government-wide in scope, such as improved fringe and retirement benefits for teachers and state employees; reserves funds for anticipated adjustments because of tax changes; and leaves a relatively minor amount of money available for special appropriations bills.

The special subcommittee's report is not usually challenged on a large scale by the joint committee.

Special provisions in the main bills. A number of appropriations-related special provisions are proposed during each legislative session — usually generated by the three subject-matter appropriations/base budget committees. These provisions deal with such matters as amendments to the Executive Budget Act, procedures for budgeting and spending federal funds, eligibility standards and rate schedules for the Medicaid program, reimbursement rates for travel and subsistence, the specifics of salary increases, and the like. Because they are complex and often controversial, special provisions are generally assigned to the special subcommittee for screening and purging.

Floor action

Main bills. Once the special subcommittee's recommendations on special provisions have been adopted, all of the Joint Appropriations Committee's final actions are pulled together and committee substitutes for the original current operations and capital improvements appropriations bills are prepared and reported out. If House and Senate committee members have resolved their disagreements, one house or the other is arbitrarily selected for initial floor action on the committee substitutes. If committee members still disagree, the Appropriations Committee of either house may choose to report out its own committee substitute, and a conference committee will be necessary to resolve the interhouse differences.

Because at least half of the members of each house have had a part in forming the budget before them, floor debate on the main bills is usually minimal. There is also tremendous pressure not to break open the balanced package — adding just one more brick or removing a single rivet might bring the entire structure down. The Appropriations Committee chairman of the house that is considering the bills explains them, recommends passage, and then fields questions from the members. It is not unusual for the budget bills to pass second and third readings in both houses on the same day.

Special appropriations bills. After the main bills are enacted, the Joint Appropriations Committee reconvenes to consider bills that call for special appropriations. With the session moving rapidly toward adjournment, time does not permit the committee to hear sponsors speak extensively on their bills. However, most of the sponsors, and others with a special interest, have already explained the merits of their bills to other legislators over lunch, at social gatherings, while waiting for committee meetings to begin, and on other informal occasions.

The amount of money reserved for special bills is typically only a fraction of a percentage point of total General Fund appropriations. The amount called for by the bills is staggering — the total for the 1979-81 biennium was over a half-billion dollars, not including one bill that carried a price tag of $926.5 million. This means that the special subcommittee once more must produce a balanced package for the Joint Appropriations Committee's reaction. As many as 300 special appropriations bills may be introduced in a session; of these perhaps a third, in severely modified form, will be enacted. Because many of the bills introduced are identical and many others duplicate in whole or in part original or supplemental budget requests, a large number can be quickly eliminated. So large a proportion of the remaining bills can be enacted only because of drastic reductions in the requested amounts, forced phasing (provision for implementation of programs by stages that were intended by bill sponsors to be fully funded), and restriction of appropriations to a single year. The Committee generally accepts the special subcommittee's recommendations with little dissent, and the bills are amended as required and reported out.

In the 1979 session, approximately 90 special bills carrying total appropriations of $12.6 million were ratified. In recent years the bills have been grouped together by the house of origin and voted on as packages.

Passage of the special appropriations bills concludes the budgetary process and indicates that the legislative session is nearing its close.

Short session procedures

In the spring of the short-session years, the Governor, with the ABC's assistance, prepares recommended changes in the existing appropriations for the upcoming fiscal year. State departments have little to do with this process. Before the General Assembly convenes, the Joint Appropriations Committee meets for two or three days for briefing on the Governor's recommendations. The Office of State Budget and Management has incorporated the recommendations in a working document that includes a proposed bill to modify the biennial budget.

In past short sessions, procedures have differed from those of the longer sessions in these respects:

(1) The Joint Appropriations Committee did not divide its membership into the smaller subject-matter committees.
(2) Departments did not submit formal supplemental requests.
(3) Written material to supplement the documentation provided by the Budget Office was kept to a minimum.
(4) Subject matter not addressed in the recommended balanced budget generally came before the Joint Committee in the form of special appropriation bills.
(5) The Governor sent no formal budget message and did not address the General Assembly.

Procedures for handling special provisions in the appropriations bill and for dealing with special appropriations bills do not differ materially from those used in the long sessions. □

Financing the Public Schools

A Review of Study Commission Recommendations

Charles D. Liner

A FUNDAMENTAL PROBLEM in financing a statewide system of public schools is that, when any portion of school expenditures is financed from local revenues, poor jurisdictions are less able to support education expenses and almost inevitably spend less per pupil from local resources than wealthy jurisdictions. This problem has received serious attention in most states only since 1971, when the California Supreme Court, in the landmark *Serrano v. Priest* decision, ruled that under the California constitution the quality of a child's education may not depend on the wealth of the local school district but must be based on the wealth of the state as a whole.[1] In North Carolina, where since 1868 the State Constitution has required the General Assembly to provide a "general and uniform system of public schools," the problem of inequality in ability to finance schools shaped state school finance policies until 1931, when the state assumed basic responsibility for financing public schools and, by financing most of the operating expenses, achieved a high degree of equality among the school units.

Now, for the second time in eleven years a state commission on school financing (the Governor's Commission on Public School Finance, which was appointed by Governor Hunt and the State Board of Education in 1977) has called attention to fiscal disparity among school administrative units in North Carolina and has recommended changes in the state's system of school finance to deal with the problem.[2] This article reviews that Commission's 1979 report.

North Carolina addressed the problem of fiscal disparities in school finance long before most other states, and its current system for financing the schools and its approach to the problem of inequality differ substantially from those in other states. A review of the history and current status of the state's system of public school finance will help us understand the issues that are involved in the Commission's recommendations.

Background

As an earlier *Popular Government* article[3] pointed out, two basic principles have guided North Carolina school finance policies. First, whereas in most states the financing of public education has been regarded as primarily a local responsibility, in North Carolina it has been constitutionally recognized as a legitimate state function since 1776. This concept has been strengthened and broadened until today the financing of schools is considered to be fundamentally the state's responsibility. In 1839, long before northern states began providing free public schools, North Carolina undertook to foster and finance a free public school system through a direct state aid system. In 1933 it carried this principle further than any other state had done by assuming responsibility for financing all operating expenditures for equal eight-month school terms throughout the state. Today the state provides over 72 per cent of nonfederal operating revenues for public schools. Only Alaska, Hawaii, and New Mexico provide a higher proportion of revenues.

The second principle of North Carolina school finance policies is that the state should provide a prescribed minimum level of support in all school units. The laws that established the state school system in 1839 sought to achieve equality of support among the units. But since 1868, when for the first time the State Constitution required that every county provide a school term of at least four months, the state has not sought complete equality but rather has sought to ensure that all school units provide the minimum level of educational services. It has encouraged the local supporting units to supplement state funds with local revenues. Recognizing that reliance on local support inevitably leads to inequality in local expenditures per pupil because wealthier local units are better able to supplement state funds and that some school districts are willing to tax themselves heavier in order to have better schools, since the early 1900s the state has sought to reduce inequality by increasing the prescribed minimum level of financial support.

Although its basic policy of providing a minimum level of support throughout the state has not changed since 1868, the state's approach to achieving this goal went through a fundamental change in 1931. In the years between 1868 and 1931 the state tried to ensure a minimum level of support in every school district by giving state aid or designating state tax revenues for schools and by requiring each local governmental unit with financial responsibility for the schools to provide the balance needed to achieve that level of support. This approach was thwarted by the fundamental problem of differences in local fiscal ability. Some counties were so poor that they could not support the constitutionally man-

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1. 96 Cal. Rptr. 601, 487 P.2d 1241 (1971). *But see San Antonio Independent School Dist. v. Rodriguez*, 411 U.S. 1 (1973), in which the United States Supreme Court reversed the lower court's decision, holding that the Texas system of finance did not violate the equal protection clause of the Fourteenth Amendment to the U.S. Constitution. But school finance systems in other states have been challenged as violating the state's constitution (as was done successfully in California in 1971), and a number of states have reformulated their school finance systems since that time.

2. The Governor's Commission on Public School Finance, *Access to Equal Educational Opportunity in North Carolina* (Raleigh: 1979). In 1968 another commission also reported on this subject. *Report of the Governor's Study Commission on the Public School System of North Carolina* (Raleigh: 1968).

3. C. Donald Liner, "Public School Finance," *Popular Government* 42, no. 4 (Spring 1977), 12-19.

dated school term even when they levied the maximum property tax rate allowed under the Constitution. Despite increased state aid, disparities in expenditures especially as rural and city school units are compared — continued to increase.

In an attempt to reduce these disparities, the state increased state aid to all schools. In 1919, for example, it began paying half of teachers' salaries for the minimum term, which was increased to six months at that time. The state also very early used equalizing grants similar to those that other states began to use only in the 1970s. In 1901 it established by appropriation an "equalization fund" that was to be distributed to the poorer local units to help them finance the constitutionally mandated school term. The allocation of the funds was changed in 1927 to equalize the tax effort necessary to achieve the minimum term — each county was guaranteed enough in state funds to finance the minimum term as long as it levied a property tax of 40 cents per $100 valuation. This measure required that property assessments be equalized by the State Board of Equalization, which was established in 1927 for this purpose. The Equalization Fund was used until 1931, when the state began financing almost all operating expenses of the minimum school term by distributing state funds through formulas based on average daily membership.

Since 1931, when the Great Depression threatened to close schools, the state has provided revenues to finance the minimum level of support, which has been defined not only by the length of term but also by the numerous formulas for allocating funds to school units. In 1933 the minimum term was increased from six to eight months, and all local school taxes were abolished. Thus in that year North Carolina achieved what no other state had achieved — a system of complete equality among the school units in school finance. This equality was short-lived, however, because in 1933 counties and city school districts were authorized to re-enact school taxes, and a few of them that sought better schools than the state was willing to support immediately began to supplement state funds. As the state recovered from the Depression and entered the prosperous post-war era, more and more local units began to supplement state funds. Thus over the years the state's share of total state and local operating funds has fallen to 72 per cent.

IN GENERAL, North Carolina law makes the state responsible for the large majority of operating expenses for the public schools, including instructional and administrative salaries, operation of plant, and student transportation. The counties are primarily responsible for financing certain other costs, including capital expenditures, instructional supplies and equipment, and maintenance of plant. Each county has a county school administrative unit that operates the county's public schools and may have one or more other "city" school administrative units, though no city either operates or finances the schools. The board of county commissioners determines the level of the county's support for the schools and finances its portion from its general tax revenues. The voters of the geographical area served by either a county or "city" school unit or part of a county unit may vote to supplement the state and county support by a special property tax levied only within that area.

The Governor's Commission report emphasizes the fact that North Carolina is one of only two states (the other is Hawaii) that do not have equalizing provisions in their grant allocation formulas. This absence is misleading and ironic because North Carolina pioneered in equalizing financial support of the schools throughout the state, has carried equalization further than other states, and currently equalizes by redistributing state tax revenues from wealthy jurisdictions to poor ones to provide a high basic level of school support regardless of local fiscal ability. States that rely primarily on local units for public school financing, as North Carolina did before 1931, must use equalizing grants if they are to reduce disparities in the funds available to the schools in poor and wealthy jurisdictions. For North Carolina, the issue is not whether state funds should be used to reduce disparities in school finance that are due to differences in local units' fiscal ability — the North Carolina system does this already, and as a result disparities in school expenditures in North Carolina are substantially smaller than in most other states. Rather, the primary issue is, first, whether the basic level of support is sufficient to guarantee every child an "adequate" educational opportunity; and, second, whether the state should equalize the local units' ability to supplement the basic level of state financial support.

The Commission report

Although the Commission's report deals with a number of school finance issues, its main concern is whether the state should equalize the local units' ability to supplement state funds, and its most important recommendation is that the state should do so. The Commission recommended that (a) the state continue to provide a high level of basic support through what it calls a basic aid fund, but (b) an equalization fund be established to more nearly equalize the local units' ability to supplement the basic aid funds. Appropriations to the equalization fund would be distributed to local units according to the unit's fiscal capacity and their "effort" in supplementing basic aid funds. Effort would be measured by an index of fiscal capacity based on each unit's property tax base, its sales tax collections, and its contributions to the state's General Fund (use of the property tax base would require that the state equalize property tax assessments among counties). Under this system all units, in order to obtain equalization funds from the state, would be required to supplement state funds with local tax revenues, but through the equalization fund the state would equalize their ability to supplement by providing more money to the poorer units.

The Commission's recommendation for an equalization fund is based on several findings. First, the Commission noted that although the state finances a higher proportion of school expenses than most other states, local units do contribute substantial amounts of money from local revenues. In 1978-79, local funds for operating expenses amounted to over $403 million, or 24 per cent, of total operating expenditures (this proportion had increased from 18.6 per cent only five years earlier).[4] But much of the total amount comes from a few large urban counties—Cumberland, Durham, Forsyth, Guilford, Mecklenburg, and Wake accounted for almost 40 per cent of total local expenditures for schools in 1978-79. Expenditures of local funds per pupil varied from $115 in Saint Pauls (Robeson County) to $725 in Chapel Hill-Carrboro (Orange County). Second, the Commission noted that fiscal ability varies greatly among the local units. County fiscal ability, as measured by adjusted property valuation per pupil, varies from 3.0 times the state median in Brunswick County to 0.5 times the state median in Robeson County. Third, the Commission found that the school units that have more funds per pupil tend to have more foreign language courses, cultural arts programs, and programs for exceptional children; they also tend to hire more teachers with local moneys and to provide more salary supplements for teachers and administrators.

A critique

The analysis on which the Commission bases its recommendation for an equalization fund raises some important questions.

The recommended system of finance would be very attractive if school expenditures were financed solely from state and local funds. The state would finance a basic program of education in every school unit through the basic aid fund, and all local units would be equally able to supplement these funds in order to provide additional programs of their choice. But the Commission's report almost completely ignores the role of federal funds; it concentrates solely on the disparities in expenditures that are due to variations in local expenditures and ignores the fact that the distribution of federal funds tends to some extent to offset these disparities.

Table 1 shows average expenditures per pupil by source of funds for county units according to per capita income (only county units are included in the comparison because per capita income data are not available for city school units). Except for the six counties with highest per capita income, average total expenditures per pupil do not increase with per capita income because federal expenditures per pupil tend to offset the higher local expenditures of more affluent counties. Indeed, there is relatively little difference in average total expenditures for counties at different income levels. Avery, the poorest county, had higher total expenditures per pupil than five of the twelve counties in the second highest income class; half the counties in which total expenditures exceeded $1,400 per pupil were in the two lowest income classes. Similarly, the average number of teaching positions supported by both federal and local funds (expressed as a percentage of state-funded teaching positions) does not increase with per capita income because poorer school districts have federally funded positions that offset the larger number of teachers locally financed in the wealthier units. There is also relatively little difference in pupil-teacher ratios in the lowest and highest income counties.

While federal funds do not directly compensate for differences in fiscal capacity or enable the poor units to provide all the supplemental programs that the wealthy units can provide, they do finance important educational programs that in wealthy units would have to be financed from local funds, and they tend to equalize expenditures in poorer and wealthier units. The need to equalize local ability to supplement state funds should therefore be assessed in terms of federal as well as state and local financial support.

The Commission's finding that poor school units tend to provide fewer salary supplements and to have fewer foreign language and cultural arts courses and fewer programs for exceptional students raises further questions. First, do poorer school districts have the same need as wealthier districts to provide salary supplements? Just as North Carolina pays teachers less than New York, where prevailing wage and salary levels and the cost of living are higher, so rural counties in North Carolina may not have to pay as much as Charlotte-Mecklenburg or Greensboro in order to attract and hold good teachers. In fact, salary supplements might be regarded as necessary to adjust state-schedule salaries for differences in prevailing salary levels and cost-of-living differences between rural and urban areas (although some sparsely settled areas may have to pay high

4 North Carolina Department of Public Instruction, *Statistical Profile, North Carolina Public Schools* (Raleigh: May 1979).

Table 1

1977-78 Per Pupil Expenditures in North Carolina County School Units in Relation to Per Capita Income

Estimated 1976 Per Capita Income	No. Units	Average Expenditures per ADM[a] by Source of Funds			Average Total Expenditures per ADM
		State	Federal	Local	
$3,000-$3,999	12	$904	$217	$198	$1,319
$4,000-$4,499	20	908	226	230	1,364
$4,500-$4,999	20	846	176	252	1,274
$5,000-$5,499	30	833	154	275	1,262
$5,500-$5,999	12	832	149	258	1,239
$6,000 or more	6[b]	848	131	418	1,397
City school units	45	851	181	333	1,364

a. Average daily membership.

b. Three of these units are large consolidated units—Wake, Forsyth, and Charlotte-Mecklenburg, the other three units are Durham, Guilford, and Polk counties.

salaries to attract good teachers because of their isolation).

Second, is the failure of some poor school units to provide foreign language and cultural arts programs due to inability to pay for them or to local preferences? If local preference is the explanation, giving these school units more money that they may spend as they choose may not result in more foreign language and cultural arts programs in these units.

Still another question is whether the proposed equalization scheme would indeed reduce disparities in the financing of schools from one county to another. A study of reformed school finance systems in California, Florida, Kansas, Michigan, and New Mexico made by the Rand Corporation in 1979 found that although the reforms, which were designed to reduce disparities in per-pupil spending, led to more spending and more nearly equal property tax rates, they did little to reduce disparities in spending between poor and wealthy school districts.[5] Of particular interest is the finding that reform did little to equalize per-pupil instructional expenditures, apparently because of the school districts' tendency to allocate any additional funds for noninstructional purposes.

The final and most fundamental question is: What constitutes, or should constitute, equality in school finance? Should school expenditures (adjusted for differences in costs an needs) be equal in all school units? This criterion would require that the state finance all operating expenses, including those now financed by federal funds, and that school units not be allowed to supplement state funds. This criterion was rejected in 1933 even when the state assumed responsibility for operating expenses of the schools: The state allowed local units to supplement state funds, and this practice immediately led to inequalities in expenditures.

As we have seen, since 1868 the state's financing policy has not been aimed at absolute equality. Rather, it has sought to provide a basic level of financial support in all school units while allowing — in fact, encouraging — local units to supplement state funds. The state's approach to inequality in fiscal ability and expenditures has been to use increased state revenues to increase the basic level of state support. Although this policy has not specifically sought equality in expenditures, it has produced a relatively high degree of equality because the basic level of support is high and because federal expenditures offset disparities in local expenditures to some extent (as Table 1 shows).

The Commission's recommended change is based on a different idea of equality — that is, all school units should have an equal opportunity to finance school programs above the level financed by the state. Even though the Commission failed to consider the equalizing effect of federal expenditures, its idea of equality is an appealing one. Should the poorer school units not have the same opportunity as the wealthiest unit to have additional teachers, higher teacher salaries, or even fancy band uniforms? Even if the poorer units already have additional teachers who are supported by federal funds, should they not be able to choose which types of teachers they want to have?

The Commission's criterion and its recommended system of school finance are not inconsistent with traditional policies or with the present system of finance. In fact, as mentioned earlier, North Carolina pioneered in using equalizing state grants (although they were used to bring expenditures in poor units up to the prescribed basic level of support rather than to allow them to go above this level). The problem is that implementing the Commission's recommendation would require substantial amounts of additional money to pay for the equalizing grants. The Commission estimated that equalizing local fiscal ability at the level of expenditures exceeded by only the top 2 per cent of school units (that is, at the 98th percentile) would require $161 million — an 18 per cent increase in state funding; it recommended initial funding, however, at about $60 million. Whatever amount of money is involved, the essential question is whether that amount should be spent to equalize the ability of local units to supplement state funds as they wish or whether it should be used to increase the level of state funds available in all units to finance a prescribed basic program of education.

Although the Commission recommends that the state "adhere to and strengthen its provision of a high level of basic school support from taxes collected at the state level," it does not explore, as an alternative to its recommended equalization fund, use of the additional funds to increase the level of basic school support as a means of reducing inequality. Yet if the main concern about the present disparities in local finance is that poor school units are not providing adequate foreign language or cultural arts programs or perhaps other components of an adequate educational program, the most direct way to ensure that the missing programs are provided is to finance them directly through state formula grants. Another alternative is for the state to pay for programs that are currently mandated by the state but not entirely financed by the state. Local funds would then be available for other uses.

Unfortunately, though the Commission devotes a large portion of its report to analyzing costs of programs in the proposed basic aid fund and recommends a change to a more flexible allocation system tied to educational programs rather than to line-items, it does not address the fundamental question of which types of programs should be financed through the basic aid fund and which should be left to local discretion. (Since the report was written, however, the State Department of Public Instruction has been working to define a basic education program.) Furthermore, the report does not provide an analysis that would help us evaluate alternative approaches to reducing disparities in school services or programs.

North Carolina has led the nation in centralizing responsibility for school finance and in equalizing school finance, but the increasing tendency in North Carolina to support school expenditures from local revenues may be leading to greater disparities in financing from one school district to another at a time when other states are moving to reduce inequalities in this area. However one views the Commission's recommendations on ways to reduce disparities, the Commission has performed a valuable public service by calling attention once again to the fundamental problem: Local financing of schools leads almost inevitably to disparities in local school expenditures. □

5. Stephen J. Carroll, *The Search for Equity in School Finance: Summary and Conclusions* (Santa Monica: The Rand Corporation, March 1979).

Inflation continues to push up the cost of building and maintaining the state's highways. But highway user taxes levied on a flat basis provide no means to offset these higher costs. In fact, inflation in energy costs has caused revenues to drop as motorists reduce their fuel purchases. This inflation-caused paradox will have to be resolved in coming sessions of the General Assembly.

Financing North Carolina Highways in the Eighties

David F. Crotts

ONE MAJOR ISSUE facing the 1981 General Assembly will be the future direction of North Carolina's highway program. Projections of revenue availability for the next few years indicate that the state will be unable to meet expected highway costs — especially for construction — unless spending is curtailed or revenues are increased. The long-range solution to the problem will come only after a thorough review of the problem and a rethinking of the state's transportation priorities and financing philosophies.

History of the highway system

The development of North Carolina's highway system is marked by two characteristics: the state's early assumption of a major responsibility for highways and its decision to finance highways by levying taxes on highway users. Before 1921 the counties were responsible for building and improving county roads but had difficulty in meeting this responsibility because of the state's constitutional limitations on spending and taxation. In 1921, as part of a broad state-local fiscal revolution, the General Assembly authorized the state to take over 5,500 miles of county roads. To finance the state's role the legislature enacted a motor fuel tax of 1 cent per gallon, established a system of motor vehicle license and registration fees, and approved a $50 million state highway bond issue. Legislative actions and the language of appropriations bills in the 1920s reaffirmed the principles established in 1921. By 1929 the gas tax rate was 5 cents and $115 million of highway bonds had been approved.

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Increased urbanization during the 1920s, combined with falling farm prices and incomes, forced rural counties to borrow excessively to get around the constitutional tax limitations. The 1931 General Assembly provided emergency relief to the counties by taking full responsibility for all county roads, and North Carolina became only the second state to assume primary responsibility for its highways.

During Governor W. Kerr Scott's administration (1949-53), the state paved over 12,000 miles of secondary roads and stabilized over 15,000 miles of a total of 55,000 miles. These actions were financed by a $200 million highway bond issue; the debt service on the bonds was to be met by a 1-cent-per-gallon tax increase, dedicated to this purpose. The 1951 General Assembly recognized the burden of supporting city streets on the municipal tax structure by enacting the "Powell Bill." Under this legislation the state took over the responsibility for city streets that were part of the state highway system and gave the municipalities ½ cent per gallon out of its gas tax revenue to finance other city streets. By 1965 most of the 1949 debt had been repaid and a new $300 million bond authorization was approved; the 1 cent per gallon tax increase adopted in 1949 remained in effect to pay the debt service on the new bonds. The highway study commission appointed by Governor Dan K. Moore in 1967 reported that highway spending needs for the next 20 years would be $4.7 billion — far greater than projected revenues. This led Governor Robert W. Scott to push through legislation to increase the gas tax by 2 cents per gallon to 9 cents and to increase licenses and fees by 20-35 per cent. In 1971, as a part of a local aid package, the Powell Bill share to cities was increased to 1 cent per gallon. Finally, in 1977 Governor

Governor's Blue Ribbon Commission on Transportation Needs and Financing

Over the years the respective governors of North Carolina have often provided leadership in developing the state's highway system by proposing major spending initiatives and recommending the means to finance the expenditures. Governor Hunt continued this tradition by outlining needs for major highway expansion in his 1976 campaign. The proposals were a major part of his economic development plans. To launch the expansion program, he proposed — and the General Assembly authorized in 1977 — a $300 million highway bond issue. Early in his administration the Governor indicated to legislators that he wanted his administration, during its second term, to play a major role in solving the highway finance problem through a "blue ribbon" study commission. The legislators therefore did not show much interest during the 1977 session in a bill that would have raised the gas tax by 1 cent per gallon or in a 1979 bill to convert the 9-cent-per-gallon tax to a variable tax of 18 per cent of wholesale price.

The Governor appointed the Blue Ribbon Commission on Transportation Needs and Financing in September 1979. The Commission consists of 34 key public officials and civic leaders, including legislators and local government officers, spokesmen for major interest groups affected by Highway Fund activities, and private citizens. The chairman is former Governor Dan K. Moore, who was alsoa chairman of the 1969 study. The Commission was broken down into a needs committee to deal with the various categories of Highway Fund expenditures, a finance committee to project revenues and develop revenue options, and an operations committee to keep breast of DOT's current activities in dealing with the crisis. The needs committees have defined what they see as reasonable highway "needs" over five-year and 20-year periods and have estimated the costs of meeting these needs. The finance committee has reviewed numerous revenue alternatives. The full Commission will adopt its final recommendations in December 1980.

In its early analysis the needs committees used traditional highway traffic flow and safety standards to develop a "shopping list" of $9.8 billion Highway Fund needs over the next five years. Of this amount $6.5 million was to be used for the construction backlog and new construction. Projected state revenues for the period amounted to $2.2 billion, for a "shortfall" of $7.6 billion. At the same time the finance committee, after extensive discussions on the merits of numerous alternatives, decided that the most acceptable proposal — economically and politically — was a surtax of 4 per cent of wholesale price, to be added to the current 9-cent-per-gallon gas tax. This proposal would yield an addition $.9 billion over the period and would put at least part of the tax on an ad valorem basis. Also included in the financing recommendations was a transfer of funding responsibility for the State Highway Patrol and some miscellaneous programs from the Highway Fund to the General Fund. This proposal would "free up" $280 million for the five-year period, and to offset some of the effect on the General Fund the committee recommended raising the sales tax limit on the sale of motor vehicles, boats, and aircraft from $120 to $900.

Early in its analysis the Commission recognized that no politically feasible revenue package would fill the $7.6 billion gap between the $2.2 billion current revenue and the $9.8 billion expenditure that it initially accepted as "needed." This fact led the Commission to look at a number of alternative five-year needs estimates based on significantly lower standards. Even when the Commission looked at cost estimates based on minimally acceptable standards, it found that the costs were far in excess of acceptable revenue proposals. At this point, some of the discussions centered on the possibility that the state may have to live with the current highway system at its present level of development. Thus any available financial resources could be devoted to insuring the protection of existing roadbase through maintenance.

The Commission also spent some time analyzing the fiscal situation for the first year, 1981-82. The projected maintenance deficit based on the Commission's needs estimates is around $135 million. The proposed revenue package would generate an additional $210 million of availability, leaving around $75 million in state construction funds. In recent years $45 million of state construction funds have been used to match federal aid of approximately $155 million. If this practice continues, the $155 million of federal aid and the $75 million of state funds could be combined with the expected issuance of $60 million of 1977 highway bonds for a total of $290 million in construction. This amount compares to the $300 million allocated to construction for 1979-80 and $260 million for 1978-79. However, the Commission noted that this amount is only 34 per cent of its estimate of construction needs. Also, by 1985-86 the additional $275 million per year from the revenue package will fall short of covering maintenance needs by $50 million and no funds would be available to match federal aid. Thus the Commission recognized that the proposed revenue package is only a temporary "stopgap."

James B. Hunt pushed through a $300 million highway-bond authorization to fulfill his campaign promise to continue upgrading the highway system and to four-lane major highways leading to the state ports.

Aside from user-tax increases and bond authorizations, additional revenues for the highway program have come from the growth of the state's economy, increased public use of motor vehicles, and federal planning and construction grant moneys. The federal-state partnership for planning and building major U.S. highways began in 1916. In 1944 the Federal Aid primary, secondary, and urban systems were established with a 75:25 federal-state match. In 1956 the interstate highway system was authorized, with a 90:10 formula for federal-state support.

A breakdown of North Carolina Highway Fund revenues for the 1979-80 fiscal year appears in Table 1.

Table 1
North Carolina Highway Fund Revenues (FY 1979-80)

	Amount ($ Million)	Percentage of Total
State Revenue		
Motor fuel tax	$304.0	44.4%
Motor vehicle licenses and registration fees	123.0	17.9
Miscellaneous revenue	2.8	.4
Investment income	17.9	2.6
Federal Aid Participation	237.5	34.7
Total	$685.2	100.0%

The funding crisis

Figure 1 shows the nature of the highway funding crisis: a dramatic increase in expenditures over revenues during the next five years assuming that current levels of services are continued.[1] If these levels are continued, highway construction and maintenance are expected to increase by 60 per cent while other highway expenses (debt service, general administration, and Powell Bill aid) are forecast to increase by only 25 per cent during the same period. The estimates in the graph show that construction expenditures must decrease substantially every year to stay within available revenues. By 1985-86 there will be insufficient revenues to finance *any* construction, and maintenance expenditures will have to be reduced; these estimates indicate that the maintenance shortfall in 1985-86 would be $49.4 million. It should be kept in mind that it is much more difficult to reduce spending for maintenance of existing highways than to forego or postpone new construction, and the postponement of required maintenance will lead to much higher maintenance costs as highways rapidly deteriorate.

The problem

Why will there be less funds? The root cause of the highway funding crisis is that inflation affects highway user-tax revenues differently from the way it affects highway expenditures. Petroleum products are a major ingredient in many roadway materials, and the sharp rise in the price of these ingredients has driven up highway construction and maintenance costs at an accelerating rate. For the 12 months ending in June 1980, unit construction cost rose 22 per cent. Also, as the general rate of inflation increases, labor costs are higher because workers are granted cost-of-living wage increases.

On the revenue side, there is no automatic mechanism in the tax structure to ensure that highway revenues keep up with higher construction and maintenance costs. The motor fuel tax is levied at a flat rate of 9 cents per gallon plus a ¼-cent-per-gallon gasoline and oil inspection fee. Motor vehicle license and registration fees include car, truck, and bus plates; titling fees; driver's licenses; and a number of other miscellaneous fees. All of the fees and charges are levied on a "per transaction" basis. Income from the investment of temporary idle cash balances in the Highway Fund is a function of the level of the balances — which depends on revenue and expenditure patterns — and prevailing interest rates. Compounding the problem is the fact that inflation has actually caused a decline in gas tax collections because higher motor fuel prices force consumers to reduce their driving.

Federal aid now amounts to one-third of the state's total Highway Fund revenue. The amount of this aid depends partly on the condition of the Federal Highway Trust Fund, which is made up largely of revenues from the 4-cent-per-gallon federal motor fuel tax. These revenues have been declining at the same rate — and for the same reason — as state gas tax revenues. The uncertainty of future presidential and congressional budget philosophies and funding decisions complicates the prediction of federal aid. North Carolina has been able to avoid the recent sharp cutbacks in highway construction activity that other states have experienced by being aggressive in obtaining large amounts of discretionary funds. For the next few years the state may not be so fortunate, given the current budget-balancing mood in Washington and North Carolina's previous successes.

Revenues. In looking at motor fuel tax revenues in North Carolina for the last fifteen years, four distinct

1. The revenue and expenditure forecast shown in the graph was developed by the author for illustrative purposes and does not represent any official forecast by any executive or legislative agency. The forecast of expenditures was made by applying cost increases to the various expenditure components of the 1980-81 Highway Fund appropriations level. Thus, the expenditure forecast for each year is a "current services" forecast. The revenue forecasts take into account the effects of expected increases in the price of motor fuel.

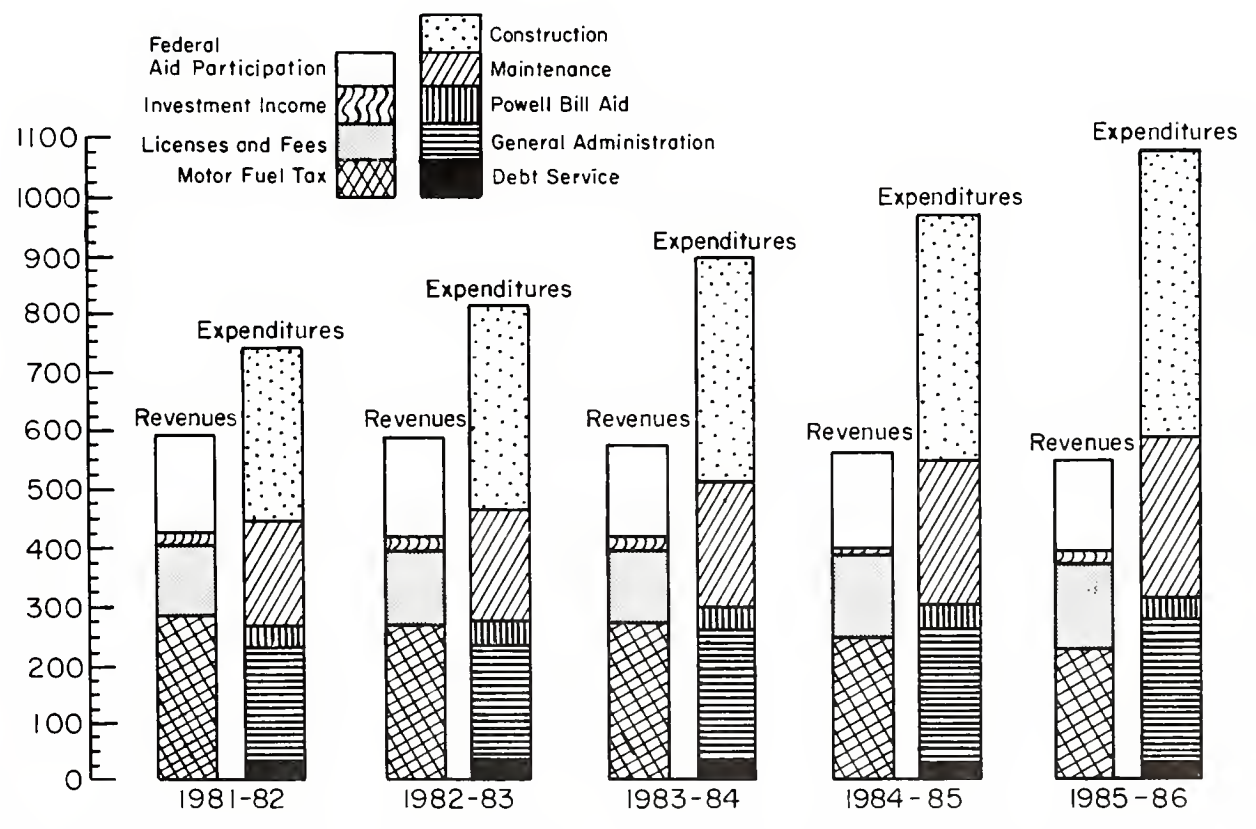
time periods become apparent. During these periods the growth rate of revenues has been relatively stable from month to month. The periods, and their relevant average annual growth rates, are:

July 1967-December 1973	+7.5%
January 1974-June 1975	-1.7%
July 1975-April 1979	+4.8%
May 1979-August 1980	-5.7%

The 1960s and early 1970s represented a period of strong economic growth as well as stable gas prices. During the 1973-74 oil embargo, the retail price of gasoline rose from 38 cents per gallon to 56 cents, or 43 per cent. This price increase, coupled with severely reduced supplies, led to an 8 per cent annual reduction in motor fuel sales in North Carolina during the worst months of the embargo. After the embargo and the severe 1973-75 recession, motor fuel purchases bounced back, although at a lower rate than before. An important point to note is the role of "real" gasoline prices in affecting consumption. Before the embargo, gas prices, when adjusted for overall inflation, had not increased for a number of years. The real price rose sharply in 1973-74, but as the nominal price of gasoline leveled off and other consumer prices rose at double-digit rates, gas again became "cheap" and consumers went back to their old driving habits. The reason the annual growth rates did not return to the pre-embargo levels was that smaller cars temporarily became very popular and auto makers began trying to comply with the new federal standards for fuel efficiency.

Even though gas prices rose from 56 cents in late 1978 to 83 cents in March 1979, it was not until the temporary gasoline shortage in May and June 1979 that purchases were affected. From that time until the present, a steady 5 to 6 per cent annual cutback in consumption has occurred. An important factor in the present reduction has been the substantial shift since late 1978 away from big cars to small imports, leading to an acceleration of the increase in the fuel efficiency of the nation's fleet of motor vehicles. If the fleet average continues to rise at a rate of three-quarters of a mile per gallon per year, gas-

Figure 1
Projected Highway Fund Revenues and Expenditures
("Current Services" Forecast Based on 1980-81 Appropriations) ($ Million)



oline sales would automatically drop by 5 per cent even if total mileage driven did not change.

The historical trend of license and fee collections has roughly paralleled that of gas tax collections, although the year-to-year "swings" have not been as great. This is due in part to the fact that automobile purchases are major long-term investments and influenced more by the business cycle than by the price of fuel. These collections are expected to continue growing over the future as consumers have chosen to reduce the mileage driven per vehicle instead of the number of vehicles.

Expenditures. Construction and maintenance costs are a major portion of total Highway Fund expenditures. In FY 1978-79 construction expenditures, including federal funds, were $266.5 million, and maintenance expenditures were $169.9 million for a total of $436.4 million, or 64 per cent of total Highway Fund expenditures. Since petroleum-based products are a major ingredient in many roadway materials, unit construction and maintenance costs have risen almost as fast as gasoline and motor oil prices. Index values of highway construction costs, computed by the Federal Highway Administration, for the past few years are:

(1967 = 100)

Year	Index	Year	Index
1972	138.2	1979	
1973	152.4	First quarter	277.2
1974	201.8	Second quarter	294.9
1975	203.8	Third quarter	328.8
1976	199.3	Fourth quarter	352.1
1977	216.4	1980	
1978	264.9	First quarter	336.9
		Second quarter	360.2

Potential solutions

During the past sixty years the state has funded its highway improvement initiatives almost exclusively through an increase in user-tax rates, large bond issues, or some combination of the two. Considering the taxpayers' current anti-tax mood and increased resistance to more government debt, such alternatives may not be as politically feasible in the future. Let us then take a look at some other alternatives. Nonrevenue proposals include reducing construction expenditures, increasing efficiency in maintenance and construction, encouraging nonhighway transportation, dissolving the Highway Fund and financing highway expenditures from the General Fund, and General Fund assistance. Revenue proposals include increasing user-tax rates, adopting a variable user-tax rate, and issuing highway bonds.

Reducing construction expenditures. An obvious first step in reducing the size of the deficit is to reduce the expenditure forecast by paring down construction "needs estimates." Determining needs involves certain value judgments about the relative benefits and costs of various projects as well as the traffic flow and safety standards for each project. To some extent these value judgments will be affected by current cost functions, the revenue deficit, taxpayer attitudes, and fuel conservation efforts. Current needs estimates are based on standards that have developed over a number of decades when revenue growth was automatic and the motoring public was willing to pay the price for highway expansion. The current climate will likely lead to the adoption of lower standards or the elimination of entire projects.

Increasing efficiency in maintenance and construction. A program that would ensure the efficient expenditure of limited Highway Fund revenues would be another approach to the highway funding problem. If the productivity of highway spending were improved, the state could stretch limited revenues or minimize the size of a tax increase or bond authorization. Some examples of efficiency measures would be: (1) improving methods and procedures, (2) recycling roadway materials, (3) using smaller vehicles, (4) adopting pay incentive and employee suggestion programs, and (5) modifying highway designs.

There are some inherent characteristics of the highway construction and maintenance program that differentiate it from other state services and may make further improvements in highway programs easier to accomplish than improvements in other services. For example, the federal government, the states, and many localities have been building roads for many years, and considerable technical and economic knowledge has been developed by the governmental units, engineering schools, and private industry. Engineering and work performance standards, based partly on previous experience, can be applied to reduce manpower and materials usage. Finally, the practice of contracting out certain phases of projects to competitive bidders could keep costs down as long as the state closely reviews bidding practices and ensures competition.

Encouraging nonhighway transportation. To the extent that the state can encourage the public to use nonhighway transportation modes, mass transit, and carpooling, highway needs can be reduced. Currently, the state is participating in a number of such programs on a small scale. Expenditures from state funds for these programs for FY 1978-79 were only $5.2 million, compared with $436.4 million for highway construction and maintenance. Many of the programs are supported totally or partially from General Fund revenues. Since 1966-67 the state has provided half of the nonfederal aid to local airports and also planning and technical aid to localities in matching airline services with demand. The importance of this role has increased under the Federal Airline Deregulation Act of 1978 as small commuter airlines have rushed in to fill the void left when the large carriers have dropped unprofitable routes. The small

carriers have been able to provide this specialized service efficiently. In the area of railroads, the state is attempting to rehabilitate small unprofitable lines that provide a vital economic link to certain rural areas. The continuation of these lines could reduce the demand for motor freight transport. Under the Bicycle and Bikeway Act of 1974 the state undertook to help local government units develop bike facilities and to establish a state bikeway system, demonstration projects, and safety programs, but this activity has declined — largely because of a drop in federal aid.

The state has not been active in mass transit because its population is dispersed among numerous small- and medium-sized towns and because neither citizens nor public officials have shown much interest. In 1979 ridership of the state's 14 largest municipal bus systems rose by 14 per cent, but the systems as a group are running a 50-60 per cent operating deficit. The state provides planning and technical aid and half of the nonfederal share for mass transit capital and planning grants. With most of the large capital replacement programs already completed and local matching funds absent, the level of federal aid for the next few years will more than meet projected needs. Finally, the state has a minor role in monitoring the development of carpools and vanpools by the private sector and in helping to coordinate these efforts.

Dissolving the Highway Fund. Opponents of special funds often suggest dissolving the Highway Fund and financing the state's transportation program from general tax revenues. In this way the Department of Transportation (DOT) would have to compete with other programs for limited General Fund revenues. Highway Fund programs would undergo the same scrutiny by the state budget office and the legislature as other General Fund programs, and the legislature would be required to set a priority for highway activities. Supporters of this proposal argue that financing from general revenues would increase the fiscal accountability of the highway program and improve legislative control of highway expenditures. In a special funding system, any excess revenue tends to be used to provide additional services ahead of schedule — a form of overspending. This situation does not arise when general revenue funding is used because each program is considered along with all other programs.

Defenders of the Highway Fund say that the problem with funding highway activities from general tax revenues is that the user-tax concept is removed from highway financing. The fact that highway-user taxes have been increased a number of times over the last 60 years, while the income tax and other General Fund taxes have not, partly reflects the belief of the public and members of the General Assembly that most of the benefits from highways go to users and these users should pay most of the costs. Highway users have a voice in setting highway priorities through their acceptance or rejection of proposed tax increases and bond referendums.

If highway expenditures were supported by general tax revenues, there is no assurance that these expenditures would receive greater scrutiny than at present. The coalition of various highway users that has developed under the current system of special financing could very possibly carve out an excessive share of the General Fund. Supporting highway programs from the General Fund, which expands with inflation, could lead to a larger increase in highway spending than supporting them from the Highway Fund and could prevent transportation officials and the legislature from taking a hard look at future needs.

General Fund assistance. Establishing and preserving a safe, reliable system of highways benefits individuals and businesses as well as direct users. For this reason, it has been proposed that the highway program be partly financed from general tax revenues. The General Fund is now in much better shape than the Highway Fund because the same inflation that drives up highway costs and reduces user-tax revenues makes the inflation-elastic General Fund bulge. As a result, the overall state tax burden has shifted dramatically from the Highway Fund to the General Fund during the last ten years (see Table 2).

General Fund assistance can be provided in several ways. Annual discretionary appropriations would enable the General Assembly to maintain control over the level of assistance and to review how it was used each year. Earmarking a certain percentage of General Fund tax revenues would provide an automatic source of funding that would give highway programs the same share of an elastic tax base from year to year. The Texas legislature adopted a unique approach in 1978. After a long-range highway needs forecast was developed, the revenue deficit for the first year was made up from general revenue fund fixed appropriations. This base level of aid was then tied to a highway maintenance and construction cost index. Another approach often mentioned is to earmark tax revenue from the sale of motor vehicles and accessories for highway use. While this ap-

Table 2
North Carolina Tax Collections
($ Million)

	Total General Fund Tax Coll.	Personal Income Tax Coll.	Total Highway Fund Tax Coll.	Motor Fuel Tax Coll.
Actual 1970-71	$ 967.6	$ 301.8	$ 318.0	$ 233.0
Projected 1980-81	$2,851.6	$1,279.9	$ 417.6	$ 291.8
Percentage of Increase	194.7%	324.1%	31.3%	25.0%

proach stretches the user-tax base and is similar to the federal excise tax on these items, earmarking a share of total General Fund tax revenues for highways would be administratively simpler.

Increasing highway user-tax rates. This approach has been the traditional method used to fund major initiatives in North Carolina. The most recent increase took place in 1969, when the motor fuel tax was increased from 7 cents to 9 cents per gallon and licenses and fees were increased by 20 to 35 per cent. Since that time the general price level has risen by 110 per cent and gas prices have risen by 313 per cent. Thus the gas tax burden has declined from 28 per cent of retail price in 1969 to 7½ per cent at present.

Increasing the user-tax rate is the simplest and easiest method to raise additional revenue. The tax structure remains the same and the general public would have no trouble understanding the proposal. Although it may be painful, a yearly review of user taxes by the General Assembly may assure a more serious review of highway needs than an automatic hidden increase of highway assistance from the General Fund or a hidden tax increase under a percentage tax. Per-unit tax collections depend to a great extent on traffic volume, and traffic volume does affect the need for highway construction and maintenance to some extent. But there is no reason to presume that the dollar volume of gasoline sales is related to the dollar volume of highway expenditure needs. If motor fuel taxes had been tied to the retail price of motor fuel in July 1973, during the last seven years the Highway Fund would have received $1.5 billion, or 72 per cent, more than its actual receipts. One wonders how the extra money would have been used.

Adopting a variable user tax. The set of proposals that receive the most attention in North Carolina and in other states centers around the conversion of the present "per unit" and "per transaction" user taxes to taxes based on value. The "indexing" method would tie the per-gallon tax to an index of construction and maintenance costs. Under the "variable rate" method, user taxes would be based on a percentage of sales prices. For the motor fuel, the tax would continue to apply to wholesale price for administrative simplicity. Before each tax rate change, a survey of distributors could be made to determine average wholesale price. The rate could then be converted back to a per-gallon basis for easy understanding. A variation of the variable tax approach would be to repeal the sales tax exemption for motor fuels and earmark the additional revenue for the Highway Fund.

The indexing approach seems sound philosophically because highway cost increases are passed directly to highway users. The variable rate method seems reasonable on the surface because all other state and local taxes are levied on the basis of income, sales price, or market value and thus respond to inflation. However, the argument for both approaches breaks down when one considers that highway expenditures consist mostly of improvements — construction and maintenance. There are no requirements that new roads be built each year, and to some degree maintenance can be deferred. The use of a variable user tax could easily create a climate in which spending would be increased simply to use up available revenues. Also, the frequent changes in the price of gas would mean that tax increases would be hidden from the public.

A hybrid approach adopted recently in many states is to convert part of the existing per-gallon tax to a variable tax or to add a variable tax to the existing tax. With this approach revenue growth would be greater than under the per-gallon tax but less than under a full variable tax.

Issuing additional highway bonds. The massive amounts of cash needed for large-scale highway improvements have often been generated by issuing general obligation bonds. The act that authorized the highway bond referendum of 1977 specified that the bonds would be issued over a five-year period at the rate of $60 million per year. Through September 1980, $120 million in bonds have been issued, and the remaining $180 million will be sold by late 1982.

Debt issues are viewed as a means of generating a large cash flow over a three- to five-year period and not as a long-term alternative to a tax increase. Eventually highway user taxes would have to be increased to meet the debt service requirements of a new issue. When the 1977 bonds were proposed, revenue projections indicated that the retirement of the 1965 bonds would, by the mid-1980s, allow the 1-cent-per-gallon tax dedicated for debt service to cover the new bonds also. However, recent forecasts indicate that debt service requirements on highway bonds for 1981-82 will be $33 million, whereas it is estimated that revenue from the 1 cent dedicated tax will be only $31 million. Thus other Highway Fund revenue will have to be used to meet these requirements.

The issuance of bonds to finance capital improvements recognizes the responsibility of future generations of highway users to contribute to construction costs. However, there may be much opposition to a new bond issue. The authorization since 1973 of $300 million in public school facility bonds, $43 million of higher education capital improvement bonds, $300 million of highway bonds, and $530 million of Clean Water bonds has driven North Carolina's debt to a record level. Also, it is likely that the 1981 General Assembly will consider a $600 million public school facilities bond issue, and it seems doubtful that both that issue and a highway bond issue would be authorized by the legislature in the same biennium. □

The General Assembly Studies Gasohol and Other Alcohol Fuels

A. W. Turner, Jr.

PEOPLE HAVE LONG KNOWN that motor vehicles will run on alcohol. Henry Ford's Model T was designed to run on gasoline, alcohol, or any mixture of the two. Several gas stations in the Midwest sold a blend of gasoline and alcohol during World War II. Until recently, however, the use of alcohol as a fuel has been ignored because oil products have been plentiful and comparatively inexpensive. But now, with availability of oil doubtful and price hikes all too certain, alcohol fuels are getting considerable attention as alternatives to gasoline.

In response to this interest in alcohol fuels in general and "gasohol" (a mixture of gasoline and ethanol) in particular, the 1979 session of the North Carolina General Assembly authorized the Legislative Research Commission (LRC) to establish a committee to study the production and distribution of gasohol.[1]

The two types of alcohol that are most feasible for fuel use are methanol and ethanol. Methanol is currently used as a fuel for race cars, particularly the Indianapolis 500 type of car, but its use by the general populace is not feasible in the immediate future. A large capital outlay — much larger than is necessary for an ethanol distillery — is necessary to set up a methanol plant, and the fuel systems of today's cars will not tolerate methanol without substantial modification. The LRC's Committee to study gasohol therefore focused on ethanol, a fuel that can be used in 1980.

Alcohol as a fuel

If modified, today's motor vehicles will run on pure ethanol in strengths as low as 140 to 150 proof. The necessary modifications include widening the jet openings in the carburetor by 40 per cent and replacing all plastic gaskets and seals; they can be made for as little as $200 to $400 per vehicle. Although modifying a farm tractor to burn ethanol produced at an on-farm distillery might be advantageous, two distinct problems make those modifications to a family car unwise. At present the supply of ethanol is limited by low production capacity — a situation that is unlikely to change significantly for the next five years. Therefore the average driver would be unable to find enough ethanol. Furthermore, once the engine modifications were made, the car would not run on gasoline or gasohol. To run the car on either of those fuels, the modifications would have to be reversed.

Therefore, ethanol's major contribution to fuel use in the near future will be as an additive to gasoline.[2] As it is marketed today, ethanol is added to regular unleaded gasoline in a proportion of 1 to 9. A mixture of 5 per cent ethanol and 95 per cent gasoline, or 15 per cent ethanol and 85 per cent gasoline, will also burn in today's cars, but the 1 to 9 proportion is most common because it takes the best advantage of federal tax incentives for gasohol.

Gasohol has a pump octane level of about two octane numbers higher than regular unleaded gasoline, so it serves as a "super regular" unleaded fuel. In terms of BTUs, ethanol contains about two-thirds of the energy of gasoline, and a gallon of gasohol contains 3.28 per cent less energy than a gallon of gasoline. Mileage test results have been mixed, but according to the congressional Office of Technology Assessment, "the mileage . . . for gasohol is expected to average 0-4% less than for gasoline."[3]

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1. N.C. Sess. Laws 1979, Res. 64.

2. For ethanol to mix properly with gasoline, it must be 200 proof (anhydrous — that is, without water). Water prevents ethanol and gasoline from blending, and in very cold or very hot temperatures phase separation in the fuel tank leads to carburetor problems. Small-scale distilleries can produce up to 190-proof ethanol, but to convert ethanol from the 160-proof stage to anhydrous ethanol is not technically or economically feasible except for large-scale operations that produce a million gallons or more per year.

3. U.S. Congress, Office of Technology Assessment, *Gasohol? A Technical Memorandum*, 96th Cong., 1st sess., Sept. 1979, pp. iv-v.

Raw materials

Ethanol can be made from any product that contains starch or sugar. Corn is the primary product used in the Midwest. Sugarcane is used in Brazil, which has recently instituted a massive fuel alcohol program. Other products frequently mentioned include sorghum, white potatoes, sweet potatoes, and sugar beets. Nonfood substances like wood or municipal solid wastes could theoretically also be used, but no economical technology has been developed for processing these materials.

One advantage of using food products is that the distillation process yields a valuable waste product — distillers' dried grains (DDGs). DDGs left from corn are particularly rich in protein, and they can be used for livestock feed. DDGs from other agricultural crops are all, to some degree, useful as feed. In determining the economics of a distillery, raw materials are considered as a cost, but the value of the DDGs can be subtracted from the cost. This economic advantage has its pitfalls, however. DDGs from some crops must be dried before they can be used for feed, which adds another expense to the process. Also, if more DDGs come on the market, the price of soybeans, which are now used for feed, will be depressed.

Food vs. fuel

The ultimate economic and moral problem in the production of ethanol is the competition between the need for food and the need for fuel. The world demand for food is increasing. As the demand for ethanol increases, the price of the raw materials will increase. Any significant fuel-ethanol program that uses food products as the raw material will result in higher food prices. Crop hybrids can be developed to make crops better for ethanol production and less fit for food. As the demand for ethanol increases, more and more farmers may choose to grow crops strictly for fuel production.

In late 1979, annual commercial fuel ethanol production in this country was estimated at between 15 and 20 million gallons. One report has stated that

> . . . 1-2 billion gallons of ethanol per year (1-2% of current gasoline consumption) can probably be produced without a significant impact on food and feed prices. Beyond this ethanol production level, new cropland would have to be brought into production, and the farm commodity prices necessary to induce this land conversion are highly uncertain. Consequently, ethanol production levels significantly larger than 1-2 billion gallons per year if derived from food cropland could lead to strong inflationary trends in food and feed markets, which would be a substantial indirect cost of ethanol production.[4]

4. *Ibid.*, p. 12. See also Fred H. Sanderson, "Gasohol: Boon or Blunder?" *The Brookings Bulletin* 16, no. 3 (1980), 11.

The 1979 corn crop for this country was about 7.3 billion bushels. If by 1990 the United States wants 10 per cent of its motor fuels to be ethanol made from corn, *annual* corn production would have to increase by four billion bushels. If ethanol is to stretch the supply of motor fuels significantly without a severe adverse effect on food supplies, technology must be developed to produce ethanol from municipal solid wastes, wood, or other nonfood products.

No fuel/food issue will arise in the immediate future, however. Although estimates of ethanol production over the next decade vary widely, the use of ethanol will probably not decrease petroleum imports more than 0.4 per cent by 1985.[5] The main reason for this small decline is that only a few ethanol distilleries are in operation or being planned.

The net energy balance

Perhaps the most hotly debated issue concerning alcohol fuels is the energy balance.[6] The question is whether more energy is used in producing ethanol than is available in the distillate. The debate centers on what steps of the production are to be considered, or "where to draw the lines." The energy used to power the distillery clearly should be included as input, and the energy contained in the ethanol clearly should be considered in computing energy output. Most formulas also include as input the energy used to harvest the crop used as a raw material and take a credit for the energy saved by use of the DDGs. These formulas probably should, but frequently do not, include as an input the energy used to plant and care for the crop. Different analyses of the same distillery frequently arrive at different net energy balances because they consider different factors in the analysis. Generally petroleum-powered distilleries, especially ones originally built for beverage production, show a net energy loss no matter which factors are considered. But as technology improves and distilleries are built specifically for fuel alcohol distillation, especially if powered by coal or wood chips, the chances of finding a positive energy balance increase.

Perhaps the most important point about the whole issue, however, does not involve the net energy balance at all. Conversion of coal to electricity results in a major energy loss, but a low-quality energy source is converted to a high-quality one. If the distillery is powered by a low-quality energy source like wood chips or coal, net energy balance should not be a concern, since a high-quality motor fuel is produced.

5. U.S. Department of Energy, Assistant Secretary for Policy Evaluation, *The Report of the Alcohol Fuels Policy Review* (June 1979), p. 6.

6. See R. S. Chambers, et al., "Gasohol: Does It or Doesn't It Produce Positive Net Energy?" *Science* 206 (Nov. 16, 1979), 789-95.

Actions of the study committee

After hearing presentations on alcohol fuels at its first three meetings, the LRC's study committee on gasohol concluded that alcohol could affect the supply of fuel in this state. This decision was reached despite warnings from several speakers that the promise of alcohol fuels is running well ahead of its technology. Other witnesses pointed out that encouraging the alcohol-fuel industry as a whole would encourage experimentation with new production techniques.

Most speakers pointed out that in the immediate future, alcohol fuels will have little effect on oil imports, but the committee decided that production of alcohol is at least a step in the direction of energy self-sufficiency. In addition, production of alcohol fuels offers a new market for many agricultural products.

The final committee report recommended legislation creating two tax incentives: (1) an investment tax credit for distillers of alcohol fuel and (2) a partial gasoline-tax exemption for alcohol fuels.[7] An investment tax credit against an individual or corporate distiller's income tax encourages alcohol production. Building a plant is a significant capital cost to the distiller. A frequently quoted figure at the committee proceedings for this outlay is $1 for each gallon of anhydrous ethanol per year that the distillery can produce -- a distillery capable of producing 1,000,000 gallons of 200-proof ethanol per year would cost $1,000,000 to build. The investment tax credit—by extending an income tax relief—would allow the distiller to reduce the amount of his investment.

The investment tax credit bill recommended by the committee provided for a 20 per cent credit to all distillers and allowed an additional 10 per cent credit if the still is powered by an "alternative fuel source" like wood chips. These credits are greater than recently enacted investment tax credits for construction of co-generating power plants[8] and conversion of gas- or oil-powered industrial boilers to wood-powered boilers.[9]

The committee recommended that the credit have a five-year carry-over provision. It realized that many distillers would operate at a loss for the first few years of operation, and the carry-over was designed to allow them to take the credit at any time during the first five years of operation.

When the committee recommended the investment tax credit bill, no other state had a similar provision.[10] The credit stimulus is designed to have a far-reaching effect because it encourages production of ethanol for all types of fuel use. The distiller who produces anhydrous ethanol for gasohol production will receive the incentive as well as the farmer who wants to run his tractor and farm trucks on the 170-proof ethanol he produces in his backyard still.

The General Assembly's Fiscal Research Division could not project what the long-run cost of this credit would be. Besides its incentive effect, the credit could also provide a significant tax shelter for corporations or individuals, with a resulting loss of revenue to the state.

Several states and the federal government have given gasohol a full or partial exemption from their gasoline tax.[11] The investment tax credit encourages production, whereas the gas tax exemption for gasohol encourages distribution first and production second and affects the price of gasohol to the consumer. If the price is cut at the pumps, consumers will probably buy more gasohol, and this should stimulate the production of anhydrous ethanol to mix with gasoline.

The theory behind a gas tax exemption for gasohol is economic. Ethanol was selling wholesale for about $1.75 per gallon in Raleigh in April 1980. With no tax break, unleaded gasoline would sell for less than a mixture of unleaded gasoline and ethanol. As long as that price disparity exists, a tax incentive is needed to make gasohol competitive in price.

The committee recommended a partial exemption for gasohol that would be phased out over four years because it felt that in four years gasohol would be competitive without a tax incentive. (The schedule called for a 4-cent state tax exemption from January 1 to July 1, 1981, 3 cents for fiscal 1981-82, 2 cents for fiscal 1982-83, and 1 cent for fiscal 1983-84.) Some people who appeared before the committee felt that gasohol could be competitive now without a state exemption. The federal 4-cent gasohol exemption is actually a 40-cent exemption to the alcohol in the typical 9-to-1 blend of gasoline and alcohol. If the 40-cent federal exemption is subtracted from the cost of ethanol ($1.75 per gallon) it becomes clear that gasohol would be cost competitive when gasoline costs about $1.35 per gallon — assuming there is no rise in the cost of ethanol — even without the state tax exemption. In addition, several people questioned whether gasohol would sell for less than regular unleaded gasoline even after gasoline costs reach $1.35 per gallon and even with the state tax exemption. The retail price of gasohol at that point can exceed that of regular unleaded gasoline only if the state tax exemption is not passed on to the consumer. As of May 1980, however, gasoline prices had not reached $1.35 per gallon and the committee decided that it could recommend

(continued on page 30)

7. The General Assembly enacted both recommendations during the 1980 short session — the investment tax credit as Chapter 1265 and the gasoline tax exemption as Chapter 1187.

8. N.C. GEN. STAT. §§ 105-130.25, -151.4 (1979).

9. *Id.* §§ 105-130.26, - 151.5 (1979).

10. The Federal Energy Tax Act of 1978 (P.L. 95-618) does grant a 10 per cent credit against federal income tax liability for such construction in addition to the usual federal investment tax credit.

11. As of December 1979, the federal government and 15 states had given either full or partial exemptions.

Public Management of On-site Wastewater Systems

Warren J. Wicker

MOST NORTH CAROLINIANS are aware of state and federal efforts to decrease water pollution. They have heard about both the federal water pollution control programs and the federal aid available to local governments to build and improve wastewater treatment facilities. They know that the state has issued Clean Water bonds for the same purpose. They have read about "201" studies and are pleased when their community reaches "Step Three" and improvements are at least under way.

In contrast, probably relatively few citizens know that about half of the state's households are not served by community sewer systems. These households and many business establishments depend on the traditional septic tank system or some other form of on-site wastewater disposal system to handle their sewage and other liquid wastes.[1] Furthermore, roughly 50,000 new septic tank systems are being installed in North Carolina each year.[2] This rate means that there continue to be as many households served by on-site systems as are served by community systems, even allowing for some conversion from on-site to community systems. The prospects are for continued widespread use of on-site systems in North Carolina.

North Carolina's development patterns rely more heavily on individual septic systems than those of most states, but throughout the country the use of on-site systems is substantial. Federal officials now recognize that not every household can be served by a community sewer at reasonable cost. In 1978 the Comptroller General's report to Congress on the use of septic systems declared:[3]

> Millions of dollars are being spent to construct sewers and central wastewater treatment facilities to replace septic systems. Because of inadequate controls over design, installation, and operation, septic systems have become unreliable and temporary. Septic systems are, however, environmentally sound, technologically feasible, and cost effective.
>
> The Environmental Protection Agency and other Federal agencies should increase the acceptance of septic systems by requiring established public management entities to control their design, installation, and operation. The Environmental Protection Agency should also require facility plans to develop those institutional, legal, and financial arrangements necessary to implement community-wide strategies and public management of all wastewater treatment systems.

Problems with septic tank systems and other on-site systems have generally arisen because the systems have been (a) built on unsuitable soils, (b) improperly installed, or (c) inadequately maintained. North Carolina and other states have developed an extensive regulatory system. North Carolina's regulations — enforced prin-

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1. U.S. Bureau of the Census, *Census of Housing: 1970, Vol. 1, Housing Characteristics for States, Cities, and Counties, part 35, North Carolina* (Washington, D.C.: Government Printing Office, 1972), Table 35. In 1970 some 45 per cent of North Carolina's households were connected to community sewer systems. Other on-site systems include mound systems, low-pressure pipe distribution systems, sand filter/spray irrigation systems, recirculating sand filters, and various modifications of the conventional septic tank system with a single gravity drain field.

2. North Carolina Department of Natural Resources and Community Development, Division of Environmental Management, *Water Quality and On-site Wastewater Disposal* (Raleigh: July 1979), p. 2.

3. Comptroller General of the United States, *Report to the Congress of the United States: Community-Managed Septic Systems — A Viable Alternative to Sewage Treatment Plants* (Washington, D.C.: Government Printing Office, November 3, 1978), p. 1.

cipally under the direction of health departments and the state's Commission for Health Services and Environmental Management Commission – are aimed at assuring that septic systems are sited on suitable soils and properly installed. While the regulations require proper operation and maintenance, it is the owner who is responsible for maintenance and operation.[4] The traditional view has been that the handling of domestic wastewater is a proper public responsibility if the waste can be discharged into a sewer, but not if it is directed to a ground absorption system.

This view has been changing in recent years, however, as the importance of proper operation and maintenance of these systems has become evident. In a few states, some local public bodies have assumed complete management of on-site wastewater disposal systems.

In North Carolina the need for some form of public management of on-site systems has been recognized by state health and environmental officials for a decade. In 1978 the Triangle J Council of Governments, as a part of its continuing water quality study, received a grant from the Environmental Protection Agency (EPA) to support work on individual wastewater systems. Septic tank system failures had occurred throughout the region, and much of the area's soils were not suited to the traditional septic tank system. The study proposed to examine alternatives to the traditional systems and to develop adequate management approaches for both traditional and alternative systems.

Early in the study it was recognized that some form of public management would probably be desirable if the individual systems were to receive adequate operation and maintenance. Were cities, counties, and other local entities authorized to operate and maintain on-site systems? Not under existing law. The study group therefore drafted legislation that is designed to broaden local governmental authority. With encouragement from the North Carolina League of Municipalities, the North Carolina Association of County Commissioners, the Commission for Health Services, and the Environmental Management Commission, the 1979 General Assembly enacted legislation that gave local governments the requisite authority.[5] As a consequence, all of the state's local governmental units that were previously authorized to provide community sewers and wastewater treatment are now also authorized to provide on-site services – and with the same range of powers.

Units empowered to provide on-site services

Seven kinds of local governmental units are now authorized to provide on-site wastewater disposal services: cities, counties, county water and sewer districts, sanitary districts, metropolitan water districts, metropolitan sewerage districts, and water and sewer authorities. If services are needed in only one part of a county, a county service district (supported by a property tax levy in only that area) may be created to provide on-site services. Two or more local units may together provide the services, or they may create a joint management agency to administer the services.

The units' powers with respect to on-site services are the same as the powers they have in providing conventional sewage collection and disposal services. Units with taxing power may impose taxes. All seven kinds of units may issue revenue bonds for on-site purposes, and all except the water and sewer authorities may issue general obligation bonds for on-site services. The units may own property and may condemn property if necessary. They may set rates and charges for the services and may provide services outside their boundaries as well as inside. Units with authority to make special assessments may use that authority for installing on-site systems as well as for extending community sewers.

In brief, North Carolina's local governments that are authorized to provide for the collection and disposal of wastewaters may now do so through community systems, through on-site systems, or through some combination of the two. They are thus empowered to handle all wastewaters within their jurisdictions and to do so in the most appropriate manner.

Management needs

As noted above, septic tank and other on-site systems fail primarily because they are placed in unsuitable soils, are improperly installed, or are inadequately maintained. Regulations to assure that installations are properly made and only in suitable soils are generally thought to be adequate in North Carolina. They are enforced through local health departments and the state's Division for Health Services and Division of Environmental Management.[6] The owner – resident, business, or industry – is responsible for maintaining an on-site system. Not infrequently, and especially with small systems, maintenance is performed only when the system fails.

Authorities agree that improved maintenance would reduce the number of failures. It was this conclusion

4. Environmental Protection Agency, *Legal and Institutional Approaches to Water Quality Management Planning and Implementation* (Washington, D.C.: Government Printing Office, March 1977), Ch. V.

5. N.C. Sess. Laws 1979, Ch. 619.

6. Disposal systems that have 3,000 gallons or less capacity *and* do not discharge into surface waters are subject to rules and regulations adopted by, or approved by, the Commission for Health Services. Systems with a capacity of more than 3,000 gallons and those of any size that discharge into surface waters are subject to rules and regulations of the Environmental Management Commission. N.C. GEN. STAT. § 130-160(a). A local board of health may enforce comprehensive rules developed for its jurisdiction when the Commission for Health Services finds that the local rules are substantially equivalent to the Commission's statewide rules. N.C. GEN. STAT. § 130-160(b).

that supported the Comptroller General's finding that EPA should assure the development of suitable organizational and financial arrangements to provide for public management of *all* wastewater treatment facilities. A few local public agencies in Washington and California, for example, have already undertaken such management.[7] But generally the owner of an on-site system operates under a public requirement that his facility be maintained in proper operating condition without regular management assistance from any public agency.

Management service needs are relatively simple and vary with the type of facility.[8] The chief service requirements are as follows:

1. **Periodic inspection.** Inspection detects problems at an early stage so that corrective action may be taken before a major failure occurs. The traditional septic tank system might need an inspection annually — others more frequently.
2. **Septage pumping.** Conventional septic tank systems may require pumping every three to four years. Alternative systems that use a septic tank may require more frequent pumping.
3. **Maintenance and repair of equipment.** Systems that use pumps and other equipment require regular preventive maintenance and repairs.
4. **Expansion and replacement of absorption fields.** Drain fields of systems that use ground absorption sometimes become saturated or overloaded, or the drainage lines may become clogged.
5. **Grounds maintenance.** Proper operation of most on-site systems is enhanced by (or, in some cases, depends on) careful landscaping and maintenance of ground cover. Maintenance of proper surface water drainage by lot-shaping, diversion swales, and placement of downspouts is essential.
6. **System change or alteration.** The system as installed sometimes proves unsatisfactory and needs replacement or major alteration.
7. **Other tasks.** A few specialized systems may require forms of maintenance not covered by the classes listed above.

Financing maintenance activities

Such on-site system maintenance as is done is now financed by the owner — either by doing the work himself or by contracting with private firms. Public agencies authorized to provide on-site maintenance services have the following financing measures available:

1. **Fees and charges.** These are now used for conventional community sewer services and may be used for on-site services as well. They are essentially contractual. Charges can be billed monthly or carried on annual tax bills. A schedule could reflect varying levels of services.
2. **Local property taxes.** All types of governmental units listed above except the water and sewer authorities may use general property tax revenues for the maintenance of on-site disposal systems.
3. **Special assessments.** To finance new installations cities, counties, county service districts, county water and sewer districts, and water and sewer authorities may specially assess costs against benefited property.
4. **Federal and state grants.** All the units are authorized to accept whatever state and federal grants are available.

A public management arrangement supported entirely by user fees and charges would keep the basic financing burden where it is now located — with the owner. Most community sewer systems, however, are now heavily supported from tax funds, especially through state and federal grants. Local governing boards have the discretion to arrange financing as they deem best.

Administrative arrangements

Units of government that provide on-site wastewater treatment services have the same administrative alternatives that they have with respect to community sewer systems: (1) using the unit's personnel, (2) contracting with private firms, or (3) a combination of the two. For example, if homeowners apply to a governmental unit to provide inspection and pumping services for conventional septic tank installations, the unit might employ an inspector and purchase and operate pumping equipment. Or it might contract with a qualified private septic tank pumper to make the inspections and to pump septage in accordance with established regulations and schedules. Or it might arrange for inspections by its own employee and for pumping by a private firm under contract. Similar flexibility exists with respect to the other types of maintenance described above.

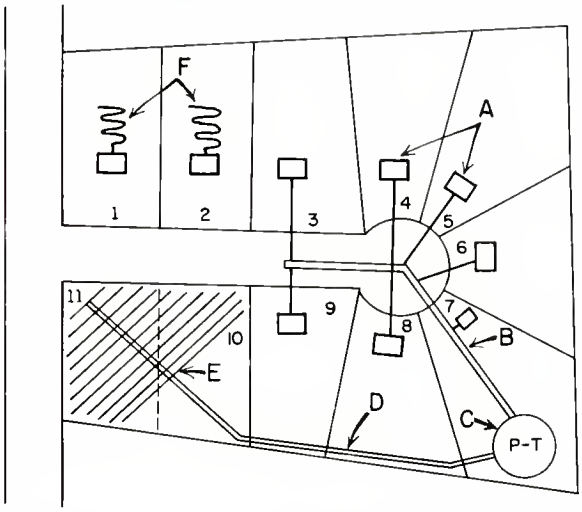
Ownership of on-site facilities

Should public units that provide maintenance of on-site wastewater disposal systems own the facilities? In North Carolina all seven types of units are authorized to do so, but at this stage in the development of the service (only a few units throughout the country are providing the service, and only a handful in North Carolina have considered the idea) it seems that "maintenance contracts" based on owner applications and user charges similar to those used with conventional community sewers would be most appropriate if service is to a single lot and facility. Where a single on-site system serves two

7. For a detailed description of some of the arrangements, see the EPA publication cited in footnote 4.

8. For an excellent summary of management service needs for all the various types of on-site disposal systems, see the Triangle J Council of Governments' *Final Report: Individual Wastewater Project* (Research Triangle Park, N.C.: February 1980).

Figure 1
Illustration of On-site Systems
Appropriate for Public Management



Source: Plat design and illustration by Ed Holland, Director of Water Quality, Triangle J Council of Governments, Research Triangle Park, N.C.

PLAT

This plat illustrates the possibilities for on-site wastewater system management.

The subdivision was originally designed for eleven lots. No community sewer system was available. Lots 1, 2, 10, and 11 were found to be suitable for conventional septic tank systems; the other lots were not.

Conventional septic tank systems (F) are installed on Lots 1 and 2. Conventional septic tanks (A) are installed on Lots 3 through 9 to discharge into a small-diameter collection sewer (B), which drains into a pump tank (C). From here the wastewater is pumped through a small-diameter pressure sewer (D) and through the low-pressure pipe distribution system (E) for ground absorption.

A local government that is extending on-site management services for this subdivision might provide inspection and septage pumping services to Lots 1 and 2 for an annual fee. Septic tanks on Lots 3 through 9 would be the property of the respective lot owners. The collection sewer, pump tank, pressure sewer, and low-pressure distribution system would be owned and maintained by the governmental unit. Maintenance costs for the publicly owned facilities would be met from charges against the lot owners served. These charges could also be set to include the necessary periodic pumping of septage from the privately owned septic tanks.

Through an alternative on-site cluster system and adequate management, a tract that would have supported only four homes if only the conventional septic tank system were used can be developed to accommodate nine homes.

or more homes or other premises (a cluster system), public ownership of the system and its site may become desirable.

Which governmental unit?

Which of the seven types of governmental units that are authorized to provide on-site wastewater services is best suited to do so? At particular times and places, each could be the most appropriate, and all may become involved in time. A few cities in the state have already provided septic tank pumping services to homes not served by their sewer system under financing arrangements that partly involved local property taxation. Other units that operate conventional community sewer systems may take the same approach, either from concern that all citizens be treated equitably or in order to provide wastewater services throughout their jurisdictions.

County governments, however, appear to be best suited at this time to provide the services. Most of the existing on-site systems and most of the new ones being installed are outside the jurisdiction of the city or any other local unit except the county. County jurisdictions not only include the sites but also are large enough to constitute an economically sized management unit — large enough to support a centralized management staff, billing agency, and the like. Furthermore, county governments have as much flexibility in financing as any of the other types of units and more than many of them. Finally, county governments, through the local health departments, are already involved in regulating the installation of on-site systems. Expanding this arrangement to include maintenance services could draw on existing competence, whether the operation is located directly in a county's health department or in some other administrative area.

Many North Carolina county officials have discussed providing on-site services, but only Stanly County has developed a preliminary plan for offering comprehensive on-site maintenance services.

Conclusion

Counties, cities, and other types of local government units in North Carolina now have broad authority to provide on-site wastewater maintenance services, great flexibility in financing the services, and freedom to organize them as may be most appropriate in each unit's jurisdiction. County governments seem to be in the best position to provide these newly authorized services, and at least one county has taken steps in that direction. It seems likely that in the 1980s many North Carolina counties will begin providing services in order to improve water quality, protect the public health, and extend wastewater treatment services to all citizens, regardless of the method used to treat the wastewater. □

Considerable confusion surrounds North Carolina's laws to protect the privacy of governmental employees' personnel files. What personnel records are open to the public? To the employee? To prospective employers? What is a public official's liability for violating the personnel records laws? What problems arise in implementing these laws? The General Assembly may need to clarify a good many issues concerned with the personnel records acts.

Problems in Administering Personnel Records Acts in North Carolina

Donald B. Hayman

IN 1975 THE NORTH CAROLINA General Assembly enacted three bills governing the personnel records of state, county, and municipal officials.[1] The bills were the reaction of the Department of Administration and a House legislative committee to four incidents involving state and local personnel records during 1973 and 1974. The state bill was modeled after U.S. Civil Service Commission rules; the federal Freedom of Information Act of 1966, which was extensively revised in 1974; and a statute governing the personnel records of employees in Ohio. The city and county bills were adaptations of the state bill.

North Carolina's jurisdictions vary greatly in the kind of personnel records they keep. Many small jurisdictions have no application form and maintain individual employee files only in the police or sheriff's department (where social history and physical exam forms are mandated by the Criminal Justice and Training Council). Larger jurisdictions like the State of North Carolina, Mecklenburg County, and the cities of Charlotte, Durham, and Greensboro have sophisticated personnel records systems with on-line recall and personnel files in both the departmental and central personnel offices. Several large units maintain other personnel records and working papers concerning examinations and test scores, organizational studies, employee skills inventories, manpower staffing projections, and investigations of incidents and complaints involving more than a single employee.

Some 95 items of information may be found in the personnel files of North Carolina public employees, and public jurisdictions may maintain up to twenty different sets of personnel records outside their employees' individual files. The recent proliferation of personnel records results from the Equal Employment Opportunity Commission's reporting requirements and the possibility of suit or withholding of federal funds. More and more jurisdictions have employed full-time personnel officers to publicize vacancies, receive and evaluate applications, and maintain central personnel files. The presence of these officials means that more personnel work is being done centrally and more personnel records are being created.

Most public employees give little thought to their personnel files. They assume that the forms they filled out when they applied and entered on duty are filed somewhere. They may occasionally ask about their unused sick or vacation leave or make a name change, but the great majority have no idea whether they have only one or several personnel files. The fact that many small governmental units maintain only scanty and scattered records may reduce both the feeling of threat and the interest of employees in personnel records. Furthermore, because private-sector employees in North Carolina and most other states have no legal right to see their files, the private sector does not stimulate public employees to think about the contents of their files.

So who *is* interested in North Carolina's public personnel records? Inquiries and training sessions suggest that some officials have been alarmed, confused, and frustrated in dealing with the personnel records acts. These officials include some secretaries of state departments, some state departmental personnel officers and their staffs, the Attorney General's staff, state archivists, city and county administrators, personnel officers and department heads, some state and local supervisors who prepare the papers that go into the personnel files, and a few public employees. Journalists and the media are also very interested in the openness of these records.

The current debate over personnel records is an outgrowth of the 1960s and 1970s. The headlines about Vietnam, Watergate, and changing lifestyles caused legislators to rethink the balance among the public's right to know, the individual's right of privacy, and management's right to manage. The North Carolina personnel records acts were a reaction to the concerns of the time as well as to specific incidents. This article will explore North Carolina public records law under the following four topics: (1) the history of the law and practice concerning personnel records, (2) the present laws, (3) questions or problems in administering the present laws, and (4) future possibilities.

The author is an Institute faculty member whose specialty is personnel administration.

1. N.C. GEN. STAT. §§ 126-22 through -29; *id.* § 153A-98; *id.* § 160A-168.

NORTH CAROLINA LED the nation in its attention to the preservation of public records. In 1935 the General Assembly enacted G.S. 132-6, the nation's first public record law calling for the protection and preservation of state, county, and municipal records.[2] The common law principle of access to public records was included as follows:

> Every person having custody of public records shall permit them to be inspected and examined at reasonable times and under his supervision by any person, and he shall furnish certified copies thereof on payment of a fee as prescribed by law.[3]

The statute designated a state agency (now the Department of Cultural Resources) to supervise the preservation and destruction of public records. It also provided that upon conviction any person who refused to permit the inspection of a public record would be guilty of a misdemeanor and subject to a fine of $20 per month. The courts have twice forced access, but when the law was repealed in 1975 the penalty had never been imposed.

In the mid-sixties the U.S. Bureau of the Budget proposed a National Data Center to compile and process information files on an aggregate basis. That proposal and rapid developments in computer technology caused some fear that the "police state" as described in the novel *1984* would soon infringe on personal privacy. This concern was fanned by the newspaper stories during hearings on the Federal Fair Credit Reporting Act in 1970 about the unethical practices of agencies that reported on consumers' credit. These accounts made millions of people aware for the first time that personal information was being misused.

The provisions of North Carolina's public records law were publicized by a series of events in the fall of 1973. The State Secretary of Transportation after helicopter trips to eastern and western North Carolina announced that 100 highway department employees had been fired for allegedly engaging in politics, for not being qualified for their jobs, or for not doing the jobs to which they were assigned.[4] Not to be outdone, the Secretary of Correction used the same helicopter and fired over 90 employees.

A reporter from the Raleigh *News and Observer* then visited the Department of Transportation's personnel department, asked to see the personnel file of each discharged employee, and was refused. Only after the Attorney General had advised that personnel records were public records and the Governor had intervened was he permitted to see the files. It

2. *Id.* § 132.6.

3. Thornton W. Mitchell, "Public Access to Public Records," *Carolina Comments* 27, no. 2 (March 1979), 2-5. In *The People's Right to Know*, H. Cross states that the common law right to inspect public records is limited to records that enable a person to maintain or defend an action in which the record sought can furnish evidence of necessary information. (New York: AMS Press, Inc., 1972), pp. 25-26.

4. *News and Observer*, October 25, 1973, p. 1.

Table 1

Guidelines for Releasing Information from Files of North Carolina City and County Employees[1]

General Public (does not include parties in Columns II and III)		Employee or His Authorized Agent		Employee's Supervisor, Party by Authority of a Court Order, an Official of Federal, State, or Subdivision of State in Proper Function of Agency That Seeks to Inspect	
Give	Withhold	Give	Withhold	Give	Withhold
Name Age Date of original employment with city or county government Current title Duties performed[2] Current salary Date and amount of most recent salary change Date of most recent promotion, demotion, transfer, suspension, separation or other change in position classification Office to which employee is currently assigned	Application Previous salary Attendance record Home address and telephone no. Previous title Previous employment Sick leave used Performance ratings Disciplinary action Most recent personnel action	All information except reference letters obtained before employment or promotion Medical record to designated licensed physician	Reference letters solicited before employment Medical history (that a prudent M.D. would not disclose to a patient)	All information in personnel file (or information subject to court order)	Give no information other than that allowed in Column I to persons who want information for the purpose of assisting in criminal prosecution or investigating tax liability

1. As provided by G.S. 153A-98 and G.S. 160A-168. These statutes do not specifically cover applicants and former employees.

2. Job descriptions containing the duties and responsibilities of each class title are public records open to the public.

is reported that about half of the dismissed employees were eventually reinstated.

During the summer of 1974, a personnel records bill drafted in the Attorney General's office to "protect both employees and state officials" came to the attention of the House Committee on the Rights and Responsibilities of State Employees. Because of the concern expressed by state employees following the firings described above, this committee was drafting amendments to the State Personnel Act to give the State Personnel Board final authority in dismissal cases. With the approval of the Governor's Office, it agreed to consider the problem of personnel records.

Committee members were familiar with the personnel record provisions of the state's 1971 Teacher Tenure Act. Some had followed the national debate on privacy legislation while Congress was considering and passing the Privacy Act of 1974.[5] (The widespread national interest in privacy is suggested by the fact that in 1975 some 250 bills related to this subject were introduced in Congress and 85 bills were introduced in 36 state legislatures.[6]) In 1975, after considerable staff research, a state personnel records bill was introduced in the North Carolina legislature, was recommended by the House committee, and was enacted as G.S. 126-22 through -29).

Because the city of Burlington and Alamance County had recently been sued for refusing to release public records, Representative James E. Long, chairman of the House committee, knew that personnel records problems also existed on the local level. He introduced county and municipal personnel bills similar to the state law, and they were enacted in 1975 as G.S. 153A-98 and G.S. 160A-168.

The 1975 State Personnel Records Act modified the 1935 North Carolina "open records statute" to close a state employee's personnel file to the public except as to eight items: name; age; date of original employment in state government; current title; current salary; date and amount of most recent salary change; date of most recent promotion, demotion, transfer, suspension, separation, or other changes in position classification; and office to which the employee is currently assigned. Among state personnel records statutes, the North Carolina law is unique in its specificity.

Five categories of persons may have access to other "confidential" information in a state employee's personnel file. First, an employee or his or her duly authorized agent has access to his or her file except as to references solicited before he was employed and as to certain medical records. The latter are available to a physician designated by the employee. Second, the employee's supervisors have access to the personnel file. Third, the records custodian may authorize federal, state, or local government officials to inspect a personnel file if he determines that access is necessary to the official's proper functions. Fourth, General Assembly members may examine personnel records under the authority of G.S. 120-19; this statute directs state departments to give individual legislators any information they ask for.[7] Fifth, a person with a court order may inspect the file of the person named in the order. Anyone with a right of access to a personnel file who is denied it may compel compliance by obtaining a writ of mandamus.

The 1975 act provided a remedy for a state employee who claims that material in his file is inaccurate or misleading. He may seek to have the material removed from the file or may place a statement relating to it in the file.

The act provided penalties for (1) those who knowingly and willfully permit unauthorized persons to have access to or custody of confidential information in a personnel file, and (2) unauthorized persons who knowingly and willfully examine confidential information in a personnel file or remove or copy any portion of such materials. Anyone who is convicted of either prohibited action is guilty of a misdemeanor and subject to a fine of not over $500.

The county and municipal acts were similar to the state act except that they do not allow inspection by General Assembly members and they authorize city councils and boards of county commissioners to make rules for the safekeeping and correction of personnel files.

The state personnel records act was amended in both 1977 and 1978. In 1977 (1) coverage was broadened to include the personnel files of applicants and former employees; (2) the definition of "personnel file" was broadened (see the first question on p. 27); (3) the files (except for documents relating to demotions and disciplinary actions resulting in dismissal) of former state employees separated for ten or more years were opened to the public; and (4) a party to a quasi-judicial hearing of a state agency was given access to relevant material in personnel files and allowed to introduce copies of such material as evidence with consent from the subject of the file or upon subpoena.

In 1977 the Secretary of Crime Control and Public Safety found himself prevented by the Personnel Records Act from explaining the facts in a disciplinary case. His consequent frustration caused him to take the lead in securing amendment of the State Personnel Records Act in 1978 to eliminate this muzzle. A state department head now has the discretion to suspend the operation of the Personnel Records Act as to a particular file. He may give any person or corporation the reasons for the promotion, demotion, suspension, dismissal, nonemployment, etc., of any applicant, employee, or former employee. He may also allow any person or corporation to review all or part of that employee's personnel file.[8]

Before giving any information or allowing a review of the file, the department head must determine that his action is "essential to maintaining the integrity of such department or to maintain the level of quality of services provided by such department." He must prepare a memorandum explaining the circumstances that require each disclosure and what information will be disclosed. The memorandum must be kept in the department's files and must be available for public inspection.

None of these above amendments pertain to the county and municipal personnel records acts, which continue as enacted in 1975.

5. P.L. 92-579 (1974).

6. Virginia E. Schein, "Privacy and Personnel: A Time for Action," *Personnel Journal* 55 (December 1976), 604

7. The Attorney General has said that a member of the General Assembly need not be a member of a legislative committee, investigative or otherwise, to gain access to otherwise confidential state personnel information [48 N.C.A.G. 2 (1979)].

8. N.C. Sess. Laws 1978, c. 1207.

PUBLIC OFFICIALS have encountered many questions and problems in administering the state, county, and municipal personnel records acts. Some of these questions and the best available answers to them follow:

Q: *What is a personnel file, for purposes of the county, municipal, and state personnel records acts?*

A: The county and municipal acts, G.S. 153A-98 and G.S. 160A-169, list eight specific items of information with respect to employees that are designated as public records, plus medical records and letters of reference that might be assumed to be among the contents of the personnel file. The acts state that personnel files maintained by the governmental units may be inspected under prescribed circumstances, but they give no other instruction as to the location or contents of personnel files.

The state act, G.S. 126-22 through -29, was amended in 1977 to define "personnel file" in the broadest terms. "[It] consists of any information gathered by the . . . agency . . . which . . . relates to the individual's application, selection or nonselection, promotions, demotions, transfers, leave, salary, suspension, performance evaluation forms, disciplinary actions, and termination of employment wherever located and in whatever form."

Q: *Do the acts authorize the release of meaningful information regarding public employees?*

A: A careful reading of the acts' exact wording reveals that information made public may not be as extensive as may have been assumed. For example, date of original appointment and current position title are public information. But title of first position held and date, titles, and salaries of subsequent positions (if before the current position) are confidential information. The date of the most recent change in position classification or personnel action is public information, but the nature of that most recent action is not. Information as to salary or personnel action legally available one day might not be available the next if a raise or a promotion becomes effective on the latter date.

Q: *Are test questions, scoring keys, and other examination data used to determine eligibility for employment or promotion open to an employee's inspection?*

A: The county and municipal acts do not define personnel records, and so the answer to this question is uncertain. In February 1980 Charlotte's city attorney advised the Charlotte Civil Service Commission that test materials were confidential.

The broad definition of personnel file contained in the 1977 state amendments would seem to include these materials. As will be pointed out later, federal law and many state acts recognize that unless test questions and answers and other examination instruments remain confidential, local and national test validation studies will be compromised.

Q: *Are notes, preliminary drafts, and internal communications made before a personnel decision public records open to employees affected by the decision and to the public?*

A: The 1977 amendment to the state act may provide that such materials are open to the employee. The county and municipal acts are not clear on this point. Case law in states with less inclusive statutes has held that preliminary drafts and internal communications are not public records.

Q: *Should* ***all*** *information pertaining solely to an individual in public employment be available to the public?*

A: Some persons suggest that (in addition to what is now open) awards received, agency-sponsored training engaged in, etc., should be open to the public.

Q: *Are reference checks (inquiries as to character, work performance, etc.) secured from superiors for employees being considered for promotion open to the employee's inspection?*

A: The statute does not specifically consider this point. One attorney has ruled that reference checks secured when an employee is up for promotion should be considered as though they were solicited before appointment.

Q: *Are transcripts of a closed hearing before a civil service board a part of the employee's file, or are they a part of a special investigation file and not open to his inspection?*

A: The county and municipal personnel records acts are not clear on this point. The Attorney General has ruled that the transcript is confidential.[9]

Q: *Are police or sheriff's department investigative reports and memoranda concerning the investigation of crimes allegedly committed by a public employee a part of the employee's personnel file and subject to inspection by him?*

9. N.C.A.G. letter to Henry Underhill (August 14, 1979).

A: The statutes are not clear on this question. The Attorney General's opinion is that such reports and memoranda are not public records.[10]

Q: *Is the tape of a sheriff's interview with a deputy regarding misfeasance before he dismisses the deputy a part of the deputy's personnel file and open to him, or is it part of the confidential investigation files?*

A: The statutes are not clear on this question. Law enforcement officers tend to set up separate investigation files.

Q: *Does the requirement that a public employee's salary be open for public inspection invade the employee's privacy?*

A: Since the U.S. Supreme Court decision in *Griswold v. Connecticut*[11] that protected the individual's right to privacy, there has been much litigation and legal discussion on this subject. To date, the constitutional right of privacy encompasses only matters of the individual's personal life, not how much he makes. Statutes in several states, including Connecticut and California, provide that the employment relationship is a contract. Because in those states the government is a party to the contract and all government contracts must be open to the public, the employee's salary must be open to public inspection.

Q: *Are employees of "other" local governmental units subject to the acts?*

A: The acts do not specifically mention local agencies like ABC boards, councils of governments, area mental health authorities, and water and sewer authorities. A court could possibly take the three separate acts as a cumulative statement of state policy and hold that all public personnel records are subject to the personnel records acts. Or it might restrict the acts' coverage to governmental units specifically enumerated.

Q: *What can a supervisor or former supervisor say when a prospective private employer inquires about an employee's attendance record, performance ratings, leadership, ability to get along with peers and subordinates, organizing ability, creativity, and whether the employee would be rehired?*

A: If the governmental unit has no personnel record system or if he does not know what is in the personnel file, the supervisor may respond fully with complete immunity. The supervisor in a government with a complete system of personnel records may provide only the specific information authorized and give only such other information as duties and responsibilities, which are contained in classification plans that are open to the public. If the record does not contain a separation form indicating whether the employee should be rehired, the supervisor may answer that question also.

Some attorneys for local units have directed supervisors and department heads to give out no information and to refer such requests to the personnel director. Some personnel directors have been told, "If you show anything other than what is authorized by statute, you are on your own and the governmental unit will not defend you if you are sued."

Q: *May a public employee sign a release or waiver and have supervisory references and records of sick leave and performance appraisal mailed or phoned to prospective employers or academic institutions?*

A: Some units of government mail such information to prospective employers as a convenience and service to their employees when the employee signs a form designating the prospective employer or institution as his authorized agent. Some local attorneys advise that the personnel records acts require the agent to examine the file personally. They have forbidden the custodian of the personnel files to honor a release or waiver. This confused situation astounds some private personnel officers, who no longer provide information to public employers that do not reciprocate. The unavailability of information from his file hurts the conscientious employee more than the marginal worker. Employers are disinclined to hire employees whose previous satisfactory performance cannot be verified. The closing of personnel records gives the unsatisfactory employee new opportunities. Telephone and the mails are the usual method of checking references. Visiting previous employers and personally reading the employment record of every applicant would be prohibitively costly and time-consuming. Some candidates for employment themselves photo-copy portions of their personnel record and mail the copy to the prospective employer; however, materials received from employees carry less weight than information received directly from a present or past employer.

Q: *Should state law prohibit the use of public personnel files to collect delinquent student loans or personal property taxes or to assist in a criminal prosecution?*

A: The prohibition in North Carolina's public personnel records acts may be unique. Personnel records are customarily open to other public officials who need the information to perform their official duties.

10. N.C.A.G. letter to Henry Underhill (November 4, 1977).
11. 381 U.S. 479 (1965).

Cooperation and united effort in enforcing state laws is usually considered good practice.

Q: *How can a supervisor or department head refute false information reported by an employee to the press?*

A: Before 1978 both the state and local government personnel records acts prevented a supervisor from providing information to the press and the public about closed disciplinary actions. While an employee could be telling reporters of the great injustices the governmental unit was perpetrating against him, the public official could only report that the employee was or had been a public employee and the date of the most recent change in his status. As we have seen, the Secretary of Crime Control and Public Safety's frustration with this situation caused him to seek amendment of the state personnel records law. Since 1978, state department heads have been able to use their judgment about opening a particular file. The original provisions still apply to the county and municipal records acts.

Q: *Do department heads have too much discretion in deciding whether a governmental official truly needs to see an employee's record in pursuit of his agency's proper functions?*

A: The requirement that the decision be made at the highest (departmental head) level has served to discourage requests. Ostensibly it also assures that care will be taken to determine the legitimacy of the function. However, a department head may delegate authority for the decision to a lower-level employee. Some agencies may have not received information they needed because they would not carry the request to the highest level.

Q: *Should a General Assembly member be able to see any employee's personnel file when he is not a member of a committee that is considering legislation to which the file is relevant?*

A: Practice in the federal government and several states restricts the legislator's access to personnel records relevant to matters before the legislative body. The Attorney General advises that a North Carolina legislator need not belong to a specific committee of the General Assembly to gain access to otherwise confidential state personnel information.[12]

Q: *Can personnel information be released for research, historical, or educational purposes?*

A: The North Carolina local acts contains no special waiver for research purposes. Some states have such a waiver if the data can be depersonalized and released in a form that will not violate individual privacy. The 1977 amendment to the state act provided that certain personnel records are available ten years after an employee is separated.

12. N.C.A.G. letter to John T. Henley (January 2, 1979).

THE 1975 NORTH CAROLINA public personnel records were a departure from previous practice, and they may rate higher on protecting the individual's right to privacy than on protecting the public's right to know and management's right to manage.[13] The 1977 and 1978 amendments to the state act attempted to clarify the act's provisions and to permit state officials to defend themselves in employee dismissal cases by opening personnel files to the public.

Five years of experience under the acts reveal some confusion, some overreaction, and some questions. If the General Assembly should decide to take another look at the personnel records acts, the following concerns may merit attention.

First, does the phrase "wherever located and whatever form" in the definition of personnel file make the state act broader than necessary, and is that breadth desirable? A review of other states' acts suggests that North Carolina defines personnel records more broadly than most if not all other states. The Federal Privacy Act and the acts of a number of states (California, Connecticut, Michigan, and Oregon) close to employees test questions and answers, scoring keys, and other examination instruments used solely to determine individual qualifications for appointment or promotion when the disclosure will compromise the objectivity or fairness of the testing or examination process. Other states' acts also have closed notes, preliminary drafts, and internal communications to the employee and the public.

Second, does the 1978 amendment to the state act give the department secretaries too much discretion in releasing information? Might the interests of administrators, employees, and the public be better protected by requiring that final appeal hearings before department heads or secretaries, administrators, and personnel boards be open to the public in employee disciplinary cases? Should the local acts be amended to include such a provision? The local acts now place an administrator in an untenable position by effectively muzzling him and preventing him from releasing the facts in disciplinary cases.

Third, should the personnel records acts be clarified in order that local government employees of specific agencies (other than counties and municipalities) may know whether they are covered by the personnel records acts?

Fourth, should the local government acts be amended to cover the records of applicants and former employees?

Fifth, should public employees who

13. The Report of the Privacy Protection Study Commission suggested eight principles of a privacy act. *Personal Privacy in an Information Society* (1977), pp. 501-2.

are seeking employment in the private sector or admission to educational institutions and wish to have their personnel files opened to telephone inquiries be permitted to do so by signing a waiver?

Sixth, should public employees' personnel files be available to state and local officials in collecting delinquent student loans and personal property taxes and in criminal prosecutions? The provisions of the public personnel records acts that keep the files closed for these purposes seem counter to the General Assembly's action in adopting Chapter 864 of the 1979 Session Laws. This act provides that state, public school, and community college employees must repay money owed the state as a condition of continuing employment. Two conflicting questions pose the issue: (1) Should public employees who carry out and enforce the law be aided and abetted in violating state and local laws? (2) Should public employees be held to a higher standard of ethics than private employees?

Seventh, should a legislator be able to see the contents of every state employee's personnel file, or should his access be restricted to personnel records relevant to legislation before the General Assembly?

Finally, does the criminal penalty for violating the personnel records laws place too great a burden on public officials? Many gray areas must be confronted in defining whether certain records are public, and good-faith legal opinions sometimes turn out to be wrong. Several alternatives to the present penalties have been considered:[14] (1) requiring a hearing within ten days after a request for access to records is denied, (2) providing for a civil penalty rather than a criminal penalty, and (3) making any penalty discretionary and only for willful and malicious behavior. □

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an end to the exemption when prices make it no longer necessary.

In addition to this partial exemption for gasohol, the committee recommended that ethanol that will be used as fuel by the small-scale distiller be fully exempt from the motor fuels tax. Like the investment tax credit, this exemption is made to encourage production. The committee realized that collecting the tax from backyard distillers would be difficult, but it was more concerned about the negative effect the tax liability may have on people who might otherwise set up a small still. The exemption not only would relieve the distillers of tax liability but would also mean that they would not have to make periodic reports to the Department of Revenue.

These exemptions from the gasoline tax have two disadvantages, which the committee considered. Any tax incentive that significantly affects prices hides the true cost of production and distribution. The committee decided that encouragement of the industry was important enough to override this disadvantage.

It also recognized the effect of the exemptions on the Highway Fund, and in its early working drafts of bills it considered a ¼-cent increase in the gasoline and special-fuels taxes. The increase would have more than offset the loss caused by the exemptions. The Governor, however, opposed the tax hike, and his Blue Ribbon Study Commission on Transportation Needs and Financing asked that the proposal be dropped. The bill finally recommended to the General Assembly did not include the tax increase.

Conclusion

Motor vehicles can run on alcohol fuels, but is that advisable? Many experts are concerned that ethanol production uses more energy than it creates. New production methods are needed to relieve these concerns.

This country must recognize that alcohol fuels will have little immediate impact on its dependence on oil. For several years ethanol production will be low because there are so few large-scale distilleries, and the adverse effects that using grains for ethanol production would have on food prices will further restrict production until new technologies are developed. The legislative study committee decided, however, that alcohol fuels do hold great promise. If experience with these fuels in the next five years is positive, they will certainly be used more widely. □

How Much Crime in North Carolina?

David E. Jones

Newspaper and television reports about crime in North Carolina usually talk about sensational crimes or the latest crime statistics that show a substantial increase in reported offenses. This article takes a look at North Carolina's experience in regard to crime: Where have we come from and where are we going with respect to crime, and how reliable are the data?

CRIME is usually measured by the Crime Index established by the Uniform Crime Reports (UCR). The UCR system is maintained by the State Department of Justice's Police Information Network (PIN) and by the Federal Bureau of Investigation (FBI).[1] The UCR Crime Index reports on seven offenses: murder, rape, robbery, aggravated assault, burglary, larceny, and motor vehicle theft. Crime reported by PIN and the UCR will be referred to as "UCR crime" in this article and will include the seven index offenses.

The FBI considers the first four offenses – murder, rape, robbery, and aggravated assault – to be violent crimes because they involve personal contact between the victim and offender that may result in physical, emotional, or psychological damage. It defines the last three offenses – burglary, larceny, and motor vehicle theft – as property crimes, because they do not involve contact between victim and offender but are directed at real or personal property.

Local law enforcement agencies collect data on UCR crimes from citizens' reports and send this information to PIN, which forwards the figures to the FBI. This measurement process relies on the victim to report the crime to the local police and on the police to tabulate offenses accurately and consistently and report them to state or national authorities. In 1972, concerned about incomplete and inaccurate crime reporting by victims and police, Congress asked the Law Enforcement Assistance Administration (LEAA) to initiate a National Crime Survey (NCS).[2] This survey, which is conducted by the U.S. Census Bureau, asks a random sample of citizens whether they have been the victim of any crime during the preceding year – bypassing all law enforcement and crime-reporting agencies. As expected, this "victimization" rate has consistently been about two to three times higher than the "reported crime" rate because not all crimes are reported to police. More important, however, is the fact that the trend of victimizations shown by the National Crime Survey has not coincided with the UCR crime trend.[3] Whatever their shortcomings, these are two measurement techniques generally used to analyze crime and deviant behavior. The UCR Index crime data are considered a good measure of criminal justice system workload even if they are not a complete measure of actual crime, and they will be used in the rest of this article.

Although the FBI groups the seven UCR Index offenses into *violent* and *property* crimes, for the purposes of this article and to convey North Carolina's crime situation most accurately, UCR

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1. In 1930 the UCR Committee of the International Association of Chiefs of Police initiated a voluntary national data collection effort. That same year the Congress authorized the FBI to serve as the national clearinghouse for statistical information on crime. Since that time crime data on the UCR Crime Index offenses, which is based on uniform classification and procedures of reporting, has been obtained from law enforcement agencies throughout the country.

2. The National Crime Survey is conducted annually by the U.S. Bureau of Census for the LEAA and involves interviewing 136,000 occupants of approximately 60,000 housing units, which are representative of those in the 50 states and the District of Columbia.

3. Data from the National Crime Survey indicates that there was a significant decline in robbery, residential burglary, and motor vehicle theft victimizations from 1973 to 1978. The UCR data, in contrast, indicates an increase in those offenses during that period. This is particularly true for residential burglary, which increased by over 27 per cent according to the UCR data. There is a large disparity in the two trends, but it is very difficult to say that one indicator is better or more accurate than the other. There are many deficiencies in the NCS – like underreporting of assaults and certain personal thefts – and much bias, which is not well understood yet. The important thing to remember is that the actual victimization and subsequent reporting of such to the police are two separate and distinct phenomenon. NCS data deals with the former, and UCR data with the latter; the data are not – and should not be – comparable. See National Academy of Sciences, *Surveying Crime* (Washington, D.C.: 1976), p. 135.

crimes can better be divided into these two groups: (1) *aggressive crimes*, which include murder, rape, and aggravated assault; and (2) *material crimes*, which include robbery, burglary, larceny, and motor vehicle theft.[4]

ON THE BASIS of these definitions, we see that North Carolina has had a relatively high rate of aggressive crime (see Figure 1).[5] Over the past twenty years its murder rate has been from 20 to 25 per cent above the national rate, consistently ranking among the top ten to fifteen for all the states. The surprising thing about murders in this state is that they tend to involve friends or family and they are as likely to happen in some rural areas as in most urban centers. In 1979 the murder rate in Franklin County (population 28,100) was twice as high as Mecklenburg County's. During 1978 in over 70 per cent of all North Carolina murders the victim and the offender were acquaintances, friends, or family. Only 7 per cent of the murders occurred during the perpetration of another felony such as rape, robbery, or burglary.

North Carolina's experience with aggravated assault has been similar to its experience with murder. The two offenses are much alike except that the victim of aggravated assault survives. Rape, on the other hand, is different from murder and aggravated assault — it involves strangers about 50 per cent of the time, and its rate of occurrence is higher in urban centers than in rural areas.

Figure 1 shows how North Carolina compares with the nation in crimes of aggression for the past seven years. The starting point is 1973, when PIN began publishing North Carolina's Uniform Crime Reports. North Carolina's aggressive crime rate has consistently been higher than the nation's rate, but the national rate is catching up. Before long the state's aggressive crime rate may well be below the national rate. The South has had a high rate of aggressive crime for the last 20 years. Nearly all southern states have higher rates of murder, rape, and aggravated assault than the national average. Of the ten states with higher murder rates than North Carolina's during 1978, seven were in the South. Many articles and books have been written about the "violent" southern culture with different — and often conflicting — explanations. Perhaps the South's agrarian society places a high value on firearms, which can be used against a friend or family member in the heat of passion.[6]

Figure 1

Aggressive Crime Rate Per 100,000 Population for North Carolina and the Nation

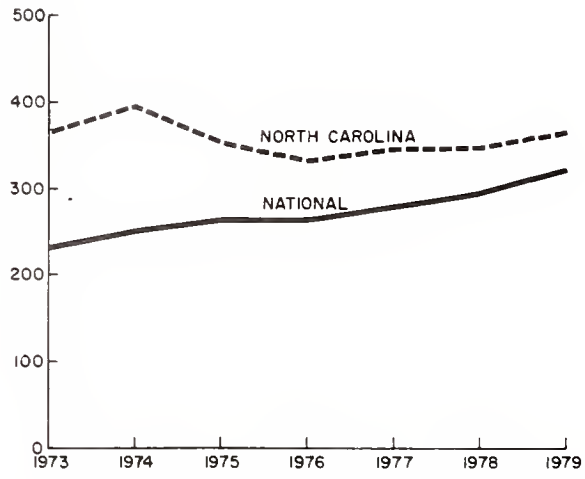
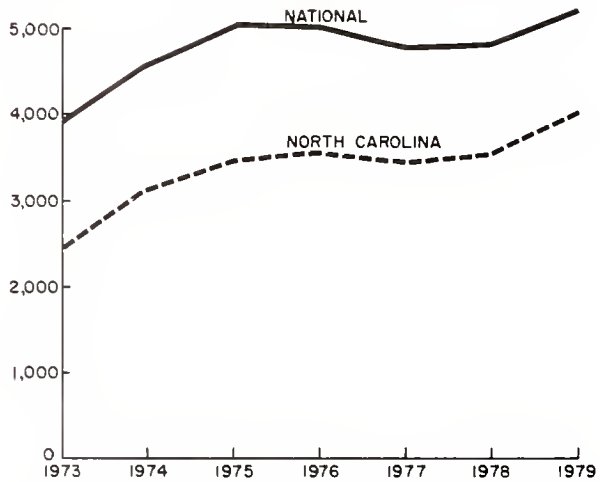


Figure 2

Material Crime Rate Per 100,000 Population for North Carolina and the Nation



4. The only difference between the traditional *violent/property* grouping and my *aggression/material* grouping is that robbery is now grouped with the property offenses. This is a more meaningful combination of the seven offenses because it separates offenses with a property or material-gain motivation from those offenses that are simply acts of aggression by one human being on another.

5. Clearly, to compare the level of reported crimes for jurisdictions of various sizes, some means must be found to control for population variance, because there is a direct correlation between the number of people and the number of crimes reported in a given area. The device used multiplies the per capita incidence rate for a jurisdiction (number of reported crimes divided by population) by a constant, usually 100,000. Hence in this article, crime rates will be expressed in terms of incidence per 100,000.

6. The use of a firearm is particularly important in defining aggravated assault, which

Table 1
UCR Crimes in North Carolina

	1978	1979	% Change
Murder	594	587	-1.2%
Rape	1,006	1,122	+11.5
Aggravated assault	17,510	18,622	+ 6.4
Robbery	3,646	4,277	+17.3
Burglary	65,088	71,562	+ 9.9
Larceny	115,397	132,448	+14.8
Motor vehicle theft	11,108	12,352	+11.2
Aggressive	19,110	20,331	+ 6.4
Material	195,239	220,639	+13.0
Total UCR Crime Index	214,349	240,970	+12.4%

Table 2
Estimated Percentage Change in a State's Crime Rate Because of a 10 Per Cent Increase in Socioeconomic, Demographic, or System-Performance Variables

A 10 Per Cent Increase in:	Results in a Short-Run Percentage Change in the Index Crime Rate of:
Youth (age 15 to 24 in state)	+13.2
Urbanization (pop. in SMSAs)	+ 8.5
Per capita income	+ 7.2
Unemployment rate	+ 1.8
Number of law enforcement employees	- 1.0
Ratio of arrests to crimes reported in the UCR	- 2.9
Ratio of prison commitments to arrests	- 2.0

Figure 2 illustrates the trend of material crime since 1973 for North Carolina and the nation as a whole, as reported in the UCR. As the graph shows, North Carolina's rate of material crimes has followed the national trend even though it has remained 20 to 40 per cent below the national rate. Material crime is much more frequent than aggressive crime. During 1979, for example, approximately 220,000 material crimes were reported in North Carolina compared with about 20,000 crimes of aggression. Material crimes tend to occur in urban areas, where there are not only more people but also more property available for theft. Since North Carolina is a predominantly rural state, it is no wonder that its material crime rate is traditionally lower than those of most other states and the nation.[7]

One trend not so readily apparent from Figure 2 is that North Carolina's material crime rate has been increasing faster than the national rate. In 1973 it was 40 per cent below the nation's rate; but by 1979 it had increased 65 per cent whereas the national rate was up by 34 per cent which means that North Carolina's material crime rate is now only 20 per cent below the national average.

We see, then, that over the past seven years North Carolina has had a relatively high rate of aggressive crimes but a low rate of material crimes; its aggressive crime rate now seems to be increasing less rapidly than that of the United States as a whole, but its material crime rate seems to be increasing more rapidly.

THERE IS SOME QUESTION about the accuracy of UCR crime trends particularly with respect to material offenses. Do UCR increases merely reflect more reporting? The answer to this question is important because of the discrepancy between the trend in UCR and the National Crime Survey data since 1973. One good way to check for reporting bias is to compare the trends of some individual offenses that are known to be highly reported with the overall indexes. Of the material offenses, the crimes of completed auto theft and commercial burglary have been highly reported (over 85 per cent and 72 per cent respectively) since the National Crime Survey began.[8] From 1973 to 1979 UCR

is defined as an attack by one person on another for the purpose of inflicting severe bodily injury and usually accompanied by the use of a weapon or other means that is likely to produce death or serious bodily harm. When a firearm is used in the assault, the offense is automatically defined as "aggravated" rather than "simple"; simple assault is not an Index offense.

7. Industrialized and affluent areas universally have higher rates of material- or property-oriented crime than of aggressive crime. The developing countries of the world tend not to have much crime of this nature. The amount of property available for theft is much lower; thus there is not only a smaller risk but also less incentive for the potential offenders. North Carolina has historically ranked at or near the bottom, compared with other states, in wages and income. Perhaps it can be said that North Carolina's reported crime pattern is analogous to that of developing countries with regard to aggressive and material crime, for similar reasons.

8. U.S. Department of Justice, *Criminal Victimization in the United States* (Washington: GPO, 1977), p. 65.

reportage of nonresidential burglary and motor vehicle theft increased by 36 per cent and 40 per cent respectively. The overall material crime rate increased by almost 65 per cent during that same period. Therefore the material crime rate increase may be inflated somewhat by more reporting of crime but not substantially above the real increase that has apparently occurred in the highly reported crimes of commercial burglary and auto theft.

Among the aggressive crimes, murder is obviously the most likely offense to be reported. From 1973 to 1979 North Carolina's murder rate declined by over 14 per cent compared with its overall aggressive crime rate, which declined by only 0.2 per cent. This comparison perhaps reflects increased reporting for rape and aggravated assault, but it also tends to support the contention that crimes of aggression have indeed declined — particularly in view of the fact that North Carolina's overall UCR crime trend is similar to the nation's as a whole, which has increased by 39 per cent since 1973.

During 1979 North Carolina recorded a substantial increase in UCR material offenses. Crimes of aggression, except for rape, did not increase significantly, and the number of reported murders declined. Table 1 shows the 1979 UCR figures reported by PIN and the change from the 1978 figures.

In 1979 PIN recorded the largest increase in the state's UCR Crime Index since 1974. However, North Carolina's crime pattern during 1979 is similar to previous years' pattern. Primarily rural areas had the highest aggressive crime rates e.g., Bladen and Lee counties. The more urban counties, such as New Hanover and Durham, recorded the highest rates of material offenses. Figure 3 indicates the counties (28) with high aggressive crime rates, and Figure 4 shows the counties (20) with high material crime rates. The label "high crime" was assigned to any county in which the number of reported crimes per 100,000 population exceeded that for the state as a whole.

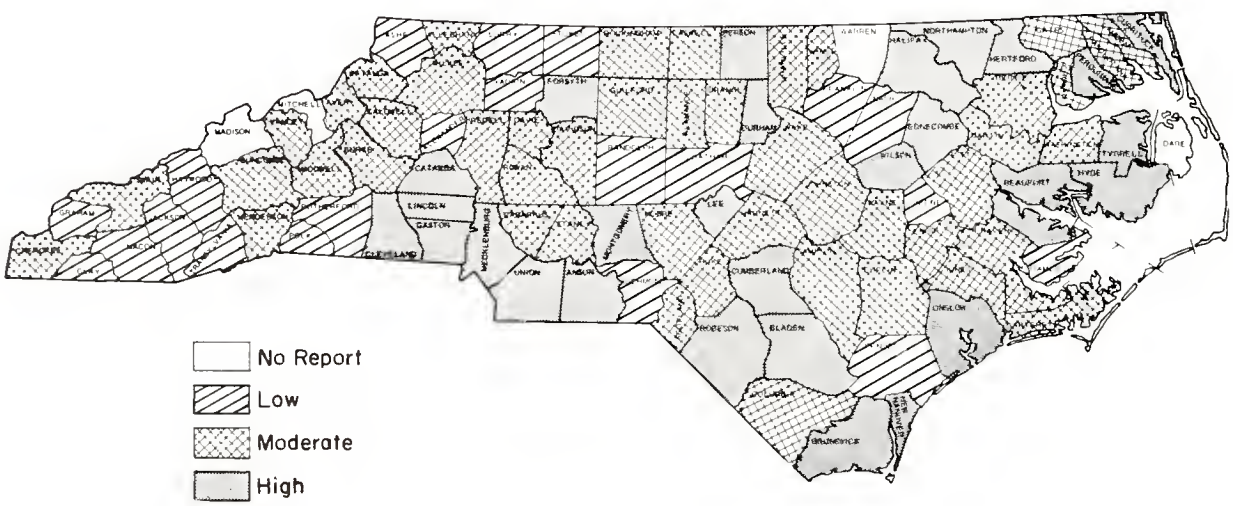
Some counties that recorded large crime increases in 1979 are predominantly rural and are not accustomed to such crime surges. For example, McDowell, Montgomery, and Northampton counties recorded increases of over 50 per cent in material offenses during 1979. During 1978 the state recorded a moderate increase of only 4 per cent in UCR offenses, but rural Nash, Sampson, Davie, and Franklin counties recorded increases of over 25 per cent. These increases were primarily in material crimes, which had occurred at a very low rate in those jurisdictions. Possible explanations of this increase in reported crime are that: (1) The police receive more reports from citizens and are keeping better records and making more reports to PIN. (2) More people are filing insurance claims as the cost of replacing stolen items increases; filing usually requires reporting the crime to the police. (3) More rapes are being reported as a result of changes in the law concerning cross-examination of rape victims and the growth of rape crisis centers.[9]

THE RISE IN UCR INDEX offenses has been accompanied by a sharp increase in prison admissions. In 1979 new admissions to North Carolina's prison system increased by over 9 per cent — 700 more people went to prison than in 1978. Of the 8,215 new admissions in 1979, 3,692 were for material crimes — an 11 per cent increase over similar admissions in 1978. Therefore, even if a considerable part of the increase in UCR crime simply reflects more reporting by and to the police, more law enforcement activity has occurred that brought more

9. According to the National Crime Survey, only 48 per cent of all rape victims reported the crime to police in 1978. The North Carolina Council on the Status of Women places this figure at about 30 per cent in their report, *Aftermath: A Report on Sexual Assault in North Carolina* (June 1978). Since 70 per cent of rapes were not reported in the past, the increase in the number of recorded rapes in 1979 probably results from increased reporting.

Figure 3

1979 Aggressive Crime Per 100,000 Population



defendants into the criminal justice system.

WHAT ABOUT future crime trends in North Carolina? It is difficult in any crime analysis to answer this question because crime is a complex phenomenon. Most analyses deal not with individual criminal activity but with aggregate data. Statements about the causes or correlates of crime should be cautious and should be confined to the level of data used in the analysis. For example, if the number of bank robberies increases during a recession, when unemployment is high, one might conclude that those who rob banks have lost their jobs. However, this is not necessarily true — though *aggregate* unemployment has increased, most bank robbers may still be lawfully employed when they commit their crimes.

From 1970 to 1974 the National Institute of Law Enforcement and Criminal Justice conducted the National Manpower Survey of the Criminal Justice System.[10] This survey was a detailed analysis of UCR crime and the criminal justice systems in all 50 states during that five-year period. Table 2 lists the factors that the study identified as significantly related to crime, and it also shows estimates of how changes in each factor affect crime.

The crime figures used in the study were the UCR Crime Index for each state from 1970 to 1974. The total UCR Crime Index is heavily weighted toward the material or property-oriented offenses, which constitute about 90 per cent of the total. The effect of the factors identified for any particular offense may not coincide with the estimates listed above. This is especially true with respect to murder, rape, and aggravated assault. The National Manpower Survey findings can be applied to North Carolina to help show why this state has had a relatively low crime rate in the past and why it will probably record substantial increases in the future.

Youth. Many criminologists consider the percentage of population between the ages of 15 and 24 to be a key factor in the crime rate. During the late 1960s and early 1970s that percentage increased substantially in both North Carolina and the nation at large because of the post-World War II "baby boom." This surge in the youth population contributed to the significant rise in crime during the 1960s.[11] In 1960 the age group between 15 and 24 was 15.9 per cent of North Carolina's total population; in 1970 it was 19.4 per cent; and in 1980 it is 20.1 per cent. Projections by the State Department of Administration indicate that this group will begin declining in 1981; by 1985 it will be down to 17.9 per cent.[12] This drop will not be as great as the national decline because North Carolina has a high rate of net inmigration of young people who are seeking military, educational, and job opportunities.

Urbanization. In the National Manpower Survey, "urbanization" was defined as the percentage of a state's population who live in a Standard Metropolitan Statistical Area (SMSA). The state's urban population (i.e., the population of its SMSAs) is expected to increase faster than the nonurban population through this decade. By 1985 North Carolina's urban population will have increased by approximately 8 per cent and will represent over 46 per cent of the state's total population. Some of the more significant increases are projected for counties like Brunswick, Currituck,

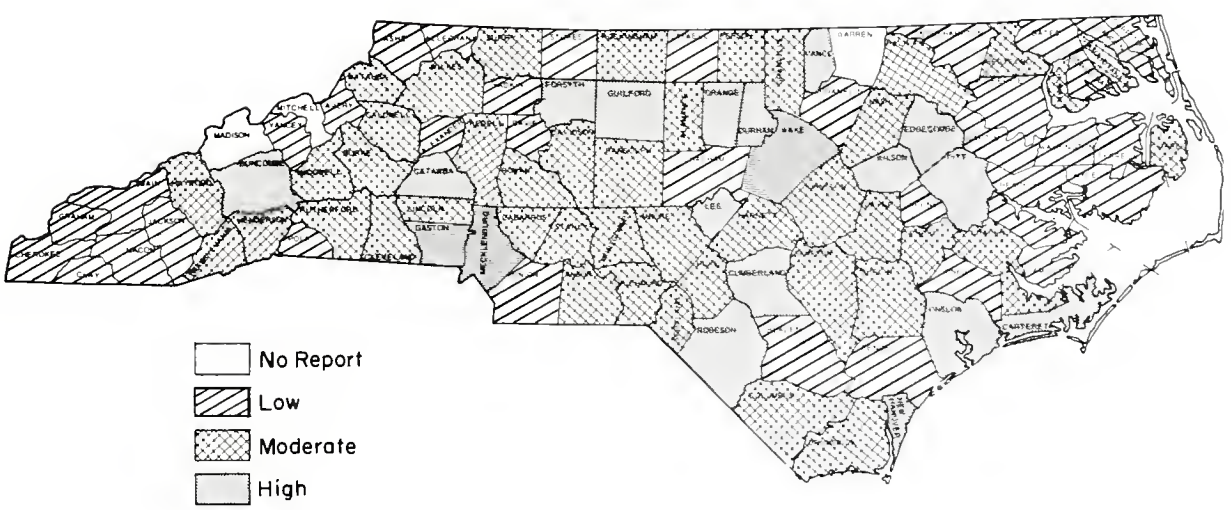
10. U.S. Department of Justice, National Institute of Law Enforcement and Criminal Justice, LEAA, *Criminal Justice Manpower Planning, The National Manpower Survey of the Criminal Justice System* 6 (Washington: August 1978).

11. "The Lessons of Corinth, Sparta, and Athens," a speech given by Charles M. Friel of the Criminal Justice Center, Sam Houston State University, to the North Carolina Governor's Crime Commission, September 1979.

12. N.C. Department of Administration, Division of State Budget and Management, *North Carolina Population Projections* (Raleigh: 1978), p. 40.

Figure 4

1979 Material Crime Per 100,000 Population



Stokes, and Yadkin that, although technically part of SMSAs, are now sparsely populated.

Per capita income. The National Manpower Survey finding that increases in per capita income and increases in UCR crime go hand in hand is difficult to understand—one might expect that crime would go down as affluence goes up. The nature of per capita income helps to explain why crime does not decline during economic good times. Per capita income is the total income of a given area—including wages, salaries, interest, dividends, welfare and social security payments, etc.—divided by the total population. It is an average income figure that generally indicates the level of affluence in the community. But the people do not all receive this average amount of income; some receive more, some receive less, and some—for example, children—receive none at all directly. In areas where per capita income increases rapidly, usually a minority of the population receives most of the increase, though the average rises for the whole population. Thus rapid increases in per capita income may widen the disparity between wealth and poverty in a community and also increase the amount of property available for stealing.

Rockingham County provides a good example of this. In 1976 a brewing company built a plant in Eden. The plant brought jobs with starting salaries of more than $23,000 a year—twice the amount that was paid by the town's next largest employer. Eden changed significantly with the substantial influx of capital that was needed to build and operate the brewery.[13] In 1978 Rockingham County's per capita income increased by 14.7 per cent; in 1979 its UCR material crime increased by almost 16 per cent.

In the ten counties that recorded the highest increases in material crime during 1979 (averaging 57 per cent), the per capita income increased an average of 11 per cent during 1978. The forecast of growth and development throughout North Carolina during the 1980s makes the apparent relationship of per capita income to material crime a disturbing concern.

13. "Growing Pains, North Carolina Town Has Mixed Feelings About New Industry," *Wall Street Journal*, June 12, 1980, p.1.

Unemployment. The effect of unemployment on UCR crime is not so great as the effect of other socioeconomic and demographic factors. One reason is that many areas that have high unemployment are rural. This is particularly true in this state: the two North Carolina counties with the highest unemployment rate in 1978 were Tyrrell and Hoke. Since rural areas do not have as much property at risk, even during periods of high unemployment crime will not increase significantly in those areas—a situation that may not prevail in more affluent urban areas, where more property is available for theft.[14]

Law enforcement employees. The number of its law enforcement personnel bears little relationship to a state's UCR Index crime rate, and that is not surprising. Only a small portion of police activity is related to crime prevention. In general, if a police department is increased without focusing its activity on selected offenses—burglary or robbery, for example—the impact on crime will be small.

Ratio of arrests and incarcerations to UCR crime. The survey found that two other criminal justice factors have significant negative relationships with UCR crime rates: (1) the ratio of arrests to crimes, which is an estimate of the probability that a reported crime will result in an arrest; and (2) the ratio of prison commitments to arrests, which is an estimate of the probability that an apprehended offender will be sentenced to prison. These two ratios have a logical relationship to the crime rate—apprehending and imprisoning offenders would reasonably be expected to reduce criminal activity by incapacitating offenders and by deterring potential offenders. The survey's finding thus supports the idea that arrest and prosecution activity by the criminal justice system can reduce crime. Still, it should be noted that the relationship of arrests and incarcerations to the crime rate is less than that of other factors beyond the control of the criminal justice system: A 10 per cent increase in the youth population or in urbanization may increase crime much more than a 10 per cent increase in the arrests-to-crimes ratio or the incarcerations-to-arrests ratio may reduce it.

14. M. Harvey Brenner of Johns Hopkins University estimates that each percentage point rise in unemployment results in an increase of 8.7 per cent in narcotics arrests, a 5.7 per cent rise in robberies, and 3.8 per cent rise in homicides. See "Black Mood, in Big-City Ghettos, Life Is Often Worse Than in the '60's Tumult," *Wall Street Journal*, May 23, 1980, p. 1.

IN THE PAST North Carolina has had a crime pattern that is similar to the experience of other predominantly rural southern states—a pattern that includes high rates of murder, rape, and aggravated assault, in which often the victim is a friend, relative, or acquaintance of the offender. These crimes of aggression are as likely to occur in rural areas as in urban centers. At the same time, North Carolina has had relatively low rates of material crime—robbery, burglary, larceny, and motor vehicle theft. (Material crimes have tended to occur in the major urban centers and transient areas like tourist spots and military bases.) But these patterns seem to be changing. North Carolina's aggressive crime rate is increasing less rapidly than the national rate, which appears to be overtaking the state's rate. At the same time its material crime rate is moving up to the national average. The material crime rate in the last few years has increased faster in rural areas than in urban centers—a trend that will probably continue in the near future and place an increasing burden on small law enforcement agencies.

Last year UCR Index crime climbed significantly in North Carolina—over 12 per cent. Much of this increase occurred outside of major urban centers (the five largest cities recorded an increase of only 8½ per cent). UCR Index offenses increased nationally also, but not as much as in North Carolina or other southern states. Preliminary reports indicate that crime has continued to increase during 1980.

To prevent an increase of crime, the state must improve the efficiency and effectiveness of its criminal justice system—particularly in rural areas. One way to do so may be to make arrests and to incarcerate more selectively, because studies have indicated that a small minority of offenders account for a disproportionately large number of offenses. If these individuals can be identified, prosecuted vigorously, and incapacitated through imprisonment, crime can be reduced. However, for this approach to be effective, the potential habitual offender must be identified and incapacitated early in that person's

"career," perhaps in the late teens. Such identification is not now possible because fingerprints are not made and submitted to the State Bureau of Investigation consistently and in a timely fashion.[15]

As the National Manpower Survey findings suggest, socioeconomic and demographic factors have a much greater impact on crime and deviant behavior than the criminal justice system does. Therefore we should also seek to counteract the contribution of those factors — youthful population, urbanization, and per capita income — on reported crime. Such an achievement is, of course, problematic because it involves our whole society, culture, and economic system. As North Carolina moves into the rapid economic growth predicted for the 1980s, perhaps its greatest challenge may be to keep its crime rate low without having a large increase in its prison population. □

15. North Carolina law does not require individuals to be fingerprinted when arrested or convicted. The statutes *allow* fingerprinting; but without a legal mandate, consistent submission of arrest and disposition fingerprints is virtually impossible. To be entered in the state's criminal history record file (manual or automated), any arrest, disposition, or custodial record must be substantiated by fingerprint.

North Carolina Courts Center Established

THE INSTITUTE OF GOVERNMENT, aided by a grant from the Governor's Crime Commission, has initiated the North Carolina Courts Center. The Center's purpose is to expand the Institute's professional educational services to judges, district attorneys, public defenders, magistrates, and other court officials. It is an integral part of the Institute, staffed by Institute faculty. C. E. Hinsdale, an assistant director of the Institute, is its coordinator.

Last year the Judicial Planning Committee, an adjunct of the Governor's Crime Commission, surveyed several hundred North Carolina court officials to determine the justice system's most pressing needs. Those officials gave highest priority to the need for continued training and education for judicial personnel. Although the Institute has been conducting educational programs for these officials for many years, the number of full-time judicial personnel and the demand for in-service training has been increasing rapidly. In response to this survey and Governor James B. Hunt's encouragement, the Institute determined to redouble its efforts in this field. The Courts Center is a direct result.

The grant will enable the Institute to add professional and supporting personnel to its staff and to increase funds for publications and audiovisual materials. Additional schools in specialized areas of the law will also be provided as the need arises, and experts not locally available for specific topics can be brought in at Courts Center expense. Approximately $160,000 was made available to get these expanded services under way over a 15-month period, starting last April. State-appropriated funds are being sought to continue the expanded level of services when the grant expires in 1981.

The Administrative Office of the Courts, the administrative arm of the Judicial Department, will continue to pay for travel of all court officials to attend in-state schools and conferences sponsored by the Institute and will support their attendance at out-of-state schools when needed.

Further extending its educational efforts toward court officials, the Institute has contracted with the Administrative Office of the Courts to write a manual for the use by clerks of superior court and their staffs. This book will be prepared over a two-year period and will include chapters on such major topics as probate and administration of estates, civil and special proceedings, and criminal procedure. When published, it will serve as a textbook for orientation of new clerks. James C. Drennan of the Institute's staff is in charge of this project.

—CEH

Medical Care in North Carolina Jails

Nancy Taylor and Carleen Massey

NORTH CAROLINA LAW makes sheriffs and jailers responsible for seeing that each prisoner receives adequate medical care. The statutes require each county that operates a jail to pay for "emergency medical services" and to develop a "plan" for medical care to "protect the health and welfare" of prisoners, to avoid the spread of contagious diseases, and to provide for detecting, examining, and treating prisoners who are infected with tuberculosis or venereal disease.[1] This plan must be developed in consultation with the sheriff, the county physician, the district health director, and the local medical society and must finally be approved by the local health director.

Although North Carolina law emphasizes emergency medical care, the jailer, the sheriff, and the county will be better protected by also providing regular (non-emergency) care. This approach may actually reduce total medical care cost and will not usually increase it.

In 1975 the American Medical Association (AMA) received a grant from the federal Law Enforcement Assistance Administration (LEAA) to initiate a program for improving health care services in jails. The major accomplishments of the program include: developing alternate approaches to jail health services ("model systems" such as contract physician/staff nurse or county health physician/county health nurse), establishing a clearinghouse to gather and dispense information about jail health care (18 AMA publications have been sent to North Carolina's project jails), developing and implementing the *AMA Standards for Health Services in Jails*, and establishing an accreditation program for medical services in jails.

The authors are registered nurses. Ms. Taylor was formerly with the North Carolina Medical Society as the State Project Coordinator for the AMA jail health project. Ms. Massey now holds this position and provides technical assistance to participating jails in this state.

1. N.C. GEN. STAT. §§ 153A-224(b), -225.

Improving health care standards

In 1972 the AMA conducted a national survey to evaluate medical care in jails. The 1,159 questionnaires that were returned revealed a gross inadequacy of health and medical services throughout the country. In addition, some successful lawsuits in behalf of prisoners focused national attention on the deplorable conditions in jails: (1) the only medical services in 66 per cent of the jails were first-aid facilities, (2) physicians were available on a regularly scheduled basis in only 38 per cent of the jails, (3) no specific physician was designated "on call" to provide medical care in 32 per cent of the jails, and (4) health care delivery in jails consisted mainly of treatment in emergency rooms and physician's offices for acute and emergency cases.

AMA Standards. Federal courts have held that adequate medical care in jails is required by the Eighth and Fourteenth amendments to the United States Constitution. Therefore medical care must be considered an integral part of total jail administration. An organized, efficient medical care system in jails is possible through close cooperation among the medical staff, jail personnel, and county administration. The most effective means for implementing a good system is to adapt the AMA health care standards, which are acknowledged criteria for measuring the quality and quantity of health care delivery systems. The *AMA Standards* were developed by task forces that were approved by the AMA Board of Trustees and worked out under the supervision of the AMA Advisory Committee to Improve Medical Care and Health Services in Correctional Institutions. Several hundred sheriffs, jail administrators, and health care providers made substantial contributions to the standards, which were subjected later to testing by pilot-project jails and found to be realistic and achievable. They define "adequate medical care" as required by federal and state courts.

The first edition of the *AMA Standards* addressed 42 issues and was approved by the National Sheriffs

Association, the American Correctional Association, the Commission on Accreditation for Corrections, and the AMA House of Delegates. The most recent edition (69 standards) includes detailed criteria for care of chemical dependency and psychiatric problems. Chemical dependency refers to the condition of individuals who are physiologically and/or psychologically dependent on alcohol, opium derivatives and synthetic drugs with morphine-like properties (opioids), stimulants, and depressants. These additional standards are extremely important, since national criminal justice service agencies report that one of their major problems is how to deal with mentally ill and chemically dependent people who are detained in jail.

These *AMA Standards* emphasize bringing medical resources into the jail for routine care and transferring inmates with extraordinary needs. They address the following aspects of medical, psychiatric, dental care, and health services:

1. Administrative — designating a health authority to oversee medical care services.
2. Personnel — providing an adequate number of health-trained correctional officers.
3. Care and treatment — providing regularly scheduled sick call and health appraisals on all inmates.
4. Pharmaceuticals — adhering to state and federal laws and the regulations and requirements for controlling medication; providing procedures for dispensing, administering, and distributing medication.
5. Health records — assuring that appropriate form, format, storage, transfer, and confidentiality of health records is maintained.
6. Medical legal issues — assuring that an inmate's legal right to informed consent and right to refuse treatment is honored.

Ninety jails, ranging in size from small to large, have been accredited under the *AMA Standards*. The majority are small and medium sized, with average daily populations ranging from 15 to 1,300 inmates. To achieve two-year AMA accreditation, jails must comply with 23 "essential" standards and 85 per cent of the remaining applicable standards. One-year accreditation requires that jails comply with 23 "essential" standards and 70 per cent of the remaining applicable standards. The accreditation is carried out by a trained survey team composed of the state project coordinator, a physician, and AMA representatives. The team makes an on-site visit and conducts a comprehensive survey to measure compliance with each standard; it also interviews inmates, the "responsible" physician, the jail nurse, the dietitian, and others. This survey is returned to the AMA for staff review and analysis; an Accreditation Advisory Group then conducts its review and gives a final recommendation. The AMA sends the jail a statement of the results. Once accredited, the jail must continue to comply with the standards to maintain that accreditation. The primary benefit of accreditation to a jail is the professional and public recognition of good performance — i.e., the jail's health care delivery system is found by organized medicine to be "adequate" in terms of the medical care and health services it offers.

Results of implementing AMA Standards. Implementing the *AMA Standards* can reduce ultimate health care costs. A sample study of ten jails in a northeastern state, a mid-Atlantic state, and two midwestern states reveals that one-third were spending less money overall by meeting the standards than before the implementation, one-third were spending more, and one-third were spending the same amount for health care.

Providing regular "sick call" is often no more expensive than the cost of an emergency room or physician's office visit. Sick call decreases the manpower hours for transportation and treatment; it also decreases the risk of escape by the inmate. Costs also have been controlled by using existing resources — such as county health departments — to provide nursing services, which are under the supervision of a physician, for the majority of sick-call complaints. Early identification and treatment of health problems (through "receiving screening" and "health appraisals") also helps avoid extraordinary expenditures.

Compliance with the standards may imply additional health care costs, but not all standards require dollar outlays to assure conformity. Whether implementing the *AMA Standards* will result in additional costs can be determined only on a jail-by-jail basis when all aspects of health care costs, direct and indirect, have been taken into account. While the LEAA provides funding for the AMA and state medical society to administer the program, the jails must absorb any costs for whatever changes they make in their health care delivery system.

North Carolina's participation

The North Carolina Medical Society has participated in the Jail Health Project since 1978. Twenty-two other state medical societies also participate in the program. The fact that North Carolina was selected is not a reflection on the quality of jail health care in this state but rather reflects the state medical society's *interest* in this matter. The society has one full-time staff member, the State Project Coordinator, whose responsibilities include providing technical assistance for implementing *AMA Standards* to the jails that are included in this project. This staff member is in close touch with the AMA, makes periodic reports of progress, and receives AMA technical expertise. The state medical society has a Jail Project Advisory Committee composed of physicians and consultants who have a special interest in jail health care. This committee serves in an advisory capacity to the State Project Coordinator and oversees the project

in North Carolina. The ten participating jails are in Buncombe, Cabarrus, Cumberland, Edgecombe, Harnett, New Hanover, Orange, Pitt, Sampson, and Wake counties. They were selected on the basis of their size and geographic location, the status of their health care delivery, and their interest in the project. The jails receive technical help in establishing a systematic, efficient system for adequate medical care delivery.

When a jail begins participating in the project, the sheriff signs a written agreement with a health authority that will be responsible for health care services within the jail. In most cases the health authority is a physician; if the position is filled by someone other than a physician the *AMA Standards* specify that a physician must be on call who will be responsible for making final judgments about diagnoses and treatment. The state medical society, through the county medical societies, has helped to find such a physician for those jails that have had difficulty in finding one. (It should be noted that having an available physician does not insulate the jail staff and the sheriff from inclusion in a health-related lawsuit.)

Many jails in North Carolina do not have written rules of procedure nor maintain adequate health records. Even though jails may have established procedures, the absence of formal rules causes lack of continuity in carrying out policies and procedures. One of the AMA "essential" standards requires a manual of written policies and defined procedures. The project jails are in the process of adopting a medical policy and procedure manual developed by the Georgia Medical Society to meet their own needs. Using AMA sample forms, these jails are developing a uniform system of health recordation, which must be accurate and confidential. Basic information in these records includes: the completed receiving screening form (see below); health appraisal data forms; all findings, diagnoses, treatments, dispositions; prescribed medications and their administration; laboratory, X-ray, and diagnostic studies; signature and title of documentor; consent and refusal forms; release-of-information forms; place, date, and time of health encounters; discharge summary of hospitalizations; and reports on dental, psychiatric, and other treatment.

Additional medical education for jailers is another significant need. The *AMA Standards* require that at a minimum inmates always be within sight or sound of at least one health-trained correctional officer who has training at least equivalent to a basic first-aid course. At least one officer per shift should be trained in basic cardiopulmonary resuscitation (CPR) and in recognizing common illnesses of inmates. The *AMA Standards* also require that appropriate jail personnel receive training in administering medications, in recognizing mental deficiency and chemical dependency, and in dealing with health emergencies. Jailers can receive first-aid and CPR training locally through the American Red Cross, community colleges, medical schools, and the American Heart Association.

To help train jailers in health care, the North Carolina Medical Society sponsored a two-day LEAA-funded training session in Raleigh on April 8-9, 1980. Individual sessions focused on receiving screening; recognizing signs of ill health and emergencies; administering medications; following medical orders; dealing with mental illness and deficiency, alcoholism and drug abuse; and legal aspects of medical care in jails. Each of the 40 jailers who attended the training session received a manual on these subjects and also a certificate of achievement.

Historically jails have been a neglected part of the criminal justice system. Over 200,000 people are in jails in this country. The way these inmates are treated in jail may affect their attitudes and perceptions of society when they are released. One simple procedure that may have a positive effect on both inmates and jail personnel is "receiving screening." Receiving screening is an organized way to observe and interview each new inmate when he or she is booked. The booking officer completes the screening form (page 41) by observing the inmate and asking him questions about his health. The following are some of the possible benefits of receiving screening:

1. Identifying an inmate's need for immediate medical attention — e.g., head injury, chest pain that might indicate a cardiac condition, etc.
2. Identifying a chronic disease that requires ongoing treatment — e.g., diabetes mellitus, epilepsy, etc.
3. Providing an opportunity to observe signs and symptoms of alcohol or drug abuse, overdose, or withdrawal.
4. Protecting against legal liability (may identify an injury that an inmate received before he was confined to jail that he might later claim he received in the jail).
5. Identifying a communicable disease, such as tuberculosis, and taking measures to prevent the disease from spreading to staff and other inmates.
6. Providing an opportunity to observe a mental or emotional condition, such as suicidal tendency.
7. Showing the jail's interest in assuring inmates' well-being.
8. Indicating to the inmate that someone cares about him and thus creating a more positive jail atmosphere.

If an abnormality is detected during the receiving screening process, the jail staff should refer the inmate to the appropriate health care personnel for follow-up.

The North Carolina Medical Society provides technical help to the jails that are participating in the jail health project in obtaining appropriate health care personnel to conduct health appraisals and sick call in the jail. The *AMA Standards* require that an appraisal be

Receiving Screening Form

DATE_____

NAME_____ SEX_____ D.O.B._____ TIME_____

INMATE NO._____ OFFICER OR PHYSICIAN_____

Booking Officer's Visual Opinion

1. Is the inmate conscious?	YES	NO
2. Does the new inmate have obvious pain or bleeding or other symptoms suggesting need for emergency service?	YES	NO
3. Are there visible signs of trauma or illness requiring immediate emergency or doctor's care?	YES	NO
4. Is there obvious fever, swollen lymph nodes, jaundice or other evidence of infection which might spread through the jail?	YES	NO
5. Is the skin in good condition and free of vermin?	YES	NO
6. Does the inmate appear to be under the influence of alcohol?	YES	NO
7. Does the inmate appear to be under the influence of barbiturates, heroin or any other drugs?	YES	NO
8. Are there any visible signs of alcohol/drug withdrawal symptoms?	YES	NO
9. Does the inmate's behavior suggest the risk of suicide?	YES	NO
10. Does the inmate's behavior suggest the risk of assault to staff or other inmates?	YES	NO
11. Is the inmate carrying medication or does the inmate report being on medication which should be continuously administered or available?	YES	NO

Officer-Inmate Questionnaire

12. Are you presently taking medication for diabetes, heart disease, seizures, arthritis, asthma, ulcers, high blood pressure, or psychiatric disorder? Circle condition.	YES	NO
13. Do you have a special diet prescribed by a physician? Type_____	YES	NO
14. Do you have history of venereal disease or abnormal discharge?	YES	NO
15. Have you *recently* been hospitalized or recently seen a medical or psychiatric doctor for any illness?	YES	NO
16. Are you allergic to any medication?	YES	NO
17. Have you fainted recently or had a recent head injury?	YES	NO
18. Do you have epilepsy?	YES	NO
19. Do you have a history of tuberculosis?	YES	NO
20. Do you have diabetes?	YES	NO
21. Do you have hepatitis?	YES	NO
22. If female, are you pregnant?	YES	NO
23. Are you currently on birth control pills?	YES	NO
24. Have you recently delivered?	YES	NO
25. Do you have a painful dental condition?	YES	NO
26. Do you have any other medical problem we should know about?	YES	NO

REMARKS:

1. _____

2. _____

3. _____

4. _____

(A copy of this form is included in the inmate's medical record)

performed on each inmate before the fourteenth day of his confinement. Health appraisal data include health history, physical examination, and screening for communicable disease. For those inmates who have received a health appraisal within 90 days, a new appraisal is required only if the physician or his designate feels it is necessary.

The state society has enlisted the assistance of local medical societies, health departments, and various community and statewide agencies to help the jails upgrade their medical care delivery systems. Some positive effects from this program have been evident, and the jails have shown considerable interest in improving the health care of inmates. The chief jailer of one of the North Carolina participating jails commented:

> I personally feel the AMA Project is fulfilling its goals by upgrading medical care within the jail and detention facilities. Standards of training for officers has improved, which permits the officers to have a better understanding of the medical needs of the inmate. This training is a priority of the Medical Society staff in Raleigh, which reflects their concern for the health delivery system within the jail and detention facility. The professional skills of the staff, in respect to better health care for inmates have enhanced our ability to assure the inmate receives adequate medical treatment during incarceration in the Cumberland County Jail. Close cooperation and coordinated efforts between the State Society staff and the jail facility will assure the inmate of continued adequate medical care during incarceration.

According to the AMA Jail Health Program director, North Carolina's progress in assuring adequate health care in jail has been good. Health care for inmates has improved overall, and some jails are working toward accreditation. The state medical society will continue to provide technical assistance to ten jails in the state. When a jail becomes accredited or makes sufficient progress so that the society's assistance is no longer needed, the society will solicit new jails as participants. As time permits, it will also provide technical assistance on a limited basis to nonparticipating jails. □

REFERENCES

American Medical Association. *Standards for Health Services in Jails.* Chicago, Ill.: AMA, July 1979.

_____. *Medical Care in U.S. Jails.* Chicago, Ill.: AMA, 1972.

Anno, B. Jaye, and Lang, Allen H. *Final Evaluation Report of the American Medical Association's Program to Improve Health Care in Jails (Year Three).* Silver Springs, Md.: B. Jaye Anno Assoc., June 1979.

_____. *Ten Jail Case Study and Analysis.* Silver Spring, Md.: B. Jaye Anno Assoc., June 1979.

Clarke, Stevens H. *North Carolina Statutes Pertaining to Jails.* Chapel Hill, N.C.: Institute of Government, 1978.

Department of Governmental Affairs, University of Wisconsin Extension. *Training of Jailers in Receiving Screening and Health Education Manual for Students.* Madison, Wis.: Univ. of Wis. Extension, March 1978.

The Decision to Parole

Rae McNamara
and
Michael R. Smith

PAROLE IS THE SUPERVISED, conditional release of a convicted criminal from prison before he has finished serving his entire court-imposed sentence. The parole concept is linked to a sentencing philosophy that views rehabilitation as a primary goal of imprisonment. A judge imposes a sentence knowing that after the defendant has served a specified part of his sentence (which is fixed by parole eligibility laws), he will be considered for parole. In this state the North Carolina Parole Commission decides when, if ever, an *eligible* prisoner deserves to be released on parole. The Commission also considers whether society's need to punish and incapacitate a prisoner has been satisfied. The Commission and the judge in effect share discretion in deciding how much time a prisoner should serve. Parole involves supervision by a probation/parole officer and is always subject to certain conditions: if the prisoner violates these conditions, his parole may be revoked and he may be returned to prison to serve the remainder of the sentence.

Currently the philosophy of rehabilitation as a reason for incarceration is extremely unpopular among penologists in this country, partly because research shows the perceived failure of many rehabilitation programs and a substantial recidivism rate for paroled prisoners. Punishment — not rehabilitation — has become the most widely accepted reason for imprisonment. It has been argued that a prisoner's rehabilitation, even if possible, cannot be accurately predicted by a parole commission. Parole decisions have been criticized as being arbitrary and based on insufficient and unreliable information. It is also argued that a parole commission's awesome power to reduce the length of a prisoner's confinement is inconsistently applied, so that prisoners incarcerated for the same crime committed under very similar circumstances do not serve the same amount of time. Much of the frustration and discontent within prisons is often attributed to the prisoners' perception of the parole process as unfair. (These considerations have led to major changes in parole laws in many states. In North Carolina, for example, parole for felons will be curtailed drastically by the Fair Sentencing Act, which will become effective March 1, 1981.)

This article will neither defend rehabilitation as a viable reason for imprisonment nor argue that it is often achieved in prisons. Instead, it describes the parole decision-making process in North Carolina and explains the criteria used by the Commission in making parole decisions. Once the reader understands how parole decisions are made and their rationale, he can decide whether the concept of parole — not rehabilitation — has any value and whether parole decisions have a rational basis.

The Parole Commission

Responsibilities and organization. The North Carolina Parole Commission is authorized by statute to grant regular and temporary paroles to prisoners who are serving a prison or jail sentence imposed by a North Carolina court. Its power to grant parole also carries with it the power to deny, revoke, or terminate a prisoner's parole. The Commission also has several other significant responsibilities: It assists the Governor in exercising his authority to grant commutations and pardons to prisoners, and it also must approve both out-of-state emergency leaves for prisoners and work release (which allows prisoners to work at approved jobs during the day and return to prison at night) for prisoners who are serving sentences greater than five years. Still, its most consuming responsibility is parole.

The Commission is composed of five full-time members appointed by the Governor to serve four-year terms or until their successors are appointed. The Governor designates one member to serve as chairman. An administrative assistant who organizes, schedules, and monitors the Commission's enormous caseload — about 100 cases per day — reports directly to the Commission. Ten case analysts provide the professional assistance essential to the Commission's work; two senior case analysts supervise the others. A case analyst asks a probation/parole officer to gather information about a prisoner's background and the crime he committed. The case analyst studies this information and summarizes it in a parole memorandum that is presented to the Commission when the prisoner is considered for parole. The Commission considers a prisoner's parole in panels of two voting members designated by the chairman. Parole is either granted or denied by the vote of both members. The chairman designates a third commissioner to serve as an alternate and to vote in the case of a tie. But the decision to parole a prisoner sentenced to life imprisonment

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or grant him work release privileges must be by a majority vote of all five Commission members.

Restrictions on the Commission's authority. The concept of parole eligibility is the most misunderstood aspect of the parole decision process. The Commission may not parole a prisoner until he is *legally eligible* to be paroled. The amount of time that a prisoner must serve before becoming eligible for parole depends on the type and length of his sentence and is governed by complex statutory rules. Because the eligibility statutes have been changed frequently, prisoners who were convicted at different times of the same crime may receive identical sentences but their parole eligibility dates may differ.

To understand when the Parole Commission can grant parole, one needs to understand several parole eligibility rules (effective since July 1, 1978). A prisoner who receives a "flat" sentence (a sentence for a fixed period of time, such as six months, 40 years, or life) is eligible to be released on parole *at any time*. A prisoner under age 21 may be sentenced to a single prison term as a Committed Youthful Offender (CYO) unless his offense is punishable by death or mandatory life imprisonment. A CYO is eligible for parole at any time.

A prisoner who receives an "indeterminate" sentence (a sentence with both a minimum and a maximum term of imprisonment, such as two to 10 years) is eligible for parole after serving one-fifth of the maximum penalty allowed by law for the offense *or* the minimum term that was actually imposed minus "good time," *whichever is shorter*. ("Good time" is awarded by the Secretary of Correction at a rate of 107 days per year for good behavior.) For example, assume the following facts for this prisoner:

Indeterminate sentence received	2-10 years
Maximum penalty allowed by law	10 years
One-fifth of maximum	2 years
Minimum imposed less good-time credit	1 year, 5 months

He would be eligible for parole after serving his minimum sentence reduced by "good time" (1 year, 5 months) because this period is shorter than one-fifth of the maximum sentence allowed by law for the crime (two years).

ADMINISTRATIVE ACTION IN A SAMPLE CASE

The remainder of this article examines the parole decision by following a case from beginning to end. Figure 1 shows the entire process.

The prison staff at the Department of Correction prison unit interviews each new prisoner and collects detailed personal information for an initial classification report. The report usually gives the prisoner's family background, educational background, employment history, and physical or mental health problems. It also includes his version of the criminal event. In addition to this report, each new prisoner's file usually includes a copy of his criminal record, which is on file with the FBI. The file is forwarded to a case analyst about 30 days after the prisoner's conviction.

Step 1: Background investigation and completion of file

The case analyst computes the new prisoner's parole eligibility date. He then asks for a background investigation by a probation/parole officer. This investigation consists of (1) an account of the prisoner's crime, and (2) his social and economic history.

A probation/parole officer in the county where the prisoner was convicted gathers information about the crime by talking with the police, the prosecutor, and any witnesses or victims. A prisoner convicted of driving under the influence or of passing worthless checks—typically self-explanatory offenses—would have a brief account of the crime. The version of the crime submitted to the case analyst should include the following: details of what happened; participants in the crime and the role played by each; motive; extent of injury, if any, to the victim; description of stolen property; and whether the participants or victims were under the influence of alcohol or narcotics.

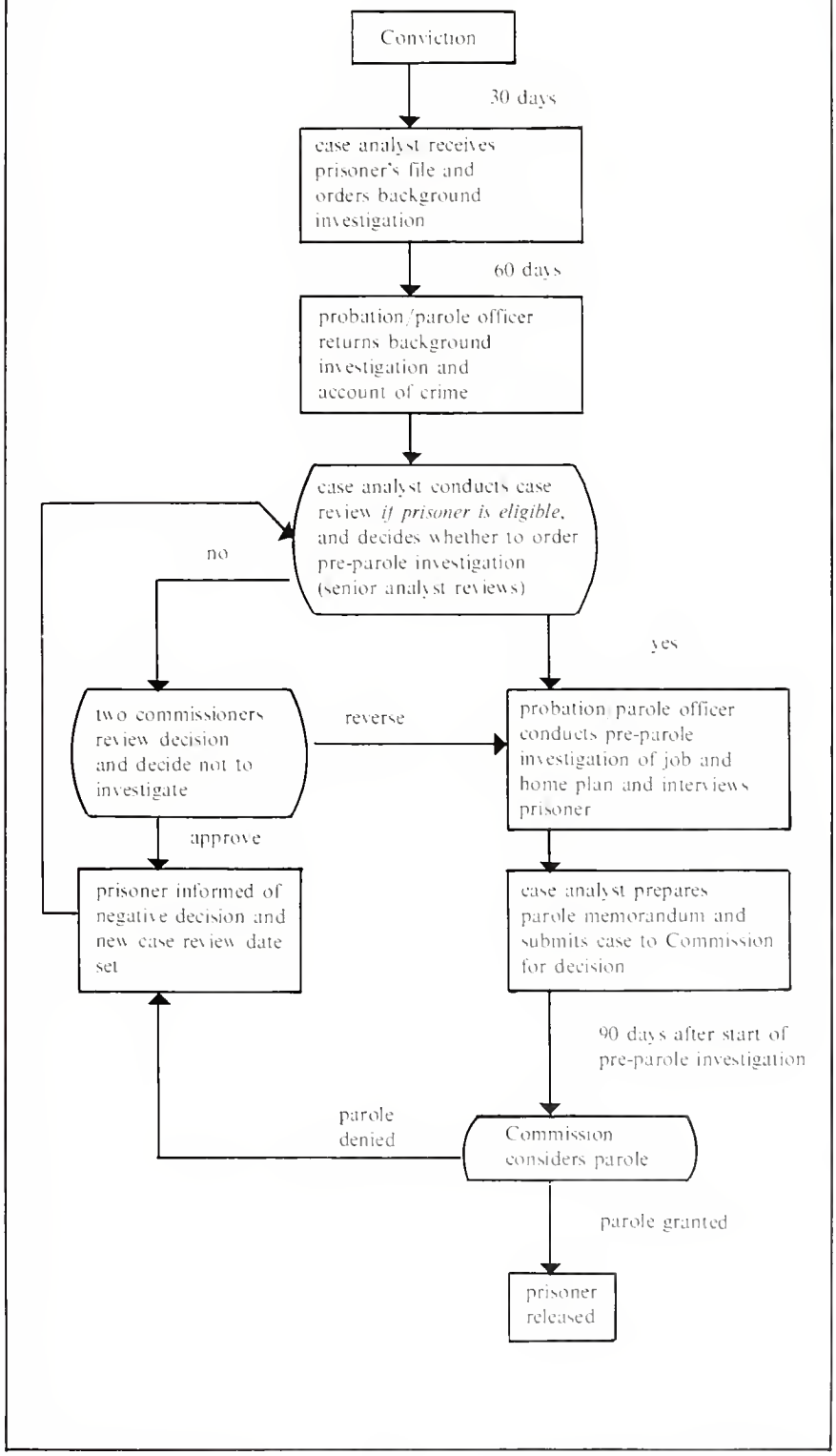
To prepare the prisoner's social and economic history, the probation/parole officer in the county where the prisoner lived before being convicted interviews his relatives and friends to collect the following information: educational background; military service and type of discharge; employment history and reason for leaving each job; financial status and total indebtedness; assessment of the prisoner's health, attitude, and mentality; recreational activities and religious preferences, if any; family history; and previous court record, including juvenile training school record. In addition, the probation/parole officer highlights difficulties in a prisoner's background that may have contributed to his criminal activity and may remain a problem if he is released on parole. The background investigation is completed and returned to the case analyst within 60 days.

The case analyst also asks the clerk of court in the county where the prisoner was convicted for a copy of his previous criminal record. He also orders a copy of the prisoner's driving record from the Division of Motor Vehicles if the inmate was convicted of a traffic offense. If the investigation report reveals that the prisoner has served a major sentence in another state or federal prison, the case analyst asks that institution for all available information if the previous conviction was for an offense that would be a capital crime in North Carolina.

The Division of Prisons maintains a record of each prisoner's custody status and summaries of the disciplinary actions taken against him in his prison file. A violation of a prison rule is classified—depending on the gravity of the offense—as either a major or minor infraction. Common infractions include fighting between prisoners and cursing prison guards. A prisoner charged with an infraction is given a hearing before a staff disciplinary committee and, if found guilty, is punished. Such discipline may include a reprimand, suspension of prison privileges, imposition of extra duty, disciplinary segregation, and the loss of good-conduct time. It may also

Figure 1

Flow Diagram of the Parole Decision



include a demotion to a more restrictive level of custody at the institution. The Division of Prisons also includes periodic progress reports in a prisoner's file that review his current prison custody classification, adjustment within the institution, and performance on prison work assignments.

Step 2: The case review

"Indeterminate" sentences. The file for a prisoner serving an indeterminate sentence (i.e., with a minimum and maximum term) is delivered to a case analyst from the records department for a case review 90 days before the prisoner becomes eligible for parole. The case review assesses whether the prisoner is a good candidate for parole and whether he merits a pre-parole investigation.

The case analyst studies the review form that lists both positive and negative factors affecting whether a prisoner is a good candidate for parole and orders a pre-parole investigation if the positive factors outweigh the negative. Unfavorable factors include: violations of prison rules, a recent escape, a history of violence and a reputation as dangerous, a low probability of success on parole according to a psychological report, not being in minimum custody, conviction of a serious crime, an alcohol or drug problem, and strong community protests against his parole. Favorable factors include: minor or no other criminal record, a pending out-of-state sentence that is longer than the current North Carolina sentence, a minor role in the crime, exemplary prison conduct, strong community support, and victimless or nonviolent nature of the crime. If the case analyst has doubts about whether the prisoner is a good parole prospect, he recommends a pre-parole investigation.

The case analyst's recommendation on whether to conduct an investigation and the prisoner's file are forwarded to a senior case analyst for review. If the analyst recommends a pre-parole investigation, the investigation is conducted without any review by the Commission. If the senior case analyst disagrees with a recommendation not to investigate, he returns the file to the original case analyst, and an investigation is usually conducted. If the senior case analyst agrees that a pre-parole investigation is not merited, however, he initials the case

THE PAROLE MEMORANDUM

Personal information includes the prisoner's name, prison number, and age. If a young prisoner has an extensive criminal record, he will usually be considered a poor parole prospect.

Crime and sentence gives the Commission the details of the prisoner's crime and sentence. The Commission is authorized to deny parole if it believes that releasing a prisoner at the time of the review would promote disrespect for the law. Such a decision is based on a concept of "just deserts," which means that the punishment should fit the crime. A decision not to parole a prisoner because of the nature of his crime is largely a subjective decision, but the Commission considers certain clearly understood variables. In a murder case, for example, was the act committed in the heat of passion, or was it the calculated and cold-blooded act of a "professional" killer? Was the victim a family member, a young child, or an elderly person? Was the act sadistic, and did it involve torture? Different aggravating factors, like whether a weapon was used and whether serious injury resulted, are considered for other crimes.

The parole eligibility and release date indicate whether the Commission has previously reviewed the prisoner's case and denied parole. His unconditional release date is important, because a borderline prisoner near his release date might be paroled and supervised instead of later being released unconditionally without any supervision.

Flat time is total time that a prisoner has been confined under the present conviction, including time spent in a local jail.

Previous parole and the reasons for revocation are considered in determining whether a prisoner will violate parole conditions again. A prisoner's satisfactory completion of parole in the past militates in favor of his parole, but it is weighed against his present imprisonment for the commission of a new crime.

Co-defendants are of interest to the Commission — in particular their sentences and present parole status. Because it is removed from the emotion of a trial, the Commission may balance perceived arbitrary treatment between similarly situated co-defendants. Generally, the Commission likes to move co-defendants along at the same pace unless it receives information indicating that there are legitimate reasons to treat them differently — such as poor prison conduct or different degrees of culpability in the crime committed.

Employment — a prisoner's future job plans — is extremely important to the Commission. The memorandum states the details of a proposed job, including wages and reputation of the employer. Successful performance on work release is not an absolute prerequisite to parole, but it carries great weight. It is not unusual for a prisoner to receive a 30-day temporary parole so that he can look for a job.

Residence information is submitted by the probation/parole officer during the pre-parole investigation. A prisoner must have a firm residence plan before he can be paroled. The Commission usually will not deny a parole back to a prisoner's original home environment, no matter how wretched.

Prison conduct and custody level contains every minor and major infraction of prison rules committed by the prisoner within the past two years and the punishment he received. (Violent infractions before that period are also listed.) The Commission determines the importance of each infraction by considering the context in which it occurred. Fist-fighting among prisoners, for example, is not considered serious, but selling drugs or assaulting a prison guard greatly harms a prisoner's chance for parole. A prisoner's custody level (degree of supervision) on entering prison and all changes in custody level are listed. The main reason that prisoners are usually paroled from minimum custody rather than from more restrictive custody levels is that the Commission views it as a sign of responsibility when a prisoner advances to minimum custody and spends time in community programs — especially work release — before parole.

Previous record is the prisoner's objective criminal record — including known arrests without conviction. Like work release, it probably assumes more importance in attempting to predict success on parole than could be statistically justified; still, it is a negative factor that suggests caution to the Commission.

Emphasis is a section in which the case analyst is asked to make suggestions for parole supervision or treatment programs. For example, a case analyst might suggest that a prisoner attend drug counseling or stay away from his co-defendants when released.

Analysis and conclusions of the case analyst evaluate a prisoner's probability of success on parole and recommend whether parole should be granted.

Recent psychological evaluations are included with the memorandum. These are particularly helpful to the Commission when the prisoner being considered committed an assaultive crime.

Views of officials and protests includes recommendations by the trial judge, the prosecutor, or the police and protests by private citizens against a prisoner's parole. The Commission considers protests but takes into account the interest of the person who files the protest. It gives little weight to letters of support from a prisoner's friends that encourage his early release and general inquiries from an attorney about a prisoner's case, which provide no factual information relating to parole. An attorney may be able to assist a prisoner with legal matters, such as an incorrectly computed parole eligibility date.

review form and forwards it to the Commission for a decision on whether to conduct a pre-parole investigation. Two commissioners study the prisoner's file and the negative recommendations and, if they agree that no investigation is needed, a new case review date is set. If they disagree, a pre-parole investigation is started. The prisoner is informed of a negative decision and is told the reasons for the denial of parole. By law, a prisoner must be reviewed for parole at least once a year; but if the Commission feels that he has a favorable case, it will order an earlier review date. The period of time between an eligible prisoner's case reviews will depend on whether the Commission believes that he is ready for parole.

"Flat" sentences. When is a case review conducted for prisoners serving flat sentences (i.e., for a fixed amount of time), who are eligible for parole at any time? Since it takes at least 90 days for a case analyst to receive a new prisoner's file and to request and receive a background investigation from a probation/parole officer, such a prisoner cannot be reviewed during his first 90 days in prison. The statute requires only that a prisoner who is eligible for parole at any time must be considered 90 days before the end of the first year of his sentence. The Commission, as a matter of policy, reviews prisoners with flat sentences shortly after their background investigation is returned and again 90 days before the end of their first year in prison. Prisoners with flat sentences are treated like all others in deciding whether to conduct a pre-parole investigation (see page 45).

CYO sentences. Prisoners who are sentenced as CYOs were also eligible for parole at any time. As a general rule, the Commission takes no action in a CYO case until it receives a favorable recommendation from the Division of Prisons. However, the Commission reviews each case every six months and intervenes if, for no apparent reason, a CYO is not favorably recommended for release. When a favorable recommendation is received, the case is treated essentially like any other regular parole case (see page 45).

Step 3: Pre-parole investigation

The Commission notifies a prisoner if his case is under investigation for parole and tells him when he can expect to be informed of a decision (usually within 90 days from the date the investigation is requested). The pre-parole investigation, which takes about 20 days, is mainly a detailed inquiry into a prisoner's proposed employment and residence plan if he is released on parole. The Commission's policy is that no prisoner should be denied parole only because he cannot find a job or a place to live, and probation/parole officers work hard to help candidates for parole in this regard.

A probation/parole officer's report on a prisoner's *proposed employment plan* describes his proposed job, the transportation arrangements, and the reputation of the prospective employer. His analysis of the *proposed residence plan* describes the structure, the rent, and the neighborhood's reputation. It should also describe the other occupants and their possible influence — good or bad — over the prisoner.

Because the caseload for review considered by the Commission is so large (approximately 100 each day), the commissioners cannot interview each inmate evaluated for parole. At least one probation/parole officer interviews each candidate and records his general impressions about the prospective parolee's attitudes (truthful, repentant, etc.) and his overall appearance (neat, an alcoholic, etc.). The officer is encouraged to rate the prisoner as a parole prospect and may suggest that the prisoner serve more time. Officers' impressions are important to the Commission.

The case analyst participates in the pre-parole investigation by notifying the trial judge when a prisoner who received a sentence of four years or more is being considered for parole. The analyst's letter to the judge contains the account of the crime and the proposed employment and residence plans. (The judge has ten days in which to make a parole recommendation before any action is taken in the case.) The analyst also sends a form letter requesting a parole recommendation to the district attorney who prosecuted the case and to the head of the law enforcement agency that investigated the crime. Also, a general notice that the prisoner is being considered for parole is posted at the county courthouse where he was convicted. Finally, the case analyst requests a current psychological evaluation if the prisoner has a sentence of 40 years or more. He may also request psychological evaluation for any prisoner who has a history of mental problems or violent behavior.

Step 4: Final review, parole memorandum, and decision

The case analyst prepares a parole memorandum that contains all significant information affecting a prisoner's chance for parole and gives a copy to each commissioner who is considering the case. He summarizes the memorandum before the commissioners hold their deliberations and often discusses the information with them before they make a final decision. Each commissioner also has access to the complete file and may review it for any information that might not be included in the memorandum.

The box on page 46 analyzes each category of information included in a parole memorandum. It should be noted that the Commission has broad discretion in deciding when to parole a prisoner. The parole statute states that the Commission may refuse to parole an eligible prisoner if it decides that (1) the prisoner is likely to violate reasonable parole conditions, (2) his release would promote disrespect for the law, (3) his continued correctional treatment will substantially improve his capacity to lead a law-abiding life, or (4) he would be likely to engage in further criminal conduct if paroled. No single item of information is decisive in the parole decision.

Conclusion

In a sense the Parole Commission approaches its responsibility knowing that "perfect decisions" are impossible. Critics who claim that a parole commission cannot divine when, if ever, a prisoner is "rehabilitated" are probably correct. Still, the Commission, having gathered all available information about a prisoner, makes an honest effort to parole him when it thinks that there is a reasonable chance that he will be able to lead a law-abiding life in the community. The commissioners do not seem to think in terms of whether a prisoner is "rehabilitated." Instead, they make a pragmatic decision on whether he has served enough time and can go back to his imperfect environment with a reasonable chance of not committing another crime. □

Public drunkenness is no longer a crime in North Carolina. A legislative study of the results of the decriminalization act shows a decrease in the number of arrests and in the workload of the criminal justice system. But treatment of inebriates remains about the same as before the act went into effect in late 1978.

Decriminalization of Public Drunkenness

Lynn E. Gunn

THE 1977 NORTH CAROLINA GENERAL ASSEMBLY passed the Act to Decriminalize Public Drunkenness, which took effect on October 1, 1978.[1] The act provided for: (1) repeal of the crime of public drunkenness and a prohibition against local ordinances that would make the condition a crime; (2) designation of a new crime of intoxicated and disruptive; (3) authorization of law enforcement officers (and others hired for the purpose) to assist an inebriate to home, treatment, or jail (if necessary) for 24 hours; (4) commitment of the chronic alcoholic to either a 30-day or 180-day treatment program (when alcoholism is used as a defense to intoxicated and disruptive or after assistance); (5) amendment to bail statutes to allow intoxication to be considered in determining conditions of pretrial release. No funds were appropriated to carry out these provisions.

In 1979 the General Assembly directed the Mental Health Study Commission to study the implementation of the Act to Decriminalize Public Drunkenness.[2] This article deals with the results of that study.

The last 15 years have witnessed a growing concern, nationally and in North Carolina, to find a better way to deal with public drunkenness. Twenty-five per cent of the arrests made in this country are for drunkenness. In 1977 drunkenness arrests in North Carolina totaled 55,999, or 16 per cent of all arrests. Most of those who were jailed for drunkenness were 40- to 50-year-old, homeless, unskilled men—alcoholics who have little or no control over their drinking. Putting these men in jail for a few days does nothing to solve their drinking problems, and they are arrested time and time again.

The momentum to change the state laws related to the handling of public inebriates originally came from two directions. Both the Commission on Correctional Programs (Knox Commission) and a special committee appointed by the Attorney General introduced legislation to decriminalize public drunkenness and to reduce the workloads of police, clerks of court, magistrates, district attorneys, district court judges, and defense attorneys. In addition, the Attorney General's bill included provisions for dealing with public inebriates. The ratified act was an amalgam of the two original bills.

The study

The Mental Health Study Commission intended to assess the implementation and impact of the act, and it focused its study on decriminalization of public drunkenness and the police response to the public inebriate. Since the law provides for several alternative actions by a policeman who encounters a public inebriate, the Commission tried to inform itself about as many of these alternatives as possible. Under the law, a police officer who finds an inebriate in public may (1) assist him to his home or to a friend's home; (2) assist him to a shelter facility or treatment program; (3) assist him to a medical facility; (4) assist him to a regional mental health facility; (5) assist him by taking him to jail, where he may be held for up to 24 hours—if he needs shelter and no treatment program exists; (6) arrest him if he has committed the new crime of being "intoxicated and disruptive"; or (7) ignore him.

Study sample. Fourteen counties typical of the state as a whole were selected for the study. The criteria for selection included population, location, arrest rates for public drunkenness before the act was passed, and local availability of detoxification services.

Data and information sources. The information collected and analyzed in the study included Police Information Network (PIN) data regarding arrests for public drunkenness and all types of disorderly conduct before October 1978 and arrests for all types of disorderly conduct after October 1978. The Statistics Section, the Division of Mental Health, Mental Retardation, and Substance Abuse Services (within the Department of Human Resources [DHR]) furnished figures on alcohol admissions to regional mental health facilities (including psychiatric hospitals and alcohol detoxification centers) and

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1. N.C. GEN. STAT. Ch. 1134.
2. N.C. Sess. Laws 1979 Res. 20.

on the number of alcohol admissions to local detoxification centers (both social and medical facilities). The number of inebriates held in local jails up to 24 hours after the act became effective (October 1978) was obtained from DHR's Jail and Detention Service. Data on "assists" to home and general medical facilities were not available. Because of limited time, questionnaires were not sent to the 85 law enforcement agencies throughout the 14 counties.

Data were gathered for July through November in 1977, 1978, and 1979. Monthly averages for 1977 and 1979 were computed for "before and after" analysis.

The directors of area mental health, mental retardation, and substance abuse programs, who are responsible for services to alcoholics in the 14 counties in the study, were sent questionnaires regarding the implementation of the Act to Decriminalize Public Drunkenness in their counties.

Findings

Impact on the criminal justice system. The primary intent of the act was to decriminalize public drunkenness and reduce the workload on the criminal justice system. To assess the impact on police and court workloads, average arrests before and after the act were compared. Table 1 lists the numbers of arrests in the 14 counties in all categories that could possibly include the public inebriate. Before the act, the offenses for which the public inebriate was most likely to be arrested were public drunkenness and—if the intoxication was accompanied by some type of offensive behavior—for disorderly conduct. Columns 2 and 3 show both average monthly arrests in each county during July-November 1977 in these categories and the total monthly average for the 14 counties is shown in column 4.

To assess the act's impact on police and court workloads, a comparison was made to determine whether arrests of inebriates decreased after the act went into effect. For this assessment, two figures were compared in each of the 14 counties: (1) in column 4 the total of public drunkenness and disorderly conduct arrests in July-November 1977 (before the act), and (2) in column 5 arrests for disorderly conduct, including the new offense of being "intoxicated and disruptive," in July-November 1979 (after the act). The disorderly conduct figures in Table 1 include all arrests for this charge—no breakdown between intoxicated and other disorderly conduct arrests was available. Disorderly conduct and "intoxicated and disruptive" were the charges that police would have been most likely to use if they had sought an alternative reason to arrest inebriates after public drunkenness was decriminalized.

The data in column 6 indicate an average decrease of 83.3 per cent in actual arrests across the 14 counties, ranging from a 64.3 per cent reduction in Onslow County to a 91.2 per cent reduction in Mecklenburg. This significant decline in arrests had a substantial impact on the workload of magistrates, clerks, judges, district attorneys, and defense attorneys. The table shows little indication of any shift to disorderly conduct or "intoxicated and disruptive" charges as a way of arresting public inebriates.

But it should be noted that the provisions of the act that permit alcoholism as a defense to charges of "intoxicated and disruptive" might have increased the court time related to those charges.

Table 1

Sample Study — Arrest Data 1977-79

County	Population	1977 Monthly Average Pre-Act Arrests (July-Nov. 1977)			1979 Monthly Average Post-Act Arrests				
		Public Drunk	Disorderly Conduct	Public Drunk Plus Disorderly Conduct	Disorderly Conduct[a]	% Reduction in Arrests (1977-79)	Monthly Average "Assists to Jail" (July-Nov. 1979)	Jail Assists as % of 1977 Arrests[b]	% Reduction in All Police Acts
	1	2	3	4	5	6	7	8	9
Cumberland	229,502	279	62	341	77	77.4	2.8	.8	76.6
Durham	142,020	70	15.5	85.5	26	69.6	87.6	102.5	increase
Forsyth	227,004	104	27.5	131.5	32	75.7	0	0	75.7
Gaston	154,681	215	9	224	25	88.8	131.6	58.7	30.1
Henderson	49,454	73	9	82	17.5	78.7	32.8	40	38.7
Johnston	65,552	44	1.5	45.5	5	89	41.6	91.4	increase
Mecklenburg	376,973	514	21.5	535.5	47	91.2	258.4	48.3	43.0
New Hanover	96,128	104	24	128	39	69.5	17.8	13.9	55.6
Onslow	106,106	102	57.5	159.5	57	64.3	5	3.1	61.1
Pitt	79,523	70	1	71	16	77.5	6.9	9.7	67.8
Rutherford	50,733	99.5	—	99.5	9	90.9	33.8	34	56.9
Vance	33,821	13	1.5	14.5	3.5	75.9	4.4	30.3	45.5
Wake	269,548	436	19	455	43	90.5	7.6	1.7	88.9
Wilkes	53,964	56	2	58	8	86.2	10.6	18.3	67.9
Average for all 14 counties	—	155.7	17.9	173.6	28.9	83.3	45.8	26.4	57

[a]Includes new "intoxicated and disruptive" offense.

[b]Percentage base is 1977 arrests for public drunkenness and disorderly conduct.

When the alcoholism defense is used, the judge must hear testimony regarding the condition of alcoholism and the treatment alternatives under consideration. Unfortunately, specific statistics regarding the number of cases in which alcoholism has been used as a defense are not available. Area directors who were surveyed were asked whether they knew of such cases; all but one were unaware of such pleas or reported only a few cases since 1978. The exception was Wilkes County, where 30 cases were reported; Wilkes has developed a "farm program" for the commitment of chronic alcoholics. The 30- and 180-day programs will be discussed later.

Because the act provides for alternatives to arrest in handling inebriates, arrest data alone cannot be used to assess its impact on law enforcement activity. A police officer may "assist" the inebriate to the local jail—where he may be held for no more than 24 hours—when he needs shelter or food and no other alternative is available. Column 7 of Table 1, which shows the monthly average number of such "assists" to jail during July-November 1979, indicates the wide variation in county averages—from 0 in Forsyth to 258.4 in Mecklenburg. There is no way to know whether inebriates were taken to jail only when no alternatives were available. In most counties many fewer were being assisted to jail after the act than were being arrested for public drunkenness before the act became effective.

Columns 7 and 8 suggest that jailers' workload has decreased since the act was passed. In column 8, the number of assists to jail is shown as a percentage of the 1977 total of public drunkenness and disorderly conduct arrests. In 11 counties (Johnston, Durham and Gaston being the exceptions), the number jailed as a percentage of pre-act arrests was less than 50 per cent. Also, as column 9 of Table 1 indicates, total police contacts with inebriates have declined sharply in all but two counties (Durham and Johnston). This finding is based on a comparison of the total number of public drunkenness and disorderly conduct arrests in July-November 1977 with the total disorderly conduct arrests, intoxicated and disruptive arrests, and "assists" to jail in July-November 1979.

The total data regarding arrests and "assists" indicate that the act has to a considerable degree diverted the public drunk from the criminal justice system. This diversion has probably eliminated much work for the police, magistrates, clerks, judges, and attorneys. In 11 counties the data on "assists" to jail indicate a substantial reduction in the use of jails for housing inebriates.

While the act has reduced greatly the policeman's workload, it has in some ways increased the number of decisions that he must make about inebriates. Before the act the officer had two choices—to arrest or not to arrest; now he has seven choices (see p. 48). The law enforcement officer now must consider not only the legal status of the inebriate but also his treatment needs and the availability and appropriateness of treatment programs. Usually the officer's sense of social responsibility and how much time is available for dealing with the problem will determine how he deals with inebriates. Although the study made no attempt to determine recent policy changes by police chiefs and sheriffs, the act does present a challenge to the heads of law enforcement agencies to make new policy regarding the handling of inebriates.

The impact on treatment. The act refers vaguely to four different types of service agencies for inebriates. Police may assist the public inebriate to either a shelter facility or a health-care facility, and judges may commit chronic alcoholics to either a 30-day or a 180-day treatment program.

When the General Assembly was considering this legislation, advocates of alcoholism services and professionals in alcoholism argued for appropriations of state funds to assist local communities in developing alternatives to jail and in developing the 30- and 180-day programs that were referred to in the bill. However, the bill was ratified without any appropriation; consequently, new service programs have been limited and primarily dependent on local initiative.[3]

Before the decriminalization act was passed, only 12 of the 41 area mental health, mental retardation, and substance abuse programs had 24-hour beds available for alcohol detoxification. (In general detoxification means helping the inebriate to recover from the effects of alcohol abuse and alcohol withdrawal.) Six of these 12 areas had "social" detoxification programs; the others provided "medical" detoxification.

A social detoxification program gives the inebriate shelter and food, often in a homelike environment. Medical consultation and emergency back-up are available, but medical treatment and the use of drugs during the detoxification process are rare. Alcoholism workers and counselors are available during the detoxification period for teaching and counseling about alcoholism. Besides providing shelter, the social detoxification program's primary goal is to refer the inebriate to another ongoing treatment program—either self-help or professional.

A medical detoxification program provides detoxification under direct medical supervision. The medical services are designed to deal with complications related to alcohol withdrawal and may involve the use of drugs. It also uses education, counseling, and referral to other alcohol treatment programs.

Of the 14 counties studied, four had no 24-hour detoxification service available before the act or during the sample months in 1979. Four counties had some social detoxification beds available, and six offered medical detoxification.[4]

Table 2 shows the services available locally in each county. Although there are no standards for determining how many beds are needed on the basis of local population, the wide range in the number of available beds suggests that some services are inadequate. In assessing the act's impact on the number of admissions to detoxification programs, it should be noted that some of these programs may have had a high service rate even before the act.

The regional admissions listed in columns 6 and 7 of Table 2 include admissions of alcoholics to the four state regional psychiatric hospitals and to the detoxification unit at Black Mountain. While admissions to the psychiatric hospitals are not limited to detoxification, most of them probably included detoxification as a primary goal.

The data in Table 2 indicate the effects

3. In recent months $450,000 (federal funds) have been awarded to nine local programs as incentive funds to provide detoxification services in the community.

4. One social program and one medical program were developed in response to the law change; the others were available both before and after the act.

Table 2

Sample Study Service Data 1977-79 (July-November)

County	Population	Local Detox Facility		Monthly Average Admissions for Detox			
		Capacity	Type	Local		Regional (State Mental Hospitals)	
				1977	1979	1977	1979
	1	2	3	4	5	6	7
Cumberland	229,502	16[a]	M	15	79.5	3.75	1.75
Durham	142,020	None				39.5	34.3
Forsyth	227,004	28	M[b]	7.5	21.5	3.75	4.25
Gaston	154,681	16	S	54	68.25	22.75	17.25
Henderson	49,454	5	S	7.25	5	12.0	11.5
Johnston	65,552	20	M[b]	30.25	48.25	5.25	1.25
Mecklenburg	376,973	52	S	258	225.5	11.25	10.5
New Hanover	96,128	5	M[b]		8	13.0	8.25
Onslow	106,106	None			-	8	12
Pitt	79,523	None			-	14.5	14.25
Rutherford	50,733	None				23.5	20.5
Vance	33,821	2[c]	S		4	6.5	8.5
Wake	269,548	8+20	M	84.0	77.5	20.25	13.25
Wilkes	53,964	9	M	35.75	38.25	12.75	6.5

Type: S = Social Detox; M = Medical Detox

a. Cumberland County's capacity of 16 is 1979 figure and is probably considerably higher than its capacity before the act became effective, when inebriates shared space with psychiatric patients.

b. Capacity figure is for a facility shared by psychiatric patients and inebriates

c. Vance County had no program for inebriates before the act took effect.

of the act on detoxification and treatment facilities.[5] Since the law enforcement officer can no longer arrest the public inebriate for inebriacy alone, an increase in the number of admissions to local or state facilities as an alternate to arrest might be expected. In the 14 counties studied, however, there was no consistent increase in such admissions after October 1978. Admissions of alcoholics to state hospitals actually declined in 11 counties after the act became effective, and the increases in admissions in the other three were small. In three of the local programs that had some type of local service, monthly admissions actually decreased after the act took effect; only four local programs had a substantial increase in admissions. These figures suggest that the police may not be active in "assisting" public inebriates to detoxification and treatment programs.

But these figures may be misleading with regard to local programs. Except in Cumberland and Vance counties, the capacity of local detoxification programs did not increase in the 14 counties after the act became effective. There is no way of knowing how intensively local programs were used before the act because of variations in local police practices, willingness of inebriates to remain in local programs, and other factors. But if a local program had already been used to capacity before the act went into effect, the local police could hardly be expected to increase its use.

Because of limited program space and because admissions unassisted by the police are included in the admissions data, conclusions regarding police assistance must be guarded. While substantial increases might have shown that the assistance provisions of the law are being implemented by police, the lack of substantial increases cannot be used as conclusive evidence that assistance is not being provided.

Provisions for short- and long- term treatment

The act includes two sections that pertain to the court-ordered treatment of alcoholics in need of care. Such court-ordered treatment could be instituted under two different conditions. First, if alcoholism is used as a defense to a charge of being "intoxicated and disruptive" and the defendant is found to be an alcoholic in need of care, the judge can order that he be committed for 30-day treatment in a court-approved outpatient or inpatient program. Second, a public inebriate assisted by police may be brought before a judge for consideration of whether he is as an alcoholic in need of care. Such an alcoholic who has not responded to less restrictive treatment can be committed to a 180-day

5. The data include not only admissions "assisted" by the police but also voluntary admissions and referrals by nonpolice sources.

residential program approved by DHR.

Only half of the area directors who were surveyed knew for a fact that the commitment provisions of the act had been used. The opinion they most often expressed was that since programs had not been developed to meet the needs of either the 30-day or the 180-day treatment provisions, commitments to such programs were not even being considered.

When the act was ratified, some treatment advocates contended that 180-day residential programs should be modeled after First Step Farm (in Buncombe County) and Archway East (in Duplin County). These programs include residential services, education, counseling, and usually some form of work. To date, however, neither of these model programs has received a single client by court order pursuant to the act, though virtually all of the voluntary clients they serve meet the act's definitions. It should be noted that both of these programs usually fill their capacity of 51 beds.

The commitment provisions of the act are yet to be tested, pragmatically or legally. Except for the Wilkes County program and a particular judge who has taken a special interest in inebriates, these provisions have not been used.[6]

6. At the time of this writing the Roanoke-Chowan Area Program is developing a 180-day commitment program.

Conclusions

The data for 14 counties and preliminary statewide data indicate that the decriminalization intent of the act has been met. Statewide, an enormous reduction — estimated at 77.8 per cent — has occurred in arrests of inebriates from 1977 to 1979.[7]

With respect to the act's goal of helping the inebriate, the results of the study are less conclusive. On the one hand, the data suggest that police have often ignored the public drunk since the act went into effect. On the other hand, if there is no place to take the inebriate — or if the places that exist are full — there is not much that the officer can do.

Even in communities where some kind of detoxification facility exists, opportunities to bring inebriates to treatment have been lost and inebriates have been taken to jail. Law enforcement plays a "gatekeeper" role in implementing the act. Whether the public inebriate is "assisted" by a police officer may depend as much on the attitude, knowledge, and skill of the officer as on the presence of adequate facilities.

A cursory review of training provided by both the Institute of Government and the North Carolina Justice Academy suggests that less than 10 per cent of the state's law enforcement officers received training in regard to the act's provisions during the several months after the act went into effect, although most officers are aware of it through Institute of Government publications and other means. Neither alcoholism professionals nor mental health personnel provided any training regarding the symptoms, problems, or assistance skills related to inebriacy or alcoholism in the context of these training sessions. Some individual communities have conducted their own planning, training, and coordinating efforts but the extent of this work is unknown. Until more detoxification facilities are available and law enforcement is better prepared, the assistance provisions of the act will be only partly used.

Communities that have recognized the public inebriate as a problem have begun to respond to the Act to Decriminalize Public Drunkenness. Obviously, their response would be encouraged by state financial assistance. This help, if granted, should not be tied to a categorical grant program in which only one kind of detoxification program is authorized, because the evidence does not clearly indicate what sort of program works best. If state support is provided, each community must be given the opportunity to determine what it must develop to meet its needs. □

7. According to PIN preliminary figures, public drunkenness arrests totaled 55,999 in 1977 and disorderly conduct arrests totaled 5,115. In 1979, after the act became effective, no public drunkenness arrests were made, and arrests for disorderly conduct and "intoxicated and disruptive" totaled 13,537.

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