POPULAR GOVERNMENT

INSTITUTE OF GOVERNMENT THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

Spring 1988

Recruiting and Selecting Employees
Systematic Interviewing
Rural Economic Development Center
Pretrial Release
Managing Technological Change
Storm Water Management
An Interview with Chief Judge Hedrick

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The Cover: Fire fighters extinguish a blaze at the Wake County Fire Training Facility. Photograph by Gary D. Knight, forensic photographer for the Raleigh/Wake County City-County Bureau of Investigation.

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The Court of Appeals *A Candid Conversation with Chief Judge Hedrick*

Dona Lewandowski

The North Carolina Court of Appeals was established as part of the Court Reform Act in 1967, with six judges being appointed to office that year and three additional judges being appointed in 1969. Of these original nine judges, only Robert A.Hedrick remains on the court. In 1985 Judge Hedrick became the fifth person to take office as chief judge of the North Carolina Court of Appeals. On a sunny November day the judge took several hours away from a demanding schedule to talk with Dona Lewandowski about his youth, his service on the court, the way the court operates, and his hopes for its future.

Do you remember when you first heard that a new appellate court was going to be established?

Hedrick: I first recall hearing something about the Court of Appeals from Judge Richardson Preyer. He was holding court in our district—superior court—and the local bar association had a dinner, and he gave a talk about court reform. That was the first time I'd heard anything serious about it, and my first thought was that they were going to do away with the county recorder's court and I was going to lose my job.

You were a judge on the recorders court at the time?

Hedrick: Yes, but I started out as a county solicitor—what we call a prosecuting attorney today. That's where I started. I was elected county solicitor the first year I got out of law school. I got out of law school and passed the bar in 1949 and was elected county solicitor in 1950. I took office in December, 1950, and held that office until December, 1958, when I became the county judge. I held that office until I resigned to come down to Raleigh on the Court of Appeals. During all that time, I was practicing civil law.

You practiced law at the same time that you worked as a prosecutor?

Hedrick: Yes. Then the local county judge ran for another office, and I ran for his job, as the county judge. The county judge could also practice civil law. I got his job as county judge and continued my civil practice. So all the time that I was prosecuting and being the judge in the local county recorders court, I was practicing civil law.

With eight years as a prosecutor and ten years on the bench, you had a substantial amount of trial experience before you became an appellate judge.

Hedrick: Absolutely. Particularly when you remember that I was actually in the courtroom trying civil cases. My practice was trial practice. And, of course, it came natural that people would employ me for trial work and civil cases because they knew I had the experience. They'd seen me in the courtroom every day for twenty years. So I had a good trial practice background.

You grew up in Iredell County and moved back there after law school. The prospect of bringing a wife and four children to Raleigh to begin a new job on a new court must have been pretty intimidating.

Hedrick: The speed with which the whole thing happened probably made it a lot easier. We decided in the space of just a couple of months to sell our home in Statesville and move to Raleigh. It wasn't one of those things of commut-

The interviewer is an Institute of Government faculty member who specializes in the courts.

Dona Lewandowski talks with Chief Judge Hedrick about the Court of Appeals.

ing, getting an apartment, because we had to move and get the kids in school. It was in the summer time, and we were able to sell our house and come to Raleigh, buy a new house, get the kids in school, and start the job all at the same time. That was a busy time, and if we had more time to think about it—when I look back at it, it scares me to death to think what we did.

I imagine having to close your practice meant a fairly large pay cut, too.

Hedrick: As a matter of fact, for the first full year I was on the court my income was not half of what it had been the previous full year that I had practiced law in Statesville. My income from my law practice in 1968 was about $68,000, and I came to Raleigh on a salary of $26,000.

And you knew that you were not going to get rich on the Court of Appeals?

Hedrick: Of course, I knew that, but I wanted to be on the Court of Appeals. I wanted that because this job was right down my alley. This was what I wanted out of my legal career; this was where I wanted to end it up.

Why was that?

Hedrick: Well, first of all, I was tired of what I was doing. I had a tendency to get too personally involved in the everyday practice of law. I couldn't get away from the telephone, and in a small town and county where everybody knows you and where, because you are a public servant, everybody feels that they own you, your phone rings constantly, even in the middle of the night. I had, just by nature, become too personally involved in cases in my civil practice. I was burned out, and I wanted away from it, and I knew that this was—I don't like the word challenge. To say that something is a *challenge* has become a cliche, and I don't like cliches. It wasn't that. I *wanted* to do it. I've always liked to write. I've always been in love with law, and you do not get an opportunity to experience every aspect of the law and enjoy your relationship with the law anywhere in the same way and to the extent that you do in the appellate division.

I've heard lawyers in private practice say that they have very little to do with the law in what they do from from day to day.

Hedrick: That's it. There's not much to do with the law in spending a day in the record room reading those old musty deeds or at the clerk's office scratching around in the judgment rolls. You don't have much to do with the law in reading affidavits about the misconduct of one spouse, or measuring the distance of skid marks to determine what caused an accident, or asking a physician to describe the gory details of somebody's injuries. That's not much law. You just don't have a whole lot to do with it, and in this age of specialization, it's getting worse. One becomes so specialized that he knows only one part of his love, if he loves the law. It's what I wanted. I think I always wanted it.

Has it lived up to your expectations? Were you right in thinking that this was the job you wanted to do?

Hedrick: Yes. Absolutely. I've never had any regrets about it. The job is all I thought it would be, and in some respects more than I thought it would be.

About three years ago you took on a new job when you became chief judge of this court. What are your primary administrative duties?

Hedrick: The statute is not very detailed; it merely says that the chief judge will make up the panels upon which the judges sit, name the presiding judge of the panel, and in general see to it that the business of the court is carried out. When you start analyzing that, that's a whole lot. Someone has to oversee the calendaring of cases, which in itself is a tremendous task. One of the more important duties is assigning the judges to sit on different panels. The statute requires that the chief judge fix the panels in such a way that every judge has an opportunity to sit on a panel with every other judge as often as can be practically done. After the panels are made up, cases are assigned to each panel, generally according to the case number. So any judge is liable to get any case at any time. The only time that there is any effort to assign a case to some particular panel is when that case would otherwise fall to a judge that had a conflict, such as a relative being involved in the case.

But, aside from assignments made to avoid conflicts of interest, the assignments are random.

Hedrick: Always. Completely at random. Although there has been some talk for years about setting up specialized panels, that will not work. It can't work. And it never will be done, in my opinion, because the court cannot function that way. There isn't any reason, to use a cliche, to fix something that isn't broke. There is one exception to the rule about random assignment of cases to panels, however; some cases are assigned to a special panel we call the fast track panel.

Could you explain the purpose of that panel?

Hedrick: I screen all cases filed in this court in order to identify those that are the easier ones to resolve, cases that do not involve unsettled principles of law but instead involve principles of law and factual situations that are straightforward. The judges assigned to the fast track panel determine these cases, after they are put on a calendar, without the benefit of oral argument. At the present time, approximately 20 percent of the cases disposed of in this court are being handled by the fast track panel. When a case is put on the fast track panel, that does not mean we consider it less important than other cases. Certainly the case is as important to the litigants and to the attorneys representing those people as cases that are not put on the fast track panel. The term *fast track* means just that—the cases are pulled out of the regular lineup of cases and handled more quickly than the other cases. After I choose the cases that are initially put on the fast track panel, the panel itself determines whether the case will be handled all the way through on the fast track panel. The panel might, after my initial screening, decide the case is not appropriate for fast track treatment, and then the case is put on the regular calendar for oral argument, back in the regular line. This is something the lawyers may have some difficulty understanding, but I welcome the opportunity to explain it. When a case is put on the fast track panel, or when a case is put on the regular calendar without oral argument, that doesn't mean it will not receive full consideration, and it certainly doesn't mean that we've made any decision about it one way or the other.

I know you never hear oral argument in cases assigned to the fast track panel, but those are not the only cases that the court decides without oral argument. There seems to be a trend across the country toward limiting oral argument on appeal. How do you feel about that?

Hedrick: Well, of course, in our court we have a rule that says that if the panel to which the case is assigned believes that oral argument will be of no benefit, we can decide the case without oral argument. A lot of lawyers don't see any real benefit in arguing the case orally. They put the arguments down in their briefs, and they're satisfied with that. We exercise our discretion about whether we want to hear oral arguments, and I think we hear oral arguments in about half of our cases.

On Oral Argument Before the Court:
"Young lawyers should learn from the very beginning that we are not going to be persuaded by emotional appeals."

So there are times when you do find oral argument helpful?

Hedrick: Sometimes it is helpful, and sometimes it is not. Sometimes the lawyer's brief does not adequately address a particular point, and the judges want to ask for some clarification. Sometimes the record does not make clear what transpired in the trial court, and the judges might want to ask the lawyer what this part of the record really means. Sometimes the cases upon which a lawyer relies are not as clear as the lawyer has indicated that he thinks they are, and we want to ask that lawyer to explain his reasoning, lest we are the ones who have made the mistake.

If you were going to instruct a young lawyer on how to make an effective oral argument, what would you tell him?

Hedrick: First, I would tell him: "Do not read your brief. Assume that the judges have studied your case and that the judges know as much about it as you do. Pick out your best point, the one that you think you can win on, and argue that point as best you can." Oral arguments before the appellate court are *not* the same as arguments before a jury. Young lawyers should learn from the very beginning that we are not going to be persuaded by emotional appeals. We're not concerned about the same emotional matters that jurors are interested in. We're concerned with where this lawyer thinks the trial judge did something wrong that caused his client to lose his case and that was prejudicial and should never have happened. And I would tell a young lawyer to get all of that said as briefly as he can without skipping over anything and to make his best argument first.

Sometimes lawyers don't make their strongest argument first?

Hedrick: That's right. I see that in oral argument, and I see it in briefs. Lawyers will begin their brief with their weakest argument. Sometimes they do it just because of the chronology of the thing. Sometimes they will start off their oral argument with their weakest point and hope to end with a *bang*. That's what you do to a jury. You might save your strongest point in your jury argument until last because that's what those twelve jurors are going to take in that room with them. That might be a good way to end an oral argument before the jury, but lest those appellate judges go to sleep, I believe I'd put my best argument first. I would ignore those arguments that too often lawyers put in their briefs just as a matter of form—very weak arguments they don't believe in themselves. I believe if you've got a nail to hang your hat on, I'd just hang my hat on that nail and hope that it stayed there.

Do you find that lawyers have difficulty responding to questions from the bench?

Hedrick: I think that most lawyers try to answer questions from the bench to the best of their ability. The real problem that I have observed in the last eighteen years is not with the answer but with the question. Too often the judges ask questions that are not clear. The judge may be pursuing a thought of his own rather than following the line of argument the lawyer is pursuing, so that his question has nothing to do with what the lawyer is talking about. It's a hard choice for the lawyer. Some lawyers, of course, attempt to ingratiate themselves with the judges by appearing to agree with and understand everything the judges say; other lawyers sometimes become argumentative. Both are disturbing.

In terms of both oral argument and briefs, what do you think of the quality of advocacy that you see?

Hedrick: In general I find the members of our profession to be honest and hard working, honorable, doing the best they can with what they've got to work with. If I were to criticize members of the bar who appear in our court for anything, it would be for working too hard at it. They're overzealous. They argue too

long. They write briefs that are too long. They make cases much more difficult than they really are out of their extreme caution. They want to do the very best job they can, and sometimes they hurt their own cause by being overzealous.

I know the court hands down opinions in an astonishingly large number of cases each year. Do you know approximately how many cases each judge will write this year?

Hedrick: About 115, and the panel he serves on will hear an additional 230, so each judge will hear and participate in roughly 345 cases a year.

That's a lot of cases, and they cover a wide range of legal topics.

Hedrick: Yes. A judge might hear and write opinions in criminal cases as simple as a thirty-day misdemeanor case to life sentence felonies and everything between. He will hear some cases beginning in small claims court involving a very few dollars and some civil cases involving millions of dollars—and every kind of civil case between. All sorts of tort cases, contract cases, complicated commercial cases, appeals from administrative agencies, banking cases, tax cases, boundary disputes, and domestic cases. Anything that can come up in the law is apt to appear in the cases we hear every year.

Some of our readers may not fully understand how an appellate court works. Could you talk about that in a general way?

Hedrick: Yes. In fact a lot of people do not understand that we do not hear witnesses. Appellate courts review what has gone on in the trial court. All of the testimony of the witnesses, the rulings of the judge, the argument of the lawyers, and the action of the jury are put into a record and sent to us for review in light of what the person appealing "assigns as error" in his brief. The person appealing has the burden of showing us that something went wrong in the trial court and that he is entitled either to a new trial or to have the judgment completely reversed. The side that won the case at the trial level also files a brief and argues why no error has been committed. Then the lawyers come before us and argue their points as to why the case should be affirmed or why it should be reversed. Once that is done, the panel of judges has a conference at which we vote on what action we will take. That conference is not always a final conference, because decisions don't come so easily that we can always make a decision immediately after we hear the argument. We may have several conferences before we can make the final decision. And *then* that decision does not become absolutely final until after the opinion is written and circulated to the other judges on the panel and they've been given an opportunity to study the opinion and research what the author said. At that point the other judges may sign the opinion to indicate that they concur in it or, if they do not concur, write their own concurring or dissenting opinion. The decision becomes final only after it is filed in the clerk's office. The entire process, from the time that the case is first given to the judges to start studying until the decision is filed in the clerk's office, may take several weeks or several months, depending on how complicated the case might be, how short or long, the makeup of the panel that heard it, and the individual judge who finally authors the opinion. Some judges work faster than others; some panels work faster than other panels. Some judges are inclined to write short opinions and seldom dissent; other judges write long opinions and often dissent.

I think a lot of people wonder about how you, as an individual judge, go about deciding how you're going to vote on a case. How do you approach it?

Hedrick: I think every judge has his own way of doing his work. I certainly do. Of course, the rules govern how the record is made up and how the briefs are written—that means that we all have to look at the same papers and start our work the same way—but every judge has his own unique style. Personally, I begin more or less the same way in every case. The first thing I do is go through and examine the record and find out if all of the technical rules have been followed and if we have jurisdiction. After I've done that sort of thing, which is rather mechanical, the next thing I do is examine the thing from which the appeal was taken, that is, the judgment or order, to see just what happened and what is before us. What has somebody appealed from? What am I reviewing? I tell all my clerks on their first day that the judgments, orders, and rulings of the trial court are presumed to be correct; the burden is on the party appealing to show that some error was made and that the error was so prejudicial that the decision must be reversed and the case must be sent back for a new trial or further proceedings of some kind.

On Working With Law Clerks:

"I tell them: 'You aren't playing with dummy ammunition. You've got live cases now—this is real stuff. You're dealing with real live people, and although you don't see them, you can be assured that they are out there and that they're vitally interested in what's going on.'"

You don't review cases to decide if the correct decision was made. You're concerned with whether the trial judge erred in the way he went about making the decision or having a jury make the decision.

Hedrick: Generally that's what we're doing. We're looking to see if an error has been committed at the trial court level that would mean an injustice has been done. The decision that the trial judge made may not be the same decision that I would have made under the same circumstances, but trial judges have a lot of discretion. They are there, participating in the trial, and it's not for us to review the case in terms of whether it turned out right or wrong or whether the defendant was innocent or guilty. That's not our job. Our job is to review the trial procedure to see if an error of a prejudicial nature has been committed.

There have been many good appellate judges who never were trial judges, but I sometimes hear trial judges say that it's hard for appellate judges who have never been trial judges to understand the realities of holding court. What do you think about that?

Hedrick: I think it's advantageous for an appellate judge to have been a trial judge, but I think it's also advantageous for the trial judge to have been a prac-

ticing attorney, to have actually appeared in the courtroom. There is absolutely no substitute for trial experience for an appellate judge. No one, regardless of how high his LSAT score or how good his or her grades, can step right into being an appellate judge and be a good one until he gains that experience. We have had some good appellate judges who have had little or no experience either as trial judges or as trial lawyers, but it has taken them a long time to get that experience. That's tough on the judge and on his colleagues. As a consequence of that, most appellate judges have had some trial court experience.

Aside from trial experience, what other factors do you think are important in being a good appellate judge?

Hedrick: I think it's important that every judge on the Court of Appeals understand the court's role in our judicial system. One cannot be—in my opinion—a good and productive judge on the Court of Appeals until he not only understands what his role is but also likes it. One cannot enjoy his work on this court if all he aspires to is going to the Supreme Court. He can't do his work and do it efficiently if he spends all of his time trying to write a Supreme Court decision in every case that he writes. He hasn't got time. And as a consequence, he becomes frustrated and unhappy, and a judge who is unhappy in his role is not a good judge and not a productive judge. The Court of Appeals has a special role in our system that is entirely different from that of the Supreme Court. It's taken a long time for us to understand what our role is, and maybe more particularly, what it is not. We are *not* the Supreme Court.

What's the difference between this court and the Supreme Court?

Hedrick: The principle difference is that we do not have the final say. Our word is not the final decision. If we write a decision about a point of law that has never been decided before in the appellate division and the case does not go to the Supreme Court, our case becomes the law on that point. But the Supreme Court is not bound by that. A case can come along later and the Supreme Court can decide it differently. They don't even have to say that they overrule the Court of Appeals decision. They can ignore it if they want to, and sometimes they do.

Judges Hugh A. Wells and Charles L. Becton sit on the court with Chief Judge Hedrick.

Many of the decisions filed by the court are not published, and I think a lot of people are curious about how the court decides whether an opinion should be published. Would you talk about that?

Hedrick: Yes. With respect to published and unpublished opinions, Rule 30(e) was adopted around 1975. The Supreme Court does not have a similar rule. All of its cases are published. Because we have so many cases, there are a great number of those cases that are relatively unimportant. That doesn't mean the case isn't important to the parties involved or to the lawyers or even to the judge who tried the case. It doesn't mean that the case isn't important to this court or to the judges that decide the case here. It means that the written opinion adds nothing to the legal literature of the state. It means that the decision does not involve anything that has not already been written and discussed in other published opinions. It also means that the Administrative Office of the Courts of the state is not put to the expense of publishing the opinion. Each volume of our opinions costs approximately $20,000 to publish, and it's a great savings if we publish fewer opinions. With twelve judges writing approximately 1,500 opinions in a year, that would be a lot of volumes to publish. Unfortunately we have some judges who just almost insist on publishing all their opinions, and that brings up another point. If the members of the bar read and counted the number of cases that a particular judge had published in the *North Carolina Appellate Reports*, he might conclude that one judge was writing perhaps twice as many decisions as another judge, simply because the first judge insists on publishing more of his decisions. Fortunately we do not all have this great desire to see our cases in print. Personally, I publish a little more than half the cases I write. After almost nineteen years, I'm not too concerned about having everything published.

Is that a decision that the author of the opinion makes?

Hedrick: That's an interesting question. When we first adopted Rule 30(e), the rule allowing a case to be filed without being published, we also adopted an in-house rule that provided that the panel would unanimously decide that a case would not be published; that rule meant that a case would be published if any judge on the panel voted to publish it. Problems arose, however, because some of the judges would never "30(e)" a

case. Within the last eighteen months we adopted a new in-house rule that the majority of the panel could decide whether the case would be published. Under the new rule, if two of the three judges on the panel don't want a case published, it will not be published.

Have you ever been concerned that it might be tempting for a judge to publish fairly straightforward opinions but, perhaps unconsciously, to consider not publishing more difficult opinions that involve more complicated areas of the law?

Hedrick: Well, Judge Baldwin used to say that Rule 30(e) was not to be used to cover up bad work, and I've never noticed any judge using the rule to deliberately cover up bad work. I have, on the other hand, seen judges decide not to publish a case when the record and briefs in the case were so messed up that it was almost impossible to write a decision that was worth publishing, even though the decision itself was correct. We try not to use the rules to cover up incompetence on anybody's part. On the whole, I think, we try to use the rule for the purposes for which it was intended.

I wanted to ask you about the role the appellate rules play in your work. I have the impression that some people tend to look at the rules as hypertechnical, somewhat unimportant guidelines, and other judges—and you're one of them, by reputation—place a great deal of importance on compliance with the rules.

Hedrick: That goes back to what I've said many times, that one of the basic premises of appellate court work is that the judgments, rulings, and orders of trial court are presumed to be correct. The burden is on the appellant to show that the ruling in question was erroneous and that he has been prejudiced thereby. The right of appeal necessarily carries with it the requirement that the appellant comply with the *Rules of Appellate Procedure*. Those rules are put there to enable the appellant to carry his burden of proving that error has been committed. If he does not use those rules properly, then I take the position, personally, that he has failed from the very beginning to rebut the presumption that the trial judge acted correctly. The rules are not that technical. Any lawyer, if he or she will take the time to read and study them just a little bit, can prepare his case on appeal, prepare and file his record and brief, and properly present his case.

On Selection of Judges:
"Of course, if we could have a true merit-selection system, that would be wonderful, but that's idealistic. Every merit-selection system that I know anything about just swaps one kind of politics for another kind of politics."

You've talked about how much you enjoy the intellectual aspect of being an appellate judge. What else do you like about the job?

Hedrick: One of the best things about this job, in my opinion, is working with young lawyers right out of law school—seeing them grow and begin to understand what all this stuff is about that they've been reading about for the last three years in law school. I tell them: "You aren't playing with dummy ammunition. You've got live cases now—this is real stuff. You're dealing with real live people, and although you don't see them, you can be assured that they are out there and that they're vitally interested in what's going on." It's a lot of pleasure to me as a judge to have had the opportunity to work with young lawyers.

Judicial selection has been much in the news lately, both on a local and on a national level. How do you think judges should be selected?

Hedrick: It's interesting that you didn't ask about *merit* selection of judges, and I'm confident that what caused you to use the term *judicial selection*, instead of *merit selection*, of judges is the fiasco now taking place in our federal system with respect to the selection of a Supreme Court justice. Our federal system has frequently been held up as the ideal system for the selection of judges, but I disagree with that idea. It is flawed from beginning to end. This has really come to the front with the recent efforts to select a justice to succeed Justice Powell, but it has been going on for a long time. We just didn't hear a whole lot about it. Even going back to the thirties, politics were involved in judicial selection. It's strictly a political system. We talk about getting the judiciary out of politics, but our federal system is nothing but a political system. You get Republican judges when you have a Republican president, and you get Democrat judges when you've got a Democrat president. Until we can come up with a better system for the selection of judges, I think we have as good a system in North Carolina as any place in the country. I think our system is better than the federal system. Of course, if we could have a true merit-selection system, that would be wonderful, but that's idealistic. Every merit-selection system that I know anything about just swaps one kind of politics for another kind of politics. I would rather have the politics of the people electing our judges than the politics of the members of the bar associations who have played bar politics. You're not going to get politics out of the selection of judges as long as you have a democratic system, and that's what we've got. And I believe that our people have done well. We've had almost no corruption in our judiciary, and that in and of itself is an amazing record. If there had been corruption in our judiciary, believe you me, it would have come out because judges are under the microscope all the time. The people, the media are looking for judges to step out of line, and it just hasn't happened. We've had a few judges that have done some things that were unethical or in violation of the code of judicial ethics, but so far as I know, with one exception I remember reading about several decades ago, our judiciary has been clean of corruption. I give the credit to the selection process. The people, given a

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Pretrial Release *Some Possibilities for Improvement*

Stevens H. Clarke

North Carolina faces a growing problem in its local jails. The total jail population has increased steadily from 1975 through 1986. This steady trend is not attributable solely to any one historical event, such as the Local Confinement Act of 1977[1], the crackdown on drunk driving in 1979, the Safe Roads Act in late 1983 with its mandatory strict penalties for drunken driving,[2] or the 1983 and subsequent legislation causing courts to intensify their efforts to collect nonsupport payments,[3] although each of these events probably did increase jail sentences and commitments for civil contempt.

From 1981 to the end of 1986 (earlier data are not available), the total capacity of the local jails increased from 5,567 to 6,178, or about 87 prisoners per year.[4] But jail population was increasing by about 213 prisoners per year (see Figure 1). The statewide jail population was about 56 percent of total capacity at the beginning of 1981 and steadily climbed, reaching 75 percent of capacity in 1986. It already exceeds capacity in some counties at various times. If present trends continue, overcrowding emergencies will worsen.

Most jail prisoners—about 68 percent in 1986—are defendants in pretrial detention (that is, awaiting disposition of criminal charges). The remainder are serving short sentences, are being held in civil contempt (for example, for failure to make support payments to children or ex-spouses), or are inebriates being held for up to twenty-four hours for their own protection. The sentenced population has gradually been increasing as a percentage of the total, but as shown in Figure 1, the pretrial population is still growing faster (about 123 per year) than the sentenced population (about 90 per year).

An increase in jail population must be caused by an increase in admissions to jail, an increase in length of stay in jail, or both.[5] Such an increase must be dealt with by providing more jail space, reducing the population, or a combination of the two. Because of the high cost of building jail space and the even higher cost of staffing and maintaining jails, North Carolina counties are taking a hard look at measures to reduce the jail population, especially that of prisoners in pretrial detention.

One way to reduce the admissions and length of stay of pretrial prisoners is to improve opportunities for pretrial release (bail). The purposes of pretrial release are to avoid jailing arrested defendants pending court disposition and to provide reasonable assurance that they will return to court when required without unacceptable risk to public safety. If opportunity for pretrial release is improved, the risks of nonappearance and new crime will probably increase also, and it is important to consider how to control these added risks. Providing equality of bail opportunity to low-income and minority defendants is another important concern, although it has not been recognized as a constitutional requirement.

This article—a summary of a forthcoming Institute of Government publication[6]—outlines basic concepts of pretrial release, research on policies, and strategies for improvement. It is intended for public officials who make decisions regarding pretrial release and pretrial detention as well as for concerned citizens.

The author is an Institute of Government faculty member whose fields include criminal justice.

Federal Law and Policy

Scholars disagree whether the United States Constitution, whose only direct reference to the subject is a provision forbidding "excessive bail," creates a right to pretrial release. In any event, if there is a right, it would be to have bail conditions set, not to actual release. Typical laws provide for setting of bail conditions shortly after arrest. Furthermore laws applicable to federal courts and many state court systems, including North Carolina's, express a preference for alternatives to secured bond, including release on a written promise to appear, unsecured bond, and release under supervision of some person or agency. If bond is set, the Constitution requires an individualized determination based not only on the severity of the charge but also on such factors as the weight of the evidence, the defendant's character, and his financial ability.

North Carolina's Laws on Pretrial Release

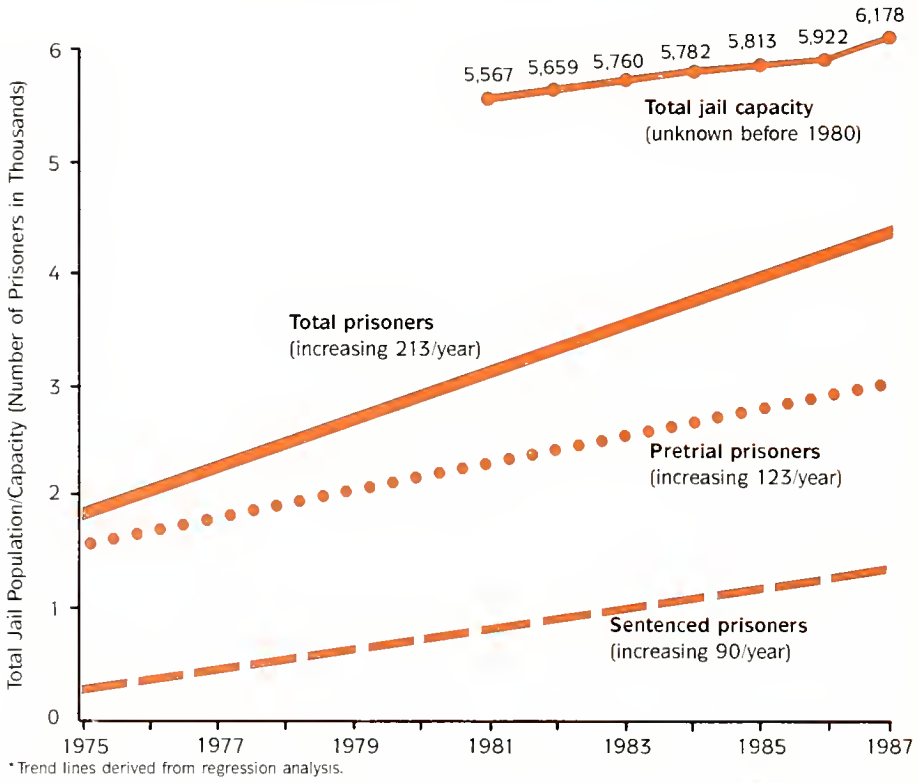
North Carolina's pretrial release statutes,[7] enacted in 1974, were drafted in the early 1970s by the state's Criminal Code Commission and were strongly influenced by the same reform ideas that influenced the Federal Bail Reform Act of 1966. That act encouraged the use of alternatives to secured bond. The statutes require that an arrested defendant be brought before a magistrate or other judicial official without unnecessary delay to determine the legality of his arrest and, if his arrest is lawful, to set conditions of pretrial release. The judicial official must impose one of four conditions:

1) The defendant signs a written promise to appear;
2) The defendant signs an unsecured appearance bond;[8]
3) The defendant is placed under the supervision of some person or organization; or
4) The defendant signs an appearance bond secured by a cash deposit, by a mortgage of property, or by a professional or nonprofessional bondsman.

Release on a written promise to appear is also called release on recognizance, or ROR; it is sometimes combined with supervision of the defendant and restrictions on the defendant's residence and behavior. Secured bond may be required only if other conditions of release will not adequately assure the defendant's appearance in court or will endanger evidence or persons in the community. (In this article I refer to all forms of release not involving secured bond as "alternative release.") Penalties for failure to appear include punishment for the crime of willfully failing to appear and forfeiture of any bond.

North Carolina law allows local flexibility in setting guidelines for pretrial release. The senior resident superior court judge in each of the state's thirty-four judicial districts, in consultation with the chief district court judge, must issue, and may modify, recommended policies for pretrial release in the district within the general framework of state law.

Figure 1
Statewide Jail Capacity and
End-of-Month Total Population,* 1975-1987



* Trend lines derived from regression analysis.

Bail Opportunity and Risk

Bail opportunity has expanded steadily since 1960, when the Vera Institute established the first specialized agency to screen and select defendants for ROR and to supervise them after release. The percentage of all arrested defendants receiving some kind of pretrial release was in the neighborhood of 50 to 60 percent in the early 1960s and increased to perhaps 80 to 90 percent by the late 1970s. The chief motivation for the liberalizing movement has been to redress discrimination against low-income defendants.

Concern about control of bail risk has grown as opportunity for bail has improved. The Federal Bail Reform Act of 1984 retains the preference for alternative release established by the 1966 federal act but puts new emphasis on protecting community safety by adding restrictions on pretrial liberty that federal judicial officers can use. The 1984 act also authorizes preventive detention of defendants upon proof, in a hearing, that the defendant may flee, obstruct justice, or intimidate or injure witnesses or jurors and that no conditions of pretrial release will reasonably assure the defendant's appearance and community safety. The United States

Supreme Court, in upholding the constitutionality of the 1984 act, stressed that it applies only to defendants charged with extremely serious offenses and provides strict procedural safeguards.

How bail decisions are made. Initial bail conditions are usually set by a magistrate or lower-court judge, often at night and under less-than-ideal conditions. While many jurisdictions, including North Carolina, require the judicial officer to consider a variety of information about the defendant's circumstances and past behavior *if available*, the information is not consistently provided. Most pretrial release decisions are based on little more than charge severity and criminal record. Research in Philadelphia suggests that judicial officers vary greatly in bail decision making.

Which defendants need assistance in obtaining pretrial release? Research indicates that it is difficult to predict, at the time of arrest, which arrested defendants will not receive pretrial release through the normal procedures. Most defendants who are released receive their release within twenty-four to forty-eight hours of arrest. Research in Durham indicates that defendants who remain in detention for at least twenty-four hours stay in detention more than three times as long, on average, as the entire population of arrested defendants. Such defendants also contribute disproportionately to the jail population. The best strategy for selecting defendants who need the most help in obtaining release may be to focus on those who have been in detention for a day or two.

Measuring and predicting bail risk. As bail opportunity increased in the 1960s and 1970s, so did the risk of nonappearance and new crime. Available research suggests that nonappearance rates (percentages of defendants who failed to appear in court as required) increased from around 5 percent in the early 1960s to 10 to 15 percent in the 1980s. Pretrial rearrest rates (percentages of defendants arrested for new crimes committed while on bail) in the late 1970s and early 1980s ranged from 5 to 16 percent in various studies. Researchers agree that almost all defendants who fail to appear eventually return to court, but research in Durham indicates that despite the defendant's eventual return, failure to appear greatly delays court disposition and probably weakens the prosecution.

While a number of studies show that it is possible to identify groups of defendants with low and high risk levels, predicting nonappearance and pretrial rearrest is quite inaccurate. In all instances reviewed it would be just as accurate to predict that *no* defendant would fail to appear or be rearrested as it is to make predictions using the techniques developed in the studies. Social and economic information apparently is no better as a predictor than charge severity and criminal record.

The consequences of inaccurate risk prediction. A study of legislative criteria for preventive detention illustrates the consequences of the errors inherent in a strategy based on predicting risk. The researchers selected a sample of released Boston defendants who would have been classified as "dangerous" and therefore could have been jailed under a 1971 federal statute authorizing preventive detention in the District of Columbia. A majority (59 percent) of these "dangerous" defendants in fact did not commit new crime while on bail. Furthermore the researchers found that when they used the statute's criteria to predict who would commit new crime and who would not, they were right 88 percent of the time. But they also found that if they had predicted that *none* of the defendants would commit new crime, they would have been right 90 percent of the time. Thus the criteria did not improve their ability to predict risk.

In the absence of an explicit preventive detention statute, bond is often set higher than the defendant can afford to prevent him from failing to appear or committing new crimes. A study in Philadelphia, however, indicated that most detained defendants who were released (through an unexpected court order) did not fail to appear or become rearrested for pretrial crime.

Making the System More Effective

With increasing jail populations, many jurisdictions seek to improve bail opportunity while keeping bail risk at a tolerable level. To achieve this goal, it may be better to combine a number of incremental, relatively inexpensive strategies, with cautious evaluation of each step, rather than to attempt sweeping changes with new government organizations.

Controlling bail risk by reducing court delay. Some research shows that the released defendant's chance of failing to appear or committing a new crime increases with the time his case remains open. A number of authorities on pretrial release recommend reducing court delay to help control bail risk. Reducing court delay would also reduce detention time and jail population. But it is not a foolproof way of controlling risk, because many defendants who fail to appear or commit new crimes do so soon after arrest.

Reducing risk by progressively tightening controls. Because the cumulative probability of failing to appear and committing a new crime increases with each additional week the released defendant's case remains open, it may be advantageous to increase control of the defendant—for example, by increasing the bond amount or supervision—at appropriate time intervals, perhaps every thirty days. This would focus court resources on an easily identified and rapidly decreasing group of released defendants.

Notifying released defendants of their obligations more effectively. Several studies identify poor communication by the court regarding the defendant's obligation to appear in court for all hearings on his case. Improving this communication—in which defense attorneys' cooperation should be sought—may be an inexpensive way to reduce nonappearance.

Effectiveness of specialized agencies. Specialized agencies that screen defendants immediately after arrest for alternative release and supervise them after release multiplied rapidly after the pioneering experiment of the Vera Institute in 1960. These agencies have effectively demonstrated the usefulness of alternative release. Several studies have found that defendants released on ROR and unsecured bond have lower nonappearance and pretrial rearrest rates than those released on secured bond, probably because those selected for the alternatives are inherently less risky. Although the American Bar Association (ABA) recommends that every jurisdiction have a specialized agency to ad-

minister alternative release, several researchers agree that it now is so widely used and accepted by judges that the specialized agencies may have outgrown their usefulness. When the use of alternative release is already common, creating a specialized agency to administer it—as shown in a study in Charlotte—may largely duplicate work already done adequately by court staff.

Does postrelease supervision reduce risk? The ABA, which recommends de-emphasizing bond as a means of release and risk control, urges energetic enforcement of nonfinancial release conditions by postrelease supervision of defendants—for example, by keeping in contact with defendants, reminding them of court dates, assisting them in getting to court, and informing the court of rearrest or any violations of conditions of release. One study of three jurisdictions suggests that such supervision has no effect on risk. Another study in Charlotte suggests that postrelease supervision does reduce the risk of nonappearance and new crime over time but only for "high-risk" defendants (those with criminal records), who constitute one third of the total released. This study suggests that for the majority of released defendants, supervision does not reduce risk.

A focused supervision strategy. In three cities, researchers evaluated a variation on the original Vera Institute concept of a specialized agency to administer ROR. Rather than attempt to reach all defendants immediately after arrest, as programs modeled on the Vera program had done, this program concentrated on about 5 percent of all felony defendants—those who remained in detention several days because they failed to receive release through normal court operations. Half of these defendants were selected for supervised ROR through a combination of screening by professional staff and selection by judges. Those released in this fashion had nonappearance and rearrest rates somewhat lower than the rates for defendants released through normal court operations.[9]

Effectiveness of bond. Research reviewed suggests that bond is at best a weak deterrent to failure to appear. One reason for bond's weak effect may be that court enforcement of forfeiture is very lenient, especially when professional bondsmen are involved. Studies in seven jurisdictions indicate that nonappearance rates for bondsmen's clients range from 10 to 20 percent, yet bondsmen forfeit only 1 to 2 percent of their total bonds. Perhaps the main reason for court "forgiveness" of forfeiture is that most defendants who fail to appear eventually reappear in court. But the lenient court policy seems to ignore the high cost of nonappearance in terms of increased court delay and weakened prosecution.

How can bond be more effective in controlling risk? One approach is stricter enforcement of forfeiture. Instead of remitting the entire bond, as is often done now, the court could offer a progressive discount to encourage the nonappearing defendant to return quickly—the sooner the return, the greater the discount. In an atmosphere of virtual nonenforcement of forfeiture, even a small increase in enforcement could reduce nonappearance substantially. Another approach is to make greater use of bond secured by cash deposit, either by setting bonds much lower and requiring full deposit or by requiring a fraction of the bond as deposit (such as 10 or 15 percent). Full or fractional cash deposit gives the defendant an incentive to return to court for a refund (unlike bondsmen's fees, which are nonreturnable) and facilitates the court's collection of at least part of the bond amount to enforce the obligation to appear. A small portion could be deducted from bond deposits to cover part of the cost of supervision by court staff of those few defendants who may require it. Recent research on fractional deposit bond systems suggests that while they do not necessarily reduce failure to appear, they do not increase it either. While North Carolina law now authorizes full cash deposit bond, it does not authorize fractional deposit bond.

The professional bondsman. Professional bondsmen continue to play a major role in pretrial release. Supporters of bondsmen argue that bondsmen have strong financial motives and extraordinary legal powers to pursue and recapture their fleeing clients. Opponents (such as the ABA, which recommends abolishing professional bondsmen) have several arguments against the institution:

1) The bondsman system discriminates against defendants who are unable to pay bondsmen's fees.
2) Courts should not delegate their important functions of releasing and assuring the return of defendants to private businessmen.
3) Bondsmen abuse their broad powers of recapture.

Research in Durham indicates that bondsmen are not especially effective in bringing nonappearing defendants back to court when they are not "assisted" by police arresting them for new crimes. In Durham where nonappearance was 19 percent for defendants with bondsmen, bondsmen's fees were 15 percent, forfeitures amounted to 1 percent, and bond money turned over about four times a year, researchers estimated that bondsmen could earn 50 percent a year on their capital, minus office expenses.

Guidelines for pretrial release. An experiment with guidelines for the setting of bail conditions (including secured bond as well as alternatives to secured bond) was recently conducted in Philadelphia. Based on an analysis showing that judges differed widely in their bail decisions, the guidelines were developed by a judges' committee assisted by researchers. Departures from the guidelines were allowed in unusual cases. A controlled evaluation with random selection of judges and cases showed that the main result of the guidelines was to increase consistency of bail decisions. The judges subject to the guidelines conformed to them in 65 percent of their cases, compared with 38 percent for judges not subject to the guidelines. However, there were no differences between the two groups in the percentage of defendants released, the percentage receiving alternatives to secured bond, and rates of nonappearance and rearrest.

Prosecution for willful failure to appear. While most jurisdictions make it a crime to fail to appear in court willfully (intentionally and without lawful excuse), apparently defendants are rarely prosecuted for the offense. The ABA recommends vigorous enforcement of these laws, a position consistent with its policy of reducing reliance on bond and bond forfeiture. Because there is virtually no prosecution for this offense, even a small increase might reduce nonappearance substantially. To obtain a con-

viction, the prosecution must prove that the failure to appear was willful. Although this is a difficult requirement, a number of federal court decisions suggest types of circumstantial evidence that could be used to prove willfulness.

Options for North Carolina

North Carolina's law allowing variation in local pretrial release guidelines is well suited for cautious experimentation. One way to increase opportunity for pretrial release is to create a specialized agency to screen all defendants immediately after arrest for possible unsecured bond, release on a written promise to appear, or release in the custody of a designated person or organization. A variation on this approach is a specialized program aimed only at the few defendants who are not freed through normal procedures within a day or two after arrest. Both approaches require hiring additional staff, the first more than the second. These staff could be organized as a separate agency, but it may be preferable to manage them as part of the court to avoid duplicating work already being done satisfactorily by magistrates and other court staff.

A less-expensive approach to expanding pretrial release is to develop guidelines for magistrates and judges that follow current practice but are designed to cause a modest increase in the use of alternative release. This approach requires little or no additional court staff. Bail opportunity could also be increased by adding fractional-deposit bond as an option for the court or the defendant, but this would require state legislation.

Another method of reducing pretrial detention time—one not involving pretrial release—is to expedite processing of the cases of all defendants who have been in detention for, say, two days or more. This could be accomplished by intensifying the efforts of prosecutors and clerks to move jail cases along and of judges to review the pretrial release conditions of detained defendants.

Increasing bail opportunity probably should be accompanied by measures to control risk. Two methods of deterring failure to appear—bond forfeiture and prosecution for the crime of willful failure to appear—seem to be underused in North Carolina. Enforcement of bond forfeiture, which apparently is very lax now, could be made somewhat stricter by offering bonded defendants who fail to appear a discount of forfeiture (rather than complete exoneration) if they return to court within a short time. Prosecution, which apparently is used very little at present, could have a substantial deterrent effect even if used sparingly and selectively.

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1. The Local Confinement Act of 1977 (relevant provisions are codified in present N.C. Gen. Stat. §§ 15A-1352 and 148-32.1) attempted to divert prisoners from state prisons to local jails by raising from 30 days to 180 days the minimum term for which an offender could be sentenced to state prison and by authorizing the Department of Correction to reimburse local jails for the cost of confining male prisoners serving terms of 30 to 180 days.

2. The relevant provisions are chiefly in N.C. Gen. Stat. §§ 20-4.01, 20-16, 20-16.2, 20-16.3, 20-16.3A, 20-16.4, 20-16.5, 20-17.2, 20-138.1, 20-138.3, 20-138.4, 20-139.1, 20-141.4, 20-176, and 20-179.

3. This legislation is discussed in Ann L. Sawyer, ed., *North Carolina Legislation* 1983 (Chapel Hill, N.C.: Institute of Government, 1984), 75-76.

4. All statistics on North Carolina's jail population are based on unpublished data kindly provided by Wanda Neighbors and Tom Ritter of the Jail and Detention Unit, Division of Facilities Services, North Carolina Department of Human Resources.

5. My analysis of Department of Human Resources data suggests that while admissions have been increasing about 2.8 percent per year in the period 1975-1986, length of stay has increased somewhat faster—about 4.2 percent per year. Published reports of the Administrative Office of the Courts show that during the period 1978-1986, the mean disposition time of criminal cases increased 2.7 percent annually for cases disposed in district court, 2.3 percent annually for misdemeanor cases disposed in superior court, and 2.8 percent annually for felony cases disposed in superior court. These increases probably contributed to the the increase in length of stay in jail (which I estimate at 4 percent annually).

6. Stevens H. Clarke, *Pretrial Release Policy from North Carolina's Perspective* (Chapel Hill, N.C.: Institute of Government, (forthcoming 1988). References for studies cited in this article are available in the full version or from the author.

7. N.C. Gen. Stat. §§ 15A-511, 15A-531 through -547.

8. An appearance bond is a promise to pay a stated sum of money if the defendant fails to appear. A *secured* appearance bond is secured by a cash deposit, mortgage of property, or bondsman. An *unsecured* appearance bond is one without such security.

9. This program was similar to the Re-Entry project in Wake County. Information on the project can be obtained by writing to: Director, Re-Entry, Inc., 336 Fayetteville St. Mall, Suite 945, Raleigh, NC 27601.

Chapel Hill Public Safety Officer Kathye Williams

Recruiting and Selecting New Employees

Stephen Allred

Recruiting and hiring new employees is never easy. The search for qualified candidates can be time consuming and expensive; further, local governments must, as public employers, comply with numerous federal and state requirements in filling positions. Nonetheless, a local government employer that takes the time and effort to comply with the applicable legal requirements may avoid subsequent challenges to its selection decisions. This article sets forth those requirements in four areas: advertising positions, interviewing candidates, selecting a candidate, and verifying the candidate's legal status.

Advertising and Posting Job Vacancies

The North Carolina General Statutes vest broad hiring authority in local governments.[1] In exercising this authority, local governments have broad discretion in determining how to recruit applicants. But that discretion is tempered by the possibility that a court may find that a city or county has not adequately recruited among protected groups, including women and members of racial minorities. This section focuses on the need to advertise and post job vacancies to reduce the likelihood of such a finding.[2]

Section 704(b) of Title VII of the 1964 Civil Rights Act prohibits an employer from indicating in its advertisements for job vacancies "any preference, limitation, specification, or discrimination, based on race, color, religion, sex, or national origin."[3] Obviously, then, a local government employer may not indicate any such preference in its advertising. Neither may it indicate any preference for younger employees, in violation of the Age Discrimination in Employment Act. For this reason, advertisements should avoid such terms as "recent graduate."[4]

Of course, most employers will not discriminate so blatantly in their advertising. But not specifying any preference will not protect an employer against a finding of discrimination. The courts have held that even if a policy or practice appears neutral on its face (in that it is required of *all* applicants and does not, on its face, show discriminatory intent), any recruitment policy that in fact tends to perpetuate discrimination against members of protected groups may be found to violate Title VII. In short, a city's or county's advertising and recruitment policies, if challenged as discriminatory, will be examined in the context of its overall personnel policies.[5]

To illustrate, suppose a county recruits through word-of-mouth referrals by current employees. Such a policy is "facially neutral" in that it is used to recruit all applicants and does not indicate any intent to discriminate. But if the county is found to have other personnel policies and practices that are discriminatory (for example, an all-white committee for interviewing applicants) and has discriminated in the past, then this facially neutral policy may nonetheless be found discriminatory.[6] Similarly, the county's failure to advertise its positions in newspapers and on radio stations that have substantial patronage among minority groups may indicate perpetuation of discriminatory hiring practices.

The author is an Institute of Government faculty member whose fields include personnel law.

Related to the need to advertise is the need to post job vacancies. "Posting" refers to the practice of placing notices of job vacancies for a specified minimum time on appropriate bulletin boards throughout the system. The posting describes the type of job available, its minimum requirements, and how applicants may apply. The posting of vacancies increases the opportunity for all who wish to apply to do so. In a recent federal court decision, the failure to post notices of job openings was one factor the court relied on in finding discrimination.[7]

To provide employers with one set of standards to help them determine whether they were meeting the requirements of Title VII as it relates to recruitment and selection, the federal government published in 1978 the Uniform Guidelines on Employee Selection Procedures.[8] These guidelines provide that an employer's recruitment policy or practice that has an "adverse impact" on employment opportunities of any race, sex, or ethnic group is illegal under Title VII, unless the adverse impact is justified by a business necessity.[9] The guidelines establish a rule of thumb for determining whether an employer's recruitment policies have an adverse impact by comparing the selection rates for different groups. This rule, known as the four-fifths rule or the 80-percent rule, states that if the selection rate for one group is not at least 80 percent of the selection rate for another group, then the policies have an adverse impact on the lower-rated group. Say, for example, that a city hired three out of every five white applicants referred for a position but only one out of every five black applicants. The two selection rates would show a rate of 60 percent for whites and 20 percent for blacks. This comparison would show an adverse impact of the city's recruitment policies because a 20-percent rate is less than four fifths of a 60-percent rate.

A showing of an adverse impact does not in and of itself prove discrimination. Still, where such differences in selection rates exist, a local government employer should consider increasing its efforts to equalize the rates. Conversely, even if a local government employer can show that black applicants are selected at a rate equal to at least 80 percent of the rate for white applicants, it may still be liable for individual cases of discrimination in hiring. The bottom-line defense that the employer met its overall objective of having relatively equal rates of hiring will not withstand an otherwise valid showing of individual discrimination.[10]

In summary, the practice of advertising and posting job vacancies fulfills two important functions in a local government's recruitment and selection policy. First, a larger pool of potential qualified applicants is reached by widespread dissemination of information about job opportunities. Second, and just as important, the city or county reduces the likelihood that a court will find a violation of Title VII.

Gary D. Knight/CCBI

Wake County planners study a land-use map.

Larry Johnson, Chapel Hill's assistant fire marshal, explains fire door requirements to restaurateur Francis Chan.

Interviewing

Another key component of a local government's recruitment and selection procedures is the process of interviewing applicants. Interviews and the hiring decisions based on them are highly sub-

Gary D. Knight/CCBI

A Wake County Emergency Rescue Service team practices transporting an injured person.

jective. It is extremely difficult for the interviewer to assess how well the applicant might perform the duties of the job in question during their typically short exchange. The interviewer thus tends to rely on subjective judgments that, once made, are not likely to change. The problem with this process is that because it is highly subjective, the decisions resulting from the process are open to challenge by unsuccessful applicants who claim discrimination.

As noted above, discrimination on the basis of race, religion, color, national origin, or sex is prohibited by both federal and state law. In the context of employment interviews and selections, claims of discrimination may arise, as with any other personnel action, under two different theories: disparate treatment and disparate impact. These two theories are summarized below.

A disparate-treatment claim alleges that the employer intentionally discriminated against the applicant—for example, refused to hire her because she was black. To prevail, the plaintiff must first establish that she is a member of a protected class, applied for the position, was qualified for it, and was denied the position. It is then up to the employer to state a legitimate nondiscriminatory reason for not hiring that applicant. If the employer makes a case, the applicant may then attempt to prove that the employer's proffered reason for not hiring that applicant was a pretext that masked actual discriminatory intent.[11]

A disparate-impact claim, on the other hand, does not require proof of intent to discriminate. It alleges instead that a facially neutral job requirement, such as a certain test score or a high school diploma, has the effect of eliminating a disproportionately large number of minority-group members as potential employees. When the job requirement has this result and cannot be justified by a business necessity—that is, if the employer cannot prove that the applicant cannot perform the job without meeting the requirement—discrimination will be found, whether or not the employer intended to discriminate. For example, in an early Title VII case a North Carolina power company with a history of racial discrimination required applicants for certain manual labor jobs to have a high school diploma.[12] Because proportionately fewer blacks than whites had diplomas and the jobs could be performed by persons without a high school diploma, the United States Supreme Court found that the requirement of a diploma had a disparate impact on black applicants and struck it down as a violation of Title VII.

The fact that interviews rely on the interviewer's subjective judgments does not in and of itself mean that discriminatory criteria are applied in hiring.[13] In a North Carolina case, *Love v. Alamance County Board of Education*,[14] a teacher being interviewed for a principalship was asked what steps she would take with a teacher who was performing inadequately—a question that, although open ended, was clearly job related and was asked of all applicants. The hiring committee made the subjective judgment that her answer was poor and vague. When the teacher was not selected for the principalship, she challenged the question and the interview as violating Title VII. Essentially she claimed that the hiring committee should have used only objective criteria (for example, education, experience, performance ratings, etc.) to select prin-

cipals and that the use of subjective criteria created an opportunity for discrimination. But the court held that neither the question nor the interview was discriminatory. More important, the court deferred to the hiring committee's judgment, based in part on the applicants' responses to subjective questions, that another applicant was better qualified for the principalship.

In the same case, the court noted that the interviews were conducted systematically by a hiring committee composed of both blacks and whites. This "systemic fairness" is important because the courts will examine a challenge to a hiring decision as discriminatory in the overall context of discriminatory treatment. Proof of a pattern of discrimination in past hiring practices can support an inference that a particular adverse employment decision was motivated by discrimination.[15]

On the other hand, a court in Alaska found sex discrimination by the school board in denying a position as principal to a woman.[16] As in the North Carolina case, the board's interviewing committee relied in part on subjective standards to evaluate candidates, considering such factors as "tact," "ability to deal with others," and "character." The problem in this case was that although the subjective standards were arguably all job related, they were used only in evaluating the male applicants. The court ruled that this failure to compare male and female candidates on the basis of the same standards, in a context in which only males had been selected as principals for the last twenty-five years, established a showing of sex discrimination.[17] Conversely, had the case arisen in a school system in which female candidates had routinely been selected for principalships, the particular employment decision at issue in this case might not have been overturned.

Thus a local government employer may use both subjective and objective criteria in evaluating candidates for positions as long as all candidates are evaluated according to the same criteria. But regardless of whether subjective or objective questions are used in the interview, three rules must be kept in mind:

1) Ask only for information that will be used.
2) Ask only job-related questions.
3) Ask only questions that are lawful.

In any legal challenge a city or county will be required to defend its use of the information sought as a criterion for hiring or to explain why the information was sought if it was not to be used.

There are five areas in which local government employers must be especially cautious, whether on the employment application form or in an interview, as set forth below.

First, a city or county must be careful when denying employment to an applicant with a history of arrest or conviction. Because certain minority groups have higher rates of *arrest* than the general population, excluding applicants who have an arrest record tends to eliminate proportionately more minority-group than white applicants. Thus courts consistently scrutinize questions about an applicant's arrest record because of their adverse racial impact and because such questions are perceived to be not job related. Courts will not permit an employer to use an arrest record to bar an arrestee absolutely from further consideration for employment.[18]

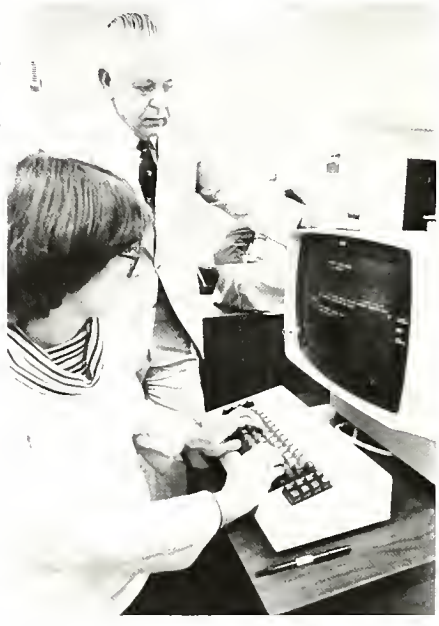
On the other hand, employers are generally allowed to consider *convictions* in making employment decisions. But they may not use a conviction as an absolute bar to employment. In one federal case[19] an applicant for a clerk's position was denied employment when he stated on his application that he had been convicted of a felony. The problem with denying him employment on that basis was that the offense for which he had been convicted was draft evasion—which clearly bore no relationship to his ability to perform the duties of a clerk. In contrast, an applicant for a police officer position who had been convicted of selling drugs could properly be denied that position. Note that it is not the mere fact of *conviction* that matters; the employer must consider the nature and gravity of the offense, the time passed since the conviction, and the nature of the job for which the person has applied. Unless the position is particularly sensitive, excluding an applicant with a conviction on that basis alone, without regard to the relationship between the crime and the position, may violate Title VII.

Second, the local government employer should avoid questions in the interview or on the job application form concerning an applicant's marital status, pregnancy, childbearing plans, number and age of children, and the availability of child care because asking these questions may be grounds for a finding of sex discrimination.[20] Thus an employer may not apply different hiring standards to women with young children, married women, or single pregnant women.[21] Also, because it is virtually impossible to show that "family responsibilities" are more relevant to a woman's job respon-

Gary D. Knight/CCBI

Fire fighters learn to scale a building at Wake County's fire training center.

Gary D. Knight/CCBI



Tax personnel check a property listing.

Gary D. Knight/CCBI

Deputies post signs for Wake County's Community Watch Program.

sibilities than to a man's, a city or county board may not deny employment to women with preschoolers.[22]

Third, an employer may not refuse to hire older individuals because of age. Under the Age Discrimination in Employment Act (ADEA),[23] all applicants and employees age forty and above are protected against age discrimination. Thus questions designed to determine the age of an applicant should be avoided because they elicit information that may not lawfully serve as a basis for hiring.

Fourth, the local government interviewer should avoid questions concerning handicaps. The Rehabilitation Act of 1973 forbids recipients of federal funds to discriminate in hiring on the basis of handicaps, and defines a handicapped individual as "any person who . . . has a physical or mental impairment which substantially limits one or more of such person's major life activities. . . ."[24] A handicapped person is "otherwise qualified" with respect to employment if he or she can, with reasonable accommodation, perform the essential functions of the job in question.[25]

Thus interviewers may not ask, "Are you handicapped?" Instead, they might ask, "Do you know of any reason you could not perform the functions of this job?" To illustrate further, an applicant for a position as refuse collector could be asked, "Are you able to lift a fifty-pound trash can?" In other words, if certain job requirements must be met, an applicant for that job must either be able to perform those functions readily or be able to meet the job requirements with reasonable accommodation by the employer. Whether an employer has made a "reasonable accommodation" of the applicant's handicap is ultimately a question for the courts to decide and is almost completely a fact-specific determination. Further, a physical examination may be required of all applicants.

Fifth, public employers should avoid broad questions concerning membership in organizations and groups. The First Amendment guarantees the right of free association. Consequently, inquiries into memberships other than in professional associations would usually not be job related and could serve as the basis for a challenge by an unsuccessful applicant. For example, the right of public employees to join a union and engage in union activity is protected under the First Amendment.[26]

Local governments also may not discriminate on the basis of political affiliation in hiring employees, because party affiliation is not deemed "an appropriate requirement for effective performance of the public office involved."[27] Further, questions concerning group membership designed to reveal the race, religion, or national origin of its members are not permissible under federal law.[28]

Selection

Once a city or county has advertised its job vacancy and interviewed the applicants, it may make its selection. As noted above, the employer may not use illegal criteria to differentiate among candidates and must be careful to avoid inquiring into certain areas that are not job related. But interview results may also serve as a *defense* to a charge of unlawful discrimination. Although interviews are subjective and require differentiation among applicants, the courts have nonetheless recognized that there must be some room for judgment and discretion by the selecting official. Discrimination based on criteria that are not job related is illegal; selection based on rational management judgment is not.

For example, in one case an applicant who was rejected three times in applying for a position sued on a claim of racial discrimination.[29] The court held that the employer's proffered basis for refusing to hire the plaintiff—that she had done poorly in her interviews—was sufficient to rebut the claim of discrimination. And in *Love v. Alamance County Board of Education*, discussed above, the applicant's claim of sex discrimination was rebutted by the school administrator's defense that he selected another candidate "because he, in his professional judgment, considered her best-suited for that position."[30]

Employers do not always appreciate their lawful discretion in selecting candidates for positions. They may believe that they are required always to hire the applicant with the most experience or that they may be guilty of "reverse discrimination" if they select a black applicant with slightly fewer qualifications than a white applicant. In fact, however, a city or county may select a less-experienced applicant who meets the minimum qualifications if it believes the person is the best candidate for the job. Similarly the United States Supreme Court recently upheld a county's selection of a female applicant with slightly lower "paper qualifications" than a male applicant, holding that such action does not constitute reverse discrimination.[31] The key in selecting candidates is to use sound managerial judgment that can withstand scrutiny in the face of legal challenge.

Verification of Applicants' Legal Status

The Immigration Reform and Control Act of 1986 imposes an additional responsibility on every employer's recruitment and selection process: the legal status of all persons hired must be ascertained. Simply stated, the effect of the act is to require all employers to verify, when the person is hired, that anyone offered a job is either a United States citizen or is authorized to be employed in this country.

Verification of employment eligibility is to be recorded on "Form I-9, Employment Eligibility Verification," furnished by the United States Immigration and Naturalization Service (INS). The local government employer is responsible for assuring that the applicant and the employer's hiring agent complete the form and for verifying the applicant's employment authorization and identity. An applicant for employment may present either one document that establishes both employment authorization and identity or separate documents that respectively establish authorization and identity. The INS regulations implementing the act provide that any one of the following documents establishes both employment authorization and identity:

- A United States passport;
- A certificate of United States citizenship;
- A certificate of naturalization;
- An unexpired foreign passport authorizing employment in the United States; or
- An alien registration receipt card.

The act and the INS regulations further provide that an employer may rely on the following combination of documents to establish employment authorization and identity: a Social Security card or a United States birth certificate and a driver's license or similar state identification.

The importance of this act for employers is underscored by the inclusion of civil and criminal penalties for violations. The act provides that an employer may be liable for criminal penalties ranging up to a fine of $3,000 and imprisonment for up to six months for each unauthorized alien hired. In addition civil penalties ranging up to $10,000 for each unauthorized alien hired are authorized. Obviously, with penalties like these, local government employers should take whatever steps are necessary to comply with the act.

Conclusion

A city or county that takes the time to follow the legal requirements for recruitment and selection will benefit in two ways. It will greatly reduce the likelihood of legal challenge by unsuccessful applicants, and it will select and retain better-qualified candidates, thus increasing the effectiveness of the government.

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1. North Carolina General Statutes §§ 160A-155 and 160A-148(1) confer appointment authority on city councils and city managers, respectively. Sections 153A-87 and 153A-81 provide similar appointment authority for boards of county commissioners and county managers.

2. Title VII of the Civil Rights Act of 1964, 42 U.S.C. § 2000e et seq., prohibits discrimination by employers, employment agencies, and labor organizations on the basis of race, color, religion, sex, or national origin. Since 1972 public employees have been protected by Title VII. All types of personnel actions are covered by Title VII, including advertisement, recruitment, selection, compensation, classification, promotion, and termination.

3. An exception is allowed when religion, sex, or national origin is a bona fide occupational qualification (BFOQ) for employment (42 U.S.C. § 2000e-3(b)). Although the courts construe such exceptions narrowly, they may find a BFOQ where "same sex" requirements are present. *See generally* City of Philadelphia v. Pennsylvania Human Rights Commission 300 A.2d 97 (Pa. Commw. Ct. 1973); Brooks v. ACF Industries 537 F. Supp. 1122 (S.D. W.Va. 1982) (sex was a BFOQ for employment as janitor when the duties included the cleaning of men's bathhouses).

4. *See, e.g.*, Haskins v. Secretary of Health and Human Services, 35 F.E.P. Cases 256 (W.D. Mo. 1984); Banks v. Heun-Norwood, 566 F.2d 1023 (8th Cir. 1977).

5. Brady v. Thurston Motor Lines, 726 F.2d 136 (4th Cir. 1984); Sumler v. City of Winston-Salem, 448 F. Supp. 519 (M.D.N.C. 1978).

6. *See, e.g.*, United States v. State of New York, 475 F. Supp. 1103 (N.D.N.Y. 1979); Furno Construction Co. v. Waters, 438 U.S. 567 (1978).

7. *Brady*, 726 F.2d at 146.

8. 43 Fed. Reg. 28290 (1978), *adopted*, 43 Fed. Reg. 38312 (1978) (codified as amended at 29 C.F.R. § 1607 (1986)).

9. A "business necessity" has been explained by one court as a discriminatory employment practice that is "necessary to safe and efficient job performance. . . . For a practice to be 'necessary,' however, it need not be the *sine qua non* of job performance: indispensibility is not the touchstone. Rather, the practice must substantially promote the proficient operation of the business." Chrisner v. Complete Auto Transit, Inc., 645 F.2d 1251, 1262 (6th Cir. 1981).

10. Connecticut v. Teal, 457 U.S. 440 (1982).

11. *See, e.g.*, Texas Department of Community Affairs v. Burdine, 450 U.S. 248 (1981).

12. Griggs v. Duke Power Co., 401 U.S. 424 (1971).

13. *See* Gay v. Waiters' and Dairy Lunchmen's Union Local 30, 694 F.2d 531, 544-45 (7th cir.), *cert. denied*, 459 U.S. 873 (1982).

14. 581 F. Supp. 1079 (M.D.N.C. 1984), *aff'd*, 757 F.2d 1504 (4th Cir. 1985).

15. Sumler v. City of Winston-Salem, 448 F. Supp. 519, 527 (M.D.N.C. 1978).

16. Strand v. Petersburg Public Schools, 659 P.2d 1218 (Alaska 1983).

17. *Strand*; *see also* Padway v. Palches, 665 F.2d 965 (9th Cir. 1982) (sex discrimination evidenced by school admininstrator's difficulty in working with female administrators and principals).

18. *See* Gregory v. Litton Systems, Inc., 316 F. Supp. 401 (C.D. Cal. 1970), *aff'd on other grounds*, 472 F.2d 631 (9th Cir. 1972) (arrest statistics showed disproportionately high percentages of arrests among blacks).

19. Green v. Missouri Pacific Railroad Co., 523 F.2d 1290 (8th Cir. 1975).

20. The Pregnancy Disability Amendments of 1978 to the Civil Rights Act of 1964 (42 U.S.C. § 2000e(k)) prohibit employers from refusing to hire or promote a woman because she is pregnant, absent another reason.

21. Jefferies v. Harris City Community Action Association, 615 F.2d 1025 (5th Cir. 1980).

22. Jurinko v. Edwin L. Wiegard Co., 477 F.2d 1038 (3d Cir.), *vacated and remanded*, 414 U.S. 970 (1973), *on remand*, 497 F.2d 403 (3d Cir. 1974).

23. 29 U.S.C. §§ 621-634. The act was held applicable to state and local government employers in EEOC v. Wyoming, 460 U.S. 226 (1983).

24. 29 U.S.C. § 706(7)(B).

25. 29 C.F.R. § 60-1.3.

26. Smith v. Arkansas State Highway Employees, Local 1315, 441 U.S. 463 (1979); Abood v. Detroit Board of Education, 431 U.S. 209 (1977); Atkins v. City of Charlotte, 296 F. Supp. 1068 (W.D.N.C. 1969); Hickory Fire Fighters Assocation Local 2653 v. City of Hickory, 656 F.2d 917 (4th Cir. 1981).

27. Branti v. Finkel, 445 U.S. 507, 517-18 (1980).

28. Title VII of the Civil Rights Act of 1964, as amended, 42 U.S.C. § 2000e.

29. Tortorici v. Harris, 610 F.2d 278, 279 (5th Cir. 1980).

30. 581 F. Supp. at 1093.

31. Johnson v. Santa Clara County, __U.S.__, 94 L.Ed.2d 615 (1987) *see also* Higgins v. City of Vallejo, 44 F.E.P. Cases 676 (9th Cir. 1987).

Selecting Employees through Systematic Interviewing

Stephen K. Straus

If interviews are to be effective in selecting employees, it is important to understand their purpose and limitations in the selection process and to plan and organize them systematically. This article discusses the role of interviews in the selection process and presents a systematic procedure designed to improve their effectiveness.

The Purpose and Limitations of the Interview

The purpose of the interview is to assess the qualifications of the candidate to perform a specific job. Though specific requirements vary with the position, for most public-sector jobs four different types are important: skills, knowledge, motivational factors, and working conditions. Skills and knowledge are obvious qualifications. Examples of skills are typing, leadership, and oral communication. Examples of knowledge include an understanding of accounting systems, budget procedures, and personnel law. Nevertheless, many candidates with the required skills and knowledge would not perform well in a position. Something more is required: the willingness of a candidate to perform, given the motivational and working conditions of a job, is also important. Examples of motivational factors include the opportunity for promotion, the challenge of the job, and the recognition given to the employee in the position. Working conditions include shift duty, office space, work hours, and the physical demands of the job.

The interview is useful for evaluating some qualifications but not others. It can help assess certain interpersonal skills—for example, how a candidate handles himself in a group and how he responds to the stress that is often inherent in an interview. The interview is also very useful for assessing whether the candidate is likely to work well in the given motivational and working conditions of the job. For example, some candidates may be suitable for a job that requires initiative, self-reliance, and self-motivation, while others may be able to perform well only under close supervision. Some candidates may not be suited to a physically demanding job, while others may thrive on hard, physical work. If a job requires extra hours, it is important to find out whether a candidate is willing to work overtime or to be on call.

Although the job interview permits interviewers to assess certain interpersonal skills and whether the candidate would be suitable for the motivational and working conditions of a job, it usually is not the most effective way to evaluate a candidate's skills and knowledge. The setting does not allow the interviewers to measure, for example, a candidate's skill in typing, teaching, planning and organizing work, or supervision. The evaluation of such skills requires direct observation and therefore can be done more effectively with other methods like job simulation tests (such as typing tests) or role playing (having a candidate for a supervisory position perform a performance appraisal).

Because the interview cannot measure all the relevant qualifications for a position, some public managers use assessment centers to select certain employees.[1] Assessment centers combine a variety of selection methods, such as role plays, job simulation tests, and in-

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terviews. They also require a great deal of time, money, and expertise. Consequently, most managers still rely primarily on interviews to select employees. Those managers who use assessment centers tend to employ them for certain critical jobs, such as upper-level management and public safety positions.

Systematic Interviewing

Recognizing the purpose and limitations of interviews is the first step toward effective interviewing. The second step is to plan the interview systematically. Systematic interviewing involves (a) analysis of the requirements of the position, (b) developing effective questions based on those requirements, (c) planning and conducting the interview in a structured manner, and (d) establishing a method for evaluating and selecting candidates. In addition to making interviews more effective, a systematic approach to interviewing can also contribute to other managerial practices. For example, the need to analyze the requirements of the position before the interview may call attention to a need to change those requirements or to reorganize positions. Furthermore the process proposed here calls for team planning and decision making, which may help employees who participate as interviewers to identify more closely with the organization's goals.

Planning the Interview

The interview should be conducted according to a plan. The planning process is designed to identify the requirements of the position and to develop questions that can be used to evaluate the candidate's qualifications. The following four steps are required:

1) Establish an interview panel.
2) Prepare a job profile and candidate profile.
3) Develop interview questions.
4) Establish an interview summary evaluation form.

Obviously the planning process requires a good deal of preparation.

Establish an interview panel. Many managers and supervisors conduct interviews alone. This practice may save time in the short run, but panel interviews are more effective in the long run for two reasons—panels may reduce bias in hiring decisions, and because they are participatory, they can improve employee support for the decision.[2] Interviewers tend to be biased when their race or gender differs from that of the candidate.[3] Consequently, a panel that is representative of the labor force may be more fair than a single interviewer. Including several employees in the interview process can also improve the quality of the hiring decision by enabling panelists to share different viewpoints and to pool information. Moreover the interview process helps panelists to understand better the nature of their work and the organization.

Panels provide further benefits when they include employees from different levels of the organization. For instance, if the vacant position requires supervisory responsibilities, a subordinate employee might be included, or if the position is one of many in a position class (for example, police officer or elementary school teacher), the panel could include a member of that position class. Such organizational representation allows for important input from different perspectives (for example, those of subordinates and colleagues), and it builds employee support for the candidate who fills the new position.

At the same time, it is important to avoid overrepresentation. The panel should include at least three but not more than five members. This number allows for representation of gender, race, and organizational level. Panels larger than five members may be cumbersome or intimidating to some candidates.

Prepare a job profile and a candidate profile. Effective interviewing requires a solid understanding of the position to be filled. A job analysis improves panelists' understanding of the position requirements and provides a mechanism for relating those requirements to the interview process.[4]

Before beginning the job analysis, the panel should reexamine the organization's needs and how the position might meet them. The function or requirements of the position may have changed since it was last filled. Similarly, anticipated changes in the organization may require that the position be redesigned to include future requirements. Once the panelists understand how the position should fit into the organization, they can begin the actual job analysis.

To analyze the job, the panelists focus on the position's requirements—the necessary skills, technical knowledge, motivational factors, and working conditions.[5] What specific tasks must an employee do and what attributes must he or she have to perform this job effectively both now and in the future? The panel can obtain this information from a variety of sources: employees who work in the same position class, employees who work closely with the position (including supervisors and subordinates), and the employee who is leaving the position (for instance, through an exit interview). Then, in a planning session, the panelists can use this information to develop a job profile.

Formal position descriptions should not be used as a primary source for the job analysis. Such descriptions are often outdated, and even when not outdated, they often are not an adequate basis for analyzing a job for interview purposes. The job analysis focuses on requirements for effective performance. Position descriptions, however, do not emphasize performance expectations; instead, they are designed to catalog the tasks required in a position. Moreover position descriptions usually do not include motivational factors and working conditions. Nevertheless, a position description can be useful: the panel might review it to ensure that important factors have not been omitted from the job profile.

Once the panel develops a comprehensive list of the job requirements, it may find that the list is too long for developing interview questions. Consequently, the panel should focus on the most important requirements.

To illustrate, the left column of Table 1 presents the results of a hypothetical job analysis for the position of clerk-typist in the planning department of a small municipality, Middleville. This profile is not generic, however. Although clerk-typist positions abound in public agencies, each agency requires something different from this position. In different agencies, or even in different departments, the job requirements will vary.

Middleville's clerk-typist position requires some common skills and techni-

Table 1

Job Profile, Candidate Profile, and Interview Questions for Clerk-Typist Position, Planning Department

Job Profile Worksheet *Position Requirements and Characteristics*	*Candidate Profile Worksheet* *Candidate Requirements*	*Question Worksheet* *Sample Interview Questions*
Skills	**Skills**	**Skills**
1. Prepare reports, letters, and charts on computer 2. Compose business letters 3. Identify and use appropriate resources (time, equipment) 4. Communicate ideas effectively to a small group	1. Demonstrated typing skill on computer of 60 wpm (required) 2. Ability to compose business letters that are grammatically correct (required) 3. Ability to identify and use appropriate resources (required) 4. Ability to communicate ideas in a small group (preferred)	1. (Job simulation test and application)* 2. (Job simulation test, transcript, and application)* 3. (Job simulation test)* 4. Panel can assess candidate's ability to communicate ideas in the interview. (Role play)
Technical Knowledge	**Technical Knowledge**	**Technical Knowledge**
1. Knowledge of methods for formatting business letters 2. General knowledge of the planning and zoning function 3. Familiarity with word processing systems	1. Knowledge of appropriate business letter formats (preferred) 2. General knowledge of the planning and zoning function (preferred) 3. Familiarity with word processing systems (preferred)	1. What are the three accepted formats for a business letter? (Job simulation test and transcript) 2. What would you tell a person who comes into the office and wants to know the difference between zoning and land-use planning? (Written test, transcript, and application) 3. What software programs have you used?
Motivational Factors	**Motivational Factors**	**Motivational Factors**
1. Limited promotional opportunity 2. Support to attend one training conference on planning and zoning annually 3. Opportunity to expand job responsibilities 4. Minimal supervision 5. Much routine work (typing and filing) required 6. Maximum annual merit pay increase of 5 percent	1. Does not expect promotion (required) 2. Wants to learn more about planning and zoning (required) 3. Seeks opportunities to expand job responsibilities (required) 4. Enjoys working with minimal supervision (preferred) 5. Values the importance of routine tasks such as typing (required) 6. Satisfied with minimal pay increase (required)	1. Exactly what do you want to accomplish professionally in the next three years? (Application) 2. If you were hired for this position, what kinds of training would you seek? (Application) 3. Having seen a copy of the position description, if you could change it however you wish, what would you do? 4. If you were hired, exactly what characteristics in your supervisor would help you to be most effective? 5. What types of work activities particularly interest you? 6. What factors help you to enjoy your work? How important are pay increases to you?
Working Conditions	**Working Conditions**	**Working Conditions**
1. Occasional overtime required 2. Desk is located in a public area 3. Work is interrupted frequently by inquiries from the public	1. Will work overtime on occasion (required) 2. Enjoys public contact (required) 3. Is not frustrated by frequent interruptions by the public (required)	1. If we had an important project due in five days that required fifty hours of your time to complete, what would you do? Would you be willing and able to work overtime? 2. If you were hired and could move the clerk-typist desk, where would you like it to be? Why? 3. If you had to complete a great deal of work one week and your work was normally interrupted frequently by inquiries from the public, what would you do? If nothing could be done to reduce the inquiries, how would you feel?

*Interview cannot assess this qualification effectively. Other methods for assessing specific qualifications are included in parentheses.

cal knowledge, such as typing proficiency, letter composition, and the effective communication of ideas in a small group. But instead of listing general concepts like "office skills," the job analysis specifies the position's particular requirements. With regard to motivational factors, the planning director expects the clerk-typist to learn about the department and its planning and zoning function. The clerk-typist who becomes knowledgeable about these areas can take on added responsibilities and thereby save the planners' time. On the other hand, Middleville offers few promotional opportunities for its clerk-typists. With regard to working conditions, the employee in this position typically can expect that overtime will be a necessary consequence.

The job profile provides the basis for the candidate profile, set forth in the middle column of Table 1. The candidate profile is important because it establishes the specific qualifications a candidate must possess in order to perform the job effectively: for example, types sixty words per minute and has a general knowledge of the planning function. The qualifications are noted as either "required" or "preferred." Candidates must possess the required qualifications to function satisfactorily in the position. Preferred qualifications, however, go beyond that level. Candidates who possess only the required qualifications may be hired, but those who meet the required *and* the preferred qualifications are more qualified. Preferred qualifications still must be job related, but they may reflect higher levels of knowledge or ability.

While the primary purpose of the job and candidate profiles is to help interviewers develop effective interview questions, they also can improve recruitment and selection procedures. Managers often disagree with the qualifications their personnel office employs to screen and recruit candidates. Interview planning can effectively deal with this conflict. If a personnel administrator is included on the panel and actually participates in the planning process, he or she will understand better, and therefore be more likely to support and promote, the qualifications established by the panel.

In any event, after the panel develops very clear qualifications for recruitment and screening, the qualifications should be given to the personnel department, preferably before recruitment begins but certainly before applicants are screened. The panel might also ask the personnel office to send current descriptions of the position and of the organization to candidates selected for interviews. Sharing such information before conducting the interview enables candidates to respond more thoroughly to questions.

Develop interview questions. The interview questions should flow from the candidate profile. The right column of Table 1 suggests one sample question for each item in the candidate profile.[6] As the table demonstrates, interview questions are not appropriate for evaluating all qualifications, particularly those involving skills, and other selection methods must complement the interview. For instance, knowledge of the planning and zoning function can be evaluated through interview questions, written tests, school transcripts, and the information on the employment application.

Effective interview questions have three important characteristics. First, the questions are open-ended. Open-ended questions solicit more useful information than do closed-ended questions. Closed-ended questions require only a yes or no, or very simple answers. Open-ended questions begin with words like "how," "what," "tell me," and "discuss," or they present situations that the candidate can respond to (see question 2 under Technical Knowledge). Second, effective questions seek concrete, rather than general, responses. Third, good questions do not "lead" the candidate by suggesting the appropriate answer. For instance, the question "Are you interested in receiving training in planning and zoning administration?" implies that the candidate should say yes, while the question "If you were hired for this position, what kinds of training would you seek?" gives the candidate great latitude. If the candidate fails to address a key issue (for example, overtime and pay), the interviewers can follow up with more leading questions (see questions 1 and 3 under Working Conditions).

Finally, the panel should review the candidates' applications to determine if additional questions should be asked. For instance, particular candidates may not have explained why they left their previous position, why they did not work for a certain period of time, or why they are pursuing a career that is inconsistent with their previous training and experience.

Establish an interview summary evaluation form. If the panelists conduct the interview without further preparation, they will probably experience difficulty in selecting a candidate. One reason is the panelists may have different conceptions of the importance of the position requirements. For instance, if one panelist stresses the technical skills while another emphasizes motivational factors, the two panelists could differ significantly in their evaluations of candidates.

Before conducting the interview, the panelists should reach an agreement on the importance of each position requirement and should decide on a common rating scale. Table 2 presents an interview summary evaluation form that uses such a scale. In this example the panelists decided that skills, technical knowledge, and motivational factors were equal in importance and three times as important as working conditions. Consequently, on a ten-point scale, they placed a weight of 3 on skills, technical knowledge, and motivational factors and a weight of 1 on working conditions.

The panel not only should establish a common scale but also must reach agreement on the interpretation of that scale. The panelists in our example agreed to a ten-point scale for each dimension. However, their agreement on the scale will not guarantee a fair assessment of the candidates if the panelists interpret the scale differently. For instance, one panelist may hold that a 5 is average while another may assert that 5 is failing. In this case the panelists agreed to the following rating scale: 1-4 is "unacceptable," 5-6 is "acceptable," 7-8 is "above average," and 8-10 is "outstanding."[7]

In Table 2 the numbers in color represent the scores a panelist gave to a candidate (Jim Doe) after the interview.

Conducting the Interview

For the interview to be effective, the panel must accurately assess the candidate's qualifications. A number of factors

Table 2
Interview Summary Evaluation

Candidate's Name: Jim Doe

Position: Clerk-Typist, Planning Department

	Importance Weight of Each Qualification		Rating on Scale of 1-10 (10--Highest)		Evaluation: Multiply Weight By Rating	Comments
Skills	3	X	7	=	21	(65 wpm but poor communication of ideas)
Technical Knowledge	3	X	9	=	27	(very interested in planning)
Motivational Factors	3	X	6	=	18	(ambitious—may not stay long)
Working Conditions	1	X	4	=	4	(not willing to work overtime)
TOTAL	10		TOTAL EVALUATION (MAXIMUM 100)		70	

Note: Items in color are an interviewer's notations.

during the interview affect the ability of the panel to evaluate, and of the candidate to convey, his qualifications.

The physical setting of the interview may affect the interaction between the candidate and the panelists. The arrangement and shape of tables and desks could create psychological barriers. If, for instance, the candidate sits at the end of a long, narrow, rectangular table, he cannot easily see each of the panelists, and the arrangement may create an atmosphere that is too formal or intimidating. A circular arrangement of tables and chairs on the other hand, may promote a more informal and relaxed atmosphere.

The panel should avoid interruptions by staff and clients. A ringing telephone is distracting to the participants, and answering the telephone disrupts in-depth conversation.

Scheduling can also affect the interview. Intensive interviewing can be psychologically and physically demanding. Panelists who interview too many candidates in one day may lose their ability to concentrate. Also they may devote less attention to candidates interviewed late in the day. Consequently, panelists should consider their endurance levels in scheduling interviews.

The panelists can help the candidate feel at ease. Typically the candidate's anxiety level peaks when he enters the interview room. After introductions the panelists might begin the interview by helping the candidate to relax through such small talk as: 'How was your trip here?" or "I see you went to Central High School; so did I."

In order for the candidate to take full advantage of the interview process, he must know what to expect. Therefore, once the candidate is at ease, one of the panelists should explain how the interview is to be structured. An interview normally contains three distinct parts: (1) the assessment of the candidate, in which the panelists ask him questions; (2) the assessment by the candidate, in which the candidate asks the panelists questions about the position and the agency; and (3) closing comments, in which the panelists explain how the selection process will proceed. Thus the panelist might begin with a statement like the following:

> Before we begin, let me explain our format. In the first part of the interview we will ask you questions about your qualifications and interest in this position. In the second part we want you to take some time to ask any questions you wish about the organization or the job. We will conclude by explaining the plan for making final decisions about the position.

Assessment of the candidate. This is the core of the interview process. The questions developed earlier in the planning stage serve as the framework for this assessment. They are called structured interview questions because to be fair, the panel asks each candidate all of these questions. On the other hand, these structured questions *alone* are insufficient to get all the necessary information. Thus the panelists should ask further questions to clarify the candidate's responses. Clarification is important for two reasons. First, it ensures that the panelists correctly interpret the candidate's answers. Second, such probing often spurs the candidate to delve more deeply into a response, thereby encouraging him to be candid.

After the panelist thoroughly clarifies the candidate's response to a question, the panelist moves on to the next question. While one panelist asks her set of questions and clarifies responses, the others take notes of the responses. This approach allows the questioning panelist to maintain personal contact with the candidate while the other panelists keep an accurate account of the interview.

Assessment by the applicant. This part often takes place while the panelists ask their questions—the candidate may seek information in order to answer the questions well. Nevertheless, the candidate may still wish to ask further questions about the organization or position. These questions can help the panelists understand what factors he will consider before accepting a potential offer—for example, average longevity in the position, possibility of promotion, or expected pay increases. Consequently, the panelists should be sure that the applicant has an opportunity to ask questions.

The panel may choose at this time to promote the benefits of working for the organization. But unless they convey a realistic image, the candidate, once hired, may become disillusioned, which will affect his performance.

The panel may wish to conclude this step by asking the candidate what he would change about the interview

process or questions. The candidate's response can provide further data on his interpersonal skills, and it may give the panel useful feedback on the interview.

Closing the interview. The panelists should explain how the selection process will proceed and when the candidate can expect to hear from the agency. Panels often neglect this step to the detriment of both the candidate and the agency. All too often a candidate leaves the interview without understanding how much time remains or what decisions must be made before he will be notified. As a result he may accept another position only to discover that his preferred job has become available.

Making the Selection

Immediately after the interview the panelists should evaluate both the candidate and the interview process. Panelists typically will want to share their immediate impressions with each other. But this is not a good idea, because discussion at this point may bias the others' perceptions. Instead, the panelists first should record their evaluations. Then each panelist should compare them with those of the other panelists. In sharing their judgments the panelists should report their ratings on each requirement and explain what *specific information* led them to make that rating—for instance, "I rated him 4 on working conditions because he expects large pay increases when our organization has a history of only 5 percent a year."

Panelists may disagree with some of the ratings of a particular candidate. They should discuss these disagreements in light of specific behaviors. Because the panelists already have agreed on the meaning of the rating scale, the reason for a conflict may be simply that one panelist failed to observe what another heard or saw. In this case consensus is often reached by sharing information. However, even after discussing specifics, the panelists may still disagree in their ratings. In no case should the panel compromise to settle their differences. Unresolvable disagreement indicates that the bases for the difference are important and must be considered carefully in the selection process. The panelists should simply agree to disagree and record their divergent ratings and their basis for disagreement.

Generally the panelists are likely to reach consensus in their ratings of a candidate. The panel then can compile their ratings to determine an overall ranking. Members of the panel also should attach relevant comments to explain their ratings to the person responsible for making the hiring decision. At the end of this evaluation stage, the panel will have developed some clear and relevant information on which to base the final selection.

Nevertheless, the panel should remember the importance of confirming their evaluations. After the interview, the panel should check references and review the results obtained from other selection methods. If no candidate appears to meet all of the required qualifications, the panel should decide whether to recommend further recruitment or to hire the best available candidate.

Conclusion

Although managers cannot use an interview to assess all of a candidate's qualifications, the interview is an important part of the process of selecting employees. The interview can be effective if it is planned and conducted systematically and used properly in conjunction with other selection methods. Furthermore the systematic interview also can improve organizational effectiveness by its review of the organization's needs, its clarification of recruitment needs and desired qualifications, and its opportunity for employee participation in management decisions, all of which contribute to the quality of employees in the organization. In sum the interview process offers rich opportunities to improve the organization. All it takes is some systematic planning.

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1. See Ronald G. Lynch, "Assessment Centers: A New Tool for Evaluating Prospective Leaders," *Popular Government* 50 (Spring 1985): 16-22.

2. This article assumes that the manager serves as a member of the panel. Alternatively, the manager may establish a panel and consider its recommendations in selection.

3. Neal Schmitt, "Social and Situational Determinants of Interview Decisions: Implications for the Employment Interview," *Personnel Psychology* 29 (1976): 87-88.

4. The panel may rely on its personnel department to perform the job analysis for them. If so, the panel should thoroughly review the job profile with a personnel official before continuing the planning process. The rest of this section describes some points for the panel to consider in performing this review.

5. The distinction between motivational factors and working conditions is not always clear. What is important, however, is that the panel recognize the usefulness of both in planning for the interview.

6. The table is designed to demonstrate useful interview questions. Additional questions may also be appropriate, and in many cases more than one question should be used to evaluate a particularly important qualification.

7. Some managers feel that a numerical rating scale limits their discretion. They prefer that the panel use descriptive terms like "above average" or "outstanding" to rate the candidates.

Developing North Carolina's Rural Economy

Billy Ray Hall

Rates of illiteracy, poverty, and unemployment are all disproportionately high in the rural areas of North Carolina. Competition from overseas for manufacturing jobs is increasing while the farm economy has weakened. But people who live in North Carolina's troubled rural areas have a new partner in meeting these challenges. Seed money from private sources and a $4 million appropriation from the General Assembly have launched the nonprofit Rural Economic Development Center. The first organization of its kind in the United States, the center is designed to address comprehensively the economic problems prevalent in rural areas by developing innovative statewide strategies for dealing with these problems.

Traditionally North Carolina has relied mainly on recruiting out-of-state industry to spur the creation of new jobs. State and local governments have sophisticated experience in this economic development strategy. For this reason, the center will focus its efforts on a different strategy—that of "growth from within." This strategy is designed to complement industrial recruitment with initiatives that encourage the expansion of firms currently located in North Carolina and that foster the growth of new small businesses.

The key to growth from within is undoubtedly cooperation—cooperation among the business, government, and educational sectors; cooperation among federal, state, and local leaders; cooperation between urban and rural areas; and cooperation among rural areas in the state. The center, founded on this cooperative theme, is firmly committed to working with local and state individuals and organizations to address the challenges faced by North Carolina rural economies.

Origin of the Center

The idea for a Rural Economic Development Center emerged from discussions by the North Carolina Commission on Jobs and Economic Growth. The commission, appointed by Lieutenant Governor Robert B. Jordan III in the 1985 session of the North Carolina General Assembly, was formed to "work with private and public institutions and with individuals to identify the major economic challenges facing this State, and to develop practical proposals for meeting these challenges." The commission members recognized that solutions to economic problems in rural areas are heavily dependent on cooperation among the people and organizations involved. Rather than squabbling over pieces of the pie, participants must aim their efforts cooperatively at making the pie bigger.

During its deliberations, the commission raised the question: 'When do people get together to discuss rural economic development?" The answer was, "Never." There was no common table around which people from rural areas could sit with leaders in education, business, and government to discuss problems in North Carolina's rural economy and ways to address them. Out of this realization the concept of a rural economic development center was born.

The commission's final report, submitted in November of 1986, contained a recommendation that the General As-

The author is president of the Rural Economic Development Center.

sembly create and fund a North Carolina Rural Economic Development Center. The report recommended that the center "be charged with addressing declining conditions in the state's rural areas, with special emphasis on farming, the decline of manufacturing employment, opportunities for natural resource-based industries, and the loss of small businesses in small cities." The report further recommended that the center be a nonprofit corporation directed by a board consisting of business, academic, and local leaders and staffed with economic development professionals. The commission urged that the center develop an "action agenda" for rural economic development as well as conduct demonstration projects, research, training, and information collection and dissemination. The report noted that the center "would work actively with rural leaders at the local level to identify barriers to economic growth in specific communities and regions."

The commission met with Lieutenant Governor Jordan to discuss implementing the recommendations. One of the first items of business was to find someone able and willing to shepherd the concept through creation. William Friday, former president of The University of North Carolina, was approached and enthusiastically agreed to undertake the task. Friday immediately sought and received broad, bipartisan support for the center, including that of Governor James G. Martin and House Speaker Liston B. Ramsey.

Friday organized and convened the first meeting of the Rural Economic Development Center Steering Committee in November of 1986. This committee drafted and approved articles of incorporation and bylaws, and on January 8, 1987, the Rural Economic Development Center was created as a nonprofit corporation in North Carolina. In keeping with the cooperative theme of the center, the bylaws call for local government, agriculture, education, administration, business, and economic development each to be represented on the center's board of directors.

At the first meeting of the board of directors, Friday, who was elected chairman, appointed a ten-member executive committee, which met regularly and began to develop a mission statement and an initial agenda for the center. Funding was provided during those early days by grants from R. J. Reynolds Tobacco Company, Mary Reynolds Babcock Foundation, and Z. Smith Reynolds Foundation. The 1987 General Assembly enthusiastically supported the center with a $4 million appropriation. This appropriation granted $2 million for each of the two fiscal years beginning 1987-88, with no more than $500,000 to be spent each year for administrative costs. The remaining $1.5 million was to be spent on contracted research and demonstration projects.

In August of 1987 the board of directors appointed me president of the center, and after I hired staff, we began day-to-day operations. Together the board and the center staff refined the mission statement and the initial agenda and developed an action plan for generating, designing, evaluating, and funding projects and research. The mission of the center is to "improve economic conditions, support increased entrepreneurial development, support basic education, and make more and better jobs available in rural areas, with a special focus on low income residents." The center's broad objectives are to:

- Define the problems facing rural economies of the state;
- Initiate research into problems and opportunities facing North Carolina's rural economies;
- Test a variety of strategies that offer promise for promoting rural economic growth and widespread participation in its benefits by low-income, minority, and disadvantaged citizens;
- Sponsor pilot demonstrations that provide new approaches to rural economic development;
- Serve as a coordinator for the many public and private agencies working to improve rural economies;
- Speak in behalf of rural concerns on issues related to the rural economy; and
- Serve as a clearinghouse of data, information, programs, and policies in rural North Carolina and elsewhere that are aimed at improving the economies of rural areas.

Activities Under Way

The board of directors chose to address the challenges set forth in the mission statement by concentrating the center's efforts on the four building blocks of economic development: (1) business development; (2) community and human resource development; (3) natural resource-based development; and (4) infrastructure development. In each of these four areas the center is already conducting demonstration projects and research and providing information to policy makers.

Business development. The center is assessing North Carolina's capital markets to identify gaps in financing available in rural areas and will propose policies to close those gaps. In addition the center has funded a project by Northeastern Educational and Development Foundation, Inc. (NEED) of Elizabeth City to provide technical and marketing assistance to cooperatives, worker-owned businesses, and nonprofit organizations that serve low-income people in North Carolina. In the past NEED has successfully trained members of out-of-state cooperatives to manage their operations better and to become competitive in the marketplace. This grant will allow NEED to focus its efforts on North Carolina.

NEED representatives will work closely with selected participants across the state to provide them with leadership, management, and business skills. These and other groups will then serve as the nucleus of a statewide network that will market the products of North Carolina cooperatives in New York, California, and other states.

Human resource and community development. Long-term prosperity depends as much on an educated, productive citizenry and a broad-based leadership core as it does on an effective delivery system for business development services. Therefore, improving the state's human resources—as well as improving the capacity of rural communities to act as a whole in creating a climate that supports economic growth—is critical to the center's mission. To further this goal, the center has funded a project by the Center for Improving Mountain Living of Western Carolina University to develop a comprehensive plan to address the economic problems of rural areas in western North Carolina.

The project will involve a wide variety of people and institutions, including Western North Carolina Tomorrow, a seventeen-county association of community leaders. Together they will investigate current conditions and will develop a long-term strategy for promoting balanced economic growth within the region. The plan will focus on promoting the expansion of existing industries and encouraging the start-up of new businesses. After the strategic plan has been developed, the Rural Economic Development Center will prepare a model of the planning process to assist other regions interested in undertaking similar projects.

Natural resource-based development. Efforts in this area will focus on finding ways to use North Carolina's agricultural products and natural resources to provide more jobs and income in rural areas. The center is supporting a two-year project by the Eastern Band of Cherokee Indians and the Cherokee Boy's Club to produce and market meal made from original Cherokee flour corn.

Infrastructure development. The linkage between adequate transportation, water, and sewer infrastructure and successful economic development is well documented. The center will serve as a source of information for policy makers in this area. For example, the North Carolina Highway Study Commission has asked the center to provide expert testimony on rural highway needs in North Carolina.

The Rural Economic Development Center was established to contribute to broad-based efforts to improve the quality of life for people in North Carolina's rural areas. The projects mentioned here are only a few specific examples of how the center is advancing toward that goal. The center is committed to working with people, communities, and institutions across the state to develop, test, and implement innovative ideas.

Jim Sink

This lake, a storm water collection device with a practical purpose, is also part of the landscape design beautifying one of the sites in the Meridian Business Campus in the Research Triangle Park. Among its unusual features is a two-tiered structure with a recirculating water flow. Pumped from the lake's lower level and through a fountain, the water falls into the upper level and then cascades down a stair-step waterfall (see photograph at right) to the lower level. Three wells serve as a back-up water source during dry spells and are triggered when the lake falls below a certain level. Also the lake's walls and a ten-foot strip along its edge are lined with concrete to prevent the bank from eroding and to reduce the buildup of sediment.

Piedmont Storm Water Management: *Problems and Practices*

Ann Brewster Weeks

The following scene is becoming increasingly familiar in fast-growing areas of the piedmont. A city council holds a public hearing on a proposed new commercial development to be located in an area identified on the city's approved long-range plan as appropriate for that type of development.

The council hears testimony that is overwhelmingly in opposition to the development from the owners of neighboring properties and from environmentalists, who contend that the project will increase flooding and worsen water quality in the urban streams that will receive runoff from the site.

The developer argues that the proposal is in compliance with the city's approved long-range plan. He contends that it will cause no more damage to the environment than a similar development located half a mile away, which was approved with no opposition a year earlier. He says that he will control the drainage from the site by using a man-made pond that will hold the runoff.

The city engineer notes that the developer's plans for storm drainage provide adequate capacity to handle runoff from the site, although some questions remain about the specific design of the planned pond.

The planning director states that the developer complies with the city's ordinances: the project is in compliance with the long-range plan, the proposed new buildings are located outside of the adjacent stream's floodways, and the developer has agreed to control on-site the excess runoff from impervious surfaces. However, the planning director emphasizes her concern that the proposed pond will not continue to be effective if it is not maintained properly.

The city manager reminds the council members that the city's policy is that maintenance of drainage and storm water control structures on private property is the responsibility of the property owner. The city attorney agrees and notes that a statement to that effect would have to be included on the final plan for the development.

The neighbors' consultant tells the council that, by his analysis, the pond will not protect downstream water quality and may actually make flooding worse. Furthermore, unless the structure is maintained regularly, it will not provide any benefit after the first two months. His clients' houses and businesses will be threatened by the excess runoff from the site, and their property values will decline because the pond will be an eyesore.

In rebuttal, the developer's attorney states that his client's plan is in compliance with the city's long-range plan and has met all of the city's zoning regulations and storm water control requirements. The council has no basis, in his opinion, for denying approval of the plan. Doing so would deny his client the right to full use of his property.

This case illustrates the range and complexity of the issues relating to storm water runoff that local governments face when reviewing development plans in rapidly urbanizing areas. In such areas planners and council members are often so busy processing applications for new developments that they have only the time to hope that their existing drainage and storm water ordinances are adequate to ensure that the benefits of growth are not outweighed by any negative impacts.

The author is the senior planner for the town of Carrboro.

The need for revisions of local storm water control ordinances is currently widespread in the piedmont, one of the nation's fastest-growing areas. As part of a study conducted for the city of Durham during the spring of 1987, ten piedmont jurisdictions were surveyed informally about their approaches to storm water management.[1] Officials from all of the jurisdictions said that their ordinances needed updating and that storm water management issues were becoming increasingly important in their review of development projects. Furthermore all of those interviewed expressed dismay at the complicated nature of storm water management, the difficulty of explaining to elected and appointed officials all the factors to be considered, and the lack of time they had to deal with it.

This article is written in response to those comments of frustration. I hope it will help local officials to understand better some of the concepts and issues related to storm water management and the kinds of approaches that can be taken in managing runoff from urbanizing areas.

Why Is Storm Water Management Necessary?

The term *storm water drainage* refers to methods for directing water off a developed site as efficiently as possible, without attempting to control the volume or velocity of the flow. *Storm water management* is the phrase used to describe the assortment of land-use regulations and engineering techniques used to control runoff from developed areas. Storm water management is necessary because developed sites produce more runoff than natural areas do. Furthermore the degree to which sites are developed also affects the volume of runoff produced.

Undeveloped land is pervious—it allows water to pass through it, at least until it becomes saturated. Streets, sidewalks, parking lots, houses, and other structures are impervious surfaces that do not permit water to pass through them. All of the water that falls on these surfaces flows off them. Also, because impervious surfaces are, for the most part, smoother than the undeveloped land that they have replaced, water runs off them more quickly than it did before their development. When steep slopes are made impervious, the increase in water velocity is even more noticeable. Various kinds of uses (residential, commercial, and industrial) generally involve different levels of imperviousness that are characteristic of their use. Table 1 illustrates how the amount of storm water runoff increases with the intensity of the use and with the steepness of the site's topography. Runoff amounts and velocities also vary with soil type—more runoff occurs from silty clay soils than from sandy or loamy soils, which are more pervious.

Table 1
Comparison of Storm Water Runoff Produced During an Average Storm, Depending on Land Use and Slope

Type of Land Use	Sites With Slopes Less Than 7%	Sites With Slopes Greater Than 7%
Commercial	85%	not available
Industrial	60% to 85%	not available
Schools, churches, and apartments	60%	70%
Residences: 1/8-acre lots	40%	50%
1/4-acre lots	38%	48%
1/2-acre lots	30%	45%
Parkland	10%	25%
Undisturbed woodland	10%	20%

Note: After Ven Te Chow, "Runoff," in *Handbook of Applied Hydrology* (New York: McGraw-Hill, 1964), Table 14-1.

Changing a previously natural drainage condition to either a completely impervious piped system or a system that includes a combination of natural drainage and piping produces changes in the streams into which the storm water system discharges. The *volumes* and *velocity* of water discharged into the receiving streams are increased. These two changes result in increased flooding, increased stream-bank erosion, and decreased water quality—the three factors that storm water management techniques seek to address.

Increased flooding that occurs along a stream that receives drainage from newly urbanized areas is a direct result of added imperviousness in the stream's watershed. A storm of such severity, for example, that it occurs on average only every two years (called a two-year storm) causes more flooding damage after development than before both because the amount of runoff is increased and because the timing of the runoff flow is changed. When a watershed is in its natural state, runoff from farther up in the watershed reaches the stream later than runoff from areas closer to it. After the more distant areas are developed, runoff from them reaches the stream faster and, combined with the flow from more proximate areas, produces a larger peak flood.

The increased energy of these larger flows erodes the banks of urban streams, sending sediment downstream and tending to reshape the stream into a wider, straighter course. In its natural state a stream's equilibrium is based on the slopes, soils, and vegetation in its drainage area. As these controlling characteristics change with development, the stream seeks a new equilibrium.

Increased runoff also affects water quality. Storm water washes oil, gas, litter, and other pollutants from impervious surfaces into the system of drainageways and urban streams. Increased suspended sediment from stream bank erosion further reduces water quality.

Local governments can and often do include storm water management provisions in their zoning and subdivision regulations, which require developers to design new projects so that storm water flows are controlled and their potential impacts are reduced. Often such provisions require developers not to allow surrounding properties to be damaged by increased runoff flows and velocities. Damage to these properties may result when excess water flows off the site and

pools on or erodes neighboring properties downstream. It may also result when the new development acts as a dam, forcing water to pool on upstream properties. This damage may include actual physical damage to developed properties (flooded basements, eroded gardens) or may create the need to replace downstream storm water drainage structures that are no longer adequately sized to carry the increased flows.

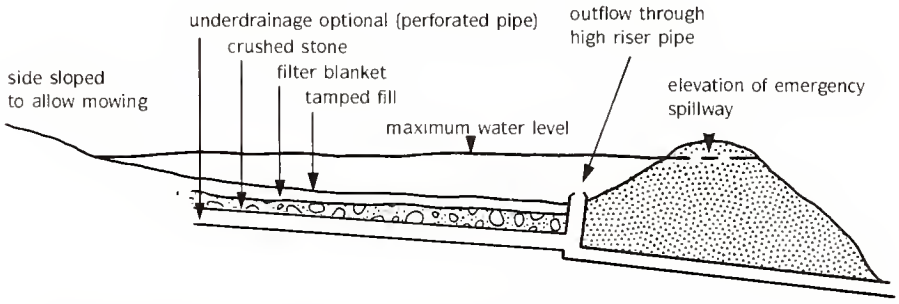
Commonly, when new development occurs upstream, additional storm water flows into a man-made drainage system that was designed to handle only the runoff from the upstream basin in its natural state. Unless the undersized pipes are replaced with new ones of larger diameter, the excess water will back up, causing localized flood damage in the worst case and inconvenience in the best case. Simply replacing the downstream pipes will not completely solve the problem, however, for the next pipe downstream is likely to flood, and then the next, and soon the whole series of pipes in one section of the city will need replacement. And if that is done, the next city downstream will suffer increased flooding.

Storm Water Management Methods

A variety of techniques can be used to manage storm water runoff so that development can occur without creating additional threats of serious flooding, water quality degradation, or downstream erosion. Land-use regulations can keep structures out of areas that are expected to be prone to flooding because of a drainage problem, such as that described above, or because they are located in the mapped floodplains of larger streams. Engineered structures can be used to hold the excess water produced by development. Regulations and policies can be formulated that emphasize the retention of natural drainageways and the use of natural buffers to control runoff and prevent property damage. Such methods are described briefly below, along with some of the pros and cons associated with each.

Regulations keeping structures out of flood-prone areas. A regulatory floodplain is a designated area around a body of water that will be flooded during a storm of a specific intensity and that has been mapped as such for federal insurance purposes. Requiring that new structures be kept out the floodplain produced by a hundred-year storm—or even out of the expected floodplain produced by a ten- or twenty-year storm after development—can reduce the likelihood of future damage. This method will not protect structures that already have been built near urban streams; it works only on floodplains where no development has occurred. For this reason, it does not alleviate the flooding problems related to infill development. It also will not solve potential flood damage problems associated with the development of rural drainage areas upstream from urban areas.

Figure 1
Detention Basin (Dry Pond)



Source: J. Tourbier and R. Westmacott, *Water Resources Protection Technology* (Washington, D.C.: Urban Land Institute, 1981), 1-15. Reprinted by permission of the publisher.

Regulations controlling amounts of impervious cover on newly developed sites. Regulating the amount and placement of impervious surfaces on a site-specific basis as an area develops can help reduce the impact of storm water runoff. In order to keep some minimum water-quality or volume-control standard, an ideal maximum percentage of impervious cover can be calculated for an entire watershed. Policy statements directing the placement of impervious cover away from steep slopes can be added to local ordinances. These can be translated to site-specific thresholds and guidelines, which then can be implemented on a site-by-site basis as new development plans are reviewed.

Most local governments in the fast-growing Research Triangle use this method of regulating land use in water-supply watersheds, where water *quality* is the most significant issue. Typical water-supply watershed ordinances in the Triangle area include impervious-cover limits for new developments and require control of the "first flush" of runoff from impervious surfaces using structural measures, as described below. The first flush is the runoff that occurs at the outset of a storm, commonly quantified as the first one-half inch, which collects and transports all of the material that has been deposited since the previous storm. Although the regulation of impervious cover is used elsewhere in the United States, local governments in North Carolina have considered this method appropriate for water-supply watersheds but too restrictive for storm water control everywhere.

Structural measures for storm water control. Since the early 1970s, the emphasis in storm water management has been on using structural measures for control on a site-by-site basis. These engineered solutions, which often are referred to as best management practices, include man-made ponds and various other kinds of structures designed to store the excess storm water produced after development and to permit it to drain out only at predevelopment rates. In addition to their applicability to specific sites, some structural measures can also be designed to control storm water from larger areas.

Detention basins (also called dry ponds) are dry between rains; they hold runoff and let it out slowly (see Figure 1). They do not reduce the *volume* of

water leaving a site; they only control the *rate* at which it is released. Detention basins allow sediment to settle out of storm water so that it is not transported downstream. They require frequent maintenance to remove the accumulated sediment and are fairly ineffective in removing dissolved pollutants. Because they are dry between rains and because sediment collects in them, they can also be unsightly.

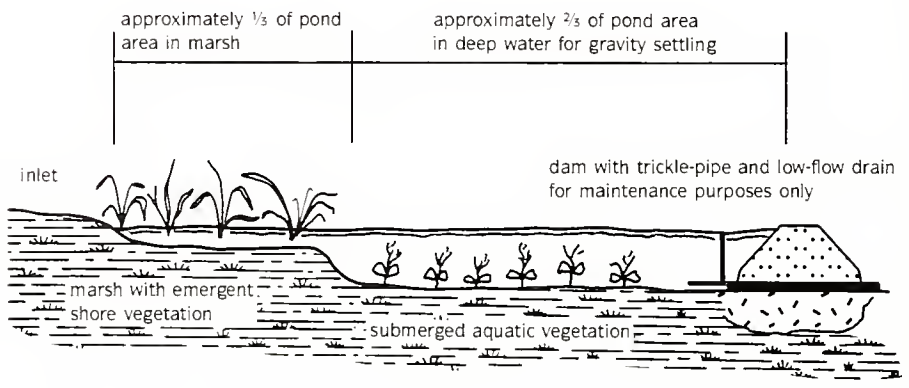
Parking lots and building rooftops also can be designed to detain storm water runoff. One problem with this solution is that people who do not understand why the roofs or parking lots are "flooded" after a storm may try to "fix" them, thereby eliminating the flood prevention they provide.

As flood control devices, detention measures are effective in protecting properties immediately downstream. Researchers have discovered, however, that detention structures may cause more harm than good to conditions farther down in the watershed when several or many structures, all designed and working separately, are located within a single watershed. This is especially true when they are placed within the watershed according to where developments are planned but without considering the effects of other control structures.

The reason for this problem is that each structure has a separate effect on the peak flow from a given storm. If a structure is designed without taking the effects of other structures into consideration, the resulting downstream peak flood may be higher than it was before development. In addition, because detention structures act to hold excess runoff and release it slowly into the stream, a collection of these structures in a watershed has the effect of lengthening the time during which a stream carries a larger volume of water than it did before development. Even though this volume is not as large as the volume that would flow after development in the absence of detention structures, the longer time period during which the stream is full increases stream-bank erosion.

Man-made retention basins (also called wet ponds) are most like naturally occurring ponds (see Figure 2). Such ponds can be integral and attractive parts of new development. They are designed to hold continuously a certain amount of runoff (commonly the excess over predevelopment amounts, or the first flush of dirty water from impervious surfaces) and to permit overflow or pond bypass after the first flush during the largest storms. Wet ponds permit sediment to settle out. When designed properly to include aquatic vegetation, they also permit the removal of dissolved pollutants through biological processes. Because they are so effective for this purpose, they are often used only as water-quality protection measures, even though they can also provide some flood-control benefits. However, many small wet ponds designed and working separately may have the same type of detrimental effect as a system of dry ponds. They also require periodic maintenance.

Figure 2
Retention Basin (Wet Pond with Permanent Pool)



Source: Research Triangle Foundation of North Carolina, *Reseorch Triongle Park Guidelines for Site Development* (Research Triangle Park, N.C., 1987), 4.14. Drawing courtesy of the Simulation Laboratory, School of Design, North Carolina State University. Reprinted by permission of the publisher.

Infiltration structures of various types are also used to minimize the amount of excess water that is allowed to leave a developed site. These structures are excavated trenches or basins that are filled with gravel, and sometimes also with porous piping, and then covered with some combination of sand, topsoil, and vegetation. They are effective only where the volume of storm water to be controlled is small and where the soils underlying the site are relatively permeable. Like dry ponds, infiltration structures require regular maintenance to remain effective over time.

Another type of structural storm water control measure that can be used to slow the runoff leaving a developed site is the so-called velocity dissipator. Rough channel lining, such as riprap or natural stone, is an example of a velocity dissipator. The increased roughness of the surface over which the storm water must flow acts to release the energy contained in urban runoff as it emerges from pipes or off paved surfaces. Man-made plunge pools or stilling basins—which are small, deep, local depressions placed at culvert or other drainage-pipe outlets—also produce this effect. These structures act only to moderate the potential for downstream flooding and bank erosion. They do not remove waterborne pollutants or reduce the volume of water leaving a site.

Retention of natural drainage patterns, natural impoundments, and vegetated buffers and swales as storm water management controls. Local governments can require that natural drainageways be left in their natural condition wherever possible and that natural buffer areas be left between the drainageways and impervious surfaces. Gutters, pipes, culverts, and storm water sewers traditionally are characteristic of urban drainage systems. While these structures can play important and necessary roles in urban drainage when used in moderation, it is preferable for the purpose of storm water runoff control to retain natural drainageways and

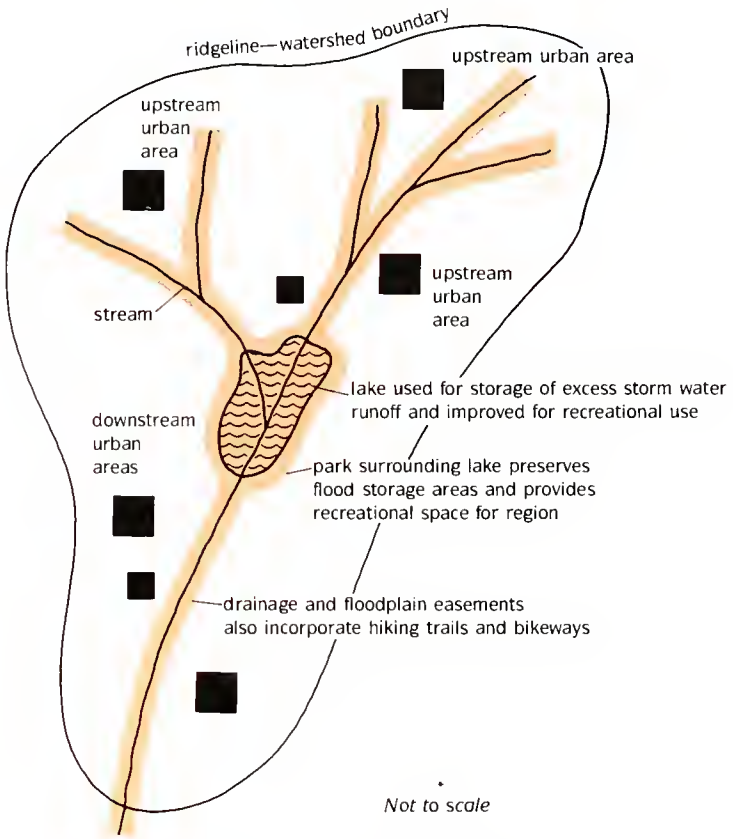
drainage patterns. Man-made drainage structures do not permit the infiltration of storm water, as natural drainageways do. In addition the smooth surfaces of pipes and culverts and their often steeper slopes, compared with the natural drainageways they replace, exacerbate the problem of greater runoff velocity from urban areas. Reliance on natural drainage also may be less costly than relocating and piping drainageways, especially in residential developments.

A related method combines the ideas of retaining natural drainageways and keeping new structures out of floodplain areas. To reduce the potential for property damage, both on-site and downstream, local governments can require naturally vegetated buffers, or "drainage easements," along natural drainageways that are equal to the area within the regulatory floodplain. The city of Durham has taken such a step in its ordinance. This method has the advantage of keeping new structures out of potentially flood-prone areas while also slowing storm water runoff and permitting some infiltration before it reaches urban streams.

The use of naturally vegetated roadside swales and buffers rather than curbed-and-guttered street construction to collect and direct storm water flow can help to reduce its velocity. Use of vegetated buffers also promotes "sheet flow," in which water flows off impervious surfaces on all sides as a sheet rather than as a concentrated point-source flow. Sheet flow is slower and therefore less erosive than channeled or point-source flow.

Clustered development and respect for the land's natural contours. Emphasizing "clustered" development and using the land's natural contours can improve drainage and storm water runoff conditions over more traditional approaches to site design. Clustered development involves concentrating structures and pavement on the most buildable portions of a site, with the remainder of the land left as naturally vegetated open space. Well-prepared clustered site designs use the land's natural contours as guidelines for roadway and building placement, retaining natural drainage areas, wetlands, and steep slopes as open space. In addition to offering environmental benefits, clustered designs often are more cost-effective than more standard designs because they generally involve less grading and pavement and shorter utility extensions. While more commonly used in residential developments, the cluster concept is also appropriate and feasible for use in commercial and industrial site design.

Figure 3
Regional, Multipurpose Approach to Storm Water Control



Source: Compiled from Thomas N. Debo and James T. Williams, "Voter Reaction to Multiple-Use Drainage Projects," *Journal of the Water Resources Planning and Management Division, American Society of Civil Engineers* 105 (September 1979): 299-300. Reprinted by permission of the publisher.

Regional or basinwide approaches to storm water control. Since the 1970s, the emphasis in storm water control has been on requiring private developers to construct devices to handle the excess runoff from their projects only. But larger-scale structural measures for storm water control are also possible—wet ponds can be developed to control the runoff from whole watershed areas or subareas. This approach is best used in watersheds that have not yet been developed, especially where their development would threaten urban areas downstream. It is possible, however, to use these structures in areas where some development has already occurred.

A fair amount of advance planning is involved in developing regional wet ponds. It is necessary to predict the amounts and types of development that will occur in various parts of the basin and the volume of excess runoff that will be produced during a storm of a specific intensity (a ten- or twenty-year storm, for example) and to size the pond accordingly so that a permanent pool of water can be maintained. Area around the pond may be preserved as a park or as undeveloped open space to provide flood storage during larger storms (see Figure 3). The runoff calculations used in designing the pond also can be used in designing drainage for developments occurring in the basin.

The basinwide approach is not used more often because site-specific controls are perceived as easier and cheap-

er to require. However, when the inspection and enforcement costs associated with the site-specific and regional methods are factored in, the basinwide approach is significantly less expensive than many site-specific private structural controls.[2]

The cost of constructing regional storm water controls may also be considered too high for a local government to bear alone in these days of tight municipal budgets and competing priorities. The traditional approach to full, local government financing is through the issuance of general obligation bonds that are backed by the government and paid off by tax revenues. However, alternatives to this type of financing may be used where they are authorized by the state legislature. One example of an alternative financing approach is the use of impact fees. Where a newly developing watershed would best be served by a regional storm water impoundment, drainage impact fees can be charged to developers, and the revenues from such fees can be used to pay off revenue bonds issued for land acquisition and construction of the facility.

Another financing approach is the creation of a storm water utility. Under this concept the utility charges each owner of a developed property a drainage and flood control fee that is proportional to the property's impact on the jurisdiction's drainage system. These funds are used to pay for inspection, maintenance, and jurisdictionwide improvements to existing drainage systems. The funds also may be used to support revenue bonds issued to construct regional storm water controls. The utility approach is in place in several cities, including Bellingham, Washington; Corvallis, Oregon; and Boulder, Colorado.

Current Practices

During the spring of 1987, I completed an informal survey of several local governments in the piedmont to investigate what approaches were being taken to address storm water management issues. Discussions were held with members of the planning and engineering staffs, other officials, and local developers; and local ordinances concerning drainage, storm water management, water-quality protection, and flood control were reviewed. Three observations resulting from this informal survey shed some light on the confusing situation presented at the outset of this article.

First, although the communities in the region are interconnected by their streams and drainageways, there is currently little or no coordination between the various jurisdictions' approaches to drainage and storm water management issues, and a great deal of variation exists between the approaches they take to these problems. The majority of the local governments surveyed indicated that storm water drainage and control are important issues for them. All of the local government ordinances and policies call, in general terms, for the provision of adequate drainage that also will prevent damage to upstream or downstream properties. Beyond such general provisions, however, there is very little consistency among the communities regarding *specific* recommended practices, and there is no agreement about the best method for calculating the amount of runoff to be handled. Furthermore there is little intergovernmental communication about the issue. One of the local governments is currently working with a consultant to prepare a standard calculation model and a storm water control design manual for developers, but there has been very little outreach inviting the involvement of neighboring jurisdictions in the process.

The variation in local ordinances is illustrated by the following observations. Three of the seven ordinances reviewed include language stipulating that, to the extent feasible, natural drainageways should be used for site drainage. Another jurisdiction effectively discourages extensive storm water piping projects by requiring that pipes be sized to hold runoff from a hundred-year storm. One local government requires developers to reduce postdevelopment peak storm water flows by extending the time during which they are released to urban streams, requires a storm water management plan as part of the development review process, and stipulates the method to be used in calculating the runoff volumes and velocities to be controlled.

The exception to this lack of uniformity among communities is local requirements concerning storm water controls in water-supply watersheds. All of the ordinances surveyed included language similar to that contained in Durham's Zoning Ordinance, which says, "Measures shall be employed to infiltrate, retain, or detain (detention being the least preferred) the first ½ inch of storm water runoff" from impervious surfaces due to a storm occuring within a twenty-four-hour period.[3] This language, and the impervious surface limits that are also part of most water-supply watershed ordinances, is included in these ordinances largely because of the efforts of the Triangle J Council of Governments.

Second, where storm water control structures are recommended and used, local ordinances do not include design standards for the devices, and their suggested methods for calculating runoff volumes and velocities are not standardized across the region. Several of the engineers and planners surveyed cited the lack of design standards for storm water control practices, and local developers interviewed for the project complained that they had been given little guidance as to what standards were expected. Where storm water structures are required—as in water-supply watersheds—local ordinances commonly do not include guidelines as to which structures are most appropriate in various situations, what design parameters are preferred, and what maintenance standards will be required for each. According to local staff members, such provisions generally have not been incorporated because there is no time or manpower available to implement them. Whatever the reason, the result is that planning and engineering staffs must review plans without a legal basis for rejecting specific designs.

Finally, none of the jurisdictions surveyed currently inspects storm water control structures on a regular basis to ensure that they are maintained and continue to provide the benefits for which they were constructed. While it is common for local governments to request that notes be placed on final plans for developments that include storm water control structures, stating that maintenance of the features is the responsibility of the property owner, there are no ongoing inspection programs to make sure that this condition is met. All of the local planners and engineers consulted expressed concern about the long-term effectiveness of

drainage and structural storm water control practices, however.

The fact that local governments are reluctant to accept ownership of storm water control structures and assume public responsibility for maintaining them reflects a traditional approach to public responsibility for private property. Under current local policies, site-specific storm water control structures and drainage facilities developed privately on private property remain the responsibility of the property owner. Because they are on private property and put there for private benefit—often to permit the property owner to develop a site to its maximum potential—public expenditures for maintenance are generally regarded as inappropriate. Local governments also are reluctant to assume responsibility for maintaining the structures because the ordinances offer very little control over their design and because the assumption of such responsibility implies liability for their failure. Finally, taking responsibility for maintaining the structures is generally regarded as an unwise step toward assuming responsibility for all drainage maintenance in a community, a step that most local governments cannot afford in the absence of some new financing arrangement.

Certainly local governments should not accept maintenance responsibility for storm water control structures or even set up funding programs for their inspection until the design requirements for such structures have been standardized in local ordinances. However, the position that public effort and money should not be spent on enforcement of storm water management provisions does not recognize the public role and benefit involved in their existence. Local governments that request structural devices for the purpose of flooding or water-quality control should have some obligation to ensure that they continue to function, either through a program of inspection and notification to owners of the need for their maintenance or through public acceptance of maintenance responsibility.

Alternatives

How should the city council handle the situation presented at the beginning of this article? Obviously a solution to the problem would not be resolved during the public hearing on the project. But there are some directions the council might take to address the issue of the community's policy toward storm water management and to avoid such confrontations in the future.

In the short run, local subdivision ordinances could be amended to stress the importance of considering drainage and storm water control issues when site planning begins rather than as an afterthought. Respect for the land's natural contours and emphasis on using natural drainage and detention and naturally vegetated buffers whenever possible can help reduce the volume and velocity of postdevelopment runoff. This approach ameliorates the issue of long-term reliability associated with structural controls by avoiding the problem of maintenance. Preserving easements or building setbacks along all urban streams reduces the likelihood of drainage-related flooding damage to new structures. The planning and engineering departments could also work together and with other local governments to incorporate a set of standards into a design manual to accompany local ordinances. There are several very good publications that set out such standards and suggest the type of situation in which each is most appropriate.[4]

In the long run, the community could study the need for a basinwide storm water impoundment and park or for a program for inspection and maintenance of site-specific structures, and it could pursue the idea of an impact fee or storm water utility to fund such programs. Local governments could also integrate the use of natural contraints, such as steep slopes and the location of streams and creeks, into their future land-use planning processes and the zoning of land.

Local planners, engineers, and elected officials in urbanizing areas need to be aware of the concepts and issues associated with storm water management and methods for control. The issue became increasingly important to some local jurisdictions with the passage of the federal Water Quality Act of 1987. The act sets up a schedule for the Environmental Protection Agency to develop regulations and a permitting program for storm water discharges into regulated rivers and streams for communities with populations greater than 100,000. This may motivate North Carolina and other states in which storm water management is currently carried out primarily at local initiatve and discretion to join the several other states (Virginia, Maryland, and Pennsylvania are examples) that have state-mandated programs. In any case the issue of storm water management will not be resolved easily and cannot be addressed effectively without a basic understanding of its underlying concepts.

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1. The ten jurisdictions included Durham, Durham County, Orange County, Chapel Hill, Carrboro, Cary, Raleigh, Charlotte, Winston-Salem, and High Point.

2. John Hartigan, "Watershed-wide Approach Significantly Reduces Local Stormwater Management Cost," *Public Works Magazine* 114 (December 1983): 34-37.

3. § 24-4.D.8.F.1.

4. One excellent and very comprehensive report that was published recently is Thomas R. Schueler, *Controlling Urban Runoff: A Practical Manual for Planning and Designing Urban BMPs* (Washington, D.C.: Metropolitan Washington Council of Governments, 1987).

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Questions to Ask in Exploring the Technological and Social Sides of Technological Change

The Technological Side

Technology

Will the technology accomplish the specified tasks?
Is there sufficient technical support for the new technology?
How flexible is the technology? Can it be altered?
How compatible is the technology with other technology?
Is the technology upgradable?

The Social Side

Members

What new skills will members need to learn?
What new attitudes will members need to develop?
How will the new technology affect members' physical and mental health?
How will the new technology affect the quality of work life?
How will the organization ensure that members will use the technology?
How will the organization respond to members who do not want to use the new technology?
How will the technology affect promotions?

Mission and Tasks

How will the technology change the organization's mission?
What new tasks will result from the new technology?

Structure

How will the structure of the organization change?
Will a new organizational unit be needed?
What organizational functions will be merged?
How will the physical structure and layout of the organization change?
What new jobs will be created?
What current jobs will become obsolete?
How will the design (that is, the variety, autonomy, feedback, social interaction, and challenge) of jobs change?
What jobs will be reclassified?
How will the technology affect the relationships among units?

Behavior and Processes

How will the technology affect the flow of and access to information?
How will the technology affect communication?
How will the technology be used to assess performance?
How will the technology be used to control behavior?
How will the technology affect decision making?
How will the technology affect the distribution of power?
What conflicts will the technology solve or create?
How will the technology affect productivity and quality?

Environment

How will the technology affect citizens' contact with the organization?
How will the technology affect the services that citizens receive from the organization?
How will the technology affect relationships with suppliers?
How will the technology affect compliance with various regulations?
How will the technology affect the organization's ability to recruit and maintain members?

Note: Some of these questions are adapted from R. A. Hirscheim, *Office Automation: A Social and Organizational Perspective* (New York: Wiley, 1985).

Managing The Two Sides of Technological Change

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The city employees of Newtown could not identify what was happening, but they recognized that their organization had changed in some subtle but significant ways. These changes did not occur all at once but gradually. Two years earlier, the city had decided to convert from typewriters and manual records to a centralized computer system to increase productivity. The computer would offer word processing, financial and productivity information systems, and electronic mail, among other features. Together the data processing and budget departments had selected the most appropriate equipment to meet the city's needs. Although few of the managers and none of the secretaries were directly involved in the planning process, they had welcomed this change because they thought it would make their jobs easier.

As the system was phased in, each secretary eventually received a computer terminal, as did each manager and technician who needed and requested one. As employees had hoped, their jobs did become easier in some ways. Electronic mail cut down the amount of time employees spent trying unsuccessfully to reach each other by phone and reduced the amount of paper that landed in in-boxes. Word processing permitted secretaries to revise entire letters or long memos without having to retype them. The financial and productivity information systems gave employees more accurate and up-to-date information about critical performance indicators and budget and spending information. The water and sewer department computerized its billing and had its meter readers use hand-held computers for recording water readings, which were fed automatically into the central computer. The hand-held computers had an internal clock that enabled the managers to identify how much time a meter reader spent between each meter.

But the computer system in Newtown also created changes that people had not anticipated. Some secretaries had periods of time without work to do because they worked for managers who had terminals that enabled them to type their own letters. They also had less personal contact with their managers, which they missed. On the other hand, secretaries who worked for managers without terminals were as busy as before and wanted the other secretaries to pick up some of their work during especially busy times. The increased productivity of some managers also created more work for some subordinates, who became bogged down because their productivity was not increased by the use of a computer. The electronic mail created other unexpected changes. People were able to share information faster, but some people felt that others used the electronic mail when talking face-to-face was needed. And managers without terminals were sometimes not as up-to-date on issues discussed through the electronic mail.

The financial and productivity information systems provided managers with a lot of quantitative information and changed the way they made decisions. Although managers still talked with different departments before reaching a decision, now some managers relied heavily on the information system. The hand-held meter reading devices gave excellent data about employees to the

supervisor and also allowed the meter readers to measure their productivity at any time, but some readers resented them because the internal clock made them accountable for each second they were at work. Their job satisfaction dropped, and they looked for ways to trick the computer. Now that the computer accounted for every second of the meter readers' day, it was hard for the supervisor and employees to avoid the difficult question of what was a fair day's work.

The computer system also changed a few of the clerical workers' jobs. Whereas before they performed a variety of tasks, now their only task was entering data into the computer to build and maintain the data base. Spending all day in front of a computer monitor was difficult on their eyes and backs, yet the fifteen-minute morning and afternoon break schedule had not changed. What had once been an interesting, enjoyable job was now tedious, boring, and stressful.

The story of Newtown is fictitious, but it could be real. Each day some organization installs new technology, hoping it will increase productivity or expand its capability. Although the new technology may achieve these goals, it often affects the organization in ways that people did not anticipate and in ways that create new problems and, ironically, may reduce the effectiveness of the technology. The technology itself does not cause these problems. The real cause is the way managers and other members of the organization plan for and implement the technology. Organizations sometimes purchase new technology, expecting to install it and have it operating smoothly in a short time, without expecting to make many changes to support it. Yet, as the Newtown example shows, introducing a new form of technology can be a significant change that affects the entire organization. With careful planning and implementation, organizations can make sure that the technology serves its purpose without creating new problems.

Two Sides of Technological Change

There are two sides to technological change—the technological side and the social side. The technological side of change includes only those changes that are made to accommodate the requirements of the technology. For example, questions that concern the technological side include: Is the technology reliable? Is it compatible with other kinds of technology? Can it accomplish the specified tasks? The social side of change addresses the social side of the organization, which includes the mission and tasks of the organization, its members, how people behave and the processes they use, how the organization is structured, and its environment. Questions that address the social side of change include: How will the technology change the tasks of the organization? How will members be trained to use the new technology? How will the technology affect the way members' performance is appraised? How will the technology affect services that citizens receive? Together these questions attempt to answer the larger question of what makes an effective organization. The box on page 38 lists questions that focus on the technological and social sides of change.

Managing technological change effectively means paying attention to both the technological and social sides of the organization. This is necessary, first, because an organization can be effective only if its social and technological sides fit together. Second, it is rarely possible to change only one thing in an organization. Each time the technology changes, the parts of the social side that are linked to it must change either to achieve or to maintain a good fit among the parts.

For example, in order to increase efficiency (mission and tasks), in the past few years a number of sanitation departments have converted from two-person garbage trucks to one-person trucks that automatically empty specially designed garbage cans into the truck. While at first glance the purchase of new trucks (technology) seems to involve only the technological side of change, actually many other changes in the social aspects of the organization must occur to support use of the new trucks. For instance, whereas the workers used to coordinate their work with others on the truck, now one worker will carry out the work alone (job structure). The new trucks will perform some of the work the garbage handlers used to perform but, on the other hand, will require the driver to stop accurately next to the curbside cans. If a worker enjoyed working with coworkers, he or she will need to develop a positive attitude about working alone (members). Finally, citizens will also be affected by the change (environment), for they will be required to place their garbage cans in a certain position at the curb so that the truck can automatically empty them. Changing the garbage trucks without making the other changes can create more problems than it solves.

Three ways people use technology

Although managing technological change requires attention to both the social and technological issues, all members of the organization are not equally interested in both sides. How they use the technology influences how they divide their interests.

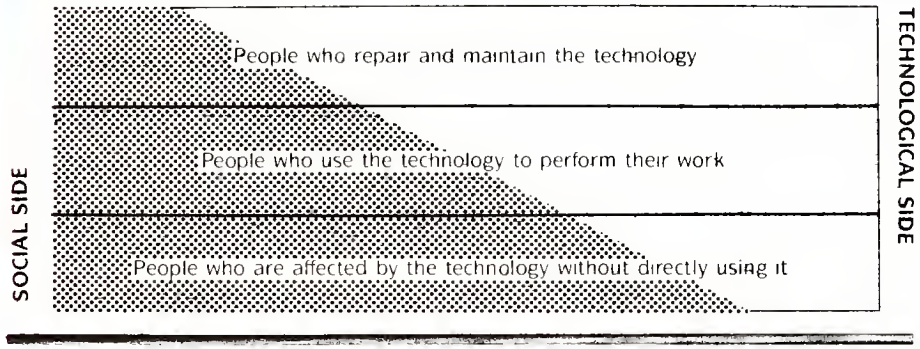
People can use technology in three ways. First, they can be responsible for operating, repairing, and maintaining the technology. Members of the maintenance department and professional data processing people often fall into this category. Second, they can use the technology directly in their jobs. For example, secretaries use word processing, and budget officers use financial programs. Third, they can be affected by the technology without using it directly. For example, residents are affected by the type of garbage truck used. Similarly, many managers review reports that other employees generate using a computer.

Figure 1 shows the relative interest people have in the social and technological sides of change based on the way they use the technology. Those who maintain and repair the technology are mostly concerned with the technological side. Their relatively few social concerns about the technology are directed toward making the technology work. For example, they may want members to be trained properly in using a photocopy machine to reduce unnecessary repairs. Those who use the technology directly are often equally concerned with the social and technological sides. For example, the worker on a garbage truck is equally interested in having a truck that works well as he is in having a job that is safe. Finally, those who are affected by the technology but do not use it to

ERRATUM

In the Spring 1988 issue of *Popular Government*, which you just received, Figure 1 on page 41 contains an error. The labels "Technological Side" and "Social Side" were reversed. The correct figure appears below.

Figure 1
Interests of Different Users in Technological Change



perform their w
cerned with the s

For example, employees who do not have computer terminals may be concerned about not receiving certain information that is distributed through electronic mail. The relatively few technological concerns of this group are directed toward making the social side of the organization work. For example, residents' technological concerns may be limited to whether the city's new computer can generate bills that they can understand.

The social and technological concerns of these three types of users are all important and need to be addressed to plan and implement technological change successfully. Because every organization has members in each of these three groups, it seems that every organization should be able to manage successfully both sides of technological change. Yet there is another factor—the approach to managing change—that determines whether organizations can deal clearly with both sides.

Three Approaches to Managing Technological Change

There are three basic approaches to managing technological change: the technological approach, the technologically driven approach, and the sociotechnological approach.[1] An organization's basic approach to technological change determines whether it can successfully manage both sides of the change.

Each approach is based upon a basic belief about how the social and technological change should be managed. Although each person in the organization may have a belief about managing the two sides of technological change, the belief that matters most is the one held by the manager who is responsible for planning and implementing the change. It is that manager's belief (whether he or she is aware of it) that will determine which of the three approaches to technological change is used.

Technological approach

At the heart of the technological approach is the belief that either the new technology will not affect the social side of the organization or the social side will somehow naturally fit with the new technology. As the name implies, a manager who uses this approach does not see the social side of change. Such a manager would not consider whether the new computer might change the way decisions are made or how work loads are distributed.

A manager who uses the technological approach needs relatively little information to plan technological change. Focusing only on the technological side of the organization, the manager determines the requirements of the technology. In the Newtown example the manager might specify that a computer system that can support a certain number of terminals or can run certain software is required. Obviously the manager also needs to know whether the technology exists to meet the organization's requirements, given its financial constraints. But no information

tion is likely to get well-designed technology. However, there also may be negative consequences that stem from focusing on the technological side. Because the planners give little attention to the social side of the change, there may be a poor fit between the technological and social sides. For example, the Newtown computer, by increasing the productivity of some secretaries but not others, resulted in inequitable work loads and inefficiency. In addition, employees who use the technology but feel that their concerns about the change have been ignored may either stop using it or try to circumvent the technology, as did some of the Newtown meter readers. Conflict may develop between those who plan and implement the technology and those who feel that their concerns have been ignored. Ultimately the technology may not effectively accomplish the task for which it was designed.

The technological approach is deficient because it focuses almost completely on the technological side of change and largely ignores the social side. The technologically driven approach to managing technological change corrects this weakness.

Technologically driven approach

At the heart of the technologically driven approach is the belief that the social side of the organization should support the technological side. Unlike the technological manager, the manager who uses the technologically driven approach sees the need to manage both

the social and technological sides of technological change. However, he or she first plans the technological changes and then determines the social changes needed to support the technology. As the name implies, in the technologically driven approach the requirements of the technological side of the organization drive the change process.

One example of the technologically driven approach is the way Newtown changed some of the clerical jobs to build the computer data base. Increasing the amount of data-entry time in these jobs helped to create a more desirable computer system, but as a result the jobs became tedious, boring, and stressful.

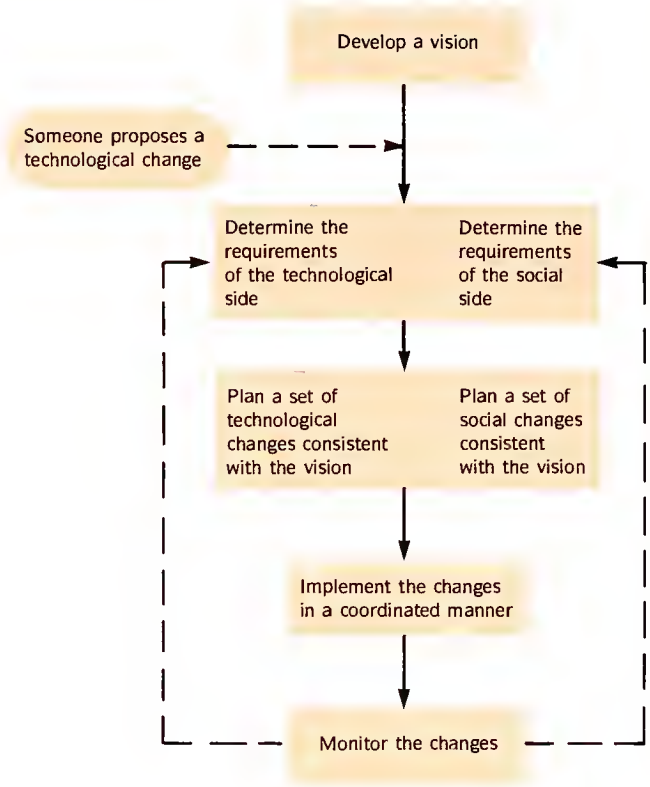
The technologically driven approach requires more information than the technological approach. A manager who uses this approach must know the requirements of the technology, but in addition he or she must know how the social side of the organization currently functions and what new demands the technology will place on the social side. For example, the new computer will require people to operate it. Will those who operate the computer be part of a current organizational unit or will a new unit be established?

In the technologically driven approach any of the three types of users may be involved in planning and implementing the technological change. The planning process has two phases. In the first phase the three types of users consider the technological side of change, just as in the technological approach. In the second phase they consider the social side of the change. Yet because the manager responsible for the planning believes that the social side of the organization should support the technological side, the social changes are all designed to facilitate the technological changes, whether or not the social changes make sense in their own right.

The technologically driven approach leads to consequences similar to those of the technological approach, but the negative consequences may be more severe. Again, because the different types of users emphasize the technological side, the organization is likely to get well-designed technology. Unfortunately the forced fit between the two sides of the organization may lead to a result similar to that in the technological approach: it enhances the technological side while aspects of the social side deteriorate.[2] Because the approach forces the social side to fit the technology, the users whose social concerns have not been met are likely to feel manipulated rather than just ignored. Consequently, the conflict that may develop between those who planned and implemented the technology and others may be greater than in the technological approach. Again, users may either not use the technology as intended or try to circumvent the system so that it will meet more of their needs. Ultimately the technology may not effectively accomplish the task for which it was designed.

The technologically driven approach is deficient because it focuses on the social and technological sides of the organization in a way that favors the technological side. The sociotechnical approach corrects this imbalance.

Figure 2
Putting the Sociotechnological Approach into Action



Sociotechnological approach

At the heart of the sociotechnological approach to technological change lies the belief that the technological and social sides of the organization are equally important and that changes in each should be integrated with the other. For example, the sociotechnological manager believes that the way employees communicate and make decisions and how much autonomy, variety, and feedback they have in their jobs is equally as important as the technology that employees use to complete the tasks of the organization. Underlying this approach is also an assumption that to be effective, an organization must design jobs for its members that are intrinsically motivating. As the name implies, the sociotechnological manager focuses equally on and integrates changes between the social and technological sides of the organization.

The sociotechnological approach requires somewhat different information to plan the change than the others. The manager who uses the sociotechnological approach must know the requirements of the technology *and* the requirements of the social side of the or-

ganization. For example, he or she must know what motivates employees and how organizations can be designed so that they do not generate unnecessary conflicts.[3] Finally, the manager must know the compatibilities and incompatibilities between the requirements of the technological and social sides. In other words, he or she must be able to predict the changes in one side of the organization that will have a negative impact on the other side. To return to our garbage-collection example, the technology of a one-person, automatic-loading truck may fail if residents are unwilling to haul their garbage cans to the curb.

In the sociotechnological approach all of the three types of users are involved in planning and implementing the technological change, and the groups are encouraged to consider the requirements of both sides and to discuss the requirements with each other. Together the three groups identify an integrated set of social and technological changes that enhance each side of the organization. With the sociotechnological approach the three groups would recommend that the new technology be implemented only after they had determined that it would be compatible with the needs of the social side of the organization. For example, the city of Newtown would implement its new computer at the same time it established a different schedule of breaks for those who worked at a terminal continuously.

This approach tends to generate several favorable consequences. Like the other approaches, it leads to well-designed technology. It also leads to a well-designed social side of the organization. In addition the technological and social sides fit together well so that neither side is enhanced at the cost of the other. Users feel ownership in the technology because they have been involved in the planning process and the technology suits them. Consequently, the users try to make the technology work to accomplish the intended task. The joint planning process also increases cooperation among the different types of users because each group has an understanding of the others' needs and their interdependence.

The strengths of the sociotechnological approach stem from bringing together the different types of users to focus jointly on the social and technological sides of the organization in a way that ultimately enhances both sides.

Putting the Sociotechnological Approach into Action

Specific steps that managers and others can take to put the sociotechnological approach into action are discussed below and illustrated in Figure 2. To create effective sociotechnological change, members need to believe in the vision, help plan the social and technological changes, implement them, and monitor them.

Develop a vision

In a previous article[4] I described six elements necessary for planned change. One element is a vision of the future organization. That vision is a shared, comprehensive mental image of the organization as members want it to be. The vision incorporates the organization's goals, the means for achieving those goals, and a set of beliefs about how members should work with each other and the public. Thus the organization's vision should be reflected in each action it takes. Using a simple example, an organization may have the goal of providing high-quality services to residents. As a means to this goal, offering backyard garbage pickup instead of asking residents to carry their garbage cans to the street would be consistent with that vision. The organization may also believe that employees should be involved in decisions that affect their work. Together this goal, means, and belief, along with others, would form the vision of the organization. Realizing the organization's vision means achieving the agreed-upon goals through the agreed-upon means in a way that is consistent with the agreed-upon beliefs.

One type of belief that is central to the vision is the belief about how the organization will manage change. For example, each of the three approaches to managing technological change reflects a different belief about managing change. To use the sociotechnological approach effectively, the belief underlying it must be incorporated into the organization's vision.

A comprehensive vision is a powerful tool that members can use to guide organizational changes. Each proposed change can be evaluated to determine whether it will help the organization realize its vision. The more detailed the vision, the easier it is to determine whether a proposed change will help realize the vision. Thus the vision should be developed before any technological (or other) changes are introduced.

Someone proposes a change

This step represents the event that triggers the use of the sociotechnological approach. As soon as a change is proposed, members should recognize the need to put the sociotechnological approach to work and quickly ask what other changes should be planned simultaneously.

Plan a set of changes consistent with the vision

This step has two parts, which apply to both the social and technological sides. First, members of the three types of users should work together to determine the requirements of the technological and social sides of the organization. They should find many of the requirements reflected in the organization's vision, in the means, and in the beliefs about how members should work together. However, the planning group may need to identify requirements that are specific to this technology. Second, using these requirements, the group designs a set of technological and social changes, making certain that all the changes are consistent with the vision.

There are several ways to determine what changes are needed. First, the planning group can use the questions in the box on page 38 to explore the changes needed in each part of the organization. Members need to ask these questions for each department or unit in the organization because each unit may be affected differently. For example, the change may create new and interesting jobs in one department at the same time it leads to tedious, boring jobs or the abolishment of jobs in another department.

Second, the planning group can map out the flow of work through the organization, first using the current technology and then using the proposed

technology. Differences between the two maps may identify some aspects of the organization that will be affected by the new technology. For example, using this procedure in Newtown would have identified the inequitable work load that developed between secretaries whose managers used their computers and those whose managers did not.

Finally, the planning group can identify potential situations and have the relevant organizational members act them out.[5] This technique helps to identify changes that are not directly associated with the main flow of work. For example, having the meter reader supervisor, using the computer printouts, meet with an employee to discuss his or her performance would identify how the use of the internal clock in the handheld computers reduces readers' autonomy and decreases the job satisfaction of some.

Coordinate implementation

The organization should implement the set of changes in a coordinated manner. Just as making a technological change without instituting social changes can create conflicts, so can implementing a set of sociotechnological changes without coordinating the timing and manner in which they are implemented. After examining the set of changes, the planning group may decide it is more effective to make certain social changes before the technological changes and to make other social changes simultaneously with the technological changes. In the garbage truck example the city must coordinate residents' bringing their new garbage cans to the curb with the introduction of the new trucks and the training required for the employees.

Monitor the changes

After implementing the changes, the planning group should monitor them. The group can reconvene to assess whether the planned set of changes have been realized as intended and whether, in fact, they bring the organization closer to realizing its vision. Monitoring is essential because the planning activities require members to understand fully the dynamics of their organization before a change is implemented, to predict all the possible consequences, and in the abstract, to design solutions that prevent any negative consequences. This is practically impossible given the complexity of organizations. By monitoring how the changes are implemented, members can make adjustments and additional changes, ensuring that each change contributes to realizing the organization's vision. The adjustments continue until the organization has implemented a set of changes that supports the vision without generating negative consequences.

Conclusion

Introducing new technology in an organization creates a choice for managers: they can install the technology without considering the social side of the organization, or they can use new technology as an opportunity to bring the entire organization closer to fulfilling its vision. For managers who choose the latter, the sociotechnological approach can be a useful guide. Together with members throughout the organization, managers can create sociotechnological change that builds a more effective organization.

1. I purposely use the term sociotechnological instead of sociotechnical, which refers to sociotechnical systems design and has broader implications for change than the sociotechnological approach I describe. An excellent description of the sociotechnical-systems-design approach is found in Albert Cherns, "Principles of Sociotechnical Design Revisited," *Human Relations* 40 (1987): 153-162.

2. Although it is possible that forcing the social side of the organization to fit the technological side will not weaken the social side, it is unlikely. It is hard enough to create effective organizations when careful attention is paid to the social side, let alone when the social side is seen as less important.

3. While all managers should know these things, only the sociotechnological manager considers this knowledge essential to managing technological change.

4. R. M. Schwarz, "Managing Planned Change in Organizations," *Popular Government* 53 (Winter 1988): 13-19.

5. R. A. Hirscheim, *Office Automation: A Social and Organizational Perspective* (New York: Wiley, 1985).

Judge Hedrick—*continued from page 8*

chance, will elect the right person. They may not always elect the best judge, but more often than not, they will elect the one who is qualified and going to conduct himself or herself in a proper manner in the tradition of our judicial system.

I want to go back just briefly to being under the microscope all the time. I suppose that's true for judges who work at a local level as well as for judges who have exposure across the state.

Hedrick: More so because of the local papers. For every time that a judge on the Court of Appeals has anything to do with a member of the public, the local district court judge will be involved with individuals literally thousands of times. The local paper always has its reporter there, and in the more metropolitan areas the TV reporters are there. When I said the members of the judiciary are under the microscope, that was not a criticism. It's just a fact. We *are* under the microscope, and I'm not critical of that. We invite it. I don't mind it. They can scrutinize me all they want to.

Another area of potential concern comes up because of the very public nature of your decisions. Appellate judges have to explain the reasons for their decisions in writing, and sometimes your decisions are severely criticized.

Hedrick: Yes. Judges at every level have to learn to be rather thick skinned. I've sometimes had reporters call and ask me to explain why I said this or that. Of course I'm not about to attempt to explain to a newspaper reporter why I said something. I just tell them to go read the opinion, and if it's not there, then they can criticize me for being inexact or not writing well. A judge, I think, gets himself in trouble when he tries to explain his decisions. Once the decision is made, the judge had better go on and think about something else, regardless of what criticism he may have subjected himself to.

I suppose there are some cases in which it's not possible to be 100 percent certain about the right thing to do. Do you ever find yourself thinking or worrying about a case after you've finished with it?

Hedrick: No. I don't worry about decisions once they are made. I try not to

let that bother me. In the appellate division we may be less subject to that sort of thing than the judges in the trial division. Our decisions are more deliberate. We have much more time to study the case and try to arrive at the correct decision. The only time that I would ever worry about having made a decision would be if I had neglected studying and doing all I could to be sure that my decision was correct. Even though it might not *be* correct, I *believe* it is correct, and I'm out to satisfy the law, not any particular individual. So I don't worry about decisions. Once a case is done, it's done, and I'm through with it.

What about the period before you make a decision—do you find it difficult sometimes to let go of a case, to go ahead and make a final decision?

Hedrick: I think all judges have trouble letting go of a case—they worry about it. Some judges at all levels have a very difficult time making decisions. The better judges, I think, are those who make decisions and make them reasonably rapidly. Lawyers and judges are the same in that respect. Lawyers have to make decisions. Lawyers check the records in the clerk's office or the register of deeds' office with respect to a piece of land, and they see something on the record that makes them a little bit suspicious about whether the title to that property is good or not, but they have to make a decision. If they are unable to make a decision, then they should not be a lawyer. They've got to make a decision and say, for example, "Yes, this title is good, and I'm willing to sign my name to a title certificate and let the insurance company or the bank loan a million dollars on my signature." He's made the decision, and he's let it go. Judges are the same way. They make decisions, and sometimes, in the trial court, they make decisions very quickly. In the appellate division we've had judges who seem to take forever to write their opinions. They agonize over them, over every word, every sentence. They agonize over every citation, as to whether a citation really supports what they're saying. You can agonize too much. Sooner or later you've got to do it. I think all judges have trouble letting go of a case while it's in the decision-making process. Some do it more easily than others, but I don't think that simply because a judge works fast he is being less careful or that a judge who works exceedingly slow is being more careful. It just depends on the nature of the individual as to how soon he is ready to let go.

On Characteristics of a Good Appellate Judge:

"There is absolutely no substitute for trial experience for an appellate judge. No one, regardless of how high his LSAT score or how good his or her grades, can step right into being an appellate judge and be a good one unless he gains that experience."

One of the most interesting concepts I've heard you talk about is "jumping the gap." Can you explain what that means?

Hedrick: Well, it's a decision-making process. I call it "jumping the gap." Lawyers talk about cases being "on all fours," that the case under consideration is *exactly* like another case that another group of judges decided at another time, so that all you have to do is cite that case, say "This is the law," apply it to the facts of the case under consideration, and go on with it. It is an extreme situation ever to find a case on all fours. It's not completely unknown, but it's a thing that seldom happens. Either the law is a little bit different or the facts are a little bit different, and it doesn't take much difference to throw something off of being on all fours. You come down to a point when the law in this situation is thus and so, and then you look at your factual situation, and the facts are thus and so, and they don't fit. There's a gap between a line of cases on one side and the factual situations on the other, and that gap remains constant. It stays there. You can keep reading and reading, and you cannot close that gap. The only way that you can decide your case is to jump the gap, and that is your decision. It's a good feeling for me, personally, as a judge to jump the gap because then I am doing something original. It is my baby then, and I feel like I have accomplished something.

That's really what you get paid for.

Hedrick: That's it. That's what it's all about. It is the ability to jump the gap and be correct. That's the whole judicial process wrapped up into one thing. It's not difficult to copy what some other judges said ten years or one hundred years ago—that's easy. It's not difficult to go through a record and write down the facts, read the evidence, and find out what everybody did and under what circumstances they did it. That's easy. That's being only a part of a judge. But when you come down and you make that decision—jump the gap—then that's your baby. It's the same sort of feeling I know that trial judges get when they are charging jurors. They come to a point that they have to decide to tell the jury, "This is the law." There's nothing on the books to tell them that this is absolutely the law; they are jumping the gap. A judge is being a real judge when he does that.

You reach a point where there's just no way to hedge.

Hedrick: That's right. There's no way to hedge, and it's one of the few times that we as individual judges on a panel of three get the opportunity to be a real judge. I remember Chief Judge Mallard, when I first came on the court, had been a very prominent and respected and experienced superior court judge. He didn't seem to be too happy being in the appellate division, although I believe he was, but he used to say: "I used to be a real judge. Now I'm just a third of a judge." We all get that feeling—that sometimes we're just a third of a judge—we've only got one vote out of three. When I'm working on a case—whether it's one that I'm going to write or another judge is going to write—I'm the one who ultimately jumps that gap, and I jump it alone, and that's when I'm a real judge. I'm not just a third of a judge.

I've heard people talk about the degree to which there seems to be philosophical differences on the court. Some judges seem eager to decide issues that may not be raised by either party; other judges seem to write opinions that are confined to the issues presented. Where do you fit on that continuum?

Hedrick: Personally, I decide cases. I decide one case at a time. I do not go looking for trouble. I've got enough to do without trying to spread my individual

philosophy around in the system. I, of course, have my own philosophy, but you would have to read many, many opinions that I've written on many, many subjects to learn precisely what my philosophy might be, whereas another judge might try to tell you his philosophy in one opinion. That is one of the big differences between this court and the Supreme Court. There's a little more room for philosophizing—maybe more room for judicial activism in the Supreme Court than in the Court of Appeals. I think it was recently said about Justice Powell, after his retirement from the United States Supreme Court, that he never wrote long opinions or tried to cover the whole spectrum of a matter in an opinion. He was not a judicial activist; he just wrote the decision in a particular case, and then that case stood for something, and if somebody could come along later and use that case as a precedent to promote some more conservative or liberal legal philosophy, then they were welcome to it. That's the way I am about my decisions. I just write them, and there they are for whatever they stand for, and if they don't stand for anything, that's one thing; if they stand for something, that's something else. I'm not an activist. I have, on rare occasion, seen the need to be a little more expansive in a decision. When I've done that, I've done it not so much to advance some ideas of my own as to some social matter but because I've felt it necessary to expand on what the law is in a particular area for the benefit of the trial judges who were wrestling with problems and needed some help and guidance.

Your time as chief judge will probably be remembered for a number of changes that reduced the delay in decisions being handed down by the court.

Hedrick: I hope that I have been able to do some things that have speeded up the process of disposing of cases on appeal. I think it's very important that people have their cases heard as quickly as possible. When I came into this office, we had a backlog of about two hundred cases that were ready to be heard. Because of the number of cases we were hearing each week and the number of weeks that we were hearing cases, we were not eating into the backlog. So I increased the number of weeks that we heard cases, and I increased the number of cases that each panel heard each week. By the end of 1985 the backlog was gone. Now cases are calendared for oral argument just as soon as the record and briefs are printed.

Something else is taking place that is helping to speed up the process. This is not something that I have brought about, except that my complaints about the problem may have contributed to this innovation. Records and briefs filed in this court are printed under the supervision of the Supreme Court. Until now, when the records and briefs were sent here, they were retyped, proofread, corrected, and then finally turned over to the printer to be printed. That took a tremendous amount of time, and it was very expensive. The Supreme Court has decided to eliminate to a considerable extent the retyping process, and the records and briefs are now being printed as is.

Do you know how much time usually passes between entry of judgment in the trial court and the date an opinion is filed by this court?

Hedrick: The period of time varies considerably, of course, depending on the complexity and length of the individual case. When I became chief judge, it was taking twelve to eighteen months from the time of judgment until our decision was filed. Since then, the time has been cut considerably, down to about nine to twelve months. Some of our fast track cases may even be coming out within seven to nine months.

One of the time periods where there might be some delay is the time it takes the judge to write the opinion. Has the court considered addressing this as a possible source of delay?

Hedrick: Yes, in fact, we have an in-house rule, a ninety-day rule that says that the decision in a particular case must be filed within ninety days from the date the case is calendared for oral argument. That rule is very difficult, if not impossible, to enforce. I would say that 75 percent—three fourths—of our judges are in compliance with that rule at all times. It's hard to make a judge—who is elected just as the chief judge is—comply with the rule. I hope that before I leave the court, I will be able to say that 100 percent of our judges are in compliance with the ninety-day rule. That is something that I doubt I will accomplish. You must understand that since I've been chief judge, I have had to serve with 50 percent new judges. It's a very young court, and the turnover is very, very high and will continue to be so. Not because the judges age out but because they move on to the Supreme Court or resign to go into private practice.

Is this a recent phenomenon, or has there always been a lot of turnover in the court?

Hedrick: There's been a lot of turnover on the court from the time I came on the court. The salaries paid the judges of the appellate division—this court and the Supreme Court—are not high enough to attract experienced judges and lawyers to sell their homes and relocate in Raleigh. I am not complaining. I took a large cut in my income to move to Raleigh in 1969, bringing my family, to serve on the court. One has to have a great desire to do that sort of thing. I had that desire, and I've never regretted it for a minute. But we do have that problem, and we will continue to have that problem. You can look at this court and see that we have come to be almost a commuting court. Almost none of the judges across the state are willing to move to Raleigh to take this job. This is very unfortunate. We've been fortunate that we've been able to attract some very capable men and women to serve, but this is a state court, and I feel that the judges on this court should come from all parts of the state, not just from the Research Triangle.

When we first started this interview you mentioned that you don't like the word challenge *because it's a cliche, but many people are inspired by you because of your success and the fact that you're blind. Has blindness been a significant obstacle to you?*

Hedrick: Well, of course it has been a significant obstacle, but it's never been a challenge. I would be foolish to say that it has not been an obstacle. I accepted it when it happened—not as a challenge but just as something that had to be handled, and I was able to cope with it in a way that was satisfactory to myself, and that was all that really mattered. Early on I determined to do more than sit on the front porch in a rocking chair and rock. I wasn't satisfied with the prospect of not doing something even before I lost my sight. I was interested in the law. I don't know why—my daddy wasn't a lawyer—but for some reason he had a set of the old North

Carolina consolidated statutes. I didn't know what they were, but they were in the attic, and I used to read those things. I remember to this day exactly where they were—in the attic of an old farmhouse, stacked in between the rafters on the ceiling over the dining room. I used to sit on the rafters up in that attic and spend hours up there—not just reading the consolidated statutes (I don't want anybody to get that idea), but that's where we kept black walnuts stored, and some of my brothers had taken a big stone and hammer up there. I would go up and spend hours cracking black walnuts and reading the old consolidated statutes. When I got to the place I couldn't read those general statutes, I can't say that I missed it, but I did miss the walnuts!

I had just started high school, and I came to Raleigh to the Governor Morehead School. Used to be called the State School for the Blind. I had been in high school, but they started me over in the third grade. Actually they started me in a special class where I learned to read braille and do a few little things. Then they put me in the third grade at age fourteen. They moved me up right rapidly, but I did not finish high school until I was twenty-one years old, and then I went on to the university. I was a little bit mixed, but I knew all the time what I had to do was study law—because I've always known myself and I've always admitted my weaknesses. I was tempted to major in music, but I knew all along that I did not have enough talent to be a professional musician. I was on my way to law school from the days of the walnut eating.

You still love music today?

Hedrick: Oh, yes, but I don't perform—I used to when I first got out of law school, singing, as the Irishmen say, at "wakes, weddings, and bar room brawls." I did a lot of singing at weddings especially, and I never charged for it. People would always give you some gift, and I had a shoe box almost full of cuff links and tie clasps. It didn't hurt me as far as getting the people to know who I was when I was establishing a practice and running for public office. The best comment I ever heard about that was made by one of the most popular superior court judges in this state, Judge John McLaughlin, a great legislator and an outstanding judge. His comment was that if Fred Hedrick had not sung at your wedding in Iredell County, you were living in sin!

It was soon after you began work as a prosecutor in Iredell County that you met your wife?

Hedrick: Right. I had become good friends with a man named Lynn Nesbitt, who was working as a deputy clerk in the Statesville clerks' office—he was the clerk assigned to the courtroom. We double-dated sometimes. One day Lynn told me there were two new girls in town, both working at the welfare department. He said that he liked the looks of them and that we should meet them and take them out. I said, "Well, I'm always in line for that sort of thing, but how are we going to meet them?" Lynn said that they came around to the clerk's office sometimes because of their welfare work and that he would probably see them. So one day he called me and said: "Well, I've met mine. How you gonna meet yours?" I said, "Well, what's the other one's name?" and he said her name was Pat Owen. So I told him: "Don't worry. I'll meet her." Just a few days later a case came up on my calendar involving nonsupport of an illegitimate child, a case in which the welfare department had some interest. So I decided, well, here's my chance. I called up Lynn in the clerk's office and asked him to issue a subpoena for Pat Owen. He asked me what case it was, and when I told him, he said, "She ain't got nothing to do with that case." I said: "Look. You're the deputy clerk, and I'm the county prosecutor. I told you to issue a subpoena for Pat Owen, and that'll be the end of that." And he said, "Yes, Sir." When the case came up, I called the names of the witnesses, including Patricia Owen. The director of the welfare department was also a good friend of mine, named Peg Cooper. Peg came over and whispered: "What in the hell do you mean, Fred, calling Pat Owen up here? She doesn't know anything about that case. She's over there, and she's scared out of her wits. Why did you have her subpoenaed?" I said, "Peg, I wanted to meet her." She laughed and said, "Did you have to do it that way?" I said: "Well, it's the only way I knew to do it. I thought it might be an effective way to meet her." I pulled a chair up beside me and said: "You tell her to come over here and sit down in this chair. I'll allay her fears about the case." So Patricia Owen came over and sat down beside me, and I prosecuted the case while talking to Pat. I told her who I was, and I found out a few things about her. And I told her that Lynn had met her roommate and planned to go out with her, and I asked her if she'd like to go out with Doris, Lynn, and me sometime. She agreed. Of course, she wasn't in much of a position to say no! She wanted to get out of there. And sometime thereafter we started dating.

Was she mad at you?

Hedrick: She didn't show that she was. She finds it sort of amusing now, although I think there are some days she regrets the power of subpoena.

I want to be sure to mention that 1987 was the twentieth anniversary of the court.

Hedrick: Yes, and a history of the court has been prepared by Justice David Britt, one of the original judges appointed to the court. It is hoped that this history will be published in one of our reports, sometime in the spring.

What do you see for the court in the future?

Hedrick: As long as the people elect competent judges and the legislature appropriates sufficient funds to allow the court to attract competent people, we will continue to make progress. Obviously, as the population increases and the legislature creates more trial judges, we will hear more appeals, but we are presently equipped to handle the job. By using technology with respect to research of the law and by increasing our understanding of the role of an intermediate court in our system, the court will be able to handle the increased load without adding any new judges. And we'll handle those cases faster and better from the standpoint of correctness of our decisions. I see nothing but good in the future with respect to this court. I don't see anything in the future to slow us down.

Use of Public Funds in Bond Referendum Campaigns

David M. Lawrence
Institute of Government

When a city or county is about to hold a bond referendum, the following question often arises: for what purposes, if any, may the unit use public funds in the referendum campaign? No North Carolina statute addresses this question, and it has not been before the North Carolina courts. But it has been before the courts of several other states, and the answer from those courts has been uniform: public money may be used to *inform* the voters about the bond issue and the project to be financed with bond proceeds but may not be used to *promote* passage of the referendum.

The distinction between information and promotion recognizes a tension that develops when a government uses public funds to address a controversial issue. The accountability we demand of public officials requires that they be able to explain fully the policies they have taken and hope to take, both the what and the why. This explaining is necessary to our democratic system and is a legitimate activity, and expense, of the government. Therefore, informational expenditures are proper. Indeed the government will normally be in the best position to know and provide information about a bond issue and a bond-financed project. But the government also must depend, for its continued legitimacy and public support, on the acceptance of its policies by the citizens, or at least by a majority of those who vote for officials and in referenda. And to allow the use of public moneys to create that basic acceptance undermines its authenticity. For that reason, promotional expenditures are improper.

What kinds of information can be provided with public funds? A unit may properly spend public funds to present to the voters the relevant facts about a proposed bond issue, the project that will be financed with bond proceeds, and the community needs that have given rise to the project. It may also describe alternatives to the project or the bond issue that were rejected and state why they were rejected. For example, the unit might finance a brochure that sets forth the project's costs, shows an architect's rendering of the project, explains why the governing board believes the project to be necessary, and details what the borrowed funds will cost the unit. Such a brochure should be fully informative, setting out not only the conditions that the board believes require the project but also the additional taxes or utility charges that reasonably will be necessary to retire the bonds.

What clearly is not permitted are expenditures that attempt to persuade voters to support (or oppose) the ballot proposition. The sort of informational brochure discussed above should not, in addition to basic information, also exhort the voters to "Vote Yes" or include brilliantly painted depictions of the consequences of a negative outcome.

The line between appropriate and inappropriate advertising can often be thin. Where a particular item falls can depend as much on the tenor of its message as on the message itself. For example, in a New Jersey case the court disapproved of a school board's "overdramatized" depiction of what would happen if the school bond issue failed. The school board's brochure—most of which was quite acceptable to the court—warned of "Double Sessions!!!" that would "automatically cheat your child" of a third of his or her education; it also warned of hour-long bus rides and of children arriving home after dark. It was not so much the accuracy of the picture as its shrill nature that concerned the court. If the same information had been presented in matter-of-fact language as part of the board's explanation of why it thought the bond issue necessary, it would probably have been approved. It is up to a unit itself to recognize the thinness of the line between permissible and impermissible activities and to ensure that it stays on the proper side of the line.

The cases do not simply prohibit promotional brochures or the printing of bumper stickers that urge voters to vote yes. It is equally improper for a unit to allow one side or the other in a campaign to make free use of the unit's office space, to use the unit's printing or copying facilities on a preferential basis, or to use public employees, on public time, to work on the campaign. This ban does not prohibit elected officials from speaking out on an issue and working for one side or the other, however; that is part of their leadership responsibilities. This exception probably also extends to those appointed officials, such as city or county managers, who work directly for elected officials and who are charged with carrying out the policies of those officials.

What might a court do if a unit is about to or has made improper promotional expenditures? Clearly the court has the power to prohibit the expenditures before they are made. But it is also possible that the court might require those officials responsible for authorizing the expenditures to personally reimburse the government for expenditures already made. The initial cases from other states that established the principles discussed in this article imposed strict liability for reimbursement on the

responsible officials. More recent cases, however, have limited personal liability to instances in which the official did not exercise due care, a more relaxed standard that recognizes the potential thinness of the line between proper and improper expenditure. But if an expenditure falls clearly on the wrong side of the line, far from any gray area, then personal responsibility for reimbursement is a remedy that probably will appeal very strongly to any court addressing the matter.

Supreme Court Confirms State Ownership of Wetlands That Are Subject to Tidal Influence

Milton Heath
Institute of Government

On February 23 the United States Supreme Court affirmed a Mississippi Supreme Court decision that settled a dispute between the state of Mississippi and oil company claimants over ownership of lands lying under a bayou and nearby streams [Phillips Petroleum Company and Cinque Bambini Partnership v. State of Mississippi and Saga Petroleum, No. 86-870 (U.S. 1988)]. The lands were influenced by gulf tides but were not "navigable-in-fact." In a quiet title suit the Court sustained Mississippi's position that it owned these lands under the public trust doctrine, rejecting the oil companys' claims, which were based on recorded deeds whose chain of title predated Mississippi's statehood. The petitioners had filed suit to contest oil and gas leases issued by the state to Saga Petroleum that were inconsistent with the ownership claims of the petitioners. A state agency had issued the leases after the Mississippi Marine Resources Council mapped and identified the lands in question as state-owned lands under the Mississippi Coastal Wetlands Protection Act of 1973.

At the heart of the Court's decision was the conclusion that the public trust claims cover wetlands subject to the ebb and flow of the tides as well as wetlands under navigable waters. The Court made it clear that Mississippi's claims apply not only to tidelands bordering the oceans, sounds, and estuaries but also to all other lands subject to tidal influence.

A number of coastal states, including North Carolina, joined with Mississippi in the argument of the case. North Carolina's case law concerning ownership of tidelands is probably consistent with Mississippi's, although this is not completely clear [Resort Development Co. v. Parmele, 235 N.C. 689, 71 S.E.2d 474 (1952); see also "Defining Navigable Waters and the Application of the Public Trust Doctrine in North Carolina," *North Carolina Law Review* 49 (August 1971): 888, 906-7]. If the Mississippi decision had been reversed, this would have undercut the legal basis of several North Carolina programs, including elements of the submerged lands program and the areas of environmental concern designated as public trust waters under the Coastal Area Management Act. The decision obviously confirms the claims of North Carolina and other states that they are entitled to make management decisions, for example, that protect nursing grounds for saltwater fisheries in the name of the public trust.

Attorney General's Opinion Sets Guidelines for Local Environmental Impact Statements

Milton Heath
Institute of Government

On February 24 Attorney General Lacy Thornburg made public an opinion to Secretary of Administration James Lofton concerning the powers of cities and counties to require private developers of major development projects to prepare environmental impact statements (EISs). The opinion, written by Special Deputy Attorney General Don McLawhorn, addresses a provision of the 1986 State Guidelines for the North Carolina Environmental Policy Act that directs state permitting agencies to consider local environmental impact documents developed under the authority of G.S. 113A-8 [N.C. ADMIN. CODE tit. 15, r. 25.0802 (February 1988)]. Key points in the attorney general's opinion include:

1) The state guidelines properly require state permitting agencies to consider local EISs developed under G.S. 113A-8 in essentially the same way they would consider a

state EIS. The state decision-making agency should evaluate the adequacy of a local EIS.

2) Local EIS requirements should be implemented by a city or county ordinance that sets the framework for the local EIS process, not on a case-by-case basis.

3) The local ordinance may require that an EIS for a major development project be prepared by (a) any private developer or (b) any special purpose unit of government, such as a special district or public authority. G.S. 113A-9 limits "major development projects" to those that are at least two acres large, but a city or county can properly further narrow the class of projects covered by its ordinance.

4) A state EIS prepared under G.S. 113A-4 is limited to projects involving an expenditure of public monies, but local EIS requirements are not subject to this limitation.

Other questions addressed in the opinion include timing issues and statutory exceptions.

In the years immediately following the enactment of the North Carolina Environmental Policy Act (1971), a few local EIS ordinances were adopted [see Charles Roe, "The North Carolina Environmental Policy Act," *Popular Government* 41 (Fall 1975): 44-48]. The 1986 state guidelines have stimulated renewed interest in local ordinances, especially in several counties where quarry projects that require Mining Act permits have been proposed. The Institute has been working with some of these counties to develop a standard EIS ordinance that meshes with the new state guidelines. Orange County and the town of Carrboro are considering one form of this ordinance that establishes two tracks for local EISs: one track would feed into specified state permit decisions (such as Mining Act permits), and the other would feed into specified local land-use permit decisions. The attorney general's opinion strengthens the legal support for such ordinances. Copies of the draft ordinances are available on request from the Institute.

Highlights of North Carolina's New Laws Governing Incompetency and Guardianship

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North Carolina laws relating to incompetency and guardianship were rewritten and recodified as Chapter 35A of the General Statutes, effective October 1, 1987. This group of laws sets out the standards and procedures by which adults (and minors within six months of reaching age 18) may be declared incompetent or, once declared incompetent, judicially restored to competency. Chapter 35A also establishes criteria and procedures for the appointment of guardians, specifies guardians' powers and duties, and governs the management of wards' estates.

Background. In 1984 the Division of Social Services in the Department of Human Resources and the Administrative Office of the Courts established a committee to examine North Carolina's laws relating to incompetency and guardianship. The committee identified a variety of needs, including the following:

1) To simplify laws and procedures for determining incompetency;

2) To clarify laws and procedures for appointing guardians for adults and minors;

3) To provide for improved services and better protection for incompetent persons and their families; and

4) To provide better guidance to persons who are appointed to serve as guardians.

The committee's final recommendations were reflected in House Bill 954, An Act to Rewrite the Laws Relating to Incompetence and Guardianship, which was introduced by Representative Joe Hackney of Orange County. It was ratified with some changes as Chapter 550 of the 1987 Session Laws.

Basically the act reconciles and rewrites many of the incompetency and guardianship provisions of former Chapters 33 and 35 of the General Statutes and recodifies all incompetency and guardianship provisions as Chapter 35A. The primary focus of the revision was to simplify and clarify a group of laws that had become unnecessarily complex and confusing. Much of the substance of former law is unchanged.

Problems with former law. Under former law, incompetency and guardianship were addressed by both Chapter 33 and Chapter 35 of the General Statutes. Within Chapter 35 there were two sets of laws and procedures for determining incompetence. Either could be used when incompetence was due to mental illness; Article 1A provided the exclusive procedure if incompetence was due to autism, cerebral palsy, epilepsy, or mental retardation; and only Article 2 could be used when incompetence was due to senility, inebriety, or anything else that was not specifically covered by Article 1A. In proceedings under Article 1A, but not Article 2, an interim (emergency) guardian could be appointed; the clerk of superior court could order a multidisciplinary evaluation of the alleged incompetent person; an agency could be designated to compile the evaluation and review the ward's status; and a guardian of the person could be required to file status reports regarding

the ward. A jury trial was required in a proceeding under Article 2, but proceedings under Article 1A were conducted before the clerk of superior court, without a jury, unless the respondent or clerk demanded a jury trial.

Both Chapter 33 and Chapter 35 addressed the appointment, powers, and duties of guardians. In some cases the determination of which provisions applied depended on which procedure had been used to determine incompetence. Chapter 33 also addressed the appointment of guardians for minors. Its provisions worked fairly well when a guardian of the estate was needed to manage a minor's property but resulted in uncertainty and inconsistency in cases involving guardians of the person for minors. The maze of distinctions and overlapping provisions in Chapters 33 and 35 often made it difficult to understand and apply the law of incompetency and guardianship.

Chapter 35A. The new law includes in one chapter, and separates into three subchapters, provisions relating to incompetency and restoration to competency, the appointment and responsibilities of guardians, and the management of wards' estates. It simplifies and makes uniform provisions relating to determinations of incompetence, the appointment of guardians, and guardians' powers and duties. It clearly distinguishes among guardians of the person, guardians of the estate, and general guardians (those serving as guardian of both the person and the estate). It also clarifies the law relating to the clerk's authority to appoint a guardian of the person or general guardian for a minor. The major provisions of the first two subchapters of Chapter 35A are summarized below. The third subchapter, which is not discussed here, sets out standards and procedures much like those under former law for the sale, mortgage, exchange, or rental of a ward's property.

Subchapter I—Procedures to Determine Incompetence

Definitions. The act defines *incompetent adult* as "an adult or emancipated minor who lacks sufficient capacity to manage his own affairs or to make or communicate important decisions concerning his person, family, or property whether such lack of capacity is due to mental illness, mental retardation, epilepsy, cerebral palsy, autism, inebriety, senility, disease, injury, or similar cause or condition." *Incompetent child* is defined similarly but includes only a minor who is at least seventeen and a half years old and whose incompetence is caused by something other than his or her minority.

Venue. The proper venue (location) for a proceeding to determine incompetence is the county in which the respondent (person alleged to be incompetent) resides, is domiciled, or is an inpatient in a treatment facility. The clerk of superior court may order a change of venue but first must find that the change will not result in hardship or prejudice to the respondent.

Petition. Any person, including a state or local human resources agency through its authorized representative, may file with the clerk a petition for an adjudication of incompetence. The act sets out the required contents of the petition. Copies of the petition and a notice of hearing must be served personally on the respondent and mailed to the respondent's next of kin and anyone else the clerk designates.

Representation of respondent. The clerk must appoint an attorney as guardian ad litem to represent the respondent unless the respondent has retained counsel. If the respondent is adjudicated incompetent and is not indigent, he or she must pay the court-appointed attorney's fees. If the respondent is not adjudicated incompetent and the clerk finds that there were not reasonable grounds to bring the proceeding, the petitioner must pay the fees. In all other cases the fees are paid by the Administrative Office of the Courts. Witness fees are handled in the same way.

Jury trial. The respondent has a right, on request, to a jury trial. The clerk may require trial by jury in any case. If neither the respondent nor the clerk demands a jury trial, the hearing is held before the clerk.

Multidisciplinary evaluations. On the clerk's own motion or a party's motion, the clerk may order that a multidisciplinary evaluation of the respondent be prepared for use at the incompetency hearing, a hearing on the appointment of a guardian, or both. The evaluation is to contain "current medical, psychological, and social work evaluations" and "may contain current evaluations by professionals in other disciplines, including without limitation education, vocational rehabilitation, occupational therapy, vocational therapy, psychiatry, speech-and-hearing, and communications-disorders." The evaluation also must include a statement of the nature and extent of the respondent's disability and recommend a guardianship plan. The clerk can order the respondent to attend a multidisciplinary evaluation.

The method of assessing the cost of a multidisciplinary evaluation depends on whether the respondent is found to be incompetent and whether he or she is indigent. If the respondent is adjudicated incompetent and is not indigent, the cost is assessed against that person. If the respondent is adjudicated incompetent and is indigent, the cost is borne by the Department of Human Resources. If the respondent is not adjudicated incompetent, the court has discretion to tax the cost against either party, apportion the cost among the parties, or assign the cost to the Department of Human Resources.

Hearing on petition. If the clerk or jury finds by clear, cogent, and convincing evidence that the respondent is incompetent as defined in the statute, the respondent is adjudicated incompetent. (The act also includes standards by which an adjudication of incompetence in this state may be based on a prior adjudication of incompetence in another state.) The clerk's order may include findings on the nature and extent of the incompetence. After the adjudication, the clerk is to appoint a guardian or transfer the case to another appropriate county for appointment of a guardian. If the adjudication does not take place in the county of the respondent's residence, a certified copy of the adjudication order must be sent to the clerk in that county.

Interim guardian. Sometimes an alleged incompetent person needs the services of a guardian before a full proceeding to declare incompetence and to appoint a guardian can be conducted. Under special procedures a clerk may appoint an interim guardian for a respondent whose condition requires immediate intervention. The clerk must find that (1) there is reasonable cause to believe that the respondent is incompetent, (2) the respondent's condition constitutes or reasonably appears to constitute an im-

mediate danger to his or her physical well-being, and (3) there is immediate need for a guardian to provide consent or take other steps to protect the respondent. An order appointing an interim guardian is limited in scope to the specific emergency and must be followed by the completion of regular proceedings to determine incompetence.

Restoration to competency. The guardian, the ward, or any other interested person may petition for restoration of the ward to competency. The ward has a right to counsel and, on request, to trial by a six-member jury. The clerk may order a jury trial (six-member) in any case. The evidentiary standard for restoring a ward to competency is a preponderance of the evidence, a more lenient standard than the one used for establishing incompetency.

Subchapter II—Guardian and Ward

Venue and transfer. Venue for the appointment of a guardian for an incompetent person is the county in which that person was adjudicated incompetent, unless the clerk in that county has transferred the matter to a different county. Venue for the appointment of a guardian for a minor is the county in which the minor resides or is domiciled. For a nonresident who needs an ancillary guardian in this state, venue is in any county in which there is real estate in which the nonresident ward has an interest or, if there is no such property, any county in which the ward owns or has an interest in personal property. For good cause, the clerk may transfer a case to a different county.

Guardian for incompetent person. Anyone may file an application to the clerk for appointment of a guardian for a person who has been declared incompetent. The petition may be filed with or subsequent to a petition for adjudication of incompetence. The clerk must conduct a hearing to determine the nature and extent of the needed guardianship; the ward's assets, liabilities, and needs; and who, in the clerk's discretion, can most suitably serve as guardian(s). The clerk may order a multidisciplinary evaluation if one is not available. At any time the clerk may designate a state or local human resources agency to compile an evaluation or perform other functions, such as evaluating the suitability of a prospective guardian. The clerk is to appoint as guardian an adult individual, a corporation authorized by its charter to serve as guardian, or a disinterested public agent (explained below), in that order of preference. An individual, to be general guardian or guardian of the estate, must be a North Carolina resident. A nonresident, to be guardian of the person of a North Carolina resident, must agree to be subject to the authority of North Carolina courts and must designate a North Carolina resident, approved by the clerk, as his or her agent for purposes of receiving any court documents that must be served on the guardian. The clerk may require a nonresident guardian to post a bond.

Disinterested public agent. The category of disinterested public agent includes:

(a) the director or assistant directors of a local human resources agency, or (b) an adult officer, agent, or employee of a state human resources agency. The fact that a disinterested public agent is employed by a State or local human resources agency that provides financial assistance, services, or treatment to a ward does not disqualify that person from being appointed as guardian.

A disinterested public agent appointed by the clerk to serve as guardian is required to do so. But whenever that person (1) believes that his or her role, or the agency's role, in relation to the ward is such that service as guardian would constitute a conflict of interest, or (2) knows of any other reason that his or her service as guardian may not be in the ward's best interest, that person must bring the matter to the clerk's attention and seek the appointment of a different guardian.

Clerk's order. An order appointing a guardian for an incompetent person must include the nature of the guardianship; the powers and duties of the guardian; and the identity of the designated agency if there is one. The clerk may order that a ward retain certain legal rights and privileges, but an order that includes such a provision must also include findings as to the nature and extent of the ward's incompetence as it relates to his or her need for a guardian.

Guardian for a minor. Clerks have jurisdiction to appoint guardians of the estate for minors, to appoint guardians of the person or general guardians for minors who have no natural guardian (stated in a legislative finding to be the minor's parents), and over related proceedings. By limiting the clerk's jurisdiction to appoint a guardian of the person for a minor to cases in which the minor has no natural guardian, the act implicitly requires that some matters formerly heard by clerks instead be taken into district court. Under G.S. Chapter 50, the district court decides custody matters. Under the North Carolina Juvenile Code, G.S. Chapter 7A, Subchapter XI, the district court hears cases of children who are abused, neglected, or dependent and has authority to appoint a guardian of the person for a child (under age eighteen) who is found to be in any of those categories.

Any person, corporation, or state or local human resources agency may file with the clerk an application for appointment of a guardian for a minor. It must be served on any parent, guardian, or legal custodian who is not the applicant and on any other person the clerk directs. The clerk is to receive evidence necessary to determine whether the minor needs a guardian and, if so, the minor's assets, liabilities, and needs and who the guardian(s) should be. The hearing may be informal, and the clerk may consider whatever evidence he or she finds necessary to determine the minor's best interest.

The clerk can appoint as guardian of the person or as general guardian for a minor only an adult resident of North Carolina; a guardian of the estate must be an adult resident of North Carolina or a corporation authorized by its charter to serve as guardian.

Testamentary recommendation. The new law includes provisions substantially like the former law authorizing a parent, by will, to recommend a guardian for a minor child. In the absence of a surviving parent, the recommendation is to be a strong guide for the clerk in appointing a guardian, but it is not binding if the clerk finds that a different appointment is in the minor's best interest. Because a clerk in North Carolina can appoint only a North Carolina resident as guardian for a minor, the appointment of a relative or other person in another state as guardian must occur in

the state of that person's residence. The clerk or a district court judge in this state may need to enter a temporary order designating someone here to facilitate the child's move and have responsibility pending the establishment of a guardianship in the other state.

Social services director as guardian of minor. When a minor has no natural guardian or has been abandoned and requires services from the county social services department, the county social services director is the guardian of the person of the minor until a general guardian or guardian of the person is appointed or until a court order awarding custody of the minor is entered.

Guardian's bond and financial accounting. Provisions relating to guardians' bonds and the duty of a guardian of the estate or general guardian to file returns and accountings are substantially the same as under former law.

Status reports. Any corporation or disinterested public agent that is guardian of the person for an incompetent person must file periodic reports on the status of the ward, and the clerk may require any guardian to file such reports.

Powers and duties of guardian of the person. Unless a court order provides otherwise, a guardian of the person (or general guardian) has the powers and duties that are specified in the act. These include having custody of the ward; making provision for the ward's care, comfort, and maintenance; as appropriate, arranging for the ward's training, education, employment, rehabilitation, or habilitation; taking reasonable care of the ward's personal possessions; establishing the ward's place of abode; and consenting to the ward's receipt of medical, legal, psychological, or other professional care, treatment, or services.

Powers and duties of guardian of the estate. Unless otherwise ordered by the court, a guardian of the estate (or general guardian) has the power "to perform in a reasonable and prudent manner every act that a reasonable and prudent person would perform incident to the collection, preservation, management, and use of the ward's estate to accomplish the desired result of administering the ward's estate legally and in the ward's best interest, including but not limited to" twenty specified powers (seventeen in the case of a minor ward).

Applicability

The act became effective October 1, 1987. Subchapter I applies only to proceedings to determine incompetence or restore competence begun on or after that date. Subchapter II applies only to proceedings for the appointment of a guardian begun on or after the effective date, except that provisions relating to guardians' powers and duties, accounting, and termination of guardianships apply to all cases. Subchapter III, which deals with management of the ward's estate and has not been discussed here, applies to all cases, regardless of the law under which a guardian was appointed.

Property Tax Questions and Answers

Q. The following situation is becoming increasingly common in North Carolina. A county is mapped in accordance with the specifications prepared by the North Carolina Land Records Management Program, and the county assessor is satisfied with the accuracy of the maps. As part of the mapping program, extensive research was done to determine the identity of the current owner of each parcel of property in the county. At the conclusion of the mapping program, the assessor determines that no owner can be identified for a number of parcels and, pursuant to G.S. 105-302(c)(12), lists those parcels for taxation in the name of "unknown owner." Six months after parcel X was listed in the name of "unknown owner," a quitclaim deed is recorded in the register of deeds' office, naming Marsha Marshmallow as grantor and Grant Grahamcracker as grantee. The description of parcel X in the deed is by reference to the property maps, not by metes and bounds, and as far as the assessor can determine, Marshmallow does not appear in the record chain of title. No surveyed map of the parcel exists. Grahamcracker does not occupy the property. After the deed is recorded, Grahamcracker demands that the assessor list the property in his name as the record owner. Should the assessor do so?

A. No. Under G.S. 105-302 real property is to be listed in the name of the record owner. If the owner of a particular parcel is unknown or the ownership is in dispute, G.S. 105-302(c)(12) directs the assessor to list it in the name of "unknown owner." If someone occupies the property ("occupy" in this statute appears to be used in a general sense, which would include farming or cutting timber on the property as well as living on it), then the assessor is directed to list it in the name of the occupant. The assessor must use discretion in making a listing under this provision; this is especially true in the case of quitclaim deeds. Any person can prepare and record a quitclaim deed to any parcel of property in the county; such a recording—of itself—does not make the grantee the owner of record for tax listing purposes. If the assessor's research shows that the grantor in a quitclaim deed is not in the chain of title and the grantee does not occupy the property, then—for tax listing purposes—the owner of the parcel is still unknown. Ownership of the property is also arguably in dispute because the state of North Carolina is a potential claimant under the escheat statutes, G.S. 116B-2. Either way, G.S. 105-302(c)(12) governs the situation, and the assessor should continue to list the property in the name of "unknown owner."—*William A. Campbell, Institute of Government*

Q. In 1984, after the board of equalization and review had adjourned, the county assessor reviewed the appraisal of a certain woodland tract at the owner's request. He determined that the tract had been appraised in excess of the correct value to the extent of $35,000 but declined to refer the matter to the board of county commissioners pursuant to G.S. 105-325(a)(6) because the owner had not given a satisfactory reason for failing to make a timely request for review by the board of equalization and review. Instead, the assessor informed the owner, in writing, that the value would be adjusted for 1985 and subsequent tax years. In 1988 the owner filed a request under G.S. 105-381 for release of 1984 taxes levied on the $35,000 excess value. Is he entitled to relief?

A. Yes. The assessor is on record as having determined that the 1984 appraisal was in error. Because he had no authority to correct the error on his own, it was his duty to refer the matter to the board of county commissioners. His failure to do so makes the tax levied on the excess valuation an illegal tax subject to release or refund, as appropriate. G.S. 105-325(a)(6) empowers the board of county commissioners to reappraise property for the current tax year after the board of equalization and review has adjourned "when the assessor reports to the board that, since adjournment of the board of equalization and review, facts have come to his attention that render it advisable to raise or lower the appraisal of some particular property of a given taxpayer in the then current calendar year." The statute does not require the taxpayer to show good cause for failing to make a timely request for review by the board of equalization and review. Although the statutory language is not as clear as it might be, the implication is that the assessor has a duty to call to the attention of the board of county commissioners errors in appraisals for taxes levied in the current calendar year. Whether the error is brought to the assessor's attention by the taxpayer or in some other manner is immaterial. This is not to say that the assessor must refer *all* late valuation appeals to the county commissioners. The duty to refer arises only when the assessor determines that the current year's appraisal is erroneous.

Q. Is it possible for a tract of agricultural land to have a higher value under the present-use value standard of G.S. 105-277.2(5) than under the fair market value standard of G.S. 105-283?

A. Yes. The present-use value standard directs the assessor to determine the "value" of eligible land "in its current use" using the income approach to value assuming a 9 percent capitalization rate and an average level of management. In theory this should be a reliable method of estimating the value of land whose highest and best use is agriculture as long as the 9 per-

cent capitalization rate accurately reflects market conditions. But what if the market in agricultural land is operating on some other expected rate of return? When the actual rate of return on invested capital expected by investors in agricultural land exceeds 9 percent, the statutory present-use value standard will result in valuations that are higher than market. Conversely, when the actual expected rate of return is less than 9 percent, the land will be undervalued.

Q. Is the Department of Revenue's recommended present-use value manual mandatory?

A. No. The county assessor remains responsible under G.S. 105-296(a) for appraising property for taxes, and the county commissioners remain responsible under G.S. 105-317(c) for approving the schedules, standards, and rules under which those appraisals are made. The county's present-use value schedule may rely heavily on the present-use value manual prepared and distributed by the Department of Revenue pursuant to G.S. 105-289(a)(5), but ultimate responsibility for the present-use value appraisals made pursuant to the schedules remains with county officials.

Q. Does the present-use valuation standard require the county assessor, in appraising agricultural land, to look only to the projected income from growing corn and soybeans on soil of the type found on the parcel being appraised?

A. No. G.S. 105-289(a)(5) directs the Department of Revenue to prepare and distribute to county assessors a manual for appraising property under the present-use value standard based on soil productivity. For agricultural land the law further requires the manual to be based on actual yields and prices for corn and soybeans over the five previous years, adjusted for fixed and variable costs over the same period, including an imputed management cost. The manual also must contain recommended adjustments for the growing of crops subject to acreage or poundage allotments. The department's recommended manual is not binding on the counties, and it does not supersede the more general provisions of the Machinery Act concerning tax appraisals. Schedules of values adopted pursuant to G.S. 105-317 are general guides to conducting a mass appraisal of real property for tax purposes. They are not intended to be used indiscriminately without adjustments appropriate to the particular parcel being appraised. In a market value appraisal of undeveloped land, the value indicated by the schedules may need adjustment for any one or more of a number of factors, such as location, zoning, soil quality, mineral deposits, fertility, or topography. Similarly a present-use value appraisal may need to make adjustments for such factors as topography, fertility, and access. The department's recommended manual does contain adjustments for slope, but it does not always account for land subject to periodic flooding or high water table. To use the slope adjustments to the fullest, the county assessor must have access to maps showing parcel boundaries in relationship to soil contour and field and woodland boundaries as well as data processing equipment needed to interpret this information. Not all counties have that capability. For those that do, the Department of Revenue believes that few adjustments will be needed for present-use value appraisals made with proper application of the schedules, standards, and procedures it recommends. For those that do not, topographical adjustments will be needed for many parcels. In all counties, however, the present-use value manual should be used as a general guide. It does not relieve the appraiser of the obligation to appraise the particular parcel at hand and to use sound professional judgment in doing so.

Q. A farm is owned by three individuals as tenants in common, each owning a one-third undivided interest. The land itself meets all of the requirements for present-use value appraisal. One of the owners qualifies, but the other two do not. May the owner who qualifies receive present-use value appraisal for his one-third interest in the parcel?

A. Legislation is needed to address the problem raised by this question. Ordinarily the Machinery Act treats a parcel of land *in rem*—as the thing itself. When a parcel is appraised, the value of the entire fee is appraised, not the value of individual undivided interests in the fee. The tax lien attaches to the entire fee; one of several tenants in common cannot obtain a release of the lien against his interest by paying only his share of the taxes. Undivided interests owned by tenants in common must be listed on a single abstract unless the owners request permission to list separately and the assessor agrees. If present-use value status is approached from the *in rem* standpoint, the following consequences would be logically implied: (1) all of the owners of a parcel would have to qualify for present-use value status in order for the land itself to qualify; (2) all of the owners would have to join in the application for present-use value status; and (3) if one of the owners ceases to be eligible, the entire parcel would lose eligibility until all of the owners are again eligible. The alternative is to approach present-use value status from the *in personam* standpoint, focusing on the owner rather than on the land itself. In that case each owner's undivided interest would be treated as a separate parcel for purposes of present-use value status. This approach may seem to avoid the more extreme results of the *in rem* approach, but it is not without its difficulties. Take, for example, a fifteen-acre parcel of land with twelve acres in cultivation and three acres of woodland owned by two sisters as tenants in common who inherited the land from their father. Under the *in rem* approach, this parcel would qualify for present-use value. Under the *in personam* approach, it would not qualify, because neither owner could claim as much as ten acres of land in cultivation.—*Joseph S. Ferrell, Institute of Government*

Off the Press

Pretrial Release Policy from North Carolina's Perspective

Stevens H. Clarke

North Carolina's jail population is increasing steadily at a faster rate than jail capacity, and prisoners awaiting disposition of criminal charges account for the greatest proportion of that increase. Because expanding capacity is a costly solution to the problem of overcrowding, North Carolina counties are considering ways to reduce the number of jail prisoners, especially those in pretrial detention. One means of limiting admissions and length of stay of pretrial prisoners is to increase opportunity for pretrial release.

Pretrial Release Policy from North Carolina's Perspective reviews pretrial release policy and research. It outlines North Carolina's statutes governing pretrial release and detention and discusses important concepts and issues. The review then presents research on opportunity for and risks involved in pretrial release, including the effectiveness of various measures intended to increase opportunity and control risk. Finally, it suggests ways of improving pretrial release in North Carolina. For a summary of this publication, see the article on page 9

The Institute of Government, 45 pages, $6.00.

The Precinct Manual 1988

Michael Crowell

The Precinct Manual 1988, a revised edition of the 1986 manual, is the basic sourcebook for precinct officials. It explains North Carolina law on registering voters, conducting elections, counting ballots, and other election matters.

The Institute of Government, 63 pages, $3.00.

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