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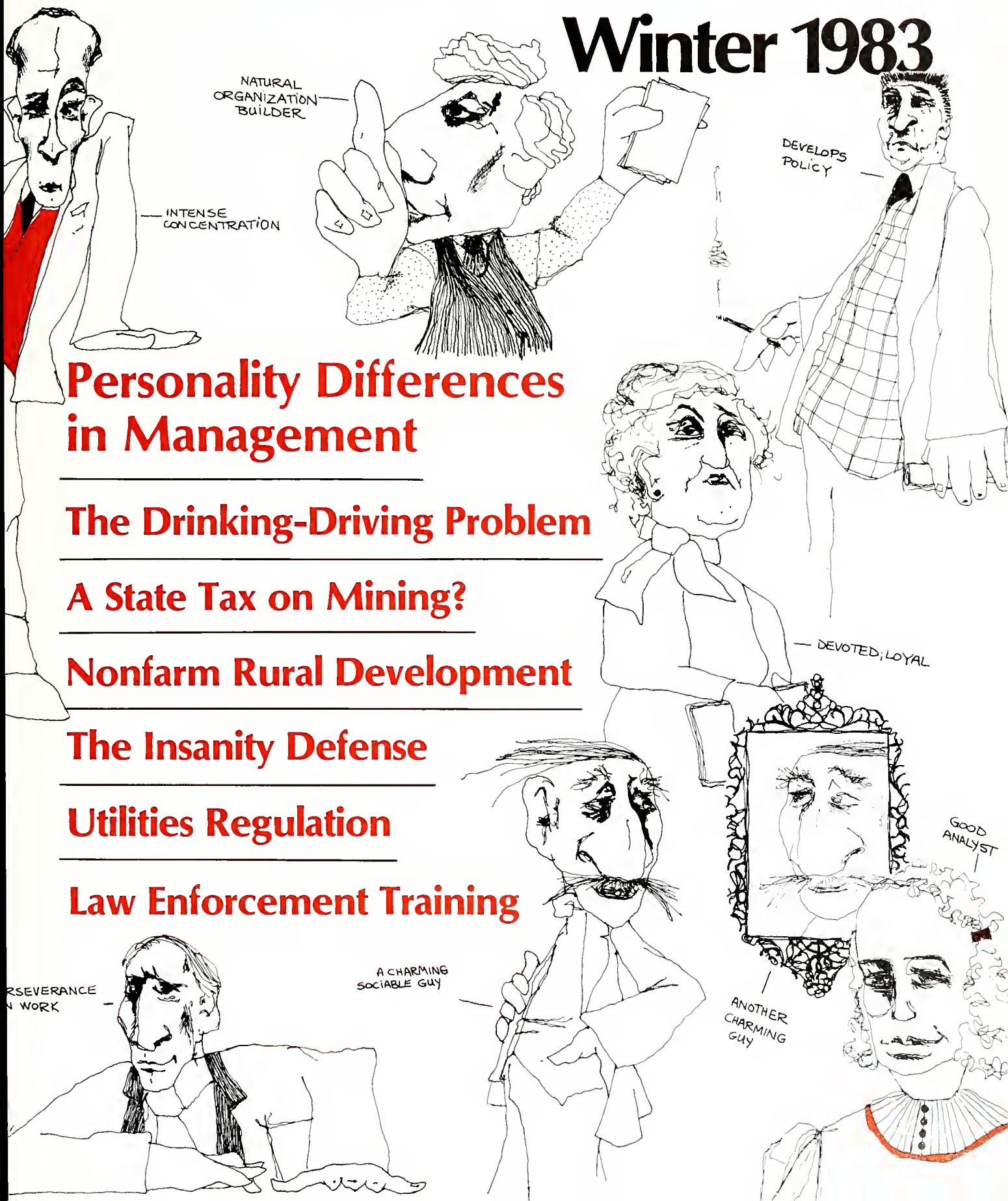

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Popular Government

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What Makes the Other Guy Tick?
Capitalizing on Personality Differences in Management

Mark Carpenter, Ronald G. Lynch, and Richard R. McMahon

How do the people in your organization get along? Do they generally agree about matters of morale, or who should make decisions, or who should do what jobs? Probably not. Conflicts like that are inevitable in human organizations. Usually they are said to result from personality differences, and they can be major obstacles to efficient operation. This article will describe a method of helping managers and other members of an organization recognize the personality differences among them and use those differences to strengthen their organization.

Personality, as used here, refers to the complex array of personal characteristics (needs, motivation, values, morals, etc.) that make people different. But these general terms do not describe the individual's basic attitude—or approach to life—that guides his behavior and is reflected in his personality (and sometimes conflicts with other approaches). As a result, psychologists have sought ways to identify what it is that makes up each person's preferred way of dealing with the world.

The Myers-Briggs Type Indicator (MBTI)[1] does just that—it is a test that identifies these specific components and makes it possible to compare differences in these fundamental approaches among individuals. The MBTI is used in management training and consultation by the Institute of Government and other agencies.[2] Its ability to spot and compare the qualities that make people the way they are has proved particularly useful for managers who want to reduce the conflicts that personality differences can produce within their organization. The managers who use the MBTI find that it helps them to recognize both compatible and incompatible personality types. In understanding personality differences, managers can see how these differences affect relationships and thus can avoid conflict and enhance the organization's overall performance.

The terms used here

The Myers-Briggs Type Indicator has been used for over twenty years to determine the individual "preferences" theorized by the psychologist Carl Jung. Jung's theories about personality form the basis of the MBTI. He believed that there are four basic mental processes: sensing, intuition, thinking, and feeling. These processes are present yet different in everyone because of the differences in people's experiences as they grow up. In the ideal, each individual develops a command of all functions and uses them throughout his or her life.[3] But because of differences in life experiences, people have different levels of development in these functions and different preferences and approaches to the situations that life presents.

The MBTI categorizes these functions in relation to (1) the way people become aware of the outside world, and (2) the way they come to conclusions about what they have become aware of—that is, how they make decisions. Each person's perception of the outer world depends on either the *sensory* process or *intuition*.

Mr. Lynch and Mr. McMahon are Institute faculty members who have an interest in human behavior and human relations. Mr. Lynch's field is police administration, and Mr. McMahon is a psychologist. Mr. Carpenter was a research assistant at the Institute of Government and is a graduate student in Public Administration at the University of North Carolina at Chapel Hill.

1. Published by the Center for Applications of Psychological Type, Inc., Gainesville, Florida.
2. MBTI is not the only test of its type.
3. C. G. Jung, *Psychological Types* (New York: Harcourt, Brace, 1923).

People who are more inclined toward the sensory method of perception perceive through the five senses. This type remains content to deal with the here and now. Those inclined toward intuition rely on indirect perception by way of the subconscious, adding to what they perceive through the senses and pursuing the possibilities of the situation.

The degree to which one may prefer one or the other of these methods of perception can be visualized on a continuum that places total reliance on sensory perception at one end of the scale and total reliance on intuition at the other. Most of us fall not on either extreme of the scale but somewhere between. Those who find themselves on the sensory side of the scale prefer gathering observable facts of a situation; they tend to become "realistic, practical, observant, ... and good at remembering a great number of facts and working with them."[4] Those who rest on the intuition side tend to value imagination and inspirations and to be good at both producing new ideas and projects and problem-solving.

| ——————————— |
Sensory 0 Intuition

When a person comes to settling, closing, or completing an issue, he may use one of two processes: thinking or feeling. A person in whom the thinking (rational) process dominates tends to be logical, objective, and consistent and to make decisions by analyzing and weighing the facts. Those who rely mostly on the feeling process tend to make decisions on the basis of values, or "because it feels right." They also tend to be sympathetic, appreciative, and tactful in dealing with others. These processes can also be visualized by using a continuum:

| ——————————— |
Thinking 0 Feeling

The processes of perceiving and reaching conclusions develop independently. Thus combinations of the perceptive processes and the judgment processes can create the following four combinations:

ST (sensory plus thinking). People with this combination are mainly interested in facts and make decisions by impersonal analysis. Their personalities tend to be practical and matter-of-fact.

SF (sensory plus feeling). People with this combination are interested in facts but are also in tune with the personal feelings of themselves and others. They are sociable and friendly.

NF (intuition plus feeling). People with this combination are interested not in facts but in possibilities for the future—they base their decisions on personal feelings. They are enthusiastic and insightful.

NT (intuition plus thinking). People with this combination are interested in possibilities but approach them with impersonal analysis. In decision-making they more or less ignore the human element.

Which combination of preferences an individual has developed in perceiving and judging makes a large difference in the types of work he will enjoy. An ST (sensory, thinking) person would prefer a job that requires gathering data and then making logical, calculated decisions based on the data. An SF (sensory, feeling) person or an NT (intuitive, thinking) person would probably prefer a job that requires extensive dealings with people or with abstract concepts or ideas.

Judgers (that is, people who like to decide matters quickly) tend to arrange their lives; they live in a planned, decided, orderly way—wanting to regulate life and control it. Perceivers (that is, people who like to keep their options open) are not so dependent on order and rigidity. They live flexibly and are spontaneously able to understand life and adapt to it. Perceivers enjoy seeking the alternatives, while those who like to decide quickly take the evidence as presented and act promptly to settle the issue.

The final characteristic measured by the MBTI centers on the individual's relative interest in the outer or inner worlds—that is, on whether he prefers "introversion" or "extroversion." The introvert concentrates on the inner world, more content in dealing with ideas and concepts. The extrovert enjoys focusing on the world around him and is more comfortable in acting than in contemplating. Sometimes these words are given positive or negative connotations; in this context they merely describe individual preferences.

A person can be:
(1) I (Introverted) or E (Extroverted);
(2) S (Sensing) or N (Intuitive);
(3) T (Thinking) or F (Feeling); and
(4) J (Judging) or P (Perceiving).

4. Mary H. McCaulley, "Introduction to the MBTI for Researchers," *Application of the Myers-Briggs Type Indicator to Medicine and Other Health Professions* (Gainesville, Fla.: Center for Applications of Psychological Type, Inc. 1977), p. 2. Many phrases that appear throughout this article are taken, without quotation marks from this source. The authors are indebted to Ms. McCaulley.

Chart 1 shows the possible combinations of these four preferences into the sixteen types described by the MBTI, as well as the known characteristics of people who have each combination. Each preference contributes unique characteristics that help to shape the individual. Some situations demand the use of one set of preferred approaches rather than another. People tend naturally to act and react in ways that are most comfortable for them. But one's preferred approach may not be the most appropriate for dealing with the situation at hand—or it may conflict with the approach preferred by a co-worker. When this happens, being aware of and accepting of the psychological preferences of both ourselves and those we work with can help in maintaining healthy, productive relationships.

Chart 1

The Myers-Briggs Type Indicator Combinations

ISTJ —Dependable —Decisive —Quiet, serious —Interested in thoroughness, detail	**ISFJ** —Service-oriented —Willing to work long hours —Respects tradition —Extremely dependable —Devoted, loyal	**INFJ** —Highly sensitive to others —Perseverance in his work —Enjoys problem-solving —Has strong drive to help others	**INTJ** —Self-confident —Natural decision-maker —Extremely theoretical —Single-minded
ISTP —Impulsive —Free spirit —Risk-taker —Thrives on excitement	**ISFP** —Sensitive —Shuns leadership —Experiences intensely	**INFP** —Deeply caring —Enthusiastic —Independent —Adaptable, —Welcomes new ideas and information	**INTP** —Very precise in thought and language —Has intense concentration —Curious, searching —Quiet, reserved
ESTP —Person of action —Negotiator, diplomat —Theatrical, exciting —Witty, clever	**ESFP** —Warm, optimistic —Charming, clever —Sociable —Outstanding conversationalist —Prefers active jobs	**ENFP** —Enthusiastic, imaginative —Independent —Keen and penetrating observer	**ENTP** —Deals imaginatively with others —Good analyst —Open-minded attitude —Fascinating conversationalist —Versatile
ESTJ —In touch with external environs —Good organizer —Adheres to standard operating procedures —Traditional, feels that rituals are important	**ESFJ** —The most sociable —Promotes harmony —Outstanding salesperson —Duty- and service-oriented —Emotional	**ENFJ** —Person-oriented —Willing to be involved —Sociable, popular —Settled and organized	**ENTJ** —Strong leader —Searches for policy, goals —Natural organization builder —Devoted to job

E = Extrovert
I = Introvert
S = Sensor
N = Intuitor
T = Thinker
F = Feeler
J = Judger
P = Perceiver

ST (sensory plus thinking). People with this combination are mainly interested in facts and make decisions by impersonal analysis. Their personalities tend to be practical and matter-of-fact.

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The MBTI in action

A small-town administration. The MBTI may be used in a variety of ways to help develop better working relationships. One example comes from a small North Carolina town that had poor communication and coordination among its departments. In an effort to create a more productive environment, town administrators held a series of retreats (with our assistance) in which the MBTI became a valuable tool. It served as a means of identifying the problem areas and opened the way for discussions about the stylistic differences in management that accounted for the poor communication and coordination.

When the retreat began, the participants named their strengths as department heads, listing such things as willingness to make a decision, capacity for logical thinking, and reasonable conservatism. They also listed what they saw as personal shortcomings: lack of awareness of feelings and reluctance to initiate and accept change. This list made by the participants themselves corresponds rather closely to the characteristics identified for them by the MBTI. For example, in talking with Department Head Jones[5] (with characteristics ESTJ—that is, extroverted, sensory, thinking, judging) about programs to improve employee morale, Department Head Smith (with character-

5. All of the following surnames are pseudonyms.

istics ISFJ—introverted, sensory, feeling, judging) was frustrated by the lack of enthusiasm shown toward "feelings" by Jones. Jones's rational thinking preference (T) tended to dominate his attitude, and he did not necessarily agree that Smith's plan to make employees more comfortable in their positions was useful. After taking the MBTI, these two administrators were able to recognize and accept the differences in their personal approaches and then could discuss problems and work through these differences in a nonjudgmental, nondefensive manner. Their ability to communicate improved, and they could anticipate areas in which they might have trouble cooperating in the future. Since the town administration had eight thinkers (T) and only two feeling-oriented (F) people, it became obvious that these Fs needed more opportunity to contribute to decisions being made in regard to employee relations.

Another problem was that the organization had no perceivers (Ps). The judgers (Js) made decisions rapidly and sometimes did not see all the implications of the problem or the other possible solutions to it. The MBTI helped the group to recognize their strong J preference and to step back from hasty decisions in order to review alternatives before making a final decision.

Difficulties in communication also existed between the sensors (Ss) and intuitors (Ns) in relation to planning. Department Head Brown (ENTJ—extroverted, intuitive, thinking, judging) usually developed imaginative and innovative plans for the city. But he often had a hard time convincing people like introverted, sensory, thinking, judging Department Head Evans (ISTJ) and the extroverted, sensory, thinking, judging Assistant Manager Green (ESTJ) that these plans did not encourage unwanted changes. The MBTI helped both sides see why the differences of opinion existed between them. They were also able to recognize the importance of the differences and the importance of adjusting to and compromising with the other approach.

After several of these sessions, the group developed joint goals for the departments. They decided to let down departmental barriers by communicating more often with each other directly instead of through the manager. Appreciating and understanding the roles of other departments gave each department a stronger commitment to the overall responsibilities of the town government.

A police department. A second example of the MBTI's usefulness comes from the police department of a medium-sized North Carolina city. The chief and his subordinates were frustrated by their inability to communicate. In addition, the officers felt that the captain and the lieutenants were not hearing their complaints. After taking the MBTI, the group discussed the results in relation to the operation of their department. They found that the chief was a sensory feeling (SF) person while the commanders below him were predominantly sensory-thinking (ST) types. Therefore most of the commanders' proposals did not address employee morale issues, which the chief considered important. On the other hand, the commanders became frustrated because their logical, precise proposals were constantly rejected.

The morale problems were also aggravated by the lack of feelers (Fs) in the organization. Employees were not receiving enough praise or recognition for their work. Although the chief was an F, he knew little about these problems because the commanders (Ts) who reported to

Sample Items from the Myers-Briggs Type Indicator

Which answer comes closest to telling how you usually feel or act?

1. Does following a schedule
   (A) appeal to you, or
   (B) cramp you?

2. Do you usually get along better with
   (A) imaginative people, or
   (B) realistic people?

3. If strangers are staring at you in a crowd, do you
   (A) often become aware of it, or
   (B) seldom notice it?

4. Are you more careful about
   (A) people's feelings, or
   (B) their rights?

5. Are you
   (A) inclined to enjoy deciding things, or
   (B) just as glad to have circumstances decide a matter for you?

6. When you are with a group of people, would you usually rather
   (A) join in the talk of the group, or
   (B) talk individually with people you know well?

7. When you have more knowledge or skill in something than the people around you, is it more satisfying
   (A) to guard your superior knowledge, or
   (B) to share it with those who want to learn?

8. When you have done all you can to remedy a troublesome situation, are you
   (A) able to stop worrying about it, or
   (B) still more or less haunted by it?

9. If you were asked on a Saturday morning what you were going to do that day, would you
   (A) be able to tell pretty well, or
   (B) list twice too many things, or
   (C) have to wait and see?

10. Do you think on the whole that
    (A) children have the best of it, or
    (B) life is more interesting for grown-ups?

11. In doing something that many other people do, does it appeal to you more to
    (A) do it in the accepted way, or
    (B) invent a way of your own?

12. When you were small, did you
    (A) feel sure of your parents' love and devotion to you, or
    (B) feel that they admired and approved of some other child more than they did of you?

13. Do you
    (A) rather prefer to do things at the last minute, or
    (B) find that hard on the nerves?

14. If a breakdown or mix-up halted a job on which you and a lot of others were working, would your impulse be to
    (A) enjoy the breathing spell, or
    (B) look for some part of the work where you could still make progress, or
    (C) join the "trouble-shooters" who were wrestling with the difficulty?

15. Do you usually
    (A) show your feelings freely, or
    (B) keep your feelings to yourself?

16. When you have decided upon a course of action, do you
    (A) reconsider it if unforeseen disadvantages are pointed out to you, or
    (B) usually put it through to a finish, however it may inconvenience yourself and others?

17. In reading for pleasure, do you
    (A) enjoy odd or original ways of saying things, or
    (B) like writers to say exactly what they mean?

him gave him little information about employee grievances. In addition, many of the commanders were also Js who wanted to make quick decisions on the basis of given facts. Officers below them became alienated because they were not allowed to participate in these decisions.

The Ss had also disregarded the intuitive Ns during many of the decision-making sessions. They dominated the discussions without really listening to the creative views of the Ns, who were thinking through the implications of the decision and suggesting possible changes. After the MBTI was discussed, the Ss realized the importance of including the Ns' viewpoints in their proposals.

Other communication issues involved the preferences of the top commanders and the chief for extroversion (E) or introversion (I). Eight of the commanders were introverts who often assessed situations in terms of their own reactions, not necessarily relying on cues from others in the agency. They did not seek contacts with their men to determine sources of discontent and therefore had little understanding of their subordinates' discontent. Inevitably, since it was the commanders who reported to the chief, the chief also knew little about the complaints.

These two practical examples show five important management uses for analysis of personality differences through the MBTI:

1. As a team-building tool. Those who took the MBTI test were able to recognize and accept the differences among them; their improved communication helped them to work together as a team rather than as a group of individuals.

2. As an aid in looking at issues from different perspectives. People with diverse personalities can make different and valuable contributions to a decision-making process; groups often ignore ideas because the person who presents them has a preference type uncommon to the group—for example, when an intuitor presents ideas for change to a large group of sensory-thinking (STs).

3. As a data base. To help develop strategies for improving communication and coordination between people with different personalities.

4. As a tool to help managers understand the ways in which program proposals come across to those who have different preferences in regard to decision-making.

5. As an aid to employees in understanding why they may feel uncomfortable in certain job situations (for example, STs would not feel comfortable in a job that calls for creativity).

The long-range application of MBTI results

Managers may also be interested in a study, based on MBTI results, on whether particular personality types are prevalent in particular occupational groups and, if so, whether this heavy incidence of one type has any long-term consequence for the organizations to which the individuals belong. To explore this question, we gathered MBTI data collected from a group of police commandants in several southeastern cities, from participants in the Institute of Government's Executive Development Program, and in consultation work done with special agencies in various states.

The data show a very high number of ESTJs (35%) and ISTJs (26%) among top decision-makers in police departments. ESTJs have been described as follows:

> Extroverted thinkers tend to use their thinking to run as much of the world as may be theirs to run . . . .Ordinarily they enjoy deciding what ought to be done and giving the appropriate orders to ensure that it will be done. They abhor confusion, inefficiency, half measures, anything that is aimless and ineffective. Often they are crisp disciplinarians, who know how to be tough when the situation calls for toughness . . . .[T]hey act forcefully upon the basis of their judgment whether well-founded or not.[6]

On the other hand ISTJs possess:

> a complete, realistic, practical respect both for the facts and for whatever responsibilities these facts create . . . . The interaction of introversion, sensing and the judging attitude gives them extreme stability . . . . ISTJ's emphasize logic, analysis, and decisiveness.[7]

While these traits would serve most police commanders very well, their high representation in police departments perhaps accounts for some underlying problems in these agencies as they respond to personal needs of other members, to changes in law enforcement techniques, and to external forces that are operating to cut budgets and reduce resources. For example, ESTJs are very responsible and tend to expect the same in others (the J component in their make-up wants to get things done.) But because of their ST preferences, they may not always be responsive to others' points of view and emotions when dealing with a problem:

> ESTJ's are so in tune with the established, time honored institutions that they cannot understand those that might wish to abandon or radically change those institutions.[8]

ISTJs also rely on time-honored institutions and base their decisions on the facts before them. On a day-to-day basis this approach probably proves very useful, but over the long run it could produce an organization that resists adapting to a changing environment.

The data show that most police commanders are predominantly STs (69.1%). As we saw earlier, STs approach decisions on the basis of facts, which they regard with impersonal analysis. As a result, their personalities tend to be practical and dispassionate. These people depend on controlling the organization and their own life.

If over two-thirds of police commanders fall in the ST category, what are the implications for police forces? STs provide many positives for an organization. They provide a logical stability that reinforces traditions and contributes to uniform handling of problems. They confront difficulties with a thorough knowledge, based on past experience, of what works. Furthermore, they establish routines that eliminate confusion and allow traditional practices to predominate.

In some circumstances, several negative consequences could also stem from this type. An ST's impersonal analysis of situations and lack of feeling would make him less aware of others' personal needs in reaching a decision. Since he relies on the past in decision-making, an ST is not inclined to take risks or engage in creative or intuitive thinking. Consequently his organization tends to resist change. He approaches problems not by finding ways to adapt but by relying on time-tested procedures.

6. Isabel Briggs Myers, *Gifts Differing* (Palo Alto, Calif.: Consulting Psychologists Press, Inc. 1980), pp. 85-86.

7. *Ibid.*, pp. 105-6.

8. Marilyn Bates and David Kiersey, *Please Understand Me* (Del Mar, Calif.: Prometheus Nemesis, 1978), p. 189.

But what about creative types within a police department? What effect will they have on the department? First, they may have problems in dealing with city or county agencies that dislike change. For example, a creative NT or NF police chief would probably have a hard time convincing an ST city manager to institute a new system of pay classifications in the police department unless he presented solid evidence of success elsewhere. In the long run, of course, the police chief's innovation may be a very positive step—someone in an organization needs to take the risks that enable it to adapt and grow.

The preceding discussion suggests that an individual personality type remains constrained in some ways by organizational structure and by the nature of the problems that need organizational solutions. Divergent personality types become organizational assets when the differences are realized and put to use in problem-solving situations. STs often need the influences of NFs or NTs and vice versa. If the organizational structure is extremely rigid, with definite hierarchies set up within the system, the organization may tend to mold the individual. For example, it has been said that because police agencies work with many specific rules and regulations, policemen—through constant exposure to this system—tend to think in a logical, fact-based manner. This hypothesis essentially remains untested on public-service personnel, though one study suggests that it may be valid.[9]

Possible test limitations

In conducting MBTI tests, there are two important limitations for the tester to remember. First, psychological testing is not an exact science. The MBTI cannot explain all types of behavior and undoubtedly leaves out some important factors in the personality study. Sometimes the scores do not accurately reflect an individual's preferences. This may happen because the employee answers the way he thinks his department wants him to answer. Or it may result from the way the person feels on the day of the test or from a misunderstanding of some of the questions asked. Second, the literature on the MBTI does not address the question of borderline scores—those that fall very close to the center of the continuums. Some interpreters suggest that high raw scores on both of the alternatives represented on the continuum, so that the person places at close to the center, indicate that the respondent has developed both preferences to a point where he uses them interchangeably. Low scores on both indicate that the alternative approaches have not been developed, and neither stands out as a strong asset. These assumptions have not been proved by research data—a fact that leads to uncertainties about the data on police commanders presented earlier. Although the police personnel tested as predominantly ESTJs and ISTJs, their scores on any of the four continuums could have been borderline. Better research techniques will give more definitive information in future studies.

Conclusions

Identifying personality differences among personnel can be very useful to management. The MBTI is a valuable means of describing personalities when interpreted properly—when the interpreter keeps in mind that the test merely identifies preferences and does not try to place people into "boxes" in order to predict specific responses to a given situation. Each person works within the continuum of attitudinal preferences at his own level of development, and fluctuations within the continuum are always possible. While the MBTI cannot always predict specific behaviors, it does give very reliable and valid results in studies conducted by a variety of researchers.[10] It also helps people within organizations recognize their differences in personality, giving disparate personality types for the first time a "common language" to use in understanding each other. The common language provides people with a starting point for discussion and appreciation of their differences. Once people understand these differences, they can begin to accept that they are natural and should be resolved through cooperation rather than competition. ●

9. J. A. Wright, "The relationship of rated administrator and teacher effectiveness to personality as measured by the Myers-Briggs Type Indicator," Unpublished doctoral dissertation, Claremont Graduate School, 1966. This hypothesis essentially remains untested on public-service personnel.

10. Marcia Carlyn, "An Assessment of the MBTI," *Journal of Personality Assessment* 41, no. 5 (October 1977), 461-73.

Reconsidering the Insanity Defense and Involuntary Commitment in North Carolina

Edward J. Crotty

In this article, I want to discuss two separate questions that tend to be confused with one another: (1) Under what circumstances should a mentally ill person be held criminally responsible for criminal conduct on his part? (2) What should be done with dangerous mentally ill people? My concern about these questions stems from my experience as a North Carolina district court judge. The two cases that follow illustrate the reasons for my concern.

I

In 1979 a man named John Doe[1] killed a security guard in Mecklenburg County. At the time he believed that he was killing a Martian. Doe waived a jury trial, and in March 1980 a judge found him legally insane at the time of the murder and dismissed the murder charges against him.[2] The district court then committed him to Broughton Hospital. Ninety days later (August 12, 1980) I presided at the rehearing required by North Carolina's involuntary commitment law (the statutory requirements on involuntary commitments are summarized later in this article). Early testimony at the hearing indicated that although Doe suffered from paranoid schizophrenia, he had done so well during the 90-day commitment period, during which he was on the drugs lithium carbonate and navane, that he was no longer dangerous. But the transcript of Doe's previous criminal trial (admitted into evidence by agreement of the parties) told a disturbing story. It included psychiatric testimony (used by the defendant at the trial to win acquittal on insanity grounds) that showed Doe's history of mental illness and his failure to take his medication after he was released from an earlier confinement in a mental hospital. The trial transcript contained a psychiatric diagnosis that Mr. Doe was a "time bomb," presumably waiting to explode into violent behavior. I recommitted Doe for 180 days.

Doe had his second rehearing 180 days later, as the law required. The judge who presided at the second hearing released him, lamenting that although Doe might repeat his conduct, there was no evidence of *recent* violent conduct

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The author is District Court Judge for the Twenty-fifth Judicial District. He is also a member of the North Carolina Criminal Code Commission and spent several years as an assistant prosecuting attorney. His interest in the insanity defense and the problems of involuntary commitment arose from ten years of courtroom experience. Judge Crotty is a graduate of the University of North Carolina Law School and lives in Hickory.

1. 79 Cr.S. 49809 (Mecklenburg Co., 1979). N.C. GEN. STAT. § 15A-959(c) (1978). "John Doe" is of course a pseudonym.

2. 79 Cr.S. 49809 (Mecklenburg Co., 1979). The judge noted that both psychiatrists felt that the defendant ought to be "permanently institutionalized whether he is on medication or not."

and "the court [could not] find by clear, cogent and convincing evidence a reasonable probability he will repeat the conduct." In effect, that judge's hands were tied by the statutory requirements, and he had no alternative but to release John Doe into society. Although I have heard no further reports on Mr. Doe's behavior since he left North Carolina, I find it very troubling that this man, who had killed someone only two years earlier as the result of mental illness, was released primarily because of the beneficial effects of medication that he could not be relied on to continue taking.

Doe's successful use of the insanity defense is not typical in North Carolina because this state's law (unlike the federal law that applied in the trial of John Hinckley for his attempted assassination of President Reagan; in that case, the government had the burden of proving Hinckley sane) requires the defendant to prove his insanity to the satisfaction of the jury.

The case of *State v. Cooper*[3] shows the difficulty of proving insanity under North Carolina law and demonstrates the nature of psychiatric testimony. The defendant, who murdered his wife and four of his five children, suffered from exacerbated paranoid schizophrenia on the date of the crime—a point uncontradicted by either side. There was evidence that the defendant suffered from the delusion that his family was from outer space and was going to attack him. At the trial, Cooper pled not guilty by reason of insanity. The State's psychiatrist, who was on the staff of a state mental hospital, felt that the defendant could distinguish right from wrong when the crime occurred. He testified that "[i]f a person completely believes what imaginary voices are telling him [kill or be killed], he can choose the alternative of being killed."[4] When the psychiatrist first saw the defendant, he had been a practicing psychiatrist for only one month. He told the jury that his diagnosis of legal sanity contradicted the opinion of the hospital's acting superintendent, who had 32 years of experience. The defendant Cooper offered no expert psychiatric testimony to establish his insanity and despite the State's weak evidence that he was sane, he was convicted.

A defendant like Cooper who fails in his insanity defense can be sentenced to prison just as any other guilty defendant can. Yet a mentally ill inmate who is sentenced without regard to his sanity does not necessarily receive appropriate psychiatric treatment—he may be kept with the general prison population rather than in a hospital setting.

The question of when a person should be held mentally responsible for any criminal conduct on his part is old and difficult. In North Carolina, as in most other states, the issue of responsibility for mental states is dealt with by establishing a legal concept of insanity and providing for acquittal of defendants who can prove that they were insane when they committed their criminal acts. The defendant in North Carolina—as in many other states—must prove his insanity. Still, in some other jurisdictions, including the federal courts, the burden is on the prosecution to prove that the defendant is sane beyond a reasonable doubt.[5] Understanding this helps us to understand the result in the Hinckley trial. In his trial in the federal district court, once Hinckley had introduced some evidence that he was insane, it was up to the prosecution to prove him sane beyond a reasonable doubt. In acquitting Hinckley on insanity grounds, the jury showed that it had doubts about his sanity—which was not surprising, since the trial consisted chiefly of a long argument among opposing psychiatrists.

How is "insanity" defined? North Carolina's definition of insanity as a defense to criminal charges stems from the 1843 English case of Daniel M'Naghten. M'Naghten had the delusion that Sir Robert Peel, then Prime Minister, was one of several enemies who were persecuting him. He mistook Peel's private secretary for Peel and shot him to death. In the trial that followed, the judge instructed the jury to acquit M'Naghten on the grounds of insanity.[6] M'Naghten remained institutionalized until he died twenty-two years later in a hospital for the criminally insane.[7]

Queen Victoria did not like the decision—nor did the public. In response to the public outrage over M'Naghten's acquittal, the Queen asked the House of Lords to gather 15 judges of the common law courts to give their opinion on the verdict. Part of the judges' response became known as the M'Naghten Rule. Before a defendant can be acquitted on the grounds of insanity, the judges said, "[i]t must be clearly proved that, at the time when the act was committed, the party accused was laboring under such a defect of reason, from disease of the mind, as not to know the nature and quality of the act he was doing; or if he did know it, that he did not know what he was doing was wrong."[8] North Carolina has long followed the M'Naghten Rule. In 1948 Sam J. Ervin, then a justice of the North Carolina Supreme Court, stated the rule in *State v. Swink*:

3. 286 N.C. 549, 213 S.E.2d 305 (1975).
4. *Id.*, 213 S.E.2d at 329.

5. In the federal court system, a defendant is presumed sane, but his introduction of evidence of insanity dispels the presumption and subjects the prosecution to the burden of proving sanity beyond a reasonable doubt. U.S. v. Dube, 520 F.2d 250 (1st Cir. 1975); U.S. v. Davis, 592 F.2d 1325 (5th Cir. 1979), *cert. den.* 442 U.S. 946.

6. 10 Clark & Fin. 200, 8 Eng. Rep. 718 (1843). *See generally* Crotty, *The History of Insanity As a Defense to Crime in English Criminal Law*, 12 CALIF. L. REV. 105 (1924). At 111, Crotty cites a case dating from 1227 as an insanity acquittal, but not in the modern sense.

7. B. Diamond, *Isaac Ray and the Trial of Daniel M'Naghten*, 112 AM. J. PSYCHIATRY 651, 656 (1956). *See generally* G. BRAND, THE INSANITY DEFENSE IN THE UNITED STATES CRIMINAL JUSTICE SYSTEM (February 7-9, 1980, Division for Mission in North America, Lutheran Church in America), for a nontechnical discussion of the insanity defense.

8. Crotty, *supra* note 6, at 117.

> An accused is legally insane and exempt from criminal responsibility by reason thereof if he commits an act which would otherwise be punishable as a crime, and at the time of so doing is laboring under such a defect of reason, from disease of the mind, as to be incapable of knowing the nature and quality of the act he is doing, or if he does know this, is incapable of distinguishing right and wrong in relation to such act.[9]

Before reviewing the procedure in North Carolina for the trial of a mentally ill person charged with a crime, I want to emphasize that *this procedure is rarely used.* It is estimated that fewer than fifty defendants use the insanity defense in North Carolina each year. Even fewer use it successfully. By one expert's estimate, *since 1965 fewer than forty people have won acquittal in North Carolina on grounds of insanity.*[10]

If a mentally ill person is charged with a crime in North Carolina, the court must first decide whether he is competent to stand trial.[11] This issue may be raised by the prosecution, the defense, or even by the judge himself. To be competent to stand trial, the accused must be able to understand both the charges against him and the court proceedings and be able to assist his lawyer effectively in defending him. After psychiatrists have examined him, the defendant's capacity to proceed is determined at a hearing. If the accused is found incompetent to stand trial, the judgment must direct that civil involuntary commitment proceedings begin. If the defendant is found competent and the trial goes forward, he may, under North Carolina law, raise the defense of insanity.

Normally the defendant raises the insanity defense by giving notice that he will do so before trial begins.[12] If the district attorney consents, the accused can have the question of his insanity decided in a hearing by the judge without the jury. If the defendant proves to the judge's satisfaction that he has a valid defense of insanity; then the court dismisses the charges against him. Should the defendant not convince the judge that he was insane when the offense occurred, he can still plead not guilty by reason of insanity and try to satisfy twelve jurors that he did not know the difference between right and wrong when the crime took place.

At each stage of the proceeding and especially during a jury trial, the defendant must present testimony by psychiatrists to prove his insanity. He is usually hospitalized and examined by one or more psychiatrists for the prosecution and for the defense. At trial, the psychiatrists' testimony is usually long, complicated, and contradictory.

In this "battle of the psychiatrists," the prosecution parades in its experts and the defendant's experts follow. The lawyers may feel that they are little more than procurers. The complicated psychiatric testimony frequently leaves jurors bewildered. The situation has prompted one federal judge[13] to suggest that the court appoint a panel of psychiatric experts to testify in addition to those put forward by both the state and the defense, though he concedes that under this proposal the jury may be overly impressed with court-appointed experts or this new testimony may just add to the confusion.

The psychiatrists are as dissatisfied with the "battle of the psychiatrists" as the lawyers, judges, and public are. Noted psychiatrist Karl Menninger has urged that psychiatrists be excluded from the courtroom. He writes in *The Crime of Punishment*,

> I oppose courtroom appearances because I consider guilt, competence and responsibility to be moral questions, not medical ones. The judge and jury are the community's representatives in this area. It is for them to make the judgment and apply the sanctions deemed appropriate, not us psychiatrists. Society decides—through them—what crime is and what proof it requires in any particular instance and what penalty applies.[14]

Despite the suggestions calling for independent panels or abolishing psychiatric testimony altogether, I do not foresee that either suggestion will be adopted in this state.

The public views the insanity plea as a rich man's defense. North Carolina provides for the appointment of psychiatric experts at the request of an indigent defendant, but the judge may deny the request if it appears without merit. As a practical matter, except in clear cases, the insanity defense is readily available only to the rich and those whose case has become a cause for a legal defense fund. The defendant with money need not apply to the court but can hire his own team of psychiatrists, no matter how frivolous his claim of insanity.

One option in dealing with the question of mental responsibility for criminal acts is to leave North Carolina's present provisions for the insanity defense as they are. Prosecutors in this state seem generally content with the present law, which requires the defendant to prove his insanity under the M'Naghten "right from wrong" definition; very few defendants are in fact acquitted on insanity grounds. But there is still much concern—in my opinion, justified—about those few defendants who are acquitted.

A proposal under consideration in North Carolina and already adopted in several other states is to keep the insanity defense but add to existing law a

9. 229 N.C. 123, 125, 147 S.E.2d 852, 853 (1948).

10. Telephone interview with Dr. Bob Rollins (September 24, 1982), head of the Forensic Unit at Dorothea Dix Hospital, Raleigh, N.C.

11. N.C. GEN. STAT. §§ 15A-1001 to -1003 (1978).

12. *Id.* at § 15A-959 (1978).

13. Kaufman, *The Insanity Plea on Trial*, NEW YORK TIMES MAGAZINE, Aug. 8, 1982, at 16, 19. Kaufman is a judge of the United States Court of Appeals for the Second Circuit.

14. K. MENNINGER, THE CRIME OF PUNISHMENT 139 (1968).

possible plea or verdict of "guilty but mentally ill." This plea or verdict would count as a conviction. A "guilty but mentally ill" proposal will probably be introduced in the 1983 General Assembly. The Criminal Code Commission has voted to submit such a proposal, though it has not yet drafted an official recommendation.

Legislation that permitted a verdict or plea of "guilty but mentally ill" without repealing the insanity defense was first enacted in Michigan in 1975.[15] The year before, the Michigan Supeme Court had struck down a state statute that authorized defendants found not guilty by reason of insanity to be held indefinitely because it failed to provide adequate procedural safeguards.[16] (This decision was consistent with the trend of expanding the rights of mental patients and respondents in commitment proceedings.) Later two men who had been committed to mental institutions following acquittal by reason of insanity were released pursuant to this decision and then committed other violent acts. Michigan citizens were outraged. The Detroit newspapers gave chilling accounts of one man's killing his wife while the other raped two women. The papers explained that Michigan law required release when a person was no longer dangerous and that frequently patients controlled by powerful drugs were no longer considered dangerous.[17]

In the aftermath of these incidents, the Michigan legislature enacted legislation[18] that allowed a verdict and a plea of "guilty but mentally ill." If the defendant raises the defense of insanity and proceeds to trial, the jury (or the judge if the trial is not by jury) may now find the defendant (1) guilty, (2) not guilty by reason of insanity, *or* (3) guilty but mentally ill. To render the "guilty but mentally ill" verdict, the jury must find that the defendant committed the offense charged and was mentally ill *but not legally insane* when he committed it. The defendant also may waive his right to trial and, if the prosecutor approves, plead guilty but mentally ill (but the judge may not accept the plea unless he finds that the defendant was mentally ill at the time of the offense). Under the new Michigan law, if the defendant is found guilty but mentally ill (by either verdict or plea), the judge may impose any sentence authorized for the offense. If the defendant is sentenced to prison, his "guilty but mentally ill" status guarantees that he will undergo further psychiatric evaluation while he is in prison. Depending on the outcome of this evaluation, he will receive appropriate treatment for his mental illness; the treatment may be provided either in the prison or by transferring the defendant to a mental hospital. If the defendant is transferred to a mental hospital for treatment and recovers from his illness after treatment, he is not freed; instead, he is sent back to prison to serve the rest of his sentence. The parole board, in considering the defendant's parole, must take into account his diagnosis and treatment history supplied by the mental hospital staff. If the guilty but mentally ill defendant is given a suspended prison sentence and placed on probation, the court must make psychiatric treatment a condition of his probation if treatment is recommended by a court psychiatrist; his suspended sentence can be activated by the court if he fails to continue treatment.

Defense lawyers regard the Michigan "guilty but mentally ill" law as having little value; after all, "guilty but mentally ill" is still "guilty," and the only new element in this verdict is the increased likelihood that the defendant will receive treatment if he needs it. One knowledgeable critic of Michigan's "guilty but mentally ill" law claims that it has not reduced the the number of defendants acquitted on insanity grounds.[19] Advocates in Michigan strongly contend that many have been found guilty but mentally ill who otherwise would have been found not guilty by reason of insanity.[20] In addition, prosecutors find the new Michigan law advantageous to them because it provides an alternative to a long trial, accompanied by a battle of the psychiatrists, in which the prosecutor (unlike the North Carolina prosecutor) has the burden of proving the defendant sane.[21]

Illinois, Indiana, Kentucky, Georgia, and New Mexico have statutes similar to Michigan's.[22] In commenting on such statutes, the United States Attorney General's Task Force on Violent Crime, created by congressional resolu-

15. MICH. STAT. ANN. § 28.1059 (1978).

16. People v. McQuillian, 392 Mich. 511, 222 N.W.2d 569 (1974).

17. Detroit Free Press, Oct. 8, 1976, § A, at 3, col. 2. Detroit News, Oct. 1, 1978 (Magazine), at 10. *See also* Brown & Wittner, *1978 Annual Survey of Michigan Law*, 25 WAYNE L. REV. at 356-57 (1979).

18. MICH. STAT. ANN. § 28.1059 (1978).

19. Kaufman, *supra* note 14, at 16.

20. Telephone interview on November 19, 1982, with John Wilson, Head of the Criminal Division, Attorney General's Office for the State of Michigan, Lansing, Mich. Mr. Wilson declined to cite numbers, because why a jury does something or what it would have done is often just speculation.

See also the quote from Assemblyman Raymond Lesinak of New Jersey: "There's no hard data on this, but the Attorney General in Michigan . . . said that in his opinion since the law was enacted, 90 per cent of defendants found guilty but mentally ill would have been found not guilty by reason of insanity." Philadelphia Enquirer, August 8, 1982, p. 8B.

21. Interview with Varis Klavins, assistant Kent County prosecuting attorney, at the Hall of Justice in Grand Rapids, Michigan, July 3, 1981.

Once the Michigan defendant raises the defense of insanity and produces evidence that he was insane when he committed his crime, the prosecutor has the burden of proving him sane beyond a reasonable doubt, just as the federal prosecutor in the trial of John Hinckley did; People v. Kruger, 377 Mich. 559, 141 N.W.2d 33 (1966).

22. ILL. CODE OF CRIM. PROC., ch. 38, §§ 113-4 (1981) (found in 1981 Ill. Legis. Service—West); IND. CODE ANN. (Burns 1982 Supp.) 1-C 35-36-2-3, as added by Acts 1981, P.L. 298 § 5; BALDWIN'S KENTUCKY REV. STAT. 1982 ACTS ISSUE, ch. 504 120, § 7 (effective July 15, 1982); GA. CODE CRIM. PROC. ch. 27-1503 (B)(4) (effective July 1, 1982). N.M. STAT. ANN. 31-9, 3, 4 (contains no provision on effective date, but was enacted during the session that adjourned on February 18, 1982.) The guilty-but-mentally-ill statutes of Michigan, Indiana, Illinois, Kentucky, and New Mexico and the proposed North Carolina statute apply to all criminal offenses. However, Georgia's new statute applies only in felony cases.

tion after the assassination attempt on President Reagan, emphasized that the guilty but mentally ill defendant who recovers from his mental illness must be sent back to prison to finish his sentence. The Task Force noted that the statute "would enable federal juries to recognize that some defendants are mentally ill but their mental illness is not related to the crime they committed or their culpability for it. It also would enable a jury to be confident that a defendant who is incarcerated as a result of its verdict would receive treatment for that illness while confined."[23]

A proposal similar to the Michigan law is now being considered by the North Carolina Criminal Code Commission. In the North Carolina proposal, for a "guilty but mentally ill" plea to be accepted the defendant must (1) have committed the offense, (2) have been legally sane when he did so (i.e., he must have known that the offense was wrong), and (3) have lacked substantial capacity to conform to the law because of mental illness.[24] Under the North Carolina proposal, if the defendant is found guilty of a capital offense but mentally ill, he must receive life imprisonment.[25] If the defendant pleads guilty but mentally ill to any offense, the court must establish whether he is now mentally ill.[26] If he has a recognized mental illness, his initial commitment must be to a mental hospital. Otherwise, he can be sentenced to prison.[27]

The North Carolina proposal, like the "guilty but mentally ill" laws adopted in Michigan and the other states, would not eliminate the existing insanity defense. Thus there would still be defendants found not guilty by reason of insanity—but in my opinion even fewer than at present. The General Assembly should also be aware that six states that have authorized the new plea have provided that the mentally ill offender, if he recovers after treatment, must be transferred to prison to serve the rest of his sentence (New Mexico does not provide for an initial commitment to a mental hospital). In contrast, in the proposal now being considered in North Carolina, the defendant could be released before he completes his sentence. Finally—and this criticism applies not only to the North Carolina proposal but also to the other six states' "guilty but mentally ill" laws—if the defendant chooses to go to trial and raise the issue of insanity and mental illness, the mere fact that the jury has the added option of finding him guilty but mentally ill would not eliminate the "battle of the psychiatrists," since psychiatric evaluations of the defendant's mental state when the crime was committed would still be highly relevant. In fact, an even worse battle could take place, because opposing psychiatrists would have the issue of mental illness to deal with besides the issue of insanity.

In light of these problems, two states have repealed the insanity defense.[28] What they have really done is abolish insanity as a separate defense to any criminal charge. Idaho no longer considers mental condition a separate defense, but it permits expert testimony on the issue of *mens rea*—or criminal intent.[29] Montana also enacted a *mens rea* statute: evidence of mental illness is limited to those cases in which the defendant gives notice that he intends to use such testimony for the limited purpose of proving that he lacked criminal intent.[30]

The phrase *mens rea* (a Latin phrase meaning "guilty mind") refers to criminal intent—or the state of mind that is an element of the offense charged. At the trial the prosecution must prove the intent. Justin Miller, former dean of the Duke University School of Law, described *mens rea* (or criminal intent) as "the particular state of mind, differing in different crimes, which is required, by the definition thereof, to exist in concurrence with the criminal act."[31] Although this concept seems complicated, juries in criminal courts deal with it regularly and have done so for centuries. The North Carolina Pattern Jury Instructions for criminal cases allow a judge to tell a jury in ordinary language the type of mental state that must exist and be shown before a particular element of a crime—such as premeditated, intentional, knowing, negligent, etc.—can be proved.[32] The classic example of a person who will be acquitted for lack of *mens rea* involves one who chokes another thinking that he is squeezing a lemon. He is acquitted because he lacked the criminal intent to kill the victim knowingly. On the other hand, it could be argued that a person who heard voices telling him to kill another should be convicted because he did form an intent to kill. Yet the second person would be much more likely to be

23. U.S. Department of Justice, Attorney General's Task Force on Violent Crime, Final Report, commentary to Recommendation 39 at 54 (Aug. 17, 1981).

24. N.C. Criminal Code Commission Proposed § 14A-1501(c): If the jury finds that "the defendant committed the offense but that at the time of the offense the defendant, although aware of the nature and quality of his act and that the act was wrong, lacked, as a result of mental disease of defect, substantial capacity to conform his conduct to the requirements of the law, the jury must return a verdict of 'guilty but mentally ill.'"

25. N.C. Criminal Code Commission Proposed § 15A-1312.

26. *Ibid.*

27. *Ibid.* The defendant would be sentenced "as upon a guilty verdict," which would include all sentencing options including prison.

28. The Criminal Code Commission did not focus on the issue of abolishing the insanity defense and did not consider the *mens rea* test.

29. Idaho Code, ch. 2, tit. 18-207(a): "Mental condition shall not be a defense to any charge of criminal conduct" (effective July 1, 1982).

30. Montana Code Ann. 46-14-201(1) (approved May 1, 1981); Ch. 593, Mont. Session Laws: "Evidence of mental disease or defect is not admissible in a trial on the merits unless the defendant, at the time of entering his plea of not guilty or within 10 days thereafter or at such later time as the court may for good cause permit, files a written notice of his purpose to rely on a mental disease or defect to prove that he did not have a particular state of mind which is a essential element of the offense charged. Otherwise, except on good cause shown, he shall not introduce in his case in chief expert testimony in support of that defense."

31. Miller, Criminal Law 52 (1934).

32. N.C.P.I. 206.10, 206.30 (March 1982 replacement).

acquitted under the M'Naghten rule, because he could not distinguish between right and wrong.[33] As Attorney General William French Smith stated in regard to the *mens rea* test in congressional hearings in July 1982, "[a] mental disease or defect would be no defense if a defendant knew he was shooting at a human being to kill him, even if the defendant acted out of an irrational or insane belief."[34]

The advantage of the *mens rea* test is its simplicity. Advocates claim that it will narrow the class of people acquitted for lack of mental responsibility.[35] Recalling the lemon example, advocates claim that the situations in which a person can successfully raise the defense of lack of criminal intent will be so rare that it will allow many psychiatrists to leave the courtroom and spend their valuable time treating the mentally ill. Those who oppose abolishing the insanity defense in its present form argue that abolition could well make it harder, not easier, to convict defendants. The state would still have the burden of proving criminal intent, and the defendant would concentrate his psychiatric testimony on negating intent. Thus the defendant could win acquittal simply by creating a reasonable doubt about criminal intent in the jury's mind. But in my opinion this concern is exaggerated, because the State has always had to prove the elements of the crime, including the required state of mind.

Support for the abolition of the insanity defense originated in the Working Papers of the National Commission on Reform of the Federal Criminal Laws. A consultant to the Commission in 1969 advocated abolishing the separate insanity defense on the basis that mental disease or defect should not be a defense unless it counters an element of the offense.[36] The 1981 Report of the Senate Judiciary Committee remarked on the board support for the *mens rea* test and noted the success of a similar law in Sweden. Unfortunately, after almost a decade of considering the abolition of the separate insanity defense, Congress left the development of this area to the federal courts[37]—despite the later righteous indignation and histrionics of senators and congressmen who demanded action after the Hinckley verdict.

At present, North Carolina law contains the restrictive M'Naghten Rule, which—as explained earlier—has probably resulted in no more than forty acquittals since 1965. Under this law, the defendant has great difficulty in proving to a jury's satisfaction that he did not know the difference between right and wrong at the time of the offense. Yet there are some defendants who would be acquitted under the present North Carolina law but convicted under the *mens rea* test.[38] The *mens rea* test would simply require the State to prove the elements of the crime, including the required state of mind, as it has always had to do. The State clearly would have the burden of proving *mens rea* (criminal intent), because under the U.S. Constitution it must prove every element of the crime. The defendant could be required to give notice if he planned to offer testimony of mental illness to negate the charge or to create a reasonable doubt as to the state of mind that is an element of the crime. The *mens rea* test would narrow the scope of the psychiatrists' testimony and prevent a long, expensive battle of experts in each case. It would also allow these psychiatric resources, now in short supply, to be used for treatment rather than in court.

District attorneys have had little problem with the present insanity defense in North Carolina. They may be reluctant to embrace this new concept of *mens rea* without a separate insanity defense, perhaps fearing that more acquittals will result because the defendant will not have the burden of proof. But *mens rea* as the test of criminal responsibility has been advocated by prestigious groups for over a decade and was adopted by two states before the Hinckley verdict was reached. Attorney General William French Smith has recently advocated using it to reduce the number of insánity acquittals. If the General Assembly is reluctant to abandon the insanity defense under present law, perhaps it will study carefully the number of insanity acquittals in Montana and Idaho. If Congress adopts the *mens rea* standard and it proves effective in limiting the number of insanity acquittals in federal courts, North Carolina district attorneys and the General Assembly may become receptive to the concept.

An important purpose of the criminal law is to protect society from those who commit lawless acts. The current insanity defense fails in this respect because it allows dangerous people who have committed crimes to escape prison. At the same time, long-term confinement in a mental hospital is no longer a reality, for reasons explained in the next section. Psychotropic drugs transform the dangerous defendant into a docile patient who by law cannot be held against his will. One partial solution to this problem, I submit, would be to abolish the present insanity defense. If it results in the conviction of violent criminals who would otherwise be acquitted, then the law's protective purpose can be fulfilled by separating them from society.

II

The concern for protection is separate from the concern about whom we want to hold mentally responsible for crime. *Compared with the very few*

33. Model Penal Code § 4.01, Comment (Tent. Draft No. 4, 1955).

34. The Charlotte Observer, July 20, 1982, at 2.

35. *Id.*

36. *Hearings on S. 1 and S. 1400 Before the Subcomm. on Criminal Laws and Procedures of the Senate Comm. on the Judiciary*, 93rd Cong., 1st Sess., 6412 (1973).

37. *Hearings on S. 1630 Before the Senate Comm. on the Judiciary*, 97th Cong., 1st Sess. 108 (1981).

38. *Id.* at 102, n. 50.

persons acquitted of crime by reason of insanity, very many more become the subject of involuntary commitment proceedings because they are mentally ill and dangerous to others.

If a person accused of a crime is acquitted by reason of insanity in North Carolina, he still may be committed to a mental hospital if it can be proved that he is dangerous or otherwise meets the criteria of the state's involuntary commitment laws.[39] G.S. Chapter 122 provides for the commitment of persons to mental hospitals without their consent. To commit a person involuntarily (whether or not he is acquitted of a crime on grounds of insanity), the state must show that the person is or "within the recent past" was dangerous to himself or others (that is, he has inflicted serious bodily harm to himself or others). If the judge commits a person acquitted by reason of insanity to one of the state's four regional mental hospitals, an involuntary commitment hearing must be held within ten days of admission. A district court judge determines, from evidence on the person's present and very recent past, whether that person is both mentally ill and dangerous to himself or others. If the person is both mentally ill and dangerous, he may be hospitalized against his will, but a rehearing on his case must be held within 90 days after his admission; thereafter a rehearing must be held within 180 days—and subsequent rehearings yearly. *The criteria at the rehearings are the same as those at the original hearing*: to be kept in the hospital, the person must be found to have been dangerous "*within the recent past.*"

The involuntary commitment statute was revised in 1973 in response to cases before the North Carolina and United States supreme courts that expanded the constitutional rights of mental patients.[40] These rights, combined with advances in pharmacology, make it very difficult to confine any mentally ill person for very long.[41] Moreover, it is almost impossible for any psychiatrist to estimate the probability of future dangerous behavior.[42]

In the past, one chief criticism of the insanity defense had been that it could result in a long confinement of an acquitted defendant who is not dangerous in a mental institution with no way to win release.[43] But the recent increase in due process protections for respondents in involuntary commitment proceedings has produced the opposite effect.

Changing the involuntary commitment and rehearing statutes would seem to achieve a better balance between the competing concerns for the public safety and the rights of the mentally ill. The problem, in my experience, is the "recency" requirement, especially at the rehearing stage. G.S. 122-58.2 defines "dangerous to himself or others" to mean that "*within the recent past*" the person committed a violent act, attempt, or threat. Repealing the "recency" requirement would afford greater protection to the public when rehearings are held. This proposal is now under study by the North Carolina District Attorneys' Association. Dropping the "recency" requirement and adding the reasonable probability that the patient will take his medicine into G.S. Chapter 122 as a judicial consideration in determining dangerousness would make it less likely that a mentally ill person with a history of dangerous behavior would be released and again become dangerous because he did not take prescribed medication.

The Mental Health Study Commission is studying a proposal that would treat those patients who repeatedly refuse to take their medication after release and become mentally ill and dangerous again differently from other released formerly committed persons—in a manner analogous to the treatment of habitual offenders or career criminals. The proposal would call for a longer commitment period because of the demonstrated failure to comply with

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39. N.C. GEN. STAT. §§ 122-58.1 to -58.26 (1981). See the article on these laws by Stevens Clarke in the Spring 1982 issue of POPULAR GOVERNMENT. See also H. TRUMBULL, THE LAW AND THE MENTALLY HANDICAPPED IN NORTH CAROLINA, Ch. 5 (2d ed. 1979). Oddly enough, G.S. 15A-1003(c) makes evidence used at the incapacity-to-proceed hearing admissible at the involuntary commitment hearing, but I could find no such provision with respect to the transcript of a defendant acquitted by reason of insanity.

Defendants acquitted of violent crimes on insanity grounds are not always civilly committed for treatment. For example, in the case of State v. Butler, 81 Cr.S. 6468 (Catawba County, 1981), the defendant was apparently confused by the conflicting accounts she received of the cause of her husband's death. She allegedly poured gasoline on the bed where her two small children were lying and ignited it. When a superior court judge ruled that she had a valid defense of insanity, pursuant to G.S. 15A-959(c) the charges were dismissed with prejudice. But the judge found it unnecessary to order civil involuntary commitment proceedings. The state forensic psychiatrist testified that the defendant suffered a temporary psychotic episode on the date of the offense and that he, the psychiatrist, found that she no longer had serious mental illness. The defendant's private psychiatrist felt that she had an acute dissociative disorder brought on by stress. He also felt that the defendant was recovered and should not be committed. While the criminal case was pending, I heard a temporary custody petition filed by the Department of Social Services. At this hearing, her private psychiatrist stated, "She is now as normal as you and I."

40. *In re* Hayes, 18 N.C. App. 560, 197 S.E.2d 582 (1973), *aff'd without opinion*, 283 N.C. 753, 198 S.E.2d 729 (1974); O'Connor v. Donaldson, 422 U.S. 563, 95 S.Ct. 2486, 45 L.Ed. 396 (1975). *See also* Clarke, *supra* note 39 at 12, and ENNIS & EMERY, AMERICAN CIVIL LIBERTIES HANDBOOK: THE RIGHTS OF MENTAL PATIENTS (1978).

41. Interview with Henry Karlson, criminal law professor at Indiana University, who helped draft Indiana's "guilty but mentally ill" statute, on July 12, 1982. Professor Karlson noted that "[a]fter six months on psychotherapeutic drugs, virtually anyone would have to be considered no longer dangerous."

42. "It in fact appears that psychiatrists cannot even predict accurately enough to be more right than they are wrong." Cocazza & Steadman, *The Failure of Predictions of Dangerousness: Clear and Convincing Evidence*, 29 RUTGERS L. REV. 1084, 1101 (1976).

43. "The greatest concern we have over such cases in North Carolina is with the disposition following determination of non-responsibility. Most often, the finding of non-responsibility results in a virtual life sentence in the forensic unit of a mental hospital—a sorry existence with little hope of improvement. At the least, some safeguards relative to observation and treatment are indicated for those found non-responsible as a result of mental disease or defect." Letter to Hon. John L. McLellen, Chairman, July 17, 1972, from North Carolina Mental Health Commissioner Eugene A. Hargrove. Hearings on S. 1 and S. 1400, *supra* note 36, at 6397.

treatment in the past. This idea seems to merit further study.

The Mental Health Study Commission is also considering a proposal to authorize commitment to *outpatient* treatment (i.e., to a community mental health program rather than a mental hospital) on the basis of a less demanding standard of proof than is required for hospital commitment.[44] If this proposal passes constitutional muster, it should give the public better protection from the violent mentally ill, since the court could order mentally ill defendants to report to their local mental health clinic and to take their prescribed medication.

Another sensible measure in regard to violent mentally ill people could be implemented without legislation—a stronger link forged between the mental hospital and the community mental health system, with closer monitoring of released patients to make sure that they take their medicine and to see whether a new commitment petition (in a civil proceeding) should be filed. Mental health professionals almost totally agree that adequate follow-up is not given to released patients.[45] Realistically, closer supervision would require more personnel and more funding than are now available, but supervision is essential to protect both the patient and the public. Recently released mental patients understandably do not want to take medication that may make them sick, and some of them find the drugs financially burdensome, even though the price is based on ability to pay. These people need help in meeting the terms of their releases.

When a person's liberty is taken away, as in involuntary commitment, the United States Constitution requires procedural safeguards.[46] But it seems to me that the standard of proof required in commitment rehearings for persons previously acquitted of violent crime on insanity grounds in North Carolina could at a minimum (with the state retaining the burden of proof) be reduced to a mere preponderance of the evidence. The facts in *Warren v. Harvey*[47] are similar those in to the "John Doe" case described earlier in this article. After an acquittal of murder by reason of insanity, a civil involuntary commitment hearing was held. Though the defendant was not dangerous in the hospital while he was receiving medication, he could become dangerous in a less placid setting. The court upheld a Connecticut statute that permitted the state to prove dangerousness of a defendant acquitted of a violent crime by reason of insanity by only the preponderance of the evidence, since it had been proved that these people had committed a crime and thus were dangerous to society.[48]

In North Carolina, then, it can be argued that the state's interest in public safety should justify treating the person found not guilty of a violent crime by reason of insanity differently from others who fall under the North Carolina involuntary commitment statute. Just how differently is another question. Since the state now has the *burden* of proof, I strongly favor changing the *standard* of proof for commitment and recommitment of a person acquitted of a violent crime by reason of insanity to the "preponderance of the evidence" rather than the more demanding "clear, cogent, and convincting evidence"—the present North Carolina standard of proof.[49] ●

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44. It can be argued that since the patient would not be institutionalized, this lesser standard, using an analysis based on deprivation of rights [see Jackson v. Indiana, 406 U.S. 715 (1972)] would probably be constitutionally permissible.

45. Hiday, *The North Carolina Involuntary Commitment Law in Practice—A Courtroom Study*, 47 POPULAR GOVERNMENT 38, 42 (Spring 1982). "Generally these persons were stabilized on medication. If they stopped taking their medication, their psychiatric symptoms would reappear and they might become dangerous again. Close follow-up of these released respondents in the community to assure continuation of their medication would go far to alleviate the problem of recurring dangerousness. Unfortunately, an effective follow-up system does not exist in most North Carolina counties. If there were civil commitment personnel equivalent to criminal court probation officers, effective follow-up would be possible."

46. Vitek v. Jones 445 U.S. 480, 487-88 (1980). In Addington v. Texas, 441 U.S. 418 (1979), the Court noted that before a state can commit a person without his consent, due process requires "clear and convincing evidence." Just what is constitutionally required before a defendant acquitted by reason of insanity can be committed by the state or can gain his release is not abundantly clear. The U.S. Court of Appeals for the Fourth Circuit has held that it was unconstitutional for Maryland to require an acquitted defendant to prove he should be released if he was committed *without a hearing*, but if the acquitted defendant had a hearing before he was committed, the burden of proof can be shifted to him. Dorsey v. Soloman, 605 F.2d 271 (4th Cir. 1979).

47. 632 F.2d 925 (2d Cir. 1980)

48. *Id.* at 930.

49. A case that could offer important guidance from the United States Supreme Court is Jones v. United States, 432 Atl.2d 364 (D.C. Cir. 1980). Certiorari was granted in 1982 (72 L.Ed.2d 292). In that case, after acquittal by reason of insanity in the District of Columbia, the defendant was committed to a mental hospital. The District of Columbia Court of Appeals reasoned that the statute's presumption of continuing dangerousness, which could be rebutted by the committed patient, was justified because the defendant had committed a crime. In addition, he had already proved his *past* insanity by the preponderance of the evidence at a criminal trial. Therefore the court held it "entirely rational for the District to require an acquittee to prove his entitlement to release where he was the one to advocate his past insanity."

I am eagerly awaiting the Supreme Court's decision on how far the states and the federal government can go in protecting society from those acquitted by reason of insanity.

Utilities Regulation in North Carolina

Hugh A. Wells

North Carolina is concerned about the regulation of public utilities within its borders—and should be, because the nature of the services rendered by public utility firms makes their operation and regulation vitally important. For example, a reliable and adequate supply of electricity is essential, for we are utterly dependent on electric power in almost every aspect of our lives—we could no more do without power lines than without streets and highways. Almost as much could be said for the telephone—very few homes and almost no businesses in North Carolina are without telephone service. Our everyday experience tells us that without the telephone, nearly every governmental or commercial activity would screech to a halt. And other regulated, or semiregulated, services like transportation, natural gas, and water are just as important to the public's economic and general well-being.

The impact of public utility regulation on North Carolina is enormous—though probably few people are aware of the staggering number of dollars at stake every year. A few figures (they reflect approximate current levels) may help us to see the picture clearly:

—Regulated public utilities employ about 92,000 people in North Carolina, with annual wages of about $1.67 billion.

—Regulated public utilities pay property taxes of about $90 million per year to North Carolina local governments.

—Regulated public utilities pay the State of North Carolina about $263 million in franchise taxes each year; about $63 million of this amount is distributed to local governments.

—For regulated public utility services, North Carolinians pay about $4.25 *billion* per year. This amount can be compared with the General Assembly's total General Fund appropriation for the fiscal year ending June 30, 1981—about $3.25 billion.

Whom we regulate and why

In North Carolina, public utilities are privately owned business enterprises that furnish a variety of services, including electricity, natural gas, telecommunications,[1] surface transportation,[2] and water and sewer. In some places, some of these services are furnished by unregulated agencies or enterprises. About 72 North Carolina towns and cities operate their own electric systems; approximately eight operate their own natural gas systems; and about twelve operate local bus systems. Nearly all municipalities operate water and sewer systems. In addition, large areas of rural North Carolina are served by member-owned electric and telephone cooperatives; these systems are basically unregulated, as are the competitors that are now entering the telecommunications business as a result of recent federal mandates designed to foster competition in that industry.

In a society that places great faith in free enterprise, why do we regulate these privately owned businesses? The basic justification is that these businesses are natural monopolies because they have historically been granted exclusive territories (franchises) within which they alone have the right and the duty to furnish the service they offer. Because these businesses have almost no competition in providing these vital services, regulation is needed to protect the public against the possibility of jacked-up prices. Regulation is also necessary in order to insure that such services will be made available to everyone who requires them, that customers will be treated equally, and that the service will be reliable.[3]

Thus regulation holds forth three vital guarantees: availability of service, adequacy of service, and fair prices.

The author, now a judge of the North Carolina Court of Appeals, formerly served as the first executive director of the State Utilities Commission's Public Staff and previously as a member of the Commission from 1969 to 1975.

1. Telephone and radio common carriers.

2. Transportation by air is not regulated at the state level in North Carolina.

3. It should be noted that motor freight and passenger companies do not fit the classic example of a public utility, since there are many firms competing for the same business. In contrast, electric, natural gas, telephone, and water firms are the only provider of their service in its franchised area.

Who does the regulating?

The Utilities Commission. Regulation of utilities in this state began in 1891 with the creation of the Railroad Commission. From that original body the framework for regulation evolved into today's North Carolina Utilities Commission. As now constituted, the Commission has seven members who are appointed by the Governor to staggered eight-year terms, subject to confirmation by the General Assembly. Its offices are in Raleigh in the Dobbs Building, but it holds hearings throughout the entire state.[4]

The Utility Review Committee. Although the Utilities Commission's members are appointed by the Governor, its powers are delegated to it by the General Assembly, and in theory, at least, it functions as an arm of the General Assembly. Before 1975, there was no effective mechanism through which the General Assembly could supervise the Commission's functions. While both legislative houses have standing Public Utility committees, these committees do not function between legislative sessions, and they neither develop legislation nor supervise the Utilities Commission. When the 1975 session convened, there was considerable public outcry over rapidly rising utility rates, especially electric rates. As the number of rate cases climbed, the public became increasingly aware of the Commission—and perhaps critical of its performance. In response, the 1975 General Assembly set out to improve the effectiveness of the regulatory process. In doing so, it directly involved itself in the process. The legislation it passed included Joint Resolution 100, which established a six-member Utility Review committee, with two co-chairmen and two additional members from each chamber. This committee was charged with conducting a general and continuing overview of public utility regulation in the state, including developing and recommending whatever legislation was needed. Another part of the legislation, now codified as G.S. 62-10, made the Governor's appointments to the Utilities Commission subject to confirmation by the General Assembly. Since its inception, the Review Committee has met frequently and has significantly helped to enhance the quality and effectiveness of utility regulation in this state. Its membership has been relatively stable; three of its original six members still serve. In the June 1982 legislative session, the Review Committee was responsible for developing legislation that required stricter review of rate charges requested by electric utilities.

The Public Staff. Before 1977, the Utilities Commission employed a professional staff of about 160 people—engineers, lawyers, accountants, and economists. The staff assisted the Commission in a number of ways, including participating in rate cases, but it did not take sides. As public concern over mounting utility rates grew, the 1977 General Assembly reassigned most of these professional positions to a newly created agency in the Commission called the Public Staff. Managed by an executive director appointed by the Governor,[5] the Public Staff is independent of the Commission. Its purpose is to give consumers strong, independent representation in public utility rate cases, as well as in all other aspects of utility regulation.

Is such an organization needed in the regulatory process? In considering that question, one might point out that when utility companies request rate increases, they employ the best lawyers, engineers, and other experts to assist them—all paid for with funds supplied by the customers whose bills the companies want to raise. Those who supported the creation of the Public Staff, including Governor Hunt, believed that the appropriate level of rates may be better and more fairly answered when the Utilities Commission hears from experts on both sides of the question. The General Assembly, by creating the Public Staff, has provided the means to insure that the consumers' side of the rate cases are as effectively presented as the utilities' side.

How regulation works

As mentioned earlier, each regulated utility is assigned franchised areas in which it alone is both authorized and required to provide its particular type of service. Four major regulated electric companies serve the state: (1) Nantahala Power and Light in the far West; (2) Duke Power in the Piedmont; (3) Carolina Power and Light in the central Piedmont and Southeast and in Buncombe and Haywood counties; and (4) Virginia Electric and Power in the Northeast.[6]

Southern Bell is by far the largest telephone company in North Carolina; it serves about half the telephones in the state. Next in size comes Carolina Telephone, which serves about half of the state's geographic area. Then come General Telephone, Central Telephone, Western Carolina Telephone, and some 17 smaller independent telephone companies serving throughout the state.[7] This balance of size

4. The present Commission—all appointed by Governor Hunt—is as follows. Robert Koger, chairman, an engineer-economist and former Chief Engineer for the Commission; Hartwell Campbell, Wilson businessman and former General Assembly member; Leigh Hammond, former Assistant Vice-Chancellor of North Carolina State University; Edward Hipp, a lawyer and former general counsel for the Commission; Douglas Leary, former manager of Wake Electric Membership Corporation; Lindsay Tate, a Raleigh lawyer; and John Winters, a Raleigh businessman and former General Assembly member.

5. The present executive director of the Public Staff is Robert H. Fischbach, a former member of the Utilities Commission.

6. Electric cooperatives also have exclusive assigned rural areas. Electric cities supply electricity within their own boundaries and in limited surrounding areas.

7. By agreement between the Utilities Commission and the North Carolina Rural Electrification Authority, telephone cooperatives have exclusive service in substantial rural areas of the state.

and diversity of companies, combined with sensible regulation, has given the people of North Carolina very good telephone service.

Natural gas service is provided principally by three companies: Public Service and Piedmont Natural Gas serve the foothills and the Piedmont, and North Carolina Gas serves the East and Southeast.

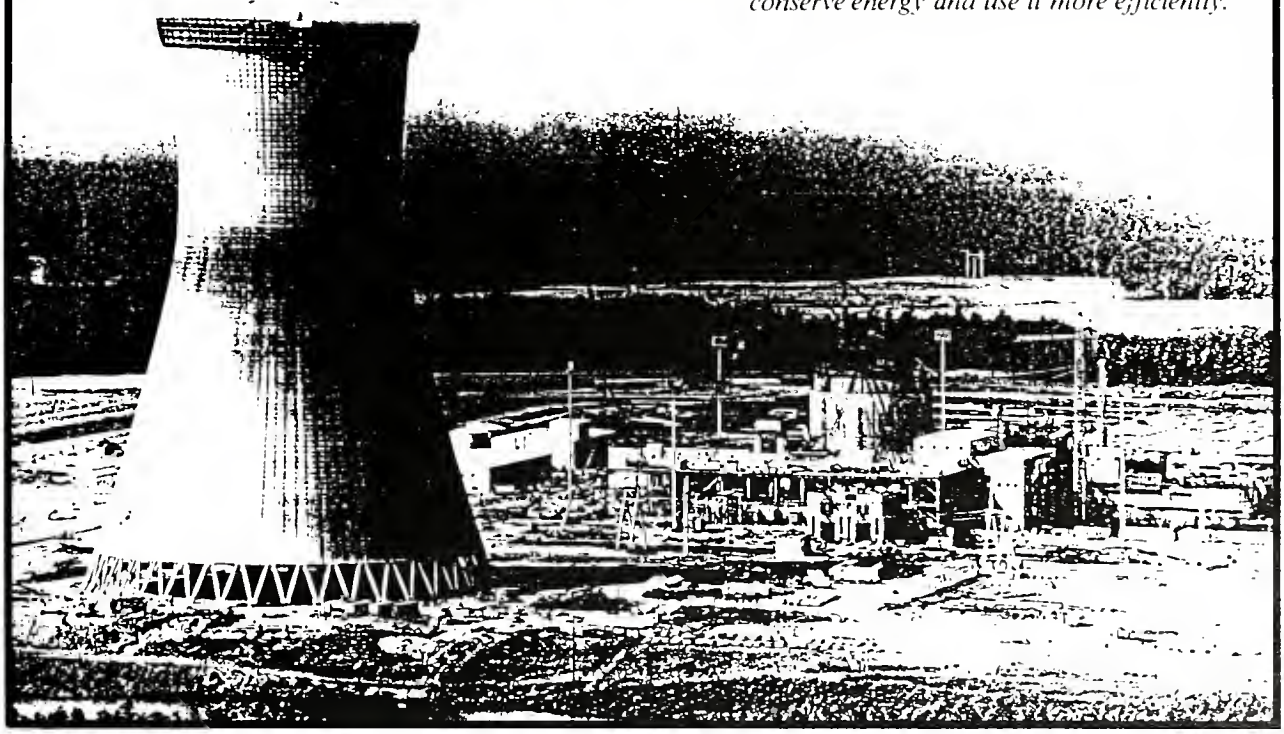
Franchises for motor freight and passenger transportation consist of authorizations to serve either points (cities and towns) or routes between points. As noted earlier, usually a number of carriers are authorized to serve most points and routes.[8]

The important role played by municipal and cooperative enterprises in electric, natural gas, and telephone services reflects a degree of balance in North Carolina not seen in many other areas of the United States. Recent partial acquisition by both electric cities and electric cooperatives of the facilities for generating their own electricity requirements (by purchasing an interest in power company plants) should help to make the future of those enterprises more secure.

To the average public utility customer—whether a householder, farmer, businessman, or industrialist—the most important aspect of utility regulation is the size of his monthly bill. Like everything else in recent years, utility rates have gone up drastically. But there is a very great difference between the way that prices for competitive goods are derived and the way rates for utility services are set. Theoretically, at least, competition in the marketplace tends to keep most prices in line with the reasonable cost of production and avoids excess or unreasonable profits. Those who are more efficient and keep their prices lower will get the business, while those who are inefficient and must charge prices that will cover their inefficiencies will lose the business. Public utilities do not follow that principle. Historically operating without competition while being required to meet reasonable standards of availability and service, public utilities operate under regulation, which substitutes for competition. Utility prices (rates), while certainly affected by market forces, are ultimately set by regulators—and whatever those rates are, the customer must pay or do without. Except for long-distance telephone service, in which competition is now becoming a reality, he

8. Because the transportation industry is competitive and transportation rates are set differently from the rates of other utilities, the remainder of this article does not deal with transportation regulation.

"Our continued dependence on foreign sources of crude oil, environmental restraints on domestic production, and problems in the nuclear power industry all combine to tell us loud and clear that we must strive to conserve energy and use it more efficiently."



cannot go across the street and do business with someone else. The customer therefore has an immediate and vital interest in how regulation works in determining the rates he must pay.

Rates are established through this process:

—The utility company applies for new or different, usually higher, rates;

—The Commission holds a hearing in which it hears evidence from the utility, the Public Staff, and other interested parties about whether the increase in needed;

—The Commission issues an order deciding whether or to what extent the proposed new rates may go into effect.

The controlling statute, G.S. 62-133, requires the Commission to go through five basic steps in each general rate case:

(1) Determine the reasonable cost of the property used by the utility in furnishing service;

(2) Estimate the utility's revenue under its present and proposed rates;

(3) Ascertain the utility's operating expenses;

(4) Fix such rate of return on the cost of the utility's property as will both produce a fair return for its shareholders and permit the company to maintain its facilities properly and compete in the market for capital funds on reasonable terms; and

(5) Fix the rates at such a level as will cover the utility's reasonable operating expenses and earn the utility the allowed rate of return.

While the process of utility rate-making often becomes complicated, the basic aim is quite simple: to set rates at a level that will allow the utility (1) to recover its *reasonable* operating expenses; (2) to recover its *reasonable* investment in plant facilities, through depreciation; and (3) to make, by sound management, a *reasonable* profit for its owners.

The obvious key to the success of this process is that magic word "reasonable." And that, essentially, is what rate-making is—or ought to be—all about. The absence of competitive forces in the marketplace requires that regulation become the substitute for competition, which leads to the possibility that regulated utilities may be only as efficient as they are required to be by those who regulate them. This proposition, while simply stated, constitutes an immense challenge to regulators and perhaps inevitably leaves questions in the minds of those customers who pay the monthly bills. While it would not be accurate to say that regulation works so as to *guarantee* profits to public utilities, history tends to lend some substance to the public's perception that such may be the case. There seems to be no record that any major public utility in North Carolina has operated at a loss or has had to go out of business because it could not make a profit. The accepted theory underlying regulation, however, is to set rates at a level that will *allow* but not *guarantee* operation at a profit. Rates for electric, natural gas, telephone, and larger water utilities are geared to investment in plant facilities, while rates for smaller water companies and for motor carriers are geared to operating ratios. The first approach allows the utility to earn a certain rate of return on its investment, while the second method allows the utility or carrier to earn a certain rate of profit on its gross income.

While the public is concerned about the rates for all utility services, people are most distressed over electric rates. Two aspects of rate-making for electric utilities have been particular targets of public indignation—fuel clauses and construction work in progress (CWIP). Fuel clauses have excited a great deal of concern, discussion, and legislative action. In the normal rate case, the Commission may examine and investigate every aspect of the utility's operation to determine whether it is being operated efficiently and whether its costs of providing service are reasonable. These cases involve many issues and take weeks to hear. In 1975 electric utilities obtained legislation to require the Commission, in proceedings that were expedited by restricting the factors considered, to consider fuel costs separately from other operating expenses and to allow frequent rate changes on the basis of increases in fuel costs alone. These frequent changes have become known generally as "fuel clauses." In recent years, fuel clauses have constituted the largest number of increases in electric rates. Because the companies were allowed to file for these clauses on a quarterly basis and because the Commission was required to hold expedited hearings confined to the issue of fuel expenses alone, public indignation grew. As a result, the General Assembly in the June 1982 session made fundamental changes in the way fuel clauses are administered. There now may be only one fuel-cost hearing per year for each power company. In these hearings, the Commission will be required to examine all aspects of how fuel costs are incurred, including whether the particular power company is being efficiently operated and managed.

The General Assembly also acted on CWIP in the June 1982 session. A word of explanation about CWIP: As noted earlier, electric rates are set to allow a fair return on plant investment (or "rate base"). Before 1977, North Carolina law provided that only such plant facilities as were in actual use could be included in the rate base; therefore power companies could not require their customers to start paying the costs of new power plants until those plants went into operation. In the 1977 session, the General Assembly changed the law to allow power companies to start adding new power plants (and other facilities) to their rate base while the plants were still under construction.[9] CWIP has accounted for a significant part of the rate increases requested in recent electric rate cases, apparently causing concern in the legislature that the Utilities Commission was either unable or reluctant to monitor these costs carefully. In June 1982, the General Assembly amended the CWIP statute to require the Commission to determine in each rate case whether the CWIP portion of the rate base is reasonable. It remains to be seen whether this

9. CWIP applies to all utilities, but it has not to date been a significant factor in the rates of utilities other than power companies.

change will settle the CWIP debate. Before CWIP, the principal incentive for a power company to finish building a new plant on time was to get the new plant in the rate base and start recovering its cost. With CWIP, that incentive is significantly compromised, and it will therefore be the Commission's responsibility to help furnish the incentive. Given the complex nature of new power plants (many of which are nuclear), the long construction times, the complexity of federal regulation affecting these plants, and a host of other factors, effective monitoring of CWIP presents an immense task for the Commission and the Public Staff.

What about the future?

The future for the regulation of public utilities presents many challenges, particularly in the fields of energy and telecommunications.

Energy first. It is clear that our energy future is—and for some time to come will be—uncertain. Our continued dependence on foreign sources of crude oil, environmental restraints on domestic production, and problems in the nuclear power industry all combine to tell us loud and clear that we must strive to conserve energy and use it more efficiently. Customers of power companies often complain that their efforts to conserve electricity have not produced proportionate savings—that they are using less but paying more. This is an unfortunate and often frustrating fact of today's energy life. Everything needed to produce electric power is constantly rising in cost. Especially troublesome is the rapid escalation in the cost of building new power plants, particularly nuclear plants. To illustrate, in 1973 Carolina Power and Light obtained a license to build its Shearon Harris nuclear station south of Raleigh. At that time the estimated unit cost for that facility was $276 per kilowatt of capacity. The present estimate is approximately $2,100 per KW of capacity—or almost *eight* times as expensive as the original estimate. The plant, when finished, will be about ten years behind schedule. Such figures tell us in the clearest terms that from the standpoint of his monthly bill, the customer would be much better off without new power plants. Recognizing this, Carolina Power and Light and Duke Power Company have canceled plans to build four new nuclear units. But if we are to have a reliable supply of electricity in the future, we cannot do without new power plants of *some* kind. The valid goal we must all pursue is to require the absolute minimum of new plant capacity. By emphasizing conservation, by maximizing the use of solar sources, and by discovery and use of more natural gas, we may reduce our dependence on electricity. The challange to all concerned, especially those in regulation, will be to keep this absolutely vital service available to all.

And now telephone service. There is an old saying, often used by politicans seeking to explain their attitude about governmental policy, that says, "If it ain't broke, don't fix it." While this maxim may not be a universally sound response to any given problem, it does catch the essence of what federal agencies are doing to our telephone service. In recent years the telephone network and system in the United States has been superb—the envy of the world. But as good as the system is, federal agencies through the last decade have seemed determined to "fix it"—and in so doing they have significantly affected the authority and effectiveness of state regulation. For instance, since January 1, 1983, the local telephone company is substantially restricted in its authority to install, maintain, or repair new telephones. While the telephone company will continue for at least a while to be responsible for those phones it owned before January 1, 1983, since that date anyone who wants a new telephone may have to buy it and install it himself. If it does not function properly, he may have to get someone other than the telephone company to repair it. Another change will cost state regulators the ability to require that the telephone company have access to long-distance revenues in order to help cover the cost of local telphone service; these revenues represent a subsidy that equals about half the cost of local service, and they thereby help to keep the cost of local telephone service low. While this change may benefit high-volume users of long-distance service, it will almost certainly cause local telephone rates to go up. While we may hope that state regulators can find ways to mitigate this onslaught from Washington, it seems that the days of low-cost, flat-rate local telephone service may be numbered.

The bright side of this picture is that we may in many ways have better and more diversified telephone service than ever before—the ingenuity of those in the business seems to be endless. But as a result of federal decisions, the service will be different in many ways, and we should be prepared to deal with the changes in how we obtain, maintain, and pay for it.

Conclusion

The regulation of public utilities remains a vital function of state government. But good regulation does not just happen. It requires the best efforts of the General Assembly, the Utilities Commission, the Public Staff, and the regulated companies. ●

The Drinking-Driving Problem: Assessing Some Proposed Solutions

L. Poindexter Watts

The national press in recent months has let us know that there is a groundswell of public indignation about the number of people under the influence of alcohol who are driving the nation's highways. Groups like MADD (Mothers Against Drunk Drivers) have become national in scope. State after state has revised or is revising its package of laws to deal with the drinking driver. The federal Department of Transportation has designated the alcohol traffic-safety problem for special attention, and Congress has passed a measure to give incentive funds to any state that adopts certain stringent provisions for dealing with the drinking driver. We also have a Presidential Commission on Drunk Driving scheduled to report in April 1983.

About two years ago North Carolina's Governor Hunt directed the Governor's Crime Commission to concentrate on the problem of the drinking driver. The Crime Commission's report of early 1982 recommends a number of changes in law and practice. Perhaps the most newsworthy recommendation was a proposal to raise the legal age for purchasing wine and beer to 21—the same age as for purchasing hard liquor in ABC stores. The Governor appointed a broad-based Governor's Task Force on Drunken Drivers to hold public hearings on the Crime Commission's proposals across the state and draft a legislative package for the 1983 session of the General Assembly. The Task Force proposed a voluminous legislative package. It retreated on the drinking-age issue, recommending only that the age to purchase beer and unfortified wine be raised to 19.[1] It added a dram-shop proposal[2] and provided a number of ways to revoke drivers' licenses for varying periods. Many of the specific Task Force proposals will be discussed later in this article.

A capsule history

Despite the experiment with Prohibition during the 1920s, at least some Americans have always drunk alcoholic beverages. In colonial days, in nineteenth-century factory towns, on the frontier, and sometimes on the farm, whiskey and malt beverages were with us. Furthermore, after Repeal the use of alcohol—

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1. The Governor's Crime Commission, in a meeting following the Task Force report, repeated its recommendation that the age should be 21.

2. The Task Force's dram-shop proposal would make the owners or managers of establishments selling alcoholic beverages civilly liable for damages if: (a) the establishment unlawfully sells alcoholic beverages to an under-age or intoxicated person; (b) the person served has an automobile accident and causes damage to another (including loss of support to dependents); and (c) the accident was at least in part caused by the alcoholic beverages served. The owner or manager would have a defense if he could show that he took adequate precautions to prevent unlawful sales to under-age or intoxicated persons in his establishment.

especially in the form of wine and beer—extended into sectors of the population that had previously rejected it. As the automobile became an indispensable part of our lives, it was inevitable that increasing numbers of people would drive while their physical or mental faculties were impaired by alcohol. In the early days of the automobile, legislatures enacted strict penalties against people who drove while intoxicated. But policymakers soon realized that drivers were dangerous at levels of impairment below the level of "intoxication" that applied to the offensive public drunk, and most states settled on the phrase "under the influence" of alcohol to describe this lesser impairment. With the introduction of driver licenses as a traffic-safety control measure, many states adopted mandatory license suspensions as a consequence of being convicted of driving under the influence of alcohol. But that approach has often been counterproductive. While the public recognizes that the drinking driver is dangerous, it seems to view lengthy driving restrictions as an extremely severe punishment, and convictions that have meant mandatory loss of license have been much harder to obtain than convictions for most other traffic offenses. The middle classes are prosecuted for driving under the influence of alcohol more often than for any other severely sanctioned crime, and there have been enormous political pressures on the criminal justice system at all levels in regard to under-the-influence arrests and prosecutions.

Historically, the problem in making arrests and getting convictions was that there was no clear-cut point at which a defendant could be said to be under the influence of alcohol. Without doubt most American drinkers can drive safely with moderate amounts of alcohol in their system—and many do! So no law could be passed, much less effectively enforced, that prohibited all driving after drinking. Even when the impairment would be obvious to a neutral observer, law enforcement officers often found themselves in court unable to paint a sufficient word picture of the defendant's impairment to convince a jury that was reluctant to take away the defendant's driving privilege.

Many strategies have been offered to overcome officers' problems in detecting and describing alcohol impairment—for example, standardized tests for demonstrating impairment (picking up coins, walking a straight line, etc.). Some police agencies began taking movies, and later videotapes, of arrested drivers.[3] Officers were coached in training sessions on telltale signs of impairment, which led defense lawyers to charge that the officers used the same "litany" in every case: the defendant had the odor of alcohol about him, bleary eyes, slurred speech, and a red nose; he staggered as he walked and fumbled as he tried to take his driver license out of his wallet; and in the officer's opinion he was under the influence of alcohol.

Into this picture came chemical testing for alcohol. The test was a godsend, because it cut through many of the variables affecting the relationships between the amount drunk and the level of impairment. A person's weight, how fast he drank, how much food was in his stomach, and his individual rate of metabolizing alcohol would all affect the blood-alcohol concentration, but that concentration reliably showed how much alcohol was circulating into the drinker's brain and impairing him. An experienced drinker could learn to compensate for the effects of impairment at moderate levels and conceal his impairment to some extent, but this variable is far easier to deal with than the others. Also, later research clearly indicates that even the experienced drinker who has learned to conceal the impairment of his motor skills has an impairment of *judgment* at about the same level as others less experienced. Researchers now generally agree that most persons begin to come under the influence of alcohol at a blood-alcohol concentration of about 0.05 per cent, and almost all persons are affected to some degree by 0.08 per cent. That is, their judgment will be impaired enough to keep them from coping with emergencies during the complex driving task.

Unfortunately, it took many years of research to develop this consensus. Even the earliest researchers recognized the effect of alcohol at around 0.05 per cent on the average person, but laboratory tests of simple motor skills revealed occasional persons whose scores were not significantly affected until they approached overt intoxication—0.15 per cent. What these simple laboratory tests did not measure was (1) the tendency of those who concealed impairment to have small lapses of concentration that could be fatal on the highway, and (2) the effect of given amounts of consumed alcohol on judgment in performing complex tasks. For example, quickly slamming on the brakes might well be the wrong thing to do in a traffic emergency—it would require a check of the rear-view mirror, a gauging of speed of approaching vehicles, etc.; the correct response might be speeding up or an evasive maneuver. These oversimple laboratory tests led in the late 1930s to the first laws in this country that stated a relationship based on blood-alcohol concentration. Until the late 1950s this relationship was generally expressed as follows: (1) Under 0.05 per cent—presumption that one is not under the influence of alcohol. (2) Between 0.05 and 0.15 per cent—no presumption. (3) Over 0.15 per cent—presumption that one is under the influence of alcohol.

The drive toward chemical testing was spearheaded by the National Safety Council's Committee on Tests for Intoxication (now the Committee on Alcohol and Other Drugs) and the American Bar Association's Committee on Medicolegal Problems. In addition, the National Committee on Uniform Traffic Laws and Ordinances has placed model chemical test legislation in its continually updated *Uniform Vehicle Code*. That model legislation includes the use of the implied-consent concept to undergird a government's right to compel a driver to submit to a chemical test for intoxication—a concept advanced when it was not clear whether a government could constitutionally force a driver to take the test. The model law proclaims that every driver who uses highways (and perhaps other public roadways) in the state is deemed to have consented to a chemical test to determine his blood-alcohol concentration, and each state's version of that law specifies what body products may be tested. States that adopted the legislation generally allow arresting officers to designate a test of either blood or breath, and some also authorize officers to specify a urine test as a third alternative.[4] The model

3. The general experience with movies and videotapes has been bad. They are useful with some grossly intoxicated drivers, but many highly unsafe, highly impaired drivers are experienced drinkers who can pull themselves together when on camera. In these instances, a good case is undermined. The blood-alcohol concentration is a far more accurate gauge of impairment.

4. Urine testing gives a far less reliable surrogate reading of the alcohol in the blood than alveolar (deep-lung) breath, and the use of urine testing is generally disappearing from those jurisdictions that have allowed it.

legislation further gives the driver a right to refuse the chemical test—though that refusal would result in a license suspension. The early model legislation, as noted above, then set presumptive levels based on blood-alcohol concentration.

The 1960s were a time of ferment in the field of alcohol abuse and traffic safety. In 1960, following the recommendation of a distinguished group of scientists a year earlier at Indiana University, the American Medical Association recommended that the presumptive (or prima facie) level for being under the influence of alcohol be lowered to a blood-alcohol concentration of 0.10 per cent. In 1962 the *Uniform Vehicle Code* was amended to follow suit. In 1964 a massive study of drivers in Grand Rapids, Michigan, showed how serious the alcohol / traffic-safety problem truly was and confirmed the great increase in hazard that occurs when a driver's blood-alcohol concentration exceeds 0.08 per cent. The higher the blood-alcohol concentration, the greater the risk of an accident—and the more certain it is that alcohol is the principal cause of the risk.[5] Also, beginning in the 1960s, the bodies of drivers killed in traffic accidents were routinely autopsied; these autopsies revealed that approximately 50 per cent of those drivers had been under the influence of alcohol.[6] The Supreme Court's decision in *Schmerber v. California* upholding chemical testing accelerated the use of chemical testing against the drinking driver.[7]

In 1968 the National Highway Safety Bureau of the federal Department of Transportation sent to Congress a report that gathered the latest and best information about drinking-driving problems and made a number of recommendations, most of which were translated into federal legislation or administrative action. A threat to cut off federal highway money to states that did not comply with certain required Alcohol Standards quickly persuaded the states that had not yet done so to adopt implied-consent legislation and embrace the new 0.10 per cent level.[8]

By 1970 the National Highway Traffic Safety Administration[9] had embarked on a program of Alcohol Safety Action Projects in localities across the country to test various ways of coping with the drinking driver. These projects sought a systems approach to controlling the impaired driver, and they attacked the problem at a number of levels—enforcement, prosecution, sanctioning alternatives, educational and treatment progams, public information programs, and the like. The projects varied widely in how they undertook their task, and they showed great promise as demonstration projects to validate drinking-driving countermeasures. The federal legislation required that each project be rigorously evaluated so that successes could be readily identified and copied. That goal was never reached—for two major reasons. One was that proponents and administrators of the projects were enthusiasts or empire builders and believed so much in the value of what they were doing that they saw no need for rigorous evaluation. The other was local reluctance to deny treatment under the project to a control group for purposes of evaluation. For example, a person who participated in the Charlotte-Mecklenburg Alcohol Safety Action Project and now advocates continued use of schools for convicted drinking drivers was questioned about how well such schools had succeeded in re-educating those convicted of drinking-driving offenses. He answered that while he personally had great faith in the value of the schools, no objective evaluation of the Charlotte-Mecklenburg project had been possible. It seems that in sentencing those convicted of drinking-driving offenses a key Charlotte judge who had been cooperating with the project refused to allow a project design that would send to school only half of the defendants who met the criteria for attending the school. The judge saw the value of having a control group for evaluation purposes, but he was afraid of the public criticism that might result if a defendant who was *not* sent to the school drove while drinking and killed or seriously injured someone. This kind of obstruction occurred nationwide, and in the end very few Alcohol Safety Action Projects were rigorously evaluated.[10]

Even today, there is controversy over whether these projects were a $200 million[11] boondoggle. In its own *post hoc* evaluation of them, the Department of Transportation found almost no effect on overall traffic safety by any project except those in a few places that substantially increased the visibility of law enforcement efforts. It is possible that sensitive evaluations of the projects could have identified a number of measures, among the many offered by the projects, that can have incremental effects and that an appropriate combination of these measures might have significantly affected the alcohol/traffic-safety problem—and there is the lost opportunity! But it is clear that no single measure or easy set of measures can make much long-term difference, and this

5. At concentrations under 0.10 per cent there are differences in accident potential based on age, driving experience, sex, race, social class, etc., among drinking drivers. But as the level climbs, all other factors become more and more insignificant, and the sole correlate of the risk seems to become the blood-alcohol concentration.

6. One should not immediately conclude, as some have done, that alcohol is a causative factor in 50 per cent of traffic *accidents*. Fatal accidents have a different profile from average traffic accidents; one major characteristic is the large number of single-car accidents in the fatal group. Alcohol is most prominent, of course, in those single-car accidents.

7. In *Schmerber*, decided in 1966, the United States Supreme Court upheld chemical testing in a case from a state that did not then have an implied-consent statute and had tested the defendant over his objection. That decision allows compelled testing of drivers when there is strong evidence of impairment. But there has been no pressure to remove implied-consent laws from the books or to remove the statutory right to refuse a chemical test from such laws. Indeed, today every state has an implied-consent law that complies with federal guidelines. Any state that did not could lose federal highway funds. The explanation seems to be that policymakers prefer an implied-consent law to the difficulties that would flow from widespread use of force to compel testing for alcohol.

8. Without this federal pressure, the presumptive level in some states would have remained at the disastrously high 0.15 per cent. Even though the original model legislation said that there was no presumption for blood-alcohol concentrations between 0.05 and 0.15 per cent, a defendant in a state with that legislation usually was acquitted if his blood-alcohol concentration was 0.15 or less—and in some courts a defendant was given "the benefit of the doubt" if his reading was 0.18 per cent or less.

9. This Administration (NHTSA) superseded the National Highway Safety Bureau in 1970.

10. A complicating factor is separating the variables. The Arab oil embargo and consequent lowering of the speed limit in the mid-1970s reduced accidents and fatalities far more than any direct alcohol countermeasure ever could and makes it harder to isolate the effect of the alcohol projects.

11. At least $88 million in federal funds went into these projects, but with matching public funds they totaled more than $200 million in costs.

conclusion fits in with information from other countries to paint a fairly discouraging picture of what can be done about the drinking driver.

By the early 1970s the traffic-safety establishment had placed major emphasis on the "Scandinavian approach" to alcohol use and traffic safety. In the 1930s and 1940s a strong temperance movement in Norway and Sweden helped secure strict legislation to deal with the drinking driver. Authorities in those countries are convinced that their system works, and they have been selling it in international conferences since World War II. Its major components are:

(1) Legislation that flatly prohibits driving with a blood-alcohol concentration above a certain level—without regard to whether the driver is impaired.
(2) Relatively low legal limits for blood-alcohol concentration—0.05 or 0.08 per cent.
(3) Mandatory harsh penalties for convicted drinking drivers—for example, fairly long jail terms for repeat offenders and those with high blood-alcohol concentrations.
(4) A criminal court system that deals swiftly and certainly with defendants, with little chance of acquittal for one factually guilty—including the rich and the well connected.

After studying the Scandinavian approach, at least a dozen jurisdictions in the 1970s adopted "per se" laws that replaced the former presumptive or prima facie levels.[12] These states set the limit at a 0.10 per cent blood-alcohol concentration.[13]

In theory, the per se laws based on chemical tests should have greatly simplified prosecutions of alcohol-impaired drivers. Such a law removes from the majority of cases—those in which the test results exceed the legal limit—the issue of whether the defendant was actually impaired, and the outcome of the case should be relatively clear-cut if the state has a well-run chemical testing program. But even though drinking-driving cases are undoubtedly handled more effectively now than formerly, there is little evidence that the per se laws have substantially increased the law's deterrent effect.[14]

Two other developments to be discussed later should be mentioned here. One is the attempt to make conviction more certain by modifying the harshness of the license-revocation penalty. In North Carolina and elsewhere one popular way to do this has been to give a first offender a limited driving privilege or occupational license that allows him to continue essential driving connected with his livelihood. The other development, following the lead of certain Alcohol Safety Action Projects, has been to require a person convicted of impaired driving to attend a school or treatment program.

12. A jurisdiction with a per se law still needs under-the-influence legislation to cover cases in which the defendant is actually impaired at levels below the legal limit or in which a chemical test is either unavailable or refused.

13. About five states have legislation recognizing blood-alcohol concentrations under 0.10 per cent. Usually this is a presumptive level for a lesser degree of impairment than the state's under-the-influence or per se law provides. Idaho fixes its presumptive level for the under-the-influence offense at over 0.08 per cent.

Possible reforms

Experts say that the criminal justice system deters prohibited conduct through fear of apprehension, swiftness and certainty of conviction, and severity of the punishment. But of course this is not the whole story. Perhaps more important than the deterrent effect of the law itself is social pressure from family, employers, neighbors, and members of peer groups. Sometimes these social influences undercut the law; sometimes the presence of the law reinforces them. Another aspect of the interaction of law and public opinion is the labeling process that accompanies conviction of a crime. With some people, the fear of the humiliation of being embroiled in the criminal courts may be greater than the dread of the punishment that might be imposed. On the other hand, little or no stigma attaches to many traffic misdemeanors, even though these offenses are technically crimes. The impaired-driving offense is particularly hard to classify; as noted above, the public has been ambivalent toward it.

These concepts of law and deterrence inevitably arise when we consider what can be done to reduce the dangers caused by drinking drivers. Past experience indi-

14. A 1981 study of 15 states with per se laws reported a decline of plea bargaining in a number of jurisdictions, but the figures given for some states showed a decline in conviction rates following enactment of a per se law. See the articles by Ben Loeb on North Carolina drinking-driving prosecution statistics in the Spring 1981 and Winter 1976 issues of *Popular Government*. It must be stressed, though, that actual incidence of plea bargaining and the level of conviction rates may not directly affect deterrence.

cates that the answer is "Not much!"—but public arousal could change that answer *if it can be sustained.* The aroused public can reinforce, and be reinforced by, the operation of the law.

Other states' reactions. As it so often has been with other social and political concerns, *California* has been an experimenter in regard to drinking drivers. After the formation of the original MADD groups there, California began a process of beefing up its drinking-driving laws. It adopted some rigorous drinking-driving laws that had already been adopted elsewhere, amended others, and added new wrinkles of its own. Most important was the broad scale of the attack; the state was politically behind the new laws. In 1981 it adopted one massive set of laws and in early 1982 enacted another large group of primarily technical changes to those laws to smooth the operation of its system for handling the impaired driver. The laws, passed in 1981 and 1982, took the following actions:

—Added a per se law at the 0.10 per cent level.

—Made the driving-under-the-influence and per se offenses apply anywhere in the state; formerly the per se law applied only to highways and off-highway areas open to the general public.

—Added an inflation increment to its minimum fine for first offenders to bring that minimum to $375.

—Increased the minimum jail time for first offenders from 48 to 96 hours.

—Made more stringent the conditions of probation by which a first offender can avoid jail.

—Generally reduced the discretion of judges and prosecutors in regard to reductions of charge and plea negotiations, requiring full statements in the court records of specifically why the discretion was exercised.

—Continued use of mandated schools and treatment programs but restricted use of the schools and programs to *convicted* defendants only; they may not be used as alternatives under any deferred-prosecution arrangement.

—To enhance punishment, counted out-of-state and federal convictions for impaired-driving offenses as prior convictions.

—Amended its felony/misdemeanor crime of driving under the influence and causing death or bodily injury to another, making the charge apply also to one who causes death or injury while violating the per se law.

A Breathalyzer is commonly used to measure blood-alcohol concentrations.

—Amended the provision that allowed the judge to impound from one to 30 days the vehicle registered to an under-21 driver who was convicted of a drinking-driving offense. The provision now applies to driver-owners of any age and in cases of convictions of both the impaired-driving misdemeanor and the companion death/bodily injury offense. The impoundment is at the owner's expense.

New York is another noteworthy state. It has for several years had an interesting evidentiary provision keyed to a two-degree under-the-influence offense:

(1) Blood-alcohol concentration of more than 0.05 per cent up to 0.07 per cent—prima facie evidence of not violating the higher-degree crime but relevant evidence of the lower-degree crime.

(2) Blood-alcohol concentration over 0.07 per cent to less than 0.10 per cent—prima facie evidence of not violating the higher-degree crime but prima facie evidence of guilt of the lower-degree crime.

At a blood-alcohol concentration of 0.10 per cent or above, a companion per se law carries the same punishment as the higher-level under-the-influence offense.

In 1980 New York assembled a task force to make a massive study of impaired driving. It spent many millions of dollars and made an exhaustive assessment of possible countermeasures. In perhaps its most noteworthy proposal, it recommended (on the basis of a Minnesota law) a separate "fast-track" civil procedure—independent of any action in the criminal courts—to take the license of any driver who either refuses to take a chemical test under the implied-consent law or takes the test and has a blood-alcohol concentration over the legal limit. In Minnesota the arresting officer personally collects the license from the driver and issues him a temporary driving permit good for a limited period pending any hearing the driver may request. Because there are no extensions of the officer's permit, this approach removes the incentive for delaying either any civil hearings on the license suspension or the separate criminal proceedings. The New York proposal would speed things up even more. Many other features of New York laws and its task force proposals were a starting point for the Governor's Crime Commission in North Carolina.

Maryland has passed stringent impaired-driving legislation. Its best-publicized move has been to raise the drinking age to 21. Statistics in the several states that lowered the drinking age to 18 after the voting age was lowered showed an increase of highway fatalities among the age group newly allowed to buy alcoholic beverages. Correspondingly, in several states in which the drinking age was later raised, highway fatalities in the affected age group decreased.

Other major features of the new Maryland legislation include lowering the applicable blood-alcohol concentrations for its two degrees of impaired driving: the threshold for the lower-degree crime is now .08 per cent, and for the higher-degree offense, 0.13 per cent. Also, in common with the New York task force recommendations, the Maryland law eases law enforcement officers' apprehension with measures to help them separate the impaired drinking driver from the nonimpaired drinking driver.

Many other states either have task forces on drinking driving or have adopted stringent new laws on the subject in the last several years. Most of the major provisions are similar to those discussed above or in the recommendations of our Governor's Crime Commission or Task Force.

Crime Commission recommendations. As noted earlier, in North Carolina the Governor's Crime Commission made a comprehensive set of recommendations (set out on the next page) that formed the starting point for the Governor's Task Force on Drunken Drivers (see the major proposals on page 26). The policy issues in a number of the recommendations by both the Crime Commission and the Task Force are discussed later in this article.

Committee on Alcohol and Other Drugs

The Action Programs Subcommittee of the National Safety Council's Committee on Alcohol and Other Drugs examined the flood of proposals and changes in the various states and in February 1982 reported on what research to date shows might, and might not, work. The committee approved the basic concepts of the the report and asked the subcommittee to refine its statements and bring them back to the committee in October 1982 for consideration as position statements. The subcommittee made four interrelated recommendations concerning direct measures against drinking drivers and added a fifth recommendation as to an indirect approach. Because of a tactical dispute within the committee concerning the first recommendation, the committee took no final action on the first four recommendations. It adopted the fifth. The five recommendations are:

1. **Increase fear of apprehension.** *Increase the numbers of impaired-driving offenders identified by improving enforcement. In particular, require that all drivers in moving violations or crashes be tested by a reliable breath alcohol screening device or some other chemical test for alcohol, and widely publicize these changes in enforcement.*

This first recommendation is the one most likely to pay off across the board, but there are constitutional questions as to the use of routine alcohol screening in crashes and moving violations. Proponents say that this practice is similar in principle to routine airport searches, but others disagree. No case from the United States Supreme Court has addressed this issue, and a group within the committee had reservations about recommending as uniform national policy something of disputed constitutionality.[15] This dispute

15. Several committee members with reservations favor adoption of this roadside screening proposal by individual states (New York already

Governor's Crime Commission — Proposals on Driving Under the Influence

Increase Public Awareness

1. Increase emphasis on hazards and penalties of driving under the influence (DUI) in driver's education classes.
2. Increase education on alcohol abuse in a statewide health education program.
3. Increase education and media programs for the general public concerning the effects of alcohol and the hazards and penalties of driving under the influence.
4. Raise drinking age for malt beverages and wine to twenty-one phased in over a three-year period.

Address the Problem Drinking Driver

5. Require that anyone caught driving with a blood alcohol content of .20 per cent or more, or anyone arrested for a second or more DUI offense be referred to the local alcohol treatment facility.
6. Expand uses of alternatives to incarceration in dealing with the habitual DUI offender, especially community service restitution.
7. Stress the need to build DUI cases on evidence of "appreciable impairment" and not rely only on the Breathalyzer in basic law enforcement training.
8. Support the efforts of the alcohol and drug abuse section in coordinating the efforts of the various agencies that deal with alcohol and substance abuse problems.
9. Increase the level of follow-up action on individuals who do not successfully complete the DUI school.
10. Eliminate the offense of careless and reckless driving after drinking and set up a gradation of DUI offenses based on the severity of the infraction with commensurate punishments.
11. Support an increase in funding for Breathalyzer training from the Highway Fund.
12. An annual report shall be published by the Division of Motor Vehicles listing the disposition of DUI charges by blood-alcohol concentration (BAC) level for each county in the state and identifying the presiding judge and prosecuting attorney.
13. An individual arrested for DUI may be held for a maximum of four hours if the magistrate finds probable cause that the individual is under the influence.
14. Create a Class I felony of driving under the influence of alcoholic beverages and causing serious injury.
15. Extend the period of license revocation that results from refusing to take the Breathalyzer test to one year, with a limited privilege available after six months.
16. The Crime Commission recommends that Breathalyzer evidence be admitted in district court on appropriate certification by the Breathalyzer operator.
17. The Governor's Crime Commission recommends that the Task Force on Drunken Drivers look into administrative revocation of drivers' licenses and impoundment of the automobile as strategies to reduce driving under the influence.

Governor's Task Force on Drunken Drivers — Proposals on Driving While Impaired

Public Education Recommendations

1. Increase education on alcohol abuse in statewide health education program.
2. Increase emphasis on hazards and penalties of driving under the influence in driver's education classes.
3. Increase education and media programs for the general public concerning the effects of alcohol and the hazards and penalties of driving under the influence.
4. Raise the age for buying and possessing malt beverages and wine to 19.
5. Support the efforts of the DUI Coordinating Council to coordinate the activities of the various agencies that deal with alcohol and substance-abuse problems.
6. Enact a dram shop statute that creates civil liability for unlawful sale of alcohol to under-age or intoxicated persons.
7. Enact a statute that prohibits the possession of an open container of beer or wine by the driver of a motor vehicle.
8. Adopt a legislative resolution to ban advertising of beer and wine on television and radio or at least require public service announcements as to the hazards of alcohol abuse and driving after drinking.

Enforcement Recommendations

9. Increase funding for training in chemical testing for alcohol.
10. Increase funding for training of law enforcement officers in detection of drunken drivers.
11. Expand impaired-driving enforcement programs across the state.
12. Admit Breathalyzer evidence in district court on appropriate certification by the Breathalyzer operator.
13. Adopt a legislative resolution encouraging North Carolina newspapers to publish the names and addresses of persons convicted of impaired driving.
14. Expand the provisions of the implied-consent statute to clarify and expedite chemical testing procedures.
15. Facilitate more roadside breath-test screening for determination of probable cause by the arresting officer.
16. Increase the license-revocation penalty for refusal of a Breathalyzer test in cases involving critical injury or death.

Prosecution and Punishment Recommendations

17. Create one single offense of driving with impaired faculties, with punishment determined by aggravating and mitigating factors—including mandatory jail for Grossly Aggravated Drunk Driving (GADD) and repeal all current alcohol- and drug-related traffic offenses.

Levels of Punishment for Impaired Driving

18. Enact a statute calling for an immediate ten-day administrative revocation of a driver's license for operating a motor vehicle with a blood alcohol content of 0.10 per cent or more.
19. Enact a statute providing for forfeiture or impoundment of the motor vehicle driven by anyone whose license was revoked or suspended for an alcohol-related traffic offense.
20. Extend the period of license revocation for refusal to take a chemical test from six to twelve months, with a limited driving privilege available only after at least six months and disposition of the case.
21. Increase the level of follow-up action on individuals who do not successfully complete the Alcohol and Drug Education Traffic School.
22. Publish a semiannual Division of Motor Vehicles report that lists the disposition of DUI charges by blood alcohol content level for each county in the state and identifies the presiding judge and district attorney.
23. Restrict the use of the limited driving privilege so that the offender must first serve the minimum sentence, and so that the privilege can be allowed only for driving that is related to work, education, or emergency health needs.
24. Extend the provisional license statute to make it unlawful for a person under 18 years of age to drive with any alcohol in his body or an unlawful controlled substance in his blood.
25. Increase services for victims and witnesses in drunk-driving cases by expanding the witness assistant coordinator positions statewide.
26. Require prosecutors to explain reductions or dismissals of charges involving impaired driving.

Rehabilitation and Therapy Recommendations

27. Require that anyone caught driving with a blood alcohol concentration of 0.20 per cent or more and anyone arrested for a second or more impaired driving offense be referred to the local alcohol treatment facility for an assessment of his drinking problem and participation in the recommended treatment program.
28. Enact a statute requiring the magistrate to detain an impaired driver for up to 24 hours, until he is no longer impaired, or until he is released to a responsible adult.
29. Include community service restitution as an alternative punishment in the impaired-driving statute.
30. Restrict participation in an alcohol and drug education traffic school to only one occasion.

has delayed committee action on the first four recommendations.

2. **Reduce punishment to moderate levels for first offenders, but be sure to identify repeat offenders.** *Eliminate severe penalties such as jail sentences for first offenders and mandate license suspension and/or revocation for fixed periods for all convictions for impaired driving. Assure that all arrests involving impaired driving be identified on driving records.*

The period of license suspension envisaged for first offenders is relatively short —not the year or more nominally[16] called for by the North Carolina statute. The Howard-Barnes bill that Congress enacted in the fall of 1982 is instructive. It gives incentive money to states that take prompt action[17] to suspend the licenses of drivers for a minimum of 90 days if they are charged with impaired driving and either register a blood-alcohol concentration of 0.10 per cent or more in a chemical test or refuse the test. As originally introduced, the House and Senate versions specified one year of suspension[18] and also required the states to confiscate the vehicles of persons who drive while their license is revoked after an impaired-driving revocation if they wished to get the incentive money. The legislation was modified in committee after testimony by experts that these stiff measures might be counterproductive.

The subcommittee also recommended recording *arrests* on the driver record. This move is intended to assure that impaired-driving offenses are really spotted—even when the final conviction (after plea bargaining, for example) may be for a traffic offense that does not involve use of alcohol or drugs. Fully implementing this policy could radically change the practice in many jurisdictions if it requires that the actual facts rather than mere convictions be examined. There may be constitutional problems in looking behind convictions used to enhance criminal penalties,[19] but these issues would shrink if the examination were in an independent civil hearing on license suspension or revocation.

3. **Swift and certain processing of the case.** *Change the procedures by which offenders are processed to assure swift and certain adjudication.*

The preliminary comments in the subcommittee report made it clear that the members of the subcommittee had the Minnesota fast-track civil procedure primarily in mind.

4. **No credit for attending schools or treatment programs.** *Disallow present alcohol treatment programs as an alternative to license suspension or revocation, though such programs could be an additional mandatory requirement for repeat offenders.*

The subcommittee did not clearly distinguish between schools and treatment programs. The published research to date has found no carefully evaluated education or treatment programs that have reduced the recidivism of drinking drivers as well as license suspension has done. One study of a treatment program that used intensive interaction techniques showed negative recidivism results compared with a similar program in which only license suspension was imposed. It may well be that certain educational efforts have long-term advantages that do not show up in immediate evaluations. Many professionals are still reserving judgment. The preliminary comments in the subcommittee's report observed:

> The evidence shows that drivers required to attend alcohol treatment programs as an *alternative* to losing their licenses have worse accident and violation experience than corresponding groups of drivers subjected to license suspension or revocation. This may reflect inappropriate assignment to rehabilitation programs—as well as ineffective programs—but until there is good research evidence demonstrating effectiveness of such programs they should not be offered as an *alternative* to license suspension or revocation.

5. **Raise the legal drinking age to 21.** *Adopt a legal minimum drinking age of 21, if the present minimum is lower.*

Citing the studies showing that teenage involvement in fatal crashes is reduced when the drinking age is raised, the report also said:

> Clearly, society should do everything possible to separate, both in time and place, the learning to drink alcohol from the learning to drive an automobile. Unfortunately, at the present time many teenagers learn to drink and drive at the same time and in the same place.

Because the fifth recommendation was separable from the first four, the Committee on Alcohol and Other Drugs adopted it at the committee's meeting in October 1982 as a recommended policy statement of the National Safety Council.[20] The recommendation was then adopted by the Traffic Safety Division of the National Safety Council, but the Council's Executive Committee (the Council was then in session) balked at accepting on short notice so controversial a proposal as a national policy statement of the Council. The Executive Committee and then the board of directors instead adopted a milder recommendation:

> The National Safety Council is vitally concerned with the abnormally high per cent of traffic deaths and injuries of our young people under 21 that are related to alcohol—and encourages the passage of appropriate legislation to reduce and prevent this highway tragedy.[21]

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has one); when there are several such state laws, the chances of a definitive ruling from the Supreme Court of the United States are increased.

16. The word "nominally" is used because in North Carolina first offenders who receive the one-year revocation may secure a limited driving privilege in the court's discretion.

17. The term "prompt action" has not been defined in the legislation, and the precise meaning must be fixed by Department of Transportation regulations. There is reason to believe that the congressional sponsors had a fast-track civil procedure in mind, but the answer awaits final promulgation of the regulations.

18. In the enacted legislation, a one-year license-suspension provision does survive: the states that want incentive money must also take prompt action to suspend the license of repeat drinking-driving offenders for at least a year.

19. The Task Force in North Carolina rejected a draft that specifically allowed a judge to use a bad overall traffic record, including arrests, as an aggravating factor in determining punishment for impaired driving. Only traffic *convictions* are among the listed aggravating factors, though a final catch-all factor includes anything else that is "relevant."

20. The wording was: "The National Safety Council strongly supports the adoption of a uniform legal minimum drinking age of 21 for all alcoholic beverages."

21. There is evidence that the Presidential Commission on Drunk Driving is interested in the proposal for a uniform minimum drinking age of 21, and several Commission members at the October 1982 National Safety Congress had hoped for a strong official statement from the

In no particular order and for whatever they may be worth, additional comments are offered below on certain major proposals.

Keeping book on judges and prosecutors

Both the Crime Commission and the Governor's Task Force have recommended that statistics be kept on the individual judges and prosecutors to show how they deal with impaired-driving cases. Some district court judges, who sit without a jury, say that this practice could put pressure on them to convict when they might have a reasonable doubt. The fact is that courts are and have always been public places; anyone may come into the courtroom and observe. If drinking-driving action groups were to be present at trials and report their findings just before elections, they would put very heavy pressure indeed on judges. The statewide statistics proposed by the North Carolina Task Force would be much more neutral. The appropriate defense of any conscientious judge or prosecutor who dismisses a charge, or of any judge who enters a judgment of not guilty, is to state his reasons for the public record. Many states now require judges and prosecutors to put their reasons on the record when they exercise discretion.

Community service as an alternative to jail

Some counties have programs in which a convicted person renders community service as "restitution" for his crime. The Governor's Crime Commission, correctly anticipating that the habitual offender would be a prime candidate for a mandatory jail term under the Task Force proposals, has suggested that habitual impaired drivers might better be placed in these programs than put in jail. One objection to this proposal is that alcoholics do not fare well in these community service programs, and many habitual offenders would be alcoholics. Frankly, it is doubtful whether imposing a jail sentence rather than community service would make much difference as to deterrence, either specific or general. The only danger in the use of the alternative is that the lower classes might be sent to jail and the middle classes assigned to community service.

Under the Governor's Task Force proposals for North Carolina, of the five levels of punishment for impaired driving the two highest call for mandatory jail terms without any alternative of community service. The three lower levels give the judge the option of jail or community service or loss of license for a specified period; the judge *must* pick one of the options and *may* select more than one.

If the legislature comes under heavy pressure to make jail mandatory for many first offenders,[22] the alternative of community service might be a desirable option to modify the unwise harshness of the law.

Curbing abuses of the limited driving privilege

The limited driving privilege in North Carolina is in theory an occupational license issued by a judge to a first offender; it should be strictly limited to the defendant's necessary driving while earning his livelihood. A number of persons complained to the Task Force that many judges in North Carolina place no real restrictions on the driving privilege, and some critics have called for a brief suspension period for all first offenders.

The Task Force proposal would significantly limit the discretion of judges and make them tailor realistic restrictions to the defendant's actual working needs. It has also proposed a ten-day pretrial absolute ban on driving for most arrestees. It is not clear what effect the restrictions on the privilege and the ten-day absolute ban will have on traffic safety. News of the harsher provisions may slightly increase general deterrence. As for specific deterrence or incapacitation of those caught, the general experience is discouraging. The caught are such a small percentage of those who drink while driving that the recidivism rate of the caught is immaterial to overall accident and fatality statistics. Some studies have shown that most people who have their licenses revoked continue to drive—but usually more carefully and safely than the average driver. It may be, though, that people will be more likely to abide by the terms of *short* absolute restrictions. The same psychology could also apply to tightened-up provisions of the limited privilege so long as essential driving is allowed.

Whatever the safety issue, to maintain respect for law judges should apply equal standards in granting limited driving privileges to various defendants. A law that helps achieve this goal is thus most desirable.

Repealing the offense of reckless driving after drinking

For many years judges or plea-bargaining prosecutors who wished to be lenient often reduced a driving-under-the-influence charge to the unrelated offense of reckless driving. According to proper procedure, the original charge had to be dismissed and a new charge for reckless driving made, but this was almost never done. Thus all the reckless-driving judgments entered on driving under-the-influence pleadings were illegal. The General Assembly changed the law to conform with the practice in 1974. It created the new offense of reckless driving after drinking and further declared that this new offense must be treated as a lesser-

National Safety Council on the matter. The milder statement is strong enough, however, for proponents to claim council support for the drinking-age proposal.

The political controversy the proposal arouses is evident from the differing stands taken in North Carolina by the Crime Commission and the Task Force. It is also noteworthy that the New York task force failed to push for a higher drinking age.

Virginia recently raised its drinking age to 19, primarily to slow the trickle-down to youths of high school age. It is not clear whether the North Carolina Task Force had this result in mind when it proposed raising the drinking age for beer and unfortified wine to age 19—it may have been simply watering down the original proposal of the Governor's Crime Commission to raise the uniform drinking age to 21. The Crime Commission strongly made the point that an age differential for drinking beer versus hard liquor sends a message that beer is a harmless social beverage, when in fact it is the major source of the alcohol in driving fatalities. A minority within the task force therefore supported a compromise that would have set a uniform drinking age for all alcoholic beverages at age 20.

22. Nationally, MADD groups have favored stringent penalties, including jail for first offenders. The Task Force punishment proposals require short periods of mandatory jail for first offenders only if there are grossly aggravating factors that result from the impaired driving—serious injury or death, speeding more than 30 miles per hour over the limit, or speeding to avoid arrest.

included offense of driving under the influence of alcohol.

Since the reckless-driving charge does not carry with it an automatic loss of license, it makes a valuable concession to defendants. Even for a first offender who would otherwise be eligible for the limited driving privilege, it has value in not counting as a prior impaired-driving conviction in the event that he is ever arrested again. And for the repeat offender, getting a reduction to reckless driving is perhaps the only way to escape loss of license. This new lesser-included offense has therefore drawn the fire of almost all reformers. The Crime Commission has recommended that it and all other impaired-driving laws be repealed and replaced by a single impaired-driving offense with several levels of punishment. The original Commission's printed report indicated that perhaps the offense would be broken into degrees, but the Commission later approved a modification that would have a single crime with three provisions for punishment—a presumptive punishment to apply in the absence of specific aggravating or mitigating factors and higher and lower levels of punishment when aggravating or mitigating factors are present. This concept the Task Force refined and recommended with five levels of punishment.

Because the offense of reckless driving after drinking symbolizes leniency applied without apparent system or fairness in many districts across the state, this offense will undoubtedly be repealed in 1983 even if nothing else is done about drinking driving. One wonders whether judges and prosecutors will revert to the unauthorized practice of reducing the charge to an unrelated offense. If the public stays aroused, they will not.

Referrals to local alcohol treatment facilities

The Crime Commission has recommended that anyone arrested for a second offense of impaired driving or for a first offense with a blood-alcohol concentration of 0.20 per cent or more be screened as a potential alcoholic. The Commission suggested referral to the local alcohol treatment facilities operated in coordination with the 41 area mental health centers across the state under the Department of Human Resources. This proposal makes excellent sense. Whether or not these agencies can help the problem drinker, it is still probably better to send him to such a center than to jail.

The Task Force had difficulty in fitting this recommendation into its sentencing structure because, while having a blood-alcohol concentration of 0.20 per cent or more is an aggravating factor to be weighed by the judge, it is not a preemptive punishment factor. The final draft of the Task Force proposal required that the following persons be ordered as a condition of probation to report for assessment and to accept treatment if the assessment shows that it is needed: (1) those with a blood-alcohol concentration of 0.20 per cent or more; and (2) those with a prior conviction of impaired driving and who either refuse a chemical test or test at 0.10 per cent or more.

Education and public information programs

The Crime Commission's first three recommendations deal with education and public information:

(1) Increase emphasis on hazards and penalties of driving under the influence in driver's education classes.
(2) Increase education on alcohol abuse in statewide health education programs.
(3) Increase education and media programs for the general public concerning the effects of alcohol and the hazards and penalties of driving under the influence.

These proposals assume that informing people about the penalties for impaired driving will enhance the law's deterrent effect and that education on alcohol abuse may prevent alcoholism. Thus far research has not found any significant beneficial effects from educational programs, and there is reason to be skeptical of these three proposals. The Task Force rather routinely endorsed them, though it did think that television advertising on the same subjects might be helpful. It also recommended that the General Assembly ask Congress to ban beer commercials on television. Still, it may be that *long-term* efforts of public education and information will work. Such programs can change attitudes and ingrained beliefs.[23]

The Task Force decided against recommending one public education program—putting chemical-test devices in bars—even though it is important for the public to learn the significance of the various blood-alcohol concentrations. It rightly concluded that there are hazards in having testing instruments in bars—among them the possibility that the patrons might have drinking contests to see who could register the highest.[24]

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23. For example, when North Carolina first began statewide chemical testing in 1964 the average impaired driver arrested by North Carolina law enforcement officers registered a 0.22 per cent blood-alcohol concentration, which meant that the officers were ignoring as "borderline" many highly impaired drivers. Over the years, however, the officers learned about the significance of various blood-alcohol concentrations and began correlating behavior of drivers with the concentrations they registered. Thus, the average blood-alcohol concentration of arrested drivers began to fall. North Carolina has one of the best chemical-testing programs in the country and a current average level at about 0.13 per cent for arrested drivers—while the national average level is still between 0.15 and 0.20 per cent.

Through a variety of means—through civic club lectures and demonstrations by law enforcement personnel, Alcohol Safety Action Programs, and other sources—prosecutors, judges, and the public have become somewhat more aware of the significance of the higher blood-alcohol concentrations. If a concentration is over 0.15 per cent, a jury today would be unlikely to acquit—which could not have been said 15 years ago.

The liquor industry is publicizing a "Know Your Limits" program by distributing charts that illustrate average blood-alcohol concentrations that might be reached by people of varying body weights on the basis of number of hours since a specified number of drinks were consumed.

24. A more insidious and more serious side effect of testing devices in bars could come from incomplete education. Since the legal limit of 0.10 per cent blood-alcohol concentration is a generous one, the drinkers engaging in self-testing might be lulled into a false sense of security when at a level between 0.07 and 0.09, for example. They might be led to believe that they could safely drive at those levels. A Vermont study showed that a person with 0.08 per cent blood-alcohol concentration is four times as likely to have an accident as a sober person; at 0.10 per cent, he is seven times more likely to have an accident. An illustration of the dangers in attempting to modify behavior comes from Finland. The Finnish government was worried about the "macho" culture that encouraged weekend binge drinking of hard liquor by many males to the point of gross intoxication. Therefore, it started a campaign to introduce more civilized drinking patterns and encouraged the production and consumption of beer. The effect, at least in the short term, was

Prompt civil license suspension

The Task Force considered the proposals for a prompt civil license-suspension procedure that many persons are now advocating. It agreed that a quick shock might have some helpful deterrent effect but had misgivings about dramatically expanding the powers of hearing officers in the Division of Motor Vehicles. It also determined that an absolute suspension (no limited driving privilege) for someone who has not yet been found guilty in criminal court should be a very short suspension—and settled on ten days. The Task Force reasoned that many drivers faced with a sudden ten-day loss of license would be able either to take time off as vacation or get friends and family to drive them for such a short period.

The Task Force proposal is more stringent than the Minnesota model in that no temporary license is given at all. The committing magistrate must take possession of the driver's license if the driver charged with impaired driving either refused a chemical test or registered a blood-alcohol concentration of 0.10 per cent or more. The driver has a right to a hearing before another magistrate within three working days if he wishes to challenge the grounds for his suspension, but the suspension continues in effect pending the hearing.[25]

Though it is not clear whether this quick-shock approach will effectively deter drinking drivers, it is certainly worth trying. One nagging question concerns the effectiveness of the suspension, since as currently proposed the suspension will not be entered in the Division of Motor Vehicles computer.[26] But for a driver apprehended in his home location, the risks of driving during the ten-day period are likely great enough to cause general compliance. The companion car-forfeiture provisions proposed by the Task Force can be used if someone drives while his license is revoked for driving while impaired.[27]

Creating lesser offenses based on blood-alcohol concentrations below 0.10 per cent

New York and Maryland follow the Scandinavian approach more closely than most states by creating lesser offenses on the basis of blood-alcohol concentrations below 0.10 per cent. This idea has considerable support, and its logic is indisputable—though it could be argued that it provides prosecutors with handy lesser offenses for plea bargaining and juries with the basis for compromise verdicts. Also, law enforcement officers in our country detect so few drivers with a level under a 0.10 per cent that lesser-offense legislation may not be worth passing.[28]

Research over the past decade suggests some scientific basis for questioning whether differential standards pegged to test results below 0.10 per cent—particularly in the form of per se laws—are wholly desirable. The problems of "steeple effect" and "back-calculation" must be considered, especially at the lower concentrations.

The steeple effect. If a person's blood is continuously monitored or if he is frequently tested by means of breath, a chart of his blood-alcohol percentages will not be a smooth line; it will form a series of peaks and valleys. In addition, there are occasional sharply variant readings that lie above or below the peak-and-valley trend line. The sharp upward excursions of the plotted results are called the steeple effect. In general, the ups and downs would show a blood-alcohol concentration that reads no more than 0.01 per cent above or below the general trend line, but some steeple-effect readings can reach 0.02 per cent higher. That is, test results for a person with a trend line of 0.10 per cent may read as high as 0.12 per cent—or as low as 0.08 per cent.[29] The steeple effect was relatively unimportant under laws that made it prima facie evidence of impairment if a driver tested at or over 0.10 per cent—given the general understanding that all persons have impaired judgment by time the 0.08 per cent level is reached. But under per se laws the steeple effect can assume a more crucial aspect when the reading is at or close to the legal level.

For truly accurate readings, and to guard against the steeple effect, several test samples should be taken in order to determine the trend line. Some scientists have long advocated multiple sequential chemical tests, and the implied-consent law in the *Uniform Vehicle Code* and the legislation of many states speak of the driver's consent to a test *or tests*. But the law enforcement establishment has always stoutly resisted. It envisages a problem with juries when two or more tests show slightly varying results. As a result, sequential testing is not performed in most jurisdictions in this country.

Another difficulty caused by the steeple effect or the opposite downward excursions arises when the amount of alcohol in one's blood is indirectly measured from his breath. The alcohol concentrations in breath and in blood will fluctuate, but not necessarily both at the same time. Thus a breath test may record a peak at the moment a direct measurement of blood shows a valley. These instances occur mainly during periods of active alcohol absorption, but they obviously present problems. For this reason, and because the 2,100:1 blood-breath ratio does not hold true for every individual, it has been proposed that direct measurement of alcohol in *either* breath *or* blood be the legal criterion and that blood-alcohol

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that the target groups kept drinking large amounts of hard liquor on the weekends and just added beer drinking during the week.

25. The United States Supreme Court in *Mackey v. Montrym* has upheld an administrative license-suspension procedure for drinking drivers in which the license remains suspended pending the hearing. The government may do this only if a hearing is promptly available. For less dangerous offenses for which a license may be suspended, the hearing must be held before the license can be suspended.

26. If a driver does not surrender his license to the committing magistrate immediately, the proposed period of license revocation starts nevertheless, and may run longer than ten days. The nonroutine, longer suspensions will be reported to the Division of Motor Vehicles.

27. Under the Task Force proposal, an officer arresting a driver for driving while license is revoked must check to see whether the revocation was based on impaired driving. If so, the officer must seize and impound the vehicle (but an innocent owner could go to court to get his vehicle back). If a person is convicted of driving while his license is revoked, the judge must make the same inquiry. If the defendant's license had been revoked for impaired driving, the judge must impound or confiscate (unless an innocent owner comes forward) or else note in the record his reasons for not doing so.

28. North Carolina is something of an exception to this nationally true statement. In 1981, out of a total of 77,501 breath-alcohol tests administered, 1,481 tests were negative, 5,620 were in the 0.01-0.05 per cent range, and 9,292 were in the 0.06 to 0.09 per cent range.

29. Occasional departures from the trend line as great as 0.04 per cent have been reported.

concentration no longer be expressed in terms of the breath test.[30]

Back-calculation. To understand back-calculation, it helps to review the way alcohol behaves in the body. Everyone metabolizes alcohol at his own rate. If all alcohol consumed has passed from the gastrointestinal tract and diffused through one's entire body, one's blood-alcohol concentration trend line will steadily drop at his individual rate. The typical person reduces his blood-alcohol concentration at a rate of between 0.015 and 0.018 per cent per hour.

Using the figure of 0.015 per cent per hour, forensic experts for many years have testified in court as to a defendant's likely blood-alcohol concentration at the time of driving on the basis of a later-given chemical test. Some recent studies have indicated variations greater than originally expected in the rate in which alcohol in the gastrointestinal tract is absorbed into the entire body. Thus some individuals may continue to absorb alcohol for two or three hours after drinking—though most, except on very full stomachs, will absorb it more quickly. Because of these varying rates of alcohol absorption and elimination[31] plus chance factors introduced by the steeple effect, a number of reputable forensic experts now refuse to make back-calculations.

The problem of back-calculation makes it vitally important, when the blood-alcohol concentration is close to the statutory limit, that the officer use the Alcoholic Influence Report Form deveioped by the National Safety Council. This form helps the officer to observe the defendant in a sequence of activities in which he can judge impairment; the reverse side of the form contains relevant questions pinning down when the defendant last ate, when he last drank, how much he ate and drank, and whether he was on medication or other drugs. The answers to these questions can help either prove the case without worrying about the chemical-test evidence or make more reliable back-calculations than would otherwise be possible.

Because of the problem of back-calculation, some jurisdictions put a time limit on the use of chemical test evidence. They do not admit such evidence unless it was obtained within two hours of the driving. But logically, this solution makes no sense, for the *maximum* prejudice to the average person who is still absorbing alcohol would occur within that period. On the other hand, suppose a highly intoxicated person has an accident and is taken to a hospital. He is under constant observation and has no opportunity to drink more after the accident. Four hours later, patched up and noticeably more sober, he is tested. If he now shows a blood-alcohol concentration of 0.15 per cent, one can be satisfied that it was much higher when the accident occurred—though an exact figure may be impossible to pin down. It would be folly to deprive the State arbitrarily of the chemical-test evidence.

However, if a defendant were at 0.06 per cent blood-alcohol concentration several hours after driving, no reputable expert would attempt any pinpoint back-calculation without much more information about the defendant's blood-alcohol trend line, when he last ate and drank, etc., than is usually available.

Clearly, then, problems of back-calculation are theoretically a problem in any chemical-test case in which the blood-alcohol concentration is close to the legal level, for almost[32] all chemical-test laws in the United States have made the alcohol level at the time of the *driving* the critical issue—but that level must be proved by the later-given test.[33]

The problem of back-calculation can be solved by adopting legislation patterned on a British law that makes it an offense to drive after consuming sufficient alcohol to raise one's blood alcohol level over the critical amount at any reasonable time after the driving. Such a law makes the chemical test reading, if the test is properly performed, the critical one. It is unlike the California statute that accompanies that state's new per se legislation, which makes the test reading prima facie evidence of the blood-alcohol concentration while the defendant was driving.

In North Carolina the Governor's Task Force has included a variation on the British model in its package of proposed legislation on impaired driving.[34] National observers will watch with interest the General Assembly's reaction to this feature of the Governor's package.

A final comment on the basic topic that led to the discussion of these chemical-testing matters: the Task Force considered a draft that broke the offense of impaired driving into degrees that were based largely on the defendant's blood-alcohol concentration. It chose instead to recommend a *single* crime of impaired driving that in effect may be committed in any of four ways—driving under the influence of alcohol, driving in violation of the British-style per se law pegged at 0.10 alcohol concentration, driving under the influence of drugs, or driving under the influence of a combination of alcohol and drugs. This single crime, as noted, carries different punishment levels, and the sentencing hearing on the aggravating and mitigating factors will decide how severe the sentence

30. The same numbers as before are kept for both blood and breath tests, but a 0.10 reading would be a decimal fraction to express a person's "alcohol concentration"—not a "percentage"—indicating either the number of grams of alcohol per 100 milliliters of blood or grams of alcohol per 2,100 milliliters of breath. The concept of "alcohol concentration" is now in the Uniform Vehicle Code, and the Task Force proposes it for North Carolina.

31. The rate of elimination can vary from a reduction of the blood-alcohol concentration from 0.004 per cent per hour to 0.04 per cent per hour. Heavy drinkers tend to eliminate alcohol at a faster rate than the typical person's 0.015 per cent, and an individual may eliminate faster when he has a very high concentration of alcohol in his system than later when it is lower.

32. At least two states have adopted per se legislation that define the crime in terms of showing a blood-alcohol concentration over a specified level within a certain time period after the driving.

33. A related problem in the use of the chemical-test evidence is the "hip-flask" defense—drinking after the driving but before the chemical test. Suppose, for example, that a driver announced to the officer who arrived at the wreck scene that the accident made him so nervous that he took several drinks immediately afterward to calm himself. The courts' usual response in such a situation is to allow the chemical test evidence to be admitted and ask the jury to decide what weight to give the driver's assertion of his hip-flask defense. In close cases, however, such a defense (which could be offered only in cases in which the officer arrived at the scene of the accident *after* it happened) could certainly raise a reasonable doubt.

34. The Task Force proposal allows use of a test made within a "relevant" time after driving. A relevant time is defined as "any time after the driving in which the driver still has in his body alcohol consumed before or during the driving." It can be seen that the definition does not rule out use of the hip-flask defense, but that defense would clearly be a matter for the defendant to assert, and the jury would have to assign what weight to give it.

imposed will be. The alcohol concentration looms as one of the prominent factors at the sentencing hearing, but there are no critical levels—even for sentencing purposes—below 0.10 alcohol concentration.

Increasing the perceived risk of being caught

The research done to date suggests that increasing the *perceived* risk of being caught is the most effective direct countermeasure against the drinking driver. It is therefore ironic that drinking-driving action groups throughout the country have directed so much of their rage against the courts and so little against the police—probably because the actions of judges and prosecutors are much more visible than those of law enforcement officers. The courts deal with the defendants who are brought to them by the police, whose disposition can be counted and assessed; but there is no way of knowing, for purposes of comparing performance, how many drinking drivers the police should have caught but did not.

Simply increasing the number of drinking drivers arrested would probably affect highway safety very little. Even a large increase in the arrest rate might not change the relative risk enough to be noted by drivers. On the other hand, past experiments with highly publicized enforcement campaigns show that the public soon gets wise if the real risk of arrest is not significantly increased. No one yet knows whether Draconian enforcement can increase the relative risk enough to cause a long-term drop in the number of traffic accidents and fatalities caused by drinking drivers.

With diffidence, therefore, I would like to suggest certain enforcement strategies designed to enhance the perceived risk of being caught. They may not work, but they are likely to be at least as effective as the proposals now emerging from Congress and the various state task forces.

Traffic checkpoints. Some years ago a state court disapproved a traffic checkpoint set up at night during the holiday season at which drivers' licenses were checked. Reasoning that the checkpoint was a pretext to spot drinking drivers, the court held that the stop was unconstitutional. While the United States Supreme Court has not decided this issue, a more recent case suggests that the Court might treat the matter differently from the state court. In this case[35] the Court said that random stops in an officer's discretion gave him too much power to engage in intrusive threshold searches in the guise of checking licenses, and it therefore required that an officer who makes a discretionary traffic stop have at least an "articulable suspicion" as grounds for making it. But it suggested that *nonrandom* stops pursuant to clear departmental policies would be accepted by the public as necessary and nonintrusive—for example, setting up traffic checkpoints and stopping every car or every tenth car.

The unanswered question, of course, is whether in setting up the nonrandom checkpoints to examine licenses it is permissible for the police to have a strong companion reason for stopping the motorists. That is a matter that must be settled finally by the Supreme Court. The chances of approval are good enough, however, that traffic enforcement agencies should give a high priority on nights and weekends to checkpoints at places that will likely net a large number of drinking drivers. The checkpoint campaigns should be greatly publicized and should occur at unpredictable intervals and places in accordance with a rigorous departmental plan that will keep any officer who stops a motorist from having any discretion as to which one he selects to stop. Such carefully planned checkpoints were a key feature of one highly publicized Maryland campaign against the impaired driver.[36]

The mere fact of the checkpoints and the publicity given them will likely have a deterring effect on some drinking drivers. And during these checks, especially the night and weekend ones, the police will inevitably net grossly impaired drivers who would otherwise not have been caught. This makes the checkpoints worthwhile even though frustrations will occur. The police will miss some impaired drivers completely and will have to allow some drinking drivers to pass on because their opportunity for observation will not give them probable cause to believe that the driver had drunk enough to be impaired—thus permitting them to make an arrest. Effective legislation as to roadside alcohol screening and the purchase of screening instruments could change this picture greatly.

35. The case is *Delaware v. Prouse*.

36. Despite the clear success of the campaign in one patrol district within Maryland, it is not being continued—apparently for manpower reasons after the law enforcement officer in charge, who initiated the concept, retired. Critics have wondered whether the success could have persisted long-term. The stops were 15-second stops to check for intoxication; the drivers were not even required to produce their licenses. A number of safety researchers believe that large numbers of impaired drivers could pass such checkpoints without detection and the public would have found that out if the experiment had continued.

Studies show that up to 50 per cent of all drivers killed in traffic accidents were under the influence of alcohol.

Interim Report— Presidential Commission on Drunk Driving

After this article was in press, the Presidential Commission on Drunk Driving issued an interim report—too late for its contents to be reflected in the text or footnotes of this article. The full report will be made by April 1, 1983, but the interim report was released for the guidance of the many state legislatures that will be in session beginning January 1983.

The major—expected—recommendation urges each state to adopt 21 as the legal minimum drinking age for all alcoholic beverages.

A less expected but logical recommendation proposes that each state adopt a two-tier system giving effect to blood-alcohol concentrations (BAC):

(1) Per se laws making it unlawful to drive at 0.10 per cent or more.
(2) Laws stating that at 0.08 per cent or more BAC a person should be presumed to be under the influence of alcohol.

Other major recommendations—as reported in the December 22, 1982, issue of *The Highway Loss Reduction Status Report* of the Insurance Institute for Highway Safety—are:

—State adoption of laws allowing policemen to use preliminary breath testing in order to ascertain the probability of driver impairment.
—The use of selective enforcement and road blocks "to achieve a higher perception of risk of detection for driving under the influence" of alcohol.
—Encouragement of citizens to report drivers who are under the influence.
—Prompt administrative license suspension for drivers with a BAC of 0.10 per cent or more.
—Mandatory sentencing for drivers convicted of driving under the influence. Such sentences should not be subject to suspension or probation and should include substantial minimum fines. A minimum sentence for first-time violators should be set at 48 hours in jail or license suspension of not less than 90 days plus a mandatory assignment of 100 hours of community service. Second-time offenders should receive a mandatory minimum jail sentence of 10 days and a one-year license revocation. Repeat offenders should receive a minimum jail sentence of 120 days and a three-year license revocation.
—Oral or written impact statements by victims should be required before sentencing in all cases in which death or serious injury has resulted from a DUI offense.
—States should adopt so-called "dram shop" laws establishing liability against any person who sells alcoholic beverages to a person who is visibly intoxicated.
—States and local governments should provide assistance to victims of offenders. Prosecutors should be required to keep the victim and/or his family informed about the progress of the case and its disposition. Victims should also be informed about available community services, and states should consider providing a victim compensation fund.
—Any person convicted of driving under the influence should be required to pay restitution to cover property damage, medical expenses, and lost wages.
—States should also speed up DUI cases at the trial level, concluding them within 60 days of arrest and handing down sentences within 30 days of the trial's conclusion. Appeals should be expedited in order to be completed within 90 days.

The commission also recommended rehabilitation and education programs for individuals who have committed a DUI infraction, including intensive rehabilitation for problem drinkers and repeat offenders.

Roadside alcohol screening. The first recommendation of the Action Programs Subcommittee of the National Safety Council's Committee on Alcohol and Other Drugs highlighted roadside alcohol screening as a major factor in increasing enforcement efforts. That recommendation was for "bright-line" screening based on the British legislation: all drivers in crashes or moving violations would be subject to screening. In New York, which adopted this proposal several years ago, the law has had a mixed reception in state courts. Many people believe it goes too far in dispensing with probable cause or even reasonable suspicion. As the law is written, the officer may require a driver—including one who is not at fault—to take the test whether or not he suspects that the driver has been drinking. A similar law in Minnesota had such a hostile reception from the police and the courts that it was later repealed.[37]

37. The Minnesota experience points up a world-wide problem. Police have been most reluctant to use broad powers given them to compel drivers to submit to alcohol screening tests. The virtue of a bright-line test in the view of its

The crash/moving-violation criterion does not cover the routine traffic stop. Recognizing this, New York's task force recommended that the state's screening statute be amended to authorize an officer to require a screening test of any driver who in any way shows alcohol consumption or impairment. But it did not recommend any modification of its bright-line screening provisions.[38]

The North Carolina Task Force has proposed a two-part compromise provision on screening. Screening may be required of the driver of a vehicle if the officer has:

(1) Reasonable grounds to believe that the driver has been consuming alcohol and either has committed a moving violation or been involved in an accident; or

(2) An articulable and reasonable suspicion that the driver has committed a drinking-driving offense and he has been lawfully stopped or encountered.

The Task Force also compromised on requiring submission to the screening test. The compromise allows the officer to ask the driver to submit to the test in the above circumstances but sets no penalty for refusal other than allowing the officer to use the fact of refusal in determining whether there is probable cause for charging a drinking-driving offense. Once a charge is made, the driver is subject to the implied-consent law. Of course, if the driver takes the screening test, the results will materially help the officer in determining whether there is probable cause for bringing the charge.

Securing legislation is only the first step toward achieving an effective roadside alcohol screening program—the screening option must be *used*. Nationwide, experience with screening has been disappointing. Officers often encounter drivers who have been drinking and may be impaired but do not have enough probable cause to bring a charge against the driver. Presumably they would welcome a convenient way to resolve their doubts, but in actual practice officers make little use of the screening device. A possible reason is that an impaired-driving case is always hard-fought and troublesome for the officer. He may not want to bother with a case unless he is convinced that it is clear-cut. National statistics on the mean blood-alcohol concentrations of arrested drunken drivers tend to bear out this idea.

Another impediment to the use of roadside screening lies in the instruments available for alcohol screening. These come in two main types. First, there are the inexpensive, disposable balloon or baggie instruments into which the driver blows. These instruments are far less accurate than the evidentiary chemical test intruments used in testing breath; they can give a fair number of both false-positive and false-negative results. The police are prejudiced against them because they are not uniformly reliable, even though overall they would help the officer far more often than not. The false-negative test simply would result in a driver's being let go when he would also be released if there were no screening. The false-positive test can prove more embarrassing, but if the driver is cleared by the evidentiary chemical test taken later, no permanent injustice is done. A relatively small number of false-positive results should be tolerable, but police dislike of such embarrassment is a powerful factor against the use of disposable tests.

Second, there are the portable electronic screening instruments. When properly used, these instruments are usually as accurate as the evidentiary testing instruments. But they count as screening devices because they are used by patrol officers (rather than by licensed operators) who do not follow the full set of written checklist procedures normally required for an evidentiary test. A major drawback is that these devices are costly—$400 to $600 per instrument for the commonly used ones. Some are also sensitive to field handling and often need repair or maintenance, which adds to the expense of use.

Finally, many of these tests are inconvenient to administer. Many of the disposable devices require a certain waiting period for the test results to develop. The electronic instruments normally give instantaneous readings, but they and the disposable bags are subject to a waiting period before a breath sample is collected. Officers have been quite properly told that at least 15 or 20 minutes must pass before an evidentiary breath sample is collected to insure the integrity of test results. This concept is then applied to the collection of a breath sample for an alcohol screening test. While such a waiting period is essential for an evidentiary case, it is not necessary for a screening test. Most people who have drunk an alcoholic beverage will have no trace left of it in their mouths after about five to ten minutes of waiting during which they carry on normal conversations and do not reintroduce raw alcohol into their mouths—for example, through the alcohol-saturated tips of cigarettes or cigar butts. Research has shown that if a person takes a strong drink of alcohol and then sits with his mouth closed, there will be faint traces of mouth-alcohol contamination for up to 20 minutes—but this is the extreme case to be guarded against in the evidentiary test.

At the roadside, if a driver has been stopped routinely and is not arrested, waiting more than five minutes to take a screening test would be inordinately intrusive and inconvenient. The very constitutionality of alcohol screening tests on less than probable cause may depend in part on their nonintrusiveness, so the matter of convenience becomes crucial from a legal as well as a practical standpoint. Officers' misunderstanding about the need for at least a 15-minute waiting period has substantially undermined the effectiveness of roadside alcohol screening programs throughout the nation.

The North Carolina Task Force's legislative package takes a new approach to this issue. It directs the North Carolina Commission for Health Services to approve both the alcohol screening devices and how they are used. The proposed statute directs the Commission to specify in its regulations governing manner of use the "shortest minimum feasible waiting period that does not produce an unacceptably high number of false positive test results."[39]

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proponents is that it can be mandated by command pressure. Also, it involves alcohol screening of only drivers the police have already stopped (or encountered at the accident). It does not require the additional manpower that manning roadblocks would.

38. Civil libertarians opposed this extension of the roadside-testing law in New York, and it has not yet been adopted. This is somewhat paradoxical, because the proposed extension of the law is much more clearly covered by existing constitutional precedents than its existing bright-line provision. It is likely, though, that police in New York are making very little use of the existing roadside-testing law.

39. One possible approach to minimize intrusiveness could be to give every motorist who qualifies a roadside test immediately unless he admits to having drunk alcohol within the past 15 minutes. If the result is negative, the motorist can leave immediately; if it is positive, a second roadside test could be required after a short time to eliminate possible mouth-alcohol error.

An effective roadside alcohol screening program would clearly very much increase the number of arrests that could be made for impaired driving. Such a program, if fully publicized, probably would in the short term deter some drinking drivers. If used aggressively and imaginatively when the police investigate accidents and moving violations, and further in connection with well-publicized traffic checkpoints, the alcohol screening might even produce long-term traffic-safety benefits; drinking drivers would rightly fear a continuing, substantial, and unpredictable risk of being caught.

Clearly, numerous obstacles to an effective enforcement program exist. Each obstacle, singly, can be overcome, but aggressive leadership in all sectors of government, plus the indispensible ingredient of popular support, will be necessary in order for a jurisdiction to mount an enforcement program of the type outlined here. There is no guarantee that such a campaign will work, but it remains as the one direct countermeasure with the greatest chance of success.

A well-regarded highway safety researcher recently said that the single most effective thing the General Assembly could do to cut down on deaths and injuries caused by the drinking driver would be to pass an enforceable mandatory seat-belt law. He is undoubtedly correct. On a per-miles-driven basis, the United States is the safest place to drive in the world. Part of our enviable safety record comes from our having larger cars and better-engineered highways than any other nation, but a substantial part also comes from the fact that the automobile has been pervasive and indispensible in our society longer than anywhere else. Americans as a whole are safer and more mature drivers than others. In Sweden, for example, alcohol accounts for only about a third of the traffic fatalities rather than the half it accounts for here, but since our overall safety record is so much better than Sweden's, alcohol ends up causing, on a comparative-exposure basis, about as many fatalities in Sweden as here despite the tough and toughly enforced laws in that country. The accumulating evidence suggests that we may be at a point of diminishing returns in regard to *direct* measures that might be taken to deter impaired driving on any sustained basis. Note that another indirect measure—raising the drinking age—has proved effective.

The safety researcher who made the seat-belt comment has proposed as direct countermeasures a battery of changes designed to effect incremental improvements in our deterrent system. In this he has good company, though he would give more priority to the Minnesota fast-track solution than some other experts. That is, he would strengthen the swift-and-certain-sanction leg of the deterrence tripod. I suspect he is wrong.

In my view, the swift-and-certain-sanctions approach will only slightly increase the deterrent against impaired driving. All drivers know—even under today's laws—that if someone drives while impaired and is *caught*, the consequences are fearsome. It may be that by hiring a lawyer, delaying the case, and wearing out the prosecution and its witnesses the defendant can eventually plea-bargain down to a lesser offense like reckless driving after drinking—but the process will be time-consuming, nerve-wracking, and expensive. And even a reckless-driving-after-drinking conviction will bring a substantial increase in one's insurance premium as well as points against one's license. The criminal justice system already contains a highly credible sanction for driving while impaired—creaky and inefficient though the system may be. Ironically, it is the very protests of the reformers who point out all the inequities and loopholes in the present system that are doing most to undermine the system's deterrent threat.

But I do not mean to say that the proposed reforms are bad. Most should be adopted. Driving while impaired is perhaps the most serious crime that members of the middle class are charged with in great numbers. They are willing to pay a lawyer much better money than the average indigent can pay for a defense to a criminal charge. Since a criminal justice system with many rights built in for defendants is the one used, defense lawyers will take advantage of all the rights the system affords and will fight these cases hard. Thus the affluent and politically powerful defendents often secure either plea bargains or reductions by the judge to lesser offenses that carry less severe sanctions than conviction of either driving under the influence of alcohol or violation of the companion per se law. The poorer defendent usually does not secure the same leniency.

Unequal justice in impaired-driving cases is as much responsible for the public anger as the deaths and injuries caused by impaired drivers. Proposals intended to make the system operate more fairly and effectively deserve support. But it is false advertising to sell those reforms as measures that will significantly reduce deaths and injuries caused by impaired drivers on any long-term basis.

Are there any direct measures against driving impaired that would work? As already indicated, I believe that *increasing the perceived risk of being caught* could be effective. Still, two objections are made to this view. One is that most drivers who are easily deterrable from impaired driving *may already be deterred*. There is some truth to this point. Most people who drive after social drinking are *under* a concentration of 0.08 per cent. Some authorities believe that anyone who will drive after reaching a blood-alcohol concentration of 0.10 or more has, at a minimum, the beginning of a drinking problem—and may be an incipient alcoholic. Hard-core alcoholics do everything under the influence of alcohol—including driving—and are not subject to education, deterrence, or any other persuasion.[40] But research experience shows that many people on the fringes will modify their driving habits, if not their drinking habits, when the risk of being caught seems unacceptably high.

The second objection is that it may not be possible to keep the risk of being caught high enough to deter for very long. Other countries have found that well-publicized new get-tough enforcement programs at first are effective and have lowered deaths and injuries, but they fizzle out as soon as the public finds that there is still only a slight chance of being caught. Since North Carolina has more aggressive enforcement than most states, let us assume that the risk of being caught here averages 1:1,000 instead of 1:2,000, as is estimated for the United States as a whole. Suppose further that North Carolina spent millions of dollars doubling its law enforcement effort to the point that

40. As already noted, in any one year, such a small percentage of the impaired drivers on the highway are caught that incapacitating a driver through jail or revocation of the driver's license will have minimal impact.

the risk of being caught while driving impaired was 1:500. That risk still may not have increased enough to make a dent in the rate of deaths and injuries.

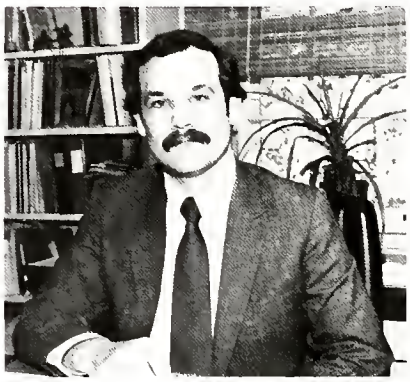
This second objection is hard to answer, and there is no encouraging research from elsewhere to guide us. In the conclusion to his recent book entitled *Deterring the Drinking Driver* (see the review of this book on page 37), Laurence Ross recommends going beyond deterrence for the greatest saving of lives. If we make our roads safer and put air bags and other safety equipment in our automobiles to make them less hostile in a crash, then the drinking drivers and those on the road with them would have their lives spared, just as the lives of others would be spared.

Ross may be right, on a cost-benefit basis, in maintaining that the indirect approach is more effective than attempts to increase deterrence, but apprehension remains the weakest link in the deterrence chain. Though undiscriminating increases in enforcement manpower clearly would be futile, a well-designed, imaginative type of program along the lines outlined above would be well worth trying. ●

REFERENCES AVAILABLE

The author has prepared a list of references consulted in preparing this article. Anyone who wishes a copy of that list may write the Editor, *Popular Government*, Knapp Building 059A, The University of North Carolina at Chapel Hill, Chapel Hill, North Carolina 27514.

The Institute has three new faculty members . . .



Fleming Bell, a native of Randolph County, received bachelor's and law degrees (at the top of his class) from Duke University and a master's degree in urban planning from the University of North Carolina at Chapel Hill. He has worked as a city-county planner for the City of Rockingham and Richmond County and also served an environmental planning internship in Massachusetts and a law clerkship in Connecticut. His special field is local government law, including the law of governmental contracts. He also works with city and county clerks and has an interest in the problems of multiple officeholding.

Janet Mason is another North Carolinian—from Mount Holly. Her bachelor's degree comes from Randolph-Macon Woman's College and her law degree from the University of North Carolina at Chapel Hill. She has had experience as a social worker in Baltimore and as a juvenile court counselor in Orange County. Before coming to the Institute, she practiced law with Legal Services programs in Guilford, Orange, and Chatham counties. Her primary interest is social services law.

Benjamin Sendor, native New Yorker, joined the Institute faculty in August. His undergraduate and law degrees are both from Harvard. Before coming to the Institute, Sendor practiced law in a private firm in New York City and later was an Assistant United States Attorney in Washington, D.C. His special fields include both school law and criminal law.

Deterring the Drunken Driver

A review by Philip J. Cook

H. Laurence Ross, *Deterring the Drinking Driver*. Lexington, Mass.: Lexington Books, 1982. 129 pages.

H. Laurence Ross's book on deterring drunken driving arrives at a time when public concern with this issue is intense. While the Mothers Against Drunk Driving and other groups that support a fierce crackdown on offenders may not like his conclusions, there is certainly hope that his work will prove influential in reducing the number of drunken drivers on the road. Ross's "bottom line"—based on his review of several evaluations of deterrence-oriented policies in the United States, Europe, Australia, and New Zealand—is that while increasing the certainty of punishment may (if the "crackdown" is well publicized) cause a brief reduction in serious crashes, there is no evidence that such an effect can be sustained for long. Furthermore, Ross concludes that increasing the legislatively mandated severity of punishment is probably counterproductive, because the principal effect of increased severity will be increased reluctance on the part of police and court officials to arrest and prosecute drunken drivers. Mandatory jail terms are not the answer, in his view.

Although Ross has not aimed this book at the general public, a legislative staff person or policy-making official can understand the nature of his evidence and his conclusions. His evidence is a collection of interrupted time-series analyses of changes in law or policy directed at increasing the certainty or severity of legal sanctions for drunken driving. Much of the text reproduces Ross's earlier analyses—which is entirely appropriate, given the importance of his work in this field. Indeed, his article evaluating the British Road Safety Act of 1967 is still the definitive and most important study in reducing drunken driving.[1] Like the article, this book is concerned with educating the reader about deterrence theory and the statistical analysis of time-series data, as well as with justifying Ross's conclusions about the impact of particular legal interventions. The lay reader may find this scholarly orientation and Ross's attention to the details of the time-series patterns for each intervention to be tedious, but these features of the study are necessary if his conclusions are to have weight.

The current debate in the United States over appropriate policies to deter drunken driving is heavily influenced by the popular belief that Scandinavian countries have found mandatory jail terms to be a highly effective deterrent to drunken driving. Shortly before World War II, Norway and Sweden adopted a scientific approach to help in convicting drunken drivers—a legal "per se" definition of drunken driving based on percentage of blood alcohol content (BAC). Every state in the United States and most other Western nations have since adopted this approach to overcome the ambiguities of other legal definitions. In this country, however, the punishment for DUI is typically much less severe than in Norway and Sweden, where those convicted of the offense routinely receive a one-month jail sentence and have their license suspended. While Scandinavian authorities are convinced that these severe penalties are effective in persuading people not to drive while drunk, Ross (pp. 60-69) finds no scientifically acceptable evidence to support this belief. In the absence of stronger evidence favoring such a costly approach to the problem of drunken driving, he labels the mandatory jail term a "dubious social policy" (p. 69) and opposes importing it into this country.

There is little direct evidence on the potential impact of legislatively mandated jail terms for drunken driving in the U.S. Ross reports one instance in which a Chicago judge decreed that during the period around Christmas 1970 all people convicted of drinking while driving would receive automatic seven-day jail sentences (p. 94). Crash data from that period indicate no effect from this "get tough" policy, perhaps in part because most of those arrested during this period did not in fact receive jail terms. Whether or not we are willing to believe in the potential efficacy of jail terms in reducing the number of drunken drivers, Ross reminds us that the American criminal justice system is enormously resistant to such changes. If the public does not fully

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1. H. Laurence Ross, "Law, Science, and Accidents: The British Road Safety Act of 1967," *Journal of Legal Studies* 2, no. 1 (1973).

support treating drunken drivers as serious criminals—as Ross contends they do not—then a legislated mandatory jail term will cause adaptive changes in the behavior of defendants, police, prosecutors, judges, and juries that would subvert the intent of the law. Jail terms would rarely be imposed and the probability of any sort of punishment would be reduced. Ross suggests that we might even be well advised to decriminalize drunken driving, at least in routine cases and for first offenses (p. 110): if DUI were not a crime, civil penalties like license suspension could be imposed quickly and without the burden that criminal prosecution currently places on the criminal justice system. The public, Ross asserts, does not believe that a drunken driver deserves to be designated a criminal.

This argument can be strengthened by placing it in the context of a "just deserts" theory of sentencing for criminal acts, although Ross does not emphasize this issue. How serious a crime *is* drunk driving? Clearly the aggregate consequences of the millions of trips driven each year by drunks in this country are very costly—20,000 or more highway fatalities and many more thousands of serious injuries. These consequences warrant consideration of a range of public responses, including special police patrols, higher minimum legal drinking age, civil liability for sellers of alcoholic beverages, and so forth. But these aggregate consequences are not relevant in judging the seriousness of any *one* instance of driving while drunk. Ross reports that intoxication increases the probability that a driver will crash by only 3 in 10,000, on the average (p. 106). Furthermore, the probability is quite small that this crash, if it occurs, will be serious. To my mind, these facts suggest that the typical act of drunken driving is not properly considered a serious crime. A single trip driven while drunk does not justify a harsh response like a month in jail. Of course, it could be argued that those who are arrested for a single act of drunken driving usually have committed this crime many times, and hence *do* pose a serious threat to the public safety. But our notion of justice requires that people be punished only for crimes of which they are convicted—and not on the basis of unproved assumptions about other behavior. Jail should be reserved, then, as a possible sanction for those who have accumulated several convictions or drive while their license is suspended.

On the positive side of the deterrence ledger is Ross's demonstration that highway casualty rates can be cut sharply, at least temporarily, by well-publicized interventions that greatly increase the public's perception of the chance of being apprehended when they combine drinking and driving. The most compelling evidence is derived from the British Road Safety Act of 1967, a highly publicized law that makes driving with 0.08 per cent BAC a per se violation of the DUI law and imposes a one-year mandatory suspension of driving privileges as the minimum penalty. Ross estimated that the immediate impact of this legal intervention was to reduce serious injuries and deaths by 25 per cent. Unfortunately, the British police chose not to enforce the new law any more actively than they had earlier legislation; the British public inevitably learned that the actual legal threat was small, and the casualty rate had returned to its long-term trend line by 1970. Ross tells very similar stories concerning interventions of this sort elsewhere.

Drunken driving is intrinsically a deterrable crime, but enhancing the deterrent effect requires something more substantial than publicity—at least in the long run. Ross apparently believes that increasing the actual probability of apprehension would be politically difficult, requiring road blocks and spot checks (p. 111). My impression, however, is that a clear directive from the police chief to the patrol officers may be sufficient. If the chief and the community are sufficiently concerned, the officers will stop and test many more suspicious drivers than they otherwise would. For example, the Raleigh police initiated a program in 1981 that increased their DUI arrest rate by over 60 per cent without resort to road blocks or spot checks of law-abiding drivers; the main feature of this program is an increase in the amount of DUI-oriented patrol activity.

Ross's monograph is a timely and important contribution to the national debate over the appropriate legal response to the drunken-driving problem. His policy recommendations constitute sage advice for North Carolina policy-makers. ●

Law Enforcement Training in North Carolina

Randolph B. Means

Nearly everyone would agree that law enforcement officers are among our most important public employees. North Carolina has some 17,000 sworn law enforcement officers in more than 500 local and state agencies. Public safety depends on them. The risk to both individuals and society as a whole when police officers perform badly is so great that public officials and the people themselves must always be concerned about the quality of training provided to our law enforcement personnel.

What training *do* these men and women receive? How do we know that they will use their authority safely and responsibly? How can the police service be improved? This article will briefly recount the history of formal law enforcement training in North Carolina from its inception in the 1920s until the 1960s, examine more closely the developments in law enforcement training during the 1960s and 1970s, and describe the present situation. A sequel that will appear in a future issue of *Popular Government* will discuss the major problems the training system faces in this decade and suggest ways to improve it.

Some critics claim that most law enforcement training is wasted and valueless because it will not be transferred to improved job performance—that learned techniques and methods will be forgotten or ignored by officers faced with the harsh, practical realities of their vocation. If this is true, it means that the training must be made more relevant to the job. Also, administrators and supervisors must understand the benefits of their subordinates' training and learn to reinforce this training on the job.

Other skeptics maintain that it has never been proved that training improves performance. For the present, lack of empirical data allows this argument to rest comfortably.

But there are ample grounds to insist on extensive and timely training to law enforcement personnel. Potential legal liability is in itself enough to recommend extensive training. The courts have held that inadequate training practices within a police agency are a sufficient basis to impose tort liability on law enforcement administrators and the governments they represent.

Furthermore, citizens have certain expectations regarding the demeanor and conduct of law enforcement officers. Our society expects and, through lawsuits, ultimately *demands* a very high level of professionalism from police personnel. Such expectations and demands are not misplaced, and they comport with Goethe's observation that

> [i]f you treat an individual as he is, he will stay as he is, but if you treat him as he ought to be and could be, he will become what he ought to be.[1]

But for society's high expectations of law enforcement personnel to be *fair*, the individual officer must be told "what he ought to be." This instruction—and the means to become what he ought to be—come with high-quality training.

J. Edgar Hoover once remarked, "The struggle of law enforcement to raise its standards and earn the right to the term 'profession' has been a long, difficult, and continuous one. The gains which have been made toward achieving the goal are the results, chiefly, of one factor. That factor is training."[2]

The long slow start

It was August Vollmer—town marshal of Berkeley, California—who began the movement for police reform in this country.[3] Head of the Berkeley agency from 1905 to 1932, Vollmer became the principal advocate of a standard of professionalism among law enforcement personnel, a standard "centered upon the concept of an idealized policeman who was a skilled

The author, a police attorney for the City of Charlotte, was formerly chairman of the legal department at the North Carolina Justice Academy.

1. R. Dean Smith, "Foreword" to James W. Sterling, *Changes in Role Concepts of Police Officers* (Gaithersburg, Md.: International Association of Chiefs of Police, 1972), p. ix, quoting Goethe.

2. Thomas M. Frost, *A Forward Look in Police Education* (Springfield, Ill.: Charles C. Thomas, Publisher, 1959), p. 3, quoting Hoover.

3. Allen Z. Gammage, *Police Training in the United States* (Springfield, Ill.: Charles C. Thomas, Publisher, 1963), p. 6.

and dedicated crime fighter, rigorously trained to perform a difficult job; who was aggressive in using science and technology in all phases of policing; and who was deeply involved in the community he served."[4] To produce police officers who could meet this standard, Vollmer developed the Berkeley police school, which served as a prototype for many schools developed later in California and elsewhere.

The role that August Vollmer played in the nation at large, Albert Coates played in North Carolina. Coates founded the Institute of Government at the University of North Carolina at Chapel Hill. Inspired by the police training program in Winston-Salem (established in 1921—the first formal training enterprise in the state), Coates became the prime mover in developing a statewide approach to law enforcement training. Beginning in 1930, he conducted a series of courses, two to ten days in length, for law enforcement officers of state, local, and federal jurisdictions. With help from the Federal Bureau of Investigation, the courses offered at the Institute of Government expanded in scope, duration, and frequency. Local efforts at law enforcement training continued piecemeal during the thirties and forties, often with Institute encouragement and support. When the State Highway Patrol and the State Bureau of Investigation (SBI) were founded in 1929 and 1937-38, respectively, they too undertook formal training. These two agencies and the Institute of Government often worked together—the agencies' experienced law enforcement practitioners often taught in the Institute's training programs.

The years from 1930 to 1960 marked a slow, steady growth in law enforcement training, but formal training was still available to only a small percentage of local officers. No statewide training standards existed. Informal on-the-job training remained the primary method of acquainting the local officer with his duties and responsibilities, and the quality of both training programs and officers varied greatly from agency to agency.

The 1960s

The 1960s were a time of upheaval nationwide, and law enforcement was in the middle of it. In the 1950s, the U.S. Supreme Court began a series of decisions that clearly showed a concern over police abuses. Then in the 1960s it declared (in *Mapp v. Ohio*) that when police seizure of evidence violated a criminal suspect's constitutional rights, the evidence could not be used against him in a state court (the exclusionary rule). Thus police misconduct became a central issue in criminal prosecutions. State and local police practices in arrest, search, and interrogation were closely watched by the federal judiciary. Though North Carolina already had a statutory exclusionary rule,[5] the press coverage of the Court's decisions and the abuses against which they were directed made many criminal defense lawyers newly aware of the possibilities in pursuing the matter of police violations of constitutional rights.

The public protests connected with the civil rights movement and the war in Viet Nam also focused public attention on the conduct of law enforcement officers. Massive and highly publicized urban riots, the events surrounding the 1968 National Democratic Convention in Chicago, student unrest, and the deaths at Kent State University in 1970 all spotlighted police practices and behavior. Television dramatically called the nation's attention to the methods used by police during these emotionally charged encounters. Each evening, in a very real sense, television brought law enforcement practices into America's living rooms.

Though some people were distressed during this period over perceived police misconduct, perhaps more were concerned about "law and order." Public reaction to the violent upheavals of the decade produced an environment ripe for political and governmental response. National advisory boards and commissions were established to help formulate recommendations and proposals for improvement in law enforcement. The Law Enforcement Assistance Administration dispensed large amounts of federal funds to help assure state and local governments' future ability to maintain the "order" that seemed conspicuously absent during the sixties and early seventies.

State and local law enforcement agencies thus became both the object and the beneficiary of two countervailing outbursts of public concern. Some people wanted an immediate upgrading of police professionalism to avoid repeating perceived large-scale police misconduct. Others wanted to bolster professionalism in order to assure "law and order." But almost everyone agreed that police practices needed to be improved and that training, under statewide standards, was the key to improvement.

4. Gene E. and Elaine H. Carte, *Police Reform in the United States* (Berkeley, Calif.: University of California Press, 1975), p. 2.

5. See former N.C. GEN. STAT. § 15-27, 1965 Replacement Vol. 1C, later repealed and replaced by N.C. GEN. STAT. § 15A-974.

Highway Patrol training in the 1950s.

In the early 1960s, the Institute of Government had begun to plan for the problems that would accompany an increased demand for law enforcement training. This growing demand for more and better training gave rise to an inevitable question of who would be its major provider. The Institute had played an important role in developing statewide basic training. It now had to decide whether to take the lead in providing this training for local agencies, a task that would have required an enormous increase in its staff and facilities. It elected not to do this; instead, it chose to concentrate on other kinds of teaching in the law enforcement area (e.g., special legal topics and management) and on consulting, research, and publishing of legal reference materials for police.[6] The community colleges accepted the primary responsibility for basic training of local police officers; the Institute assisted by planning the first basic course for the community colleges and teaching the pilot version. The community colleges' commitment to law enforcement training in the 1960s was a major step forward, but it also left law enforcement training decentralized and highly fragmented.

The 1970s

By the late 1960s, it was clear that there were problems among all of these new police training programs in North Carolina. The quality of many programs was low, and there were no minimum standards for entry into the law enforcement profession. As a result the 1971 General Assembly created two administrative bodies--the Training and Standards Council and the Education and Training System Council.[7] The Training and Standards Council was to establish minimum education and training standards for employment and certification of officers, while the System Council was primarily a planning body, concerned with maintaining high standards of quality in training and personnel.

As a result of their work, the first formal statewide requirements for law enforcement basic training were established in 1973. A sworn officer had to complete 160 hours of training within his first year of employment. The Department of Community Colleges was asked to provide most of the newly required training; the Institute of Government again was instrumental in designing the curriculum.

In the same year the General Assembly created the North Carolina Justice Academy, within the State Department of Justice. Initial funding for the project was provided by the Governor's Committee on Law and Order (now the Governor's Crime Commission). The Academy became a physical reality in August of 1974, when the state obtained the former Southwood College campus in Salemburg. The Academy's purpose was to provide professional education and training to personnel of the state's criminal justice system—particularly in local agencies.

Two important events occurred in 1975. First, the Training and Standards Council required that all instructors in basic police training be certified under new standards, which included at least 70 hours of training in techniques of teaching. But it set no standards for how much instructors must know about the subject matter they taught. Thus whether an instructor knew enough about a particular subject to teach it was left up to the individual school directors.

The second event of 1975 was the establishment of a consortium that was to design an expanded curriculum of 240 hours for minimum basic police training. The consortium was—and is—composed of representatives of several agencies, including the Institute of Government, the Department of Community Colleges, the Justice Academy, the Criminal Justice Standards Division (of the Department of Justice), and the Law Enforcement Training Officers' Association. This consortium not only designed the curriculum for the 240-hour program that became required in 1978 but also later evaluated and revised its components. Through the consortium's efforts, a standard curriculum, in the form of a complete instructor's guide and a separate student manual, was made available to each approved basic police training school director. Community colleges and technical institutes quickly put the new curriculum into place and continued to provide the lion's share of basic police training (see Table 1).

As mentioned, the Education and Training System Council was created in the early 1970s. Part of its mission was to promote systematic improvement in law enforcement training. At first its top priority was getting the fledgling Justice Academy off the ground, but in 1977 it began to develop a long-range plan for steady improvement of law enforcement training. Part of that plan called for consolidating the two original councils into one governing body—the North Carolina Criminal Justice Education and Training Standards Commission, which the General Assembly created in 1979 (G.S. Chapter 17C). Now that Commission is responsible for seeing that minimum standards in basic police training are met. It is also authorized to set other requirements as necessary to assure appropriate professional standards.

Table 1

Basic Law Enforcement Training in North Carolina, Calendar Year 1981

Course Deliveries:

60	comm. colleges and tech. inst.
17	local programs
4	state agencies[1]
81	Total

Course Hours:

15,883	comm. colleges and tech. inst.
6,986	local programs
2,214	state agencies[1]
25,083	Total

Average Course Length (hrs.):

265 hrs.—comm. colleges and tech. inst.
411 hrs.—local programs
554 hrs.—state agencies
310 hrs.—overall average

Students Trained:[2]

879	comm. colleges and tech. inst.
333	local programs
115	state agencies
1,327	Total

Students Per Course:

15 comm. colleges and tech. inst.
20 local programs
29 state agencies
16 overall average

1. "State agencies" refers to Justice Academy programs for local law enforcement officers, the SBI, and Highway Patrol. ALE and Wildlife conducted no in-house basic training in 1981.

2. Figures represent students who successfully completed the basic training course.

6. L. P. Watts, "A Half-Century of Concern for Criminal Justice," *Popular Government* 46, no. 3, (Winter, 1982), 38.

7. N.C. GEN. STAT. Ch. 17A.

The present situation[8]

Basic training. In North Carolina, most formal law enforcement training is basic training. As we have seen, at least 240 hours (six weeks) of basic training are required by state law during the first year on the job as a sworn officer.[9] Of 1,327 students who successfully completed basic law enforcement training in 1981, 879 (66 per cent) were trained by community colleges and technical institutes, 333 (25 per cent) by programs of local agencies, and 115 (9 per cent) by state agencies including the Justice Academy (see Table 1).

Approximately 45 community colleges and technical institutes conduct basic police training courses. Course length varies with the school—from 240 to 425 hours; the average length is 265 hours. Participants in these programs are mostly officers already in active service with small to medium-sized municipal departments or with sheriffs' departments.

Twelve local law enforcement agencies (mostly in larger cities) conduct their own basic training programs (see Table 2). At present, ten police departments, one sheriff's department (Guilford County), and one regional academy (Coastal Plains Academy, near Wilson) fall into this category. Courses in these programs vary in length from 240 to 704 hours; on the average they last 411 hours. It is worth noting that ten of these local agencies require that an officer complete all basic training before exercising any law enforcement authority, although state law does not contain this requirement.

Though most basic instruction is done in the technical institutes and community colleges, the Justice Academy conducts two or three basic training programs per year in order to monitor and maintain the model training curriculum. Participants in these Justice Academy courses are mostly officers from small to medium-sized local agencies.

State law enforcement agencies train their own officers. The SBI has a full-time training staff that conducts an annual school of about 700 hours for new agents at the Justice Academy. The Highway Patrol provides nearly 900 hours of training to new recruits with its own staff at its facility near Raleigh. Both agencies require completion of basic training before an officer enters into active service. Another state law enforcement agency, the Wildlife Resources Commission, provides some pre-service basic training, followed by a field assignment, and then the rest of basic training (about 560 hours in all). The State Division of Alcohol Law Enforcement (ALE) has designed a basic training program (about 650 hours) for its new officers; the first course was conducted at the Justice Academy in the fall of 1982. (Previously, new ALE officers were trained in programs operated by other agencies.)

In terms of hours of required basic training, North Carolina—with a minimum of 240 hours—is not far out of line with other states. According to a 1978 survey conducted by the National Association of State Directors of Law Enforcement Training, the basic training requirements in 47 states varied in length from 120 to 485 hours, with a median of 300 hours—though of course actual basic training in those states, as in North Carolina, often substantially exceeds the required minimum levels.

In-service training. Much basic police training in North Carolina occurs while the recruit is in service. North Carolina law allows officers to begin active duty before they complete basic training and also permits training to be spread out over a twelve-month period.[10] Personnel of small and medium-sized local police and sheriffs' departments often do not complete basic training until near the end of the allotted year.

Most local law enforcement agencies do not provide regular in-service training for all personnel. Less than 10 per cent of law enforcement agencies in this state provide all of their officers with any form of annual refresher training. Larger agencies, with in-house training staff, sometimes deliver refresher courses in areas of identified need, in addition to firearms requalification. In these agencies, such training varies from 20 to 40 hours annually. Departments without their own training sections have more trouble in providing in-service training. They may provide roll-call training[11] or in-house training for only

8. Information contained in this section is, in large part, the result of data assembled by the N.C. Criminal Justice Education and Training Standards Division and an informal telephone survey conducted by Lawton Eure (Criminal Justice Planner at the North Carolina Justice Academy).

9. Title 12, Chapter 9B, N.C.A.C. § 0205.

10. N.C. GEN. STAT. § 17C-10

11. "Roll-call training" consists of brief training sessions conducted by first-line supervisors before officers begin performing their daily duties.

Table 2

Local Law Enforcement Agencies
with Their Own Basic Training Program, Calendar Year 1981

Agency	Ave. course length (hrs.)	Course offerings	No. students trained
Burlington P.D.	352	1	18
Charlotte P.D.	488	3	63
Durham P.D.	290	2	31
Elizabeth City P.D.	240	1	16
Fayetteville P.D.	512	1	14
Greensboro P.D.	600	1	18
Kill Devil Hills P.D.	243	1	12
Raleigh P.D.	656	2	26
Winston-Salem P.D. (Career Development Center)	520	1	28
Coastal Plains Academy (regionally based program, located in Wilson)	259	3	82
Guilford Co. S.D.	388	1	25
Totals:	411	17	333

Note: Chapel Hill began a police program in 1982.

The North Carolina Justice Academy, started in 1974 in Salemburg, provides professional education and training to law enforcement personnel, particularly in local agencies.

specified departmental personnel, or they may enroll their officers in specialized programs offered by community colleges, the Justice Academy, and others. Almost all agencies require periodic firearms requalification.

The state law enforcement agencies uniformly provide annual in-service training for all personnel. The SBI, the Highway Patrol, and the ALE all require field personnel to participate in one-week of refresher training each year. The Wildlife Resources Commission provides supervisory and management personnel with a one-week program each year, and field officers receive yearly refresher training from their superiors.

Regular advanced and specialized training programs are available to both state and local agencies at the Institute of Government and the Justice Academy. Also, many local agencies take advantage of specialized training programs offered by the various community colleges and technical institutes. Some agencies send a few officers to out-of-state training programs like Northwestern University's Traffic Institute, the Southern Police Institute in Louisville, Kentucky, and the FBI National Academy. But such programs do not, and cannot, substitute for regular refresher training for all officers of a department.

Conclusion

This article has traced the development of law enforcement training in North Carolina from its infancy to its present stage—best described as adolescence. In a surge of growth in the 1960s and 1970s, the system matured substantially but remained somewhat gangly and uncoordinated. Unquestionably, North Carolina has come a long way in a relatively short time. Pride is justified. But pride in past accomplishments can be either a sword or a shield. As a shield, it allows us to rest complacently on past laurels, warding off attempts at further improvement. As a sword, it is a positive, progressive force that drives us to continue the work that engendered the original pride.

Our present highly fragmented training system allows but does not guarantee a law enforcement officer's timely receipt of high-quality professional training. The goal of future efforts should be to *guarantee* such training for *all* officers. To attain this goal, existing resources must be used to the fullest, and coordination within the system must be developed.

In a future issue of *Popular Government*, I will examine major problems that remain in our law enforcement training system and offer suggestions for improvement.

Recent Publications of the Institute of Government

North Carolina Guidebook for Registers of Deeds. Fourth Edition. By William A. Campbell. (1982.) $4.00.

This comprehensive guide to the powers and duties of registers of deeds addresses the recording and indexing of real and personal records, the recording of maps and plats, and the issuance of marriage licenses. It also discusses potential liabilities of the register of deeds and ways in which those liabilities may be insured against.

Chart of the Administrative Organization of North Carolina State Government. By Ann L. Sawyer. (Fall 1982.) $4.00.

This chart lists all agencies created by the State Constitution, statute, or executive order. It shows in table form the location of each agency or department within the executive, legislative, or judicial branch of government. It also provides an alphabetical index of agencies and other information, such as whether the Governor appoints the agency's members.

Internal Organization of North Carolina Executive Departments, the General Assembly, and the Judicial Department. By Ann L. Sawyer. (Fall 1982.) $3.00.

This booklet shows in a series of diagrams the internal organization of the executive departments of North Carolina state government and the offices of the Governor and the Lieutenant Governor. It also shows the structures of the General Assembly and the General Court of Justice.

Casting Your Vote in North Carolina. (October 1982.) By Michael Crowell. $2.00.

This booklet tells everything you need to know about voting in North Carolina—from the registration process to the Federal Voting Rights Act. It will be especially useful to voters' associations, student groups, and other interested citizens.

Municipal Government in North Carolina. (September 1982.) Edited by David M. Lawrence and Warren Jake Wicker. $15.00.

A 500-page reference book on North Carolina municipal government, with a comprehensive treatment of the legal foundations, organizations, functions, and administration of cities in North Carolina.

North Carolina Legislation 1982. (September 1982.) Edited by Robert L. Farb. $5.00.

A summary of legislation in the 1982 General Assembly of interest to North Carolina officials.

Notary Public Guidebook for North Carolina. Fourth Edition. Revised by William A. Campbell. $4.00.

This publication examines the authority and responsibility of notaries public. It includes chapters on taking acknowledgments and depositions and on administering oaths.

Incorporation of a North Carolina Town. (August 1982.) By David M. Lawrence. $3.00.

This booklet is intended to help people who are interested in incorporating a town in North Carolina. It discusses the reasons why communities incorporate, some alternatives to incorporation, the methods of incorporation, and what it means to be a town.

Orders and inquiries *should be sent to the Publications Office, Institute of Government, Knapp Building 059A, The University of North Carolina at Chapel Hill, Chapel Hill, N.C. 27514. Please enclose a check or purchase order for the amount of the order, plus 3 per cent sales tax (4 per cent in Orange County). A complete publications catalog is also available from the Publications Office upon request.*

Should North Carolina Impose a Severance Tax?

Gloria Sajgo

A tax measure that has received increasing attention throughout the nation, including North Carolina, is a state tax on mining. This article explores the concept of a mining tax and considers some of the arguments for and against it. A mining activities tax, also known as a severance tax, is a tax on the privilege of extracting—or "severing"—nonrenewable natural resources (usually minerals) from the ground. Imposed at the time and place of extraction, it can take two forms: (1) a *specific or per-unit tax* that places a dollar amount of tax on each unit (ton, barrel, etc.) of resource mined; and (2) an *ad valorem* tax set as a percentage of the gross value of the resource as it is extracted.[1]

The severance tax has always been considered an occupation or privilege tax. This concept of taxation on mining originated with the "physiocrats," an eighteenth-century French and English school of economic thought. The physiocrats believed that the ultimate source of all real wealth lies in natural resources and that no single individual or generation has the right to exploit natural resources that belong to all citizens of the country and to posterity. Exploiters of natural resources, they felt, should reimburse society for its loss of resources through a severance tax.[2] More recently, the U.S. Supreme Court, in a 1981 decision upholding the constitutionality of Montana's severance tax, subscribed to this view: "The entire value of the coal [to which Montana's tax applied], before transportation, originates in the State, and mining of the coal depletes the resource base and wealth of the State, thereby diminishing a future source of taxes and economic activity."[3]

Mining activity is also taxed through a property tax—mining companies pay local property taxes—but many people consider a severance tax to be preferable. Generally there are two drawbacks to using the property tax as a principal means of taxing large mineral deposits. First, it is difficult to make a fair, accurate, and uniform appraisal of the property to be taxed because the value of the property is hidden and the likelihood of error is great.[4] Second, the property tax is (in North Carolina) a local source of revenue. The severance tax, on the other hand, is a state source. If a severance tax were enacted, the state could impose the tax and use the revenues to provide public programs and services—even to localities that do not have mineral deposits. Thus all the citizens of the state could benefit from a tax on the exploitation of a natural resource.[5]

The first state to enact a severance tax on minerals was Michigan in 1846. Not many states followed until the 1930s, when the Great Depression forced states to look for new revenue sources. At present, 33 states have adopted a severance tax—only a few within the last decade.[6]

But the energy-producing states now impose it vigorously.[7] Montana, for example, has a controversial 30 per cent severance tax on high-grade coal. On July 1981 the

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The author is a member of New Hanover County's Planning Staff. This article was derived from her master's thesis, written for the Department of Political Science (Master's in Public Administration Program) at the University of North Carolina at Chapel Hill.

1. Lee Peters, "An Outline for Development of Cost-Based State Severance Taxes," *Natural Resources Journal* 20 (October 1980), 995.

2. Karl E. Starch, *Taxation, Mining and the Severance Tax* (Denver, Colorado: U.S. Department of Interior, Bureau of Mines, 1979), pp. 19-20.

3. Commonwealth Edison Co. v. Montana, 453 U.S. 609, 624 (1981).

4. Starch, *Taxation, Mining, and the Severance Tax*, p. 12.

5. Sierra Club Bulletin (Joseph LeConte Chapter), "Severance Tax Could Be a Safety Net for State Conservation Needs" (Raleigh, N.C., Summer 1981).

6. Starch, *Taxation, Mining and the Severance Tax*, pp. 19-20.

7. Peters, "Cost-Based State Severance Taxes," p. 915.

U.S. Supreme Court, in *Commonwealth Edison Co. v. Montana*,[8] held that a state has the constitutional right to raise general revenues by imposing a severance tax. The Court upheld this right against claims by industry that the tax interfered with interstate commerce and federal mining and energy laws and policies (see the explanation of that case on the next page).

Minerals in North Carolina

Timber, gas, and oil. North Carolina already has severance taxes on timber, oil, and gas. A Forest Products Assessment tax (a severance tax on timber), from which the state collected $1.29 million in 1980, is allocated to the Forest Development Fund, which the state matches at a 1-to-3 ratio. All revenues from this fund go to the reforestation program for pine tree nurseries.

Until recently the taxes on oil and gas stood as a gentle reminder of a time when North Carolina expected to join the ranks of the oil- and gas-producing states. The legislature enacted the tax in 1945, about the time of some abortive efforts to drill for oil along the North Carolina coast.[9] These are similar ventures produced no revenue, but it now appears that North Carolinians may yet reap benefits from this legislation. At present, Amoco and other oil companies have obtained leases for oil and gas exploration in the Pisgah, Nantahala, Croatan, and Uwharrie national forests and on private lands as well. The U.S. Department of Interior has already leased several tracts off the North Carolina coast and will lease others.[10] Furthermore the state has other mineral resources that are being mined or soon may be mined. Those extractions could all be candidates for a severance tax.

Peat. Eastern North Carolina's peatlands may have a potential for energy purposes. The United States Geological Society defines peat as a dark brown or black residuum of the partial decomposition and disintegration of mosses, sedges, trees, and other plants that grow in marshes and similar wet places. Peat is the first stage in the formation of coal. According to U.S. Department of Energy figures, North Carolina holds 2.7 billion tons of peat in 1.2 million acres of coastal bogs. Initial efforts to dig peat and fuel the nation's first peat-fired electric power plant[11] collapsed with the current recession and the U.S. Department of Energy's decision not to invest any longer in the development of alternate energy sources. Nevertheless, new corporations are investigating ways to remove peat and at least break even in the process.[12]

Feldspar. North Carolina is a primary producer of feldspar. Feldspar mining is concentrated in Mitchell County, but companies in Cleveland and Gaston counties also produce the mineral by recovering it as a by-product of lithium and mica production. Feldspar is an anhydrous aluminum silicate used as a flux in glass and ceramics manufacture. From 1970 to 1980, the state's feldspar industry produced over 5 million tons of concentrate valued at over $100 million.[13] But production appears to be decreasing as a result of the slump in the construction and automotive industries; also, two-liter plastic beverage containers are making inroads on the container glass market.[14]

Mica. From 1970 to 1980 North Carolina lead the nation in producing of scrap, flake, and ground mica. During this period the state's yearly mica production of roughly 84,500 tons was valued at approximately $40 million.[15] However, since then production has dropped with declining demands from industry, including housing. Ground mica is specifically used in producing roofing, paint, and rubber materials.[16]

Uranium. In mid-1982 Marline Uranium Corporation announced that it had discovered what is probably the first substantial uranium deposit east of the Mississippi that can be mined. Located in south-central Virginia and northeast North Carolina, the site contains 30 million pounds of high-grade uranium oxide that could fuel nuclear power plants. The deposit extends into North Carolina's Rockingham County, where Marline has leased 105 acres. Marline has no present plans to explore or mine there, but the company officials do not rule out future operations.[17]

Phosphate. The state's largest current resource-extraction activity is the phosphate-mining industry in eastern North Carolina. Phosphate (used in making fertilizers) has been commercially extracted in North Carolina since the mid-1960s, when Texasgulf Chemicals Co. of Raleigh—a division of Texasgulf, Inc.—acquired property rights to 50,000 acres of land around Aurora, North Carolina. That move proved to be very successful. In 1980 alone the lode yielded three to four million tons of phosphate rock, and the company planned to increase this output to six million

(continued on page 48)

8. 435 U.S. 609 (1981).

9. Jasper Leonidas Stuckey, *North Carolina: Its Geological and Mineral Resources* (Raleigh, N.C.: North Carolina State University Print Shop, 1965), p. 516.

10. Information in a letter from Bill Holman, lobbyist for the Conservation Council of North Carolina, to the author, July 1982.

11. U.S. Department of Energy, Division of Fossil Fuel Processing, *Peat Prospectus* (Washington, D.C.: U.S. Department of Energy, July 1979), p. 16.

12. Letter from Bill Holman, July 1982.

13. Doss H. White, Jr., and P. Albert Carpenter, III, *Preprint from the 1980 Bureau of Mines Minerals Yearbook, The Mineral Industry of North Carolina* (Washington, D.C.: United States Department of Interior, Bureau of Mines), pp. 6-7.

14. *Ibid.*

15. *Ibid.*, pp. 8-9.

16. *Ibid.*

17. Allen Van Noppen, "Uranium Found in Virginia," *Greensboro Daily News*, 22 July 1982.

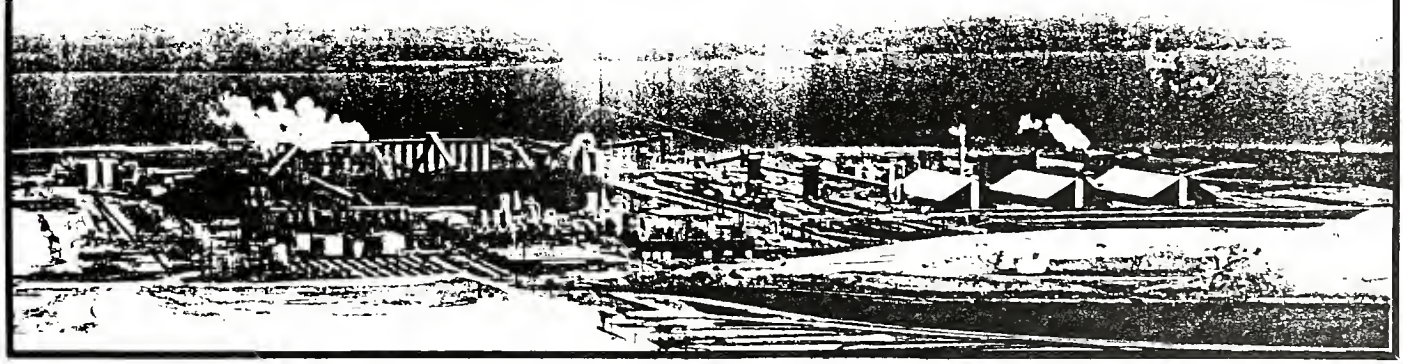
Is a Severance Tax on Mining Constitutional?

Imposing a severance tax on mining in North Carolina may or may not be a good policy. But it now seems clear that the United States Constitution does not prohibit a state's imposing a severance tax similar to that imposed by Montana. A recent U.S. Supreme Court decision—*Commonwealth Edison Co. v. Montana* [435 U.S. 609 (1981)]—involved a severance tax imposed by Montana on each ton of coal mined in the state at a rate up to 30 per cent of the contract sales price (MONTANA CODE ANN. § 15-35-103). The tax was imposed as a source of general revenue for the state. Fifty per cent of the proceeds were paid into a permanent trust fund, which could be spent only by a three-fourths vote of each house of the state legislature (MONTANA CONST., art. IX, § 5). Montana coal-mining companies and their out-of-state utility company customers sued for refunds of the taxes they had paid plus a declaration that the tax was unconstitutional. Specifically, they claimed that the Montana severance tax violated (1) the commerce clause (art. I, § 8, cl. 3) of the U.S. Constitution by discriminating against interstate commerce and for other reasons, and (2) the supremacy clause (art. VI, cl. 2) of the Constitution because of inconsistencies with federal mining legislation and energy policy.

The Court upheld the Montana severance tax. With respect to the commerce clause, the Court held that even though 90 per cent of Montana coal was shipped to other states, and therefore most of the tax burden was shifted to out-of-state utility companies (and ultimately to consumers in other states), the tax did not discriminate against interstate commmerce because the tax rate was the same regardless of the final destination of the coal. The taxpayers also argued that the tax was disproportionate to the costs incurred by the state on account of the taxpayers' mining activities. But the Court said that the amount of the tax did not, constitutionally, have to be equal to the value of either the services the state provided or the costs the state incurred as a result of the mining activity. Rather, the tax only had to be proportionate to the amount of contact the taxpayers had with the state—as it *was*, the Court said, because it was assessed in proportion to the amount of coal mining they did in Montana. The Court noted that "interstate commerce may be required to contribute to the cost of providing *all* governmental services, including those services from which it arguably receives no direct 'benefit'" (453 U.S. 609, 627, n. 16). Quoting from an earlier decision, the Court said: "The only benefit to which the taxpayer is constitutionally entitled is that derived from his enjoyment of the privileges of living in an organized society . . ." (453 U.S. 609, 623). These privileges included such things as police and fire protection and the benefit of a trained work force, which the mining companies received from the state. The Court said that deciding the amount of the tax was a task for the state legislature and the political process—courts should not try to make this decision by using cost-benefit analysis.

The Court mentioned another consideration supporting Montana's right to raise general revenue from a severance tax on coal mined in the state: "[M]ining of the coal depletes the resource base and wealth of the State, thereby diminishing a future source of taxes and economic activity" (453 U.S. 609, 624).

Turning to the plaintiffs' second claim, the Court held that the Montana severance tax did not conflict with either the federal Mineral Lands Leasing Act of 1920 (30 U.S.C. § 189) or federal energy policy. Although the tax on the Montana mining—much of which took place on federal land—could reduce royalty payments to the federal government, this kind of reduction of payments had been explicitly authorized by Congress in the Mineral Lands Leasing Act. Furthermore, the Court found that the tax did not conflict with federal policy in several other federal statutes that encourage the production and use of coal.—*SHC*



(continued from page 46)

tons annually by 1984. Company officials estimated that the 2.2 billion tons of ore in their holdings could last a century even if production levels quadrupled.[18]

In 1974 North Carolina Phosphate Corporation (NCPC) announced its plans to begin its mining operation—also near Aurora. It was expected that by 1983 NCPC would be producing at a level comparable with Texasgulf's.

But today it appears that North Carolina is suffering a phosphate bust. As with many other industries, the current recession has hit the phosphate business. High interest rates have limited the amounts of fertilizers farmers can buy, and the unstable world economy has diminished many export markets.[19] As a result, Texasgulf terminated 145 employees in the summer of 1982 and closed some of its mine-dredging and concentrator operations. In addition, observers have noted that NCPC appears to be winding down many of its activities.

Pitfalls in severance taxation

One disadvantage of a severance tax on North Carolina phosphate mining is that it would fall primarily on one company (Texasgulf), which is already suffering from the current recession. But as the economy recovers, the tax could become a valuable revenue source for North Carolina. Like all taxes, a severance tax would ultimately either come from the profits of the mining companies (affecting the companies' owners and or employees) or be passed along to customers in the form of higher prices. This latter prospect could be particularly appealing to proponents of the severance tax in North Carolina. Since most phosphate consumers are out of state, a severance tax would enable the state to export some of its tax burden. In *Commonwealth Edison Co. v. Montana* the Supreme Court clearly stated that it is not unconstitutional for a state to do this if the tax is reasonably related to the amount of in-state mining activity and does not discriminate against out-of-state taxpayers (see page 47).

Before North Carolina can impose a fair severance tax on phosphate or any other mineral, however, it must understand the industry it intends to tax. This principle was illustrated in 1981, when a mining severance tax measure was introduced in the General Assembly to help pass the Governor's $187.7 million highway-funding package. At that time officials felt that taxing the then rapidly expanding and increasingly lucrative phosphate industry would be an effective revenue source; but both supporters and opponents of severance taxation soon realized that that bill would backfire, because it included the production of crushed stone and gravel. About half of the crushed stone and gravel mined in this state is used in state-financed highway projects, and the principal buyers of these minerals have been road contractors. These contractors would have passed the cost of the proposed severance tax on to the North Carolina Department of Transportation, their largest customer. Thus the state would have had to spend much of the revenue that it would have received through the severance tax in order to meet the new higher highway construction costs.[20]

The effect on the mining industry

Texasgulf, currently North Carolina's only phosphate producer, argues that the severance tax would damage its ability to compete because it would have to charge higher prices in order to cover the tax. The company points out that in Morocco and the Soviet Union, its chief overseas competitors, the mines are government controlled, and pricing policies are not necessarily relevant to costs or to the constraints of supply and demand.[21] Rather than lose its competitive position, Texasgulf says, it would have to cut into profits. Either way, it maintains, prospective investors would be discouraged from exploring for minerals in North Carolina.

But severance tax supporters counter that even if a severance tax were completely passed along to consumers, the price increases would be negligible. For instance, proponents of the western states' coal severance tax believe that even if consumers' utility bills increased in proportion to the tax, the average cost to the ultimate user of electricity would be less than 0.75 per cent (2 per cent if the coal is exclusively from Montana).[22] For example, of the $359.86 average annual residential utility bill in that portion of Michigan served by Detroit Edison, which produces its power partly from Montana coal, only $1.24 would be attributable to the Montana severance tax (these figures are for FY 80).[23]

Coal from the western states, like North Carolina phosphate, does not enjoy a monopolistic market position. Because coal producers do not want to price themselves out of business, they do not pass all of the severance taxes on to consumers. Severance taxes in coal-producing states are usually shared by the industry and consumers, and

18. Bruce Siceloff, "Mining Tax Could Ease State Revenue Woes, Phosphate, Peat Industries Cited," *The News and Observer* (Raleigh, N.C.), 12 April 1981.

19. Interview with Lucius Pullen, Texasgulf Chemicals Co., Vice President of Law and Communications, Raleigh, N.C., August 1982.

20. Daniel C. Hoover, "Mineral Tax Bill to Go to Legislature Next Week," *The News and Observer* (Raleigh, N.C.), 25 June 1981.

21. Interview with Lucius Pullen.

22. Southern States Energy Board, *State Severance Taxes: The Growing Debate Over Regional Differences* (Atlanta, Georgia: The Southern States Energy Board, December, 1981), pp. 1-15.

23. *Ibid.*, p. 9

probably this is what would happen with severance taxes imposed on North Carolina phosphates.[24]

The actual severance tax level would of course be up to the General Assembly to decide. Since the phosphate market will determine who bears the cost of the tax and to what extent, it would be advisable for North Carolina to set a severance tax at a level that would leave Texasgulf and prospective mining interests in a relatively competitive position in today's already slumping markets.

The General Assembly may learn something from Florida, which has a 10 per cent severance tax. In 1980, 80 per cent of the phosphate produced in the U.S. was mined in Florida; Florida phosphate accounted for *one-third of world production* even though it was competing against foreign producers in the Soviet Union and Morocco and at least one untaxed domestic producer (Texasgulf in North Carolina). In 1980, 46 million tons of phosphate rock were mined in Florida, and that state collected $61.2 million in severance taxes.[25]

Using severance tax revenues

One way to use severance tax funds is to spend them on the current needs of state government. These funds may also be set aside for future needs. For example, Montana's constitution requires that at least half of its severance tax revenues be paid into a permanent trust fund, which may be spent only by a vote of three-fourths of each house of the state legislature.[26] And severance tax proceeds may be earmarked to offset the public costs of mining.[27]

Florida's severance tax is used in all three ways just mentioned. Approximately 50 per cent of the Florida severance tax revenues are allocated to the Conservation and Recreation Lands Trust Fund, 20 per cent to the Non-mandatory Land Reclamation Trust Fund, 5 per cent to the Phosphate Research Trust Fund, and 25 per cent to the General Revenue Fund.[28]

North Carolina seems to have changed its attitude toward use of the severance tax. In 1981 Governor Hunt's main objective in backing a severance tax was not to improve the environmental quality but to raise money to implement his good-roads package. But this past summer Robert Jansen, a senior policy adviser to the Governor, explained that although the Governor had not decided about the severance tax in regard to his coming legislative program, he views the tax as an appropriate way to raise revenue not only to fund general state activities but also to finance environmental endeavors.[29] Jansen explained that the Governor believes that at least half of the severance tax revenues should go into a natural resources trust fund that would have two purposes: (1) to heal the scars of past mistakes—i.e., to eradicate spoil piles, open pits, etc.; and (2) to provide public recreation areas by protecting rivers and preserving park lands.

This shift in policy appears to be in step with the national trend. The National Conference of State Legislatures found that the twenty states with severance tax collection of $10,000,000 or more are meeting the long-term costs of mining activity by establishing permanent trust funds or by funding economic development or conservation programs.[30] Also, it has been argued that it is only fair to tax the mining industry not just to alleviate the effects of mining activities but also to compensate the state for the permanent loss of a valuable resource. One source reports that throughout the nation, states are claiming more than token taxation for the extraction of their natural resources.[31] Resource-rich states used to be satisfied with the "progress" that resulted from the development of a mining industry, but a new states' rights movement focuses on adequate compensation to the citizens of the resource states for the states' exported resources.[32]

Calculating the basis for the tax

In considering the merits of a severance tax, policymakers need to know what they hope to achieve with the tax. One approach is to make the tax commensurate with the costs that the state will incur as a result of the mining operation.[33] Among those costs will be the following:

—*Direct costs incurred by state and local governments.* Includes the costs of environmental monitoring, highway construction, and extending services like schools, hospitals, police and fire protection, water and sewer services, and social services needed by growing mining towns.

—*Public costs or damage.* Includes present and future loss of aesthetic value because of damage to the air, land, and water. Also, it is important to evaluate whether this damage to the environment poses a health risk to area residents.

—*Future costs.* These include the costs the state incurs after resources are extracted and exported—for example,

24. *Ibid.*, pp. 1-15.

25. Siceloff, "Mining Tax Could Ease State Revenue Woes."

26. MONTANA CONST. art IX, §§ 5.

27. *Ibid.*

28. Florida Phosphate Council, *What About an Increase in the Severance Tax on Phosphate* (Florida: Florida Phosphate Council, March 1977), p. 4.

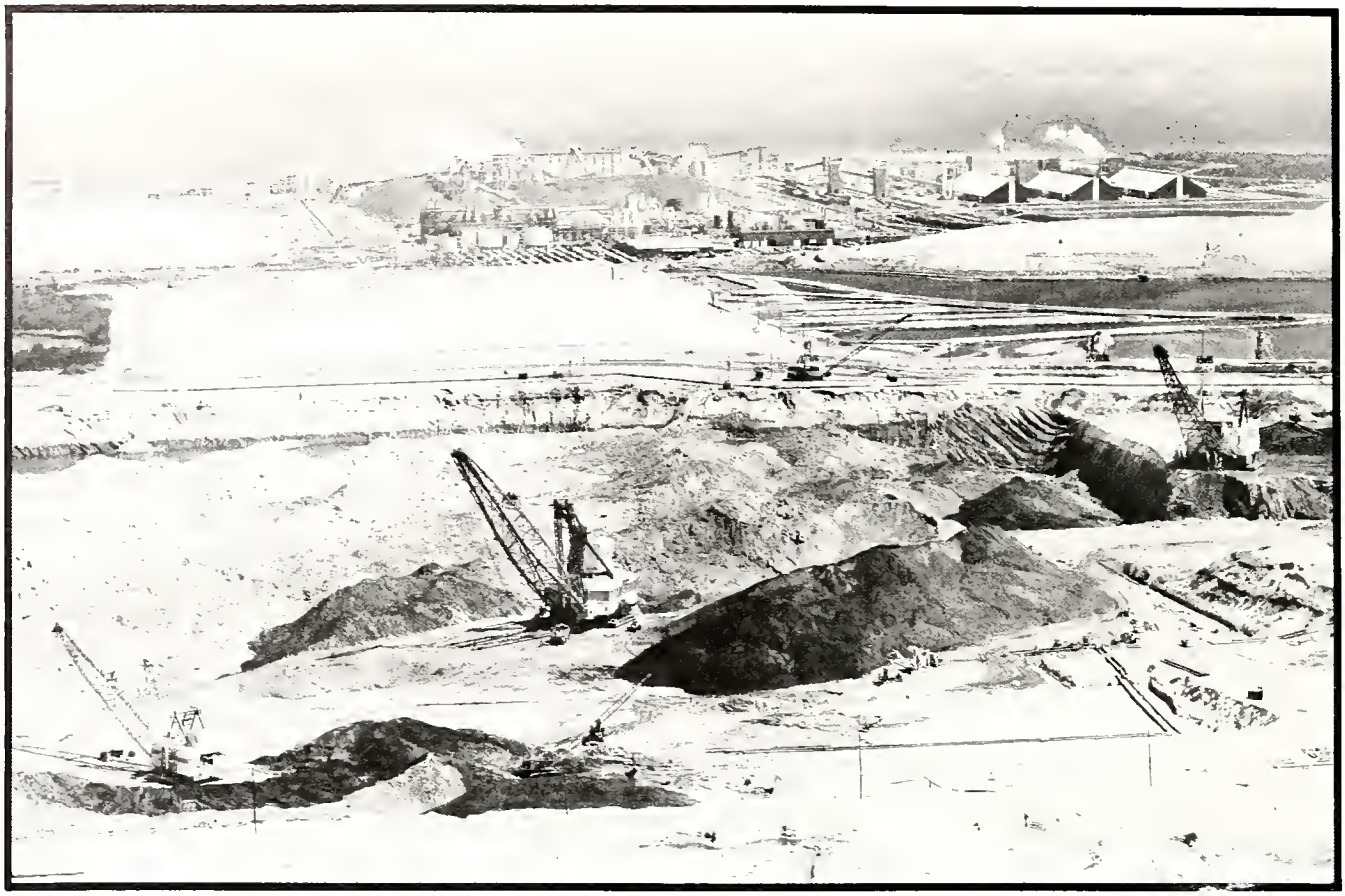
29. Interview with Robert Jansen, Senior Policy Adviser, North Carolina Department of Administration, Raleigh, N.C., August 1982.

30. Richard V. Watson, "The Use of Royalty and Severance Tax Revenues" (Denver, Colo.: Fiscal Affairs Program, National Conference of State Legislatures, 1982), p. 12.

31. Peters, "Cost-Based State Severance Taxes," p. 923.

32. *Ibid.*

33. Charles T. Dumars and Lee Brown, respectively professor in the School of Law at the University of New Mexico and director of the Bureau of Business and Economics Research at the same institution.



Phosphate has been commercially extracted in North Carolina for the manufacture of fertilizers since the mid-1960 s. This photo shows part of Texasgulf Chemicals Company's phosphate-mining operation on 50,000 acres of land near Aurora, N.C.

long-term reclamation and maintenance to insure future productivity of the affected land.

—*Costs of assuring future economic opportunities.* Because a state has responsibility for its citizens' well-being, a mining state has the duty to set aside money for use in creating new economic opportunities after the nonrenewable resources are depleted.

—*Lost-opportunity costs.* Extracting resources from the land delays or forecloses using the land in other ways. In determining costs for purposes of fixing a severance tax level, the costs of lost opportunities should be considered. Temporary delays in alternative economic development may not present a great burden to the state, but to the extent that extracting resources permanently forecloses alternatives, the permanent loss should be measured and paid for by consumers of the resources as the materials are extracted.[34]

—*Other costs.* There are other costs unique to the mineral industry, including environmental risks, social costs (rapid changes in lifestyle, transiency, etc.), and the boom-bust cycle of production, evidenced by the decaying infrastructure and high unemployment in mineral ghost towns.[35]

Conclusion

If—as now seems likely—there will be continued consideration of a severance tax on mining for North Carolina, it will be necessary to study the industry to be taxed, the reason for imposing the tax, and how the revenues will be allocated. The state's need for more revenues should not obscure the fact that a severance tax set too high may cripple an industry already suffering from the current recession. It should also be remembered that mining generates certain public costs, and that one way of meeting these costs is to impose a reasonable tax on the industry. ●

34. Peters, "Cost-Based State Severance Taxes," p. 913.

35. Watson, "Royalty and Severance Tax Revenues," p. 4.

Public Work Exhibit: Museum of History Needs Your Help

In the spring of 1984 the North Carolina Museum of History will open a unique exhibit on North Carolina's public works. The exhibit, the first of its kind, will acquaint people with the state's public works heritage and show the impact it has had on the quality of life of North Carolinians.

The museum is eager to find items, both past and present, pertaining to public works in North Carolina. These items could be photographs; engineering drawing; posters; books; articles; government reports; manuscripts in public or private collections; and artifacts (equipment, tools, models of public works structures, etc.) Public works includes the following areas: roads, streets, and highways; urban mass transportation systems; water supply and sewer systems; flood control and drainage systems; light and power systems; wastewater treatment plants; public buildings and parks; and irrigation systems.

Anyone who is able to assist in this search is encouraged to contact Pam Johnson, public works history intern, or Suellen Hoy, Assistant Director, North Carolina Division of Archives and History, 109 E. Jones St., Raleigh, North Carolina 27611 (919-733-7305).

Hayman Receives International Personnel Award

Donald B. Hayman, Professor of Public Law and Government at the Institute of Government, has received the 1981 Warner Stockberger Award of the International Personnel Management Association (IPMA), the highest honor the Association can bestow on an individual. IPMA is a nonprofit organization representing more than 55,000 personnel professionals at the federal, state, and local levels of government.

The award, presented at the IPMA annual conference in October, recognizes Hayman's "lifetime of outstanding contributions toward the improvement of public personnel management at all levels of government." The award was established in 1948 in honor of Dr. Warner W. Stockberger, a pioneer in federal personnel administration and the first personnel director for the U.S. Department of Agriculture.

A member of the Institute's faculty since 1948, Hayman teaches public personnel administration and has been a consultant to state government, the General Assembly, and city and county governments throughout North Carolina. Hayman not only helped draft the first North Carolina personnel act but also has played a significant role in developing model personnel ordinances for local governments. He was instrumental in starting both the Master of Public Administration program at the University of North Carolina at Chapel Hill and a state government summer intern program for college students.—*WPP*

Nonfarm Development in Rural North Carolina

Leon E. Danielson

A larger nonfarm rural population means higher rural land values and new demands upon local governments.

Over the years North Carolina has thought of itself as a rural state, largely dependent on agriculture—and that is the way the rest of the nation has also thought of it. But recent Census results show that this picture no longer represents North Carolina accurately. The fact is that the state is becoming more urban and its rural areas less agricultural. Simultaneously the price of rural land has risen because of inflation, increasing demands for farm land to be used for nonagricultural purposes, and similar factors. These facts have important implications for governments that set policy and provide services for rural areas.

Beginning in the 1970s on a nationwide basis, research began to show that population growth was shifting. The 1980 Census of Population confirmed a shift from large to small cities and from small cities to rural areas.

Between 1970 and 1980 the population of the United States grew by 10.8 per cent, reaching 226 million in 1980. But this growth was not spread equally over the nation. First, the South and the West grew faster than the rest of the nation. Second, because of improved communication and transportation technology that reduced the isolation of rural areas, the rising costs of crime in urban areas, increased employment opportunities in rural areas, and in-migration of new retirees, nonmetropolitan counties grew by 15.9 per cent nationwide during the 1970s, whereas metropolitan counties grew by 9.8 per cent (metropolitan counties are defined as containing urban centers that have suburbs with 50,000 or more people).[1] In contrast, during the 1960s metropolitan areas grew by 17.7 per cent—four times the nonmetropolitan rate of 4.4 per cent. During the 1970s population growth in the United States outside of town limits was five times faster than during the 1960s. Furthermore, while the number of households nationwide grew by 22 per cent, 40 per cent of the new households lived on rural land.

Trends in North Carolina

Where do these facts leave North Carolina? The statistics tell a surprising story.

Population. From 1970 to 1980 population in the South increased by 19 per cent, compared with an average of under 11 per cent nationwide (Table 1). While migration to cities dominated growth patterns during the 1960s, metropolitan and nonmetropolitan counties grew about equally in the 1970s. But while for the nation as a whole nonmetropolitan areas grew faster than metropolitan areas during the 1970s, that was not true for the South.[2]

Population density (the number of people per square mile of land area) in North Carolina is nearly twice as high as in the nation at large (Table 1) and higher than in any other state in the South (defined by the Census Bureau to include 16 states and the District of Columbia) except Delaware, Maryland, Virginia, the District of Columbia, and Florida.

In a complete turnaround, North Carolina net inmigration during the 1970s was over 600,000, compared with a net outmigration of over 500,000 persons during the 1960s.[3]

The striking shift to nonmetropolitan growth in North Carolina is more clearly demonstrated by comparing different groupings of counties for the decades of the 1960s and 1970s. In Figure 1 and Table 2, designations for metropolitan counties and for adjacent and nonadjacent nonmetropolitan counties follow the 1982 designation by the Census Bureau.

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1. Calvin L. Beale, *Rural and Small Town Population Change, 1970-1980*, ESS-5, Economics and Statistics Service of Washington, D.C., United States Department of Agriculture, February 1981). David L. Brown and Calvin L. Beale, *The Sociodemographic Context of Land Use in Nonmetropolitan America in the 1970s* (Washington, D.C.: National Agricultural Lands Study, 1981).

2. Beale, *supra* note 1; U.S. Department of Commerce, Bureau of the Census, *County and City Data Book* (Washington, D.C., 1978).

3. N.C. Department of Administration, Division of Policy Development, *Workbook: Preparing North Carolina for the Year 2000* (Raleigh, N.C., 1981).

The regional classification uses U.S. Crop Reporting Service districts. Twenty-four of the state's 100 counties are now classified as metropolitan. Only 36 counties are not immediately adjacent to those metropolitan counties or similar counties in neighboring states. In the 1960s, growth in nonmetropolitan counties was only 2.4 per cent, compared with a 21.5 per cent growth rate in the metropolitan counties; in the 1970s the respective rates were nearly equal at 14.7 and 16.3 per cent. Further, the counties not adjacent to metropolitan counties grew by only 0.8 per cent during the 1960s but by 11.9 per cent in the 1970s. Counties adjacent to metropolitan counties grew by 3.6 per cent in the 1960s and by 16.5 per cent in the 1970s. Metropolitan counties grew by 21.5 per cent in the 1960s and by only 16.3 per cent in the 1970s. Thus in North Carolina the clear trend is for counties without large cities to grow rapidly.

The rate of population growth in the Piedmont remained nearly constant at about 16 per cent over the two decades, whereas the rates increased from 5 to 14 per cent in the Coastal region, and from 9.5 to 17 per cent in the Mountain region in the 1960s and 1970s, respectively. Population densities have increased similarly. As Table 2 shows, population densities in the adjacent and nonadjacent counties are nearly equal.

In 1980 North Carolina was 48 per cent urban,[4] whereas it was 45 per cent urban in 1970.[5] In 1970 nearly 87 per cent of the rural population was classified as nonfarm.[6] It is likely that the continued movement of nonfarm residents into rural areas has increased the nonfarm orientation of rural residents since 1970, although detailed 1980 Census data are not yet available.

North Carolina now ranks as the nation's tenth most populous state, and it is growing faster than the national average—six times faster in nonmetropolitan counties during the 1970s than during the 1960s. The statewide population density is nearly twice the national average.

Housing. Throughout the South generally the number of housing units is increasing in metropolitan and nonmetropolitan counties at nearly equal rates (35 per cent and 34 per cent respectively between 1970 and 1979). But 64 per cent of the metropolitan growth occurred outside of central cities in areas that often contain little urban development.[7] Thus the effect of new housing on the land is much greater than the growth rate of housing in nonmetropolitan areas suggests.

North Carolina's population increased by 15.5 per cent between 1970 and 1980. But the number of new housing units rose by 38.3 per cent (the total number of units rose from 1,642,015 to 2,271,123 units).[8] Like the population, the housing units constructed in North Carolina in the

4. U.S. Department of Commerce, Bureau of the Census, "1980 Urban Population Proportion Registers Smallest Gain in U.S. History, Census Tabulations Show," News Release CB81-138 (Washington, D.C., August 13, 1981).

5. U.S. Department of Commerce, Bureau of the Census, *1970 Census of Housing, Supplemental Report, Occupied Housing Units and Rural Population*, HC (S1)-7 (Washington, D.C., 1972). The urban population is composed of all persons who live in urbanized areas and in places of 2,500 inhabitants or more outside urbanized areas. The population not classified as urban constitutes the rural population.

6. Residents of all rural territory not part of a farm are designated nonfarm. The definition of a farm is changed periodically, currently being any establishment from which $1,000 or more of agricultural products are sold or would normally be sold during a year.

7. U.S. Department of Commerce, Bureau of the Census, *General Housing Characteristics Annual Housing Survey: 1979*, Part A (Washington, D.C., August 1981.

8. U.S. Department of Commerce, Bureau of the Census, *1980 Census of Population and Housing, Advanced Report, North Carolina: Final Population and Housing Unit Counts* (Washington, D.C., March 1981).

Table 1

Population Density and Change in Population:
United States, South and Selected Southern States, 1960–80

Area	Percentage population change		1970–80[a] Population growth		1975 Population density per square mile
	1960–70[a]	1970–80[b]	Metropolitan	Nonmetropolitan	
United States	13.4	10.8	9.8	15.9	60
South[c]	14.3	19.0	20.1	17.1	78
North Carolina	11.6	15.5	16.3	14.7	112
Virginia	17.6	14.4	13.3	16.6	125
South Carolina	8.7	18.2	20.3	16.2	93
Georgia	16.4	17.6	19.8	14.8	85

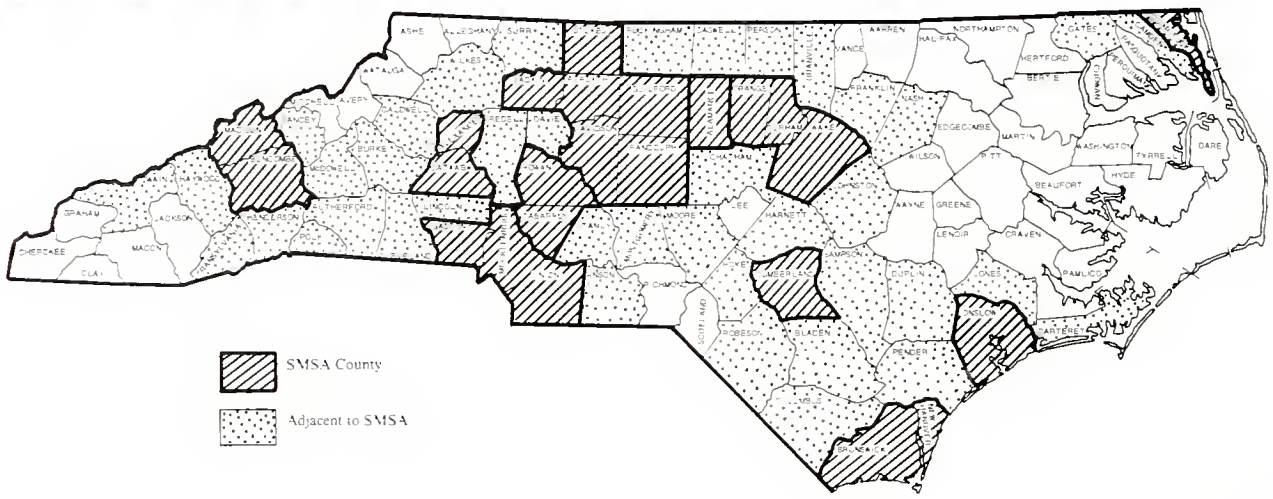
a. Source: U.S. Department of Commerce, Bureau of the Census, *County and City Data Book* (Washington, D.C.: 1978).

b. Source: Calvin L. Beale, "Reverse Migration Confirmed," *American Land Reform Forum Magazine* 2 no. 3, (Summer 1981); Calvin L. Beale, *Rural and Small Town Population Change, 1970–1980*, ESS-5, Economics and Statistics Service (Washington, D.C. U.S. Department of Agriculture, February 1981); Bureau of the Census "1980 Urban Population Proportion Registers Smallest Gain in U.S. History, Census Tabulations Show," New Release CB81-138 (Washington, D.C.: August 13, 1981), except for North Carolina figures which are from U.S. Department of Commerce. Metropolitan and nonmetropolitan growth rates are affected by the Census classification of metro, nonmetro. The North Carolina growth rate reflects the current specification of counties and the three new SMSA designated after the 1980 Census.

c. States classified as being in the South are Delaware, Maryland, District of Coumbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma, and Texas.

Figure 1

Standard Metropolitan Statistical Areas and Adjacent Counties: North Carolina, 1982



Source. Bureau of Census, U.S. Department of Commerce

1970s were spread evenly throughout the state. The percentage increase was nearly identical in the following comparisons of counties: metropolitan versus nonmetropolitan, adjacent versus nonadjacent, and Coastal versus Piedmont versus Mountain.

Off-farm income and employment. Many factors help determine the amount of off-farm income and employment of farm operators. These include the predominant type of farming in the area, the profitability of farming, and the opportunity for employment. Several North Carolina farm enterprises—like tobacco, poultry, and small grains—lend themselves to off-farm employment. The growth in the number of jobs available outside of urban centers has probably enabled many small-farm operators to continue to farm and to live in rural areas when farm profits were low.[9]

Whereas in 1974, 64 per cent of farm operators in North Carolina listed farming as their principal occupation, by 1978 that number had dropped to 55 per cent.[10] The stated principal occupation varied greatly with income; for 73 per cent of the operators whose farm income was below $2,500, farming was not their primary occupation.

The regions of the state vary considerably in the number of farm operators who have off-farm income. In 1978 the percentage of farm operators who worked off the farm at least 100 days a year ranged from mostly under 30 in the Coastal region to mostly over 45 in western North Carolina.[11]

9. U.S. Department of Agriculture, *Structure Issues of American Agriculture*, Economics, Statistics and Cooperative Services, Agricultural Report No. 438 (Washington, D.C., 1979).

10. U.S. Department of Commerce, Bureau of the Census, *1978 Census of Agriculture: State and County Data, North Carolina*, Part 33, (Washington, D.C., 1978).

11. U.S. Department of Commerce, Bureau of the Census, *1974 Census of Agriculture, Special Reports: Graphic Reports*, Vol. IV, Pt. 1, (Washington, D.C., 1978).

Table 2

North Carolina Population and Population Density Data, 1960–80[a]

North Carolina counties	Percentage population increase		Population per square mile		
	1960–70	1970–80	1960	1970	1980
North Carolina	11.6%	15.5%	93	104	120
Metropolitan	21.5	16.3	182	220	256
Nonmetropolitan	2.4	14.7	64	66	76
Adjacent	3.6	16.5	65	67	78
Nonadjacent	.8	11.9	63	64	72
Coastal	5.0	14.0	70	74	84
Piedmont	16.6	16.1	143	166	193
Mountain	9.5	17.0	66	73	85

a. Figure 1 shows the counties classified as metropolitan, adjacent, and nonadjacent following Bureau of Census designation as of 1982. Designation of Coastal, Piedmont, and Mountain regions follows Crop Reporting Service district boundaries.

Source: Calculated using data from Leon E. Danielson, *The North Carolina Rural Real Estate Market*, Economics Information Report no. 66. (Raleigh, N.C.: North Carolina State University, Department of Economics and Business, December 1981).

Economic pressures to convert farmland to nonfarm uses. Between 1972 and 1982 farmland values in North Carolina increased from $371 per acre to $1,284 as reported by the U.S. Department of Agriculture. Nationwide, farmland values rose from an average of $203 per acre in 1971 to $788 per acre in 1981[12]—as a result of inflation and demands for land for farm and nonfarm uses. In North Carolina much of the increase has been due to demand for nonfarm uses.

To obtain more information on nonfarm demand for farmland in North Carolina, farmland sales from October 1, 1979, to March 31, 1980, were surveyed.[13] A questionnaire was sent to real estate brokers, realtors, appraisers, bankers, and others in the state who were knowledgeable about farmland sales. It had two parts—one on respondents' judgment concerning strength of the land market, and a second on actual sales of farmland. The data presented here are selected items that relate specifically to urbanization of rural land.

Statewide, 51 per cent of the respondents thought that nonfarm uses were the primary determinants of demand for rural farmland, although there was considerable regional variation (Table 3). Respondents also estimated that about 34 per cent of all farmland sold in the state was purchased for nonfarm use.

Respondents' estimate of land value by type of nonfarm use ranged from $6,356 per acre for industrial land to $374 for marsh, mineral, and similar land (Table 4). The actual average statewide selling price was $1,398 per acre for land that remained in agriculture and $1,875 per acre for land expected to be converted to nonfarm use.

The National Agricultural Land Study (NALS)[14] analyzed 131 federal programs that were expected to affect farmland use. It found that 70 per cent stimulated the conversion of farmland to nonfarm uses. Many of these programs relate to housing, industrial development, or water and sewer projects. My survey of actual sales indicated that price per acre was approximately double when these influencing factors were present. Of the tracts sold for nonfarm development, 39 per cent were expected to go into rural residential use, 3.8 per cent were expected to go into commercial or industrial use, and 35 per cent were to be held for future development.

In summary, farmland values in North Carolina appear to be greatly influenced by their potential for nonfarm development—especially in the Piedmont and Mountain regions, where respondents felt that nonfarm factors were the primary determinants of land value. Land values by type of use are generally much higher for nonfarm uses than for farm use. In rural areas, the availability of water and sewer facilities, or having rural industry or rural housing projects nearby, raises land values and future price expectations of landowners. Although few tracts actually are converted to nonfarm use each year, the effect of rural nonfarm development is certainly widespread in terms of its effect on land values, future price expectations, and the amount of land held for nonfarm development.

Issues and policies

During the 1970s, in North Carolina as in the nation at large, population and housing growth shifted greatly from metropolitan to nonmetropolitan areas. This shift has been welcomed (and promoted) by many who have observed the decline of rural areas for decades; it has also raised issues that are beginning to receive attention throughout rural and small-town America. Two of these issues are rural land use and the ability of local government to respond to the changing needs of the more urban rural population.

Land use. The population growth in nonmetropolitan areas and the effect of that growth have generated interest and concern in regard to two rural land-use issues: (1) the protection of farm operations, and (2) the preservation of farmland.[15] Protection of farm operations has become an issue because of the frequent complaints and nuisance suits filed against farm operators over the dust, odors, noises, etc., that result from normal farm operations. Although most controversies are settled before they go beyond the complaint stage, several nuisance suits filed by health departments and private citizens in recent years have resulted in fines to producers and/or requirements to modify farm operations. These requirements are often costly to implement and, in some cases, have forced the producer to relocate or go out of business.

The 1979 North Carolina General Assembly passed a law designed to forestall such controversies in farming areas, to prevent disruption of farm operations, and indirectly to reduce the loss of farm-

12. Leon E. Danielson, *The North Carolina Rural Real Estate Market*, Economics Information Report No. 66, North Carolina State University, Department of Economics and Business, December 1981; James Hrubovcak, John F. Jones, Anne Burke, George Amols, Linwood Hoffman, and Ron Jeremias, *Farm Real Estate Market Developments*, CD-87 (Washington, D.C.: Economics and Statistics Service, U.S. Department of Agriculture 1982).

13. Danielson, *Rural Real Estate Market*.

14. National Agricultural Lands Study, *Final Report* (Washington, D.C., 1981).

15. See also William A. Campbell, "Strategies for Protecting North Carolina Farm and Forest Land," *Popular Government* 48, no. 1 (Summer 1982).

Table 3

Nonfarm Sales and Their Effect on Land Values: North Carolina

Item	North Carolina	Coastal	Piedmont	Mountain
Response: "Nonfarm factors are the primary determinant of value"	51%	24%	65%	73%
Percentage of farmland sold for nonfarm use	34%	34%	39%	30%

Source: Leon E. Danielson, *The North Carolina Rural Real Estate Market*, Economics Information Report No. 66 (Raleigh, N.C.: North Carolina State University, Department of Economics and Business, December 1981).

Table 4

Respondent's Estimate of Average per Acre Value of North Carolina Farmland Sold for Nonfarm Use by Geographical Region, April 1, 1980[a]

Geographical region[b]	Categories of Nonfarm Use					
	Rural residence	Recreation	Holding for future development	Commercial or industrial	Forest	Marsh, mineral, etc.
Mountain	$3,211	$2,453	$1,728	$8,681	$804	$517
Piedmont	3,207	3,803	1,654	4,421	737	483
Coastal	3,750	8,761	2,404	6,822	604	289
North Carolina[c]	3,417	5,429	1,924	6,356	695	374

a. Region values are calculated by weighting county values by the percentage of nonfarm land that is of each use category in the counties comprising the region.

b. Regions are aggregations of the following Crop Reporting Service districts. Mountain Region—Northern and Western Mountain districts; Piedmont Region—Northern, Central, and Southern Piedmont districts; Coastal Region—Northern, Central, and Southern Coastal districts.

c. State averages are weighted by the appropriate region percentages.

Source: 1980 North Carolina Rural Real Estate Market Survey.

land by limiting the circumstances under which agricultural operations may be deemed a nuisance. It is still too early to judge the effectiveness of the law. Further, the law does not address another protection issue—the taking of farmland for water supply, transportation, and other public purposes through the powers of eminent domain.

The preservation of farmland issue has been raised by many citizens and interest groups concerned about food supply and about such social, environmental, and economic issues as maintenance of rural character and the agricultural production upon which a large part of the local economy may be based. There is disagreement over the prospective adequacy of our food supply (a national issue), largely because of differences of opinion over the assumptions to be made when estimating future supply and demand for food, farm productivity per acre, etc. The 1982 National Resource Inventory being conducted by the U.S. Soil Conservation Service will provide improved data with which to estimate the rate of farmland loss. The social, environmental, and economic concerns are perhaps more important locally because of their large effect upon citizens.

Numerous land-use policies to address the protection and preservation issues have been suggested and tried throughout the United States. They differ greatly depending on the perception of the problem, the degree of urbanness of the area, and the degree of urgency perceived by local citizens and elected and appointed officials. In general, land-use policies fall into two major categories: regulations and incentives. Examples of regulations include zoning and subdivision regulations. Incentive policies include adjustments in tax rates to stimulate desired land-use and redirection of the spending power of government to avoid, for example, stimulation of growth and development activities that lead to loss of farmland and purchase of development rights. In North Carolina, the 1973 General Assembly passed a use-value law that provides for taxation of qualifying farmland at its use value in agriculture rather than its market value. Although the act has provided tax relief for owners of farmland in some instances, it probably has not caused farmland to be preserved because of the large capital gains that accrue when land is developed for nonfarm purposes. Several studies are available that look more closely at alternative land-use policies.[16]

Local government adjustments. Even before the shift of population to nonmetropolitan counties was evident, concern was being expressed for the lack of research concerning and the inability of local government to respond to the problems and needs resulting from nonfarm development in rural America. During and after the Great Depression, agricultural policies and programs were developed that focused on farm commodities and on increasing the welfare of rural people as farmers.[17]

At the same time, social legislation was enacted to improve the welfare of people generally. But farm people were often exempted because their needs were perceived as being addressed in the effort related to production of farm commodities. For example, at first farmers and farm workers were exempted from Social Security coverage, wages-and-hours provisions of the Fair Labor Standards Act, unemployment insurance, and most state workmen's compensation acts. This legislation often made off-farm work conditions more attractive than staying on the farm. Combined with many other pressures for farmers and farm workers to leave the farm, it encouraged farm-to-city migration and increased off-farm employment by rural residents.

The primary focus on agricultural producers on the one hand and on urban workers on the other meant that many issues of rural communities were often overlooked. Although farmers are constituents of the rural "community," they are an increasingly smaller proportion of residents in these communities. Focusing on

16. *Final Report*; Leon E. Danielson, "Retention of Prime and Important Farm and Forest Lands—Alternative Public Policies and Programs," Proceedings, The Governor's Conference on the Retention of Prime Farm and Forest Lands, December 17, 1981; Campbell, "Protecting North Carolina Farms and Forest Land."

17. C. E. Bishop, "The Urbanization of Rural America: Implications for Agricultural Economics," *Journal of Farm Economics* 49, no. 5, (December 1967).

the welfare of farmers and equating farmer welfare with community welfare thus overlooks a growing segment of the population in the state's rural areas. Further, farm conditions can improve while community conditions deteriorate because farmers are only part of the whole and because communities are affected by other factors as well as farm concerns. Over the years, great attention has been given to the effect of changes in the structure of agriculture (the number of farms and farmers, farm size, corporate farming, etc.). But relatively little effort has been made to understand the effect of such community changes as population level, age structure of residents, the tax base, and the need for services and facilities.

During the twentieth century many communities have undergone severe stress. Many stagnated or died. Those that prospered often became more specialized (that is, less self-sufficient) and thus more interdependent; others expanded farm and/or nonfarm economic activities and as a result served a larger area and more people.

Today, the need for adjustment at the community level is probably as great as ever. Increased mobility of rural residents, improved communication facilities, and increased migration of nonfarm residents into rural areas have exposed rural residents to urban life-styles and values that have increased the expectations of rural residents. Demands have been and are increasing for improved school programs and facilities, fire protection, waste disposal facilities, emergency health care, and a host of other services and facilities provided at the local level, often by local government.

Yet decisions are made, and adjustments slowly occur. Whereas technological advancements are quickly adopted by farmers and farm industries, thus enabling them to remain competitive, rural institutions and programs change slowly. By nature, public policies are more difficult to develop than individual or business policies because group decisions must be made. There are gainers and losers for any policy, and often those who do not gain present roadblocks big enough to prevent community adjustments from being made.

Today, even more than in 1967, "urban" can no longer be equated with "big city"—nor can "rural" be equated with "farm." Rural communities are no longer isolated and self-contained. Small towns and counties are often called on to provide a much wider variety of services and facilities to meet the demands of farm and nonfarm rural residents. County funding must be adjusted, especially as the "new federalism" becomes a reality, and different amenities must be provided. To a large extent these services will be of an urban nature, but they must be provided by rural, not urban, institutions.

North Carolina and the South are in the midst of a population growth boom that is causing continuing growth pressures in the urban areas while giving rise to new pressures in rural areas. Population densities are high, even in many counties without any cities of even medium size. Further signs of rural urbanization can be seen in the regional distribution of population growth, in the amount of and location of new housing construction, in the level of off-farm employment by farm operators, and in farmland values. While it is difficult to predict the future direction of these trends, it is likely that rural urbanization in North Carolina will continue. It is important that analysts and county and local governments adjust to the changing times if citizens' needs in rural North Carolina are to be met.●

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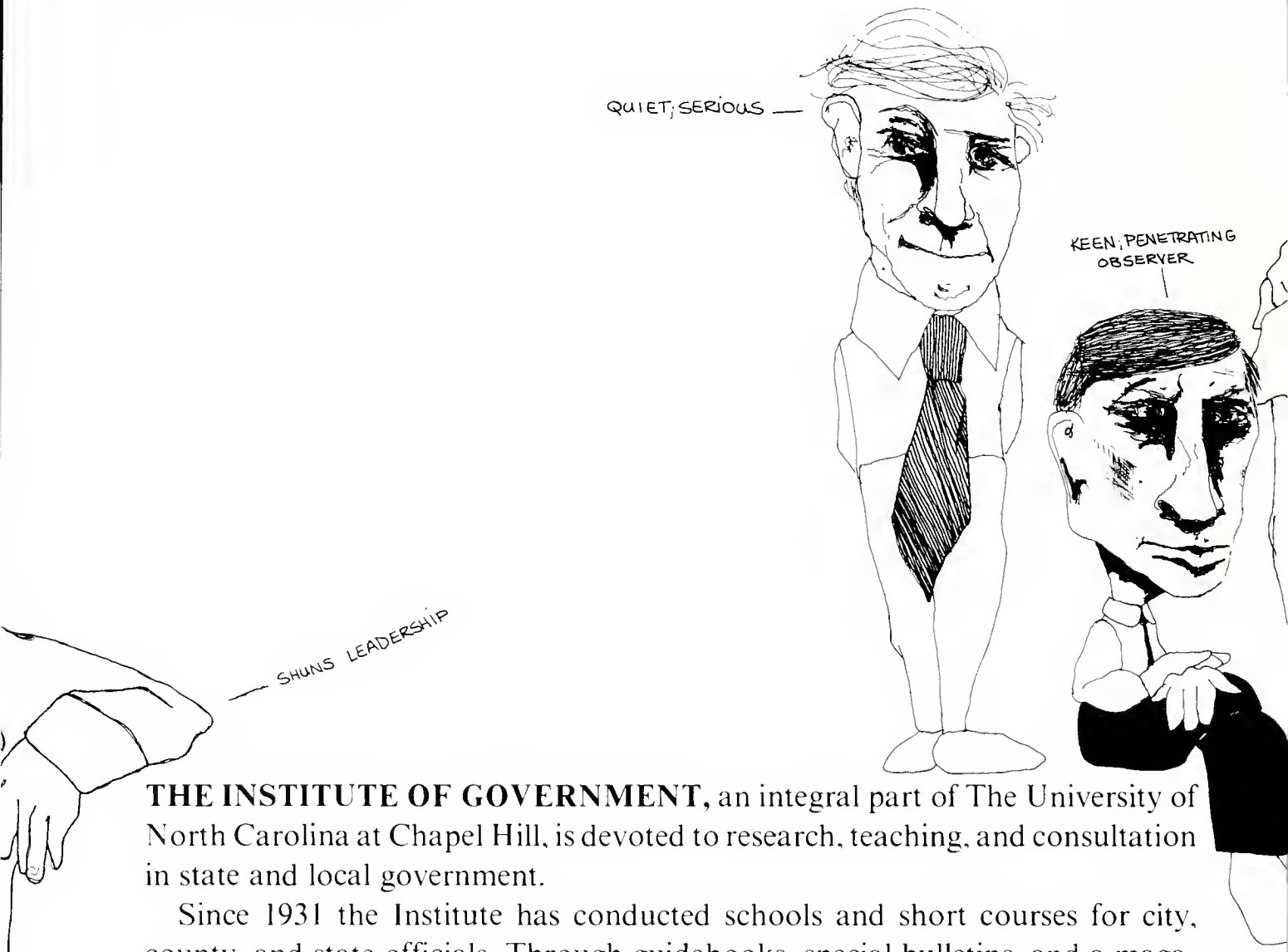

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