VIDEO AID

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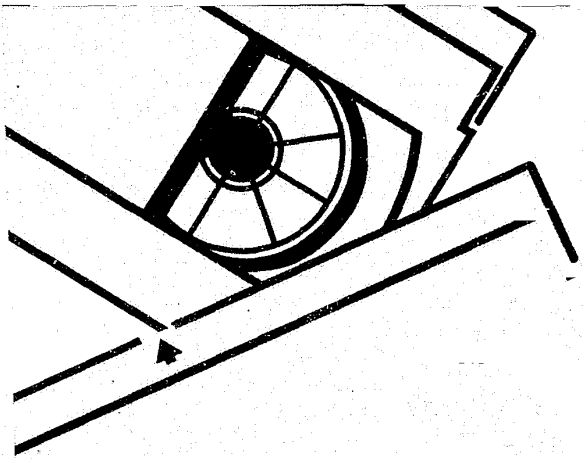

VIDEOTAPED TRIAL RECORDS

Evaluation and Guide

by *William E. Hewitt*

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National Center for State Courts

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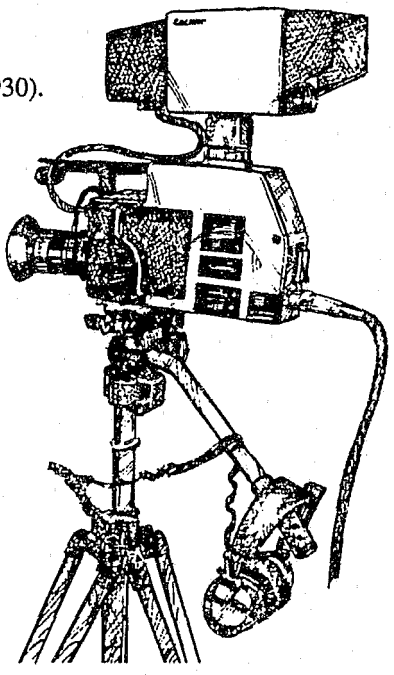
It may well be that the courts will some day adopt a recent mechanical innovation and that we shall have "talking movies" of trials which will make possible an almost complete reproduction of the trial so that the judge can consider it at his leisure.

— JUDGE JEROME FRANK
Law and the Modern Mind (1930).



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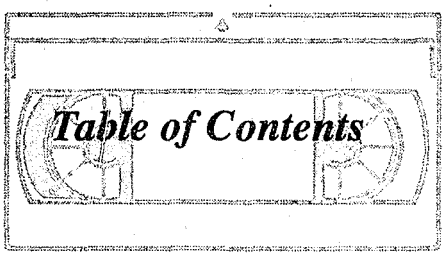

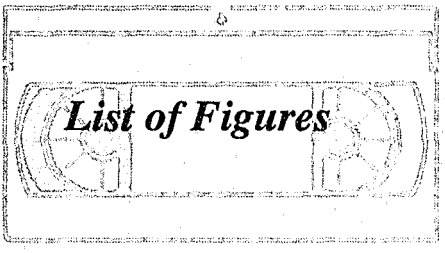

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Acknowledgments

The principals in Kentucky who successfully introduced videotaped trials from implementation to institutionalization overcame early technological deficiencies and professional skepticism. Given the conservative nature of the court community, the Kentucky experience is a major accomplishment. State court administrator Don Cetrulo, who enjoyed the constant support of Chief Justice Robert F. Stephens, changed videotaped trial records from a curiosity to a viable alternative that other jurisdictions can consider adopting.

So many people from courts and local bar associations contributed time to this research that acknowledging each person's contributions would require a chapter in the report. Those contributions made the study possible. Special thanks for their time and concentration are due to the members of the project advisory committee and Randall Shepard, chief justice of the Indiana Supreme Court, who refereed the committee meetings, and to the volunteer appellate and trial court judges and lawyers who watched and evaluated six-hour videotapes of trial court proceedings. Similar special thanks go to Sally Dunne, trial court administrator in Raleigh, North Carolina, and Bobbi Olson, court services specialist with the office of the administrator of the courts in Washington, who always made time to help with special requests. Thanks also to Jan Michels, Mike Unruh, Devona Jones, Judith Cunningham, Diane Smigelski, Mark Oldenburg, Robert Carlberg, Carol Kinelski, Laura Stammel, and Tim Vize, court officials who made essential contributions to data collection; Diane Sponsellar of the Legal Record, a court transcription service, also helped us with data collection. Judges James Chenault, John Skimas, Ken Corey, and Richard Lamb deserve a special thanks, along with the 23 other trial and appellate judges who spent time with us.

John Scott, clerk of the supreme court and court of appeals in Kentucky, tackled the court's databases and extracted the data that measured the effect video recording has been having on criminal appeals in Kentucky.

Robert A. Lowe contributed substantially to the research and prepared drafts

for parts of chapters one and four. The genesis of the project lies with David C. Steelman and Geoff Gallas, who thereafter offered their ideas, guidance, and encouragement in its delivery.

Deborah Gause met unreasonable expectations throughout the project as administrative secretary and center for the project team. With too much to do and too many people to do it for, she did it nevertheless. Colleagues Roger Hanson and David Rottman, from data to drafts, offered counsel and made contributions to improving the style and organization of the report; Craig Boersema, Pam Casey, and Gene Flango were at hand, and cordial, when software and statistics were troublesome. Adrian Nelson researched the preservation of videotape records and conceived an effective approach to analyzing hundreds of written comments by attorneys; Elizabeth Hargrave served the project as a volunteer who summarized the survey data and brought it to life with Harvard Graphics.

Finally, our appreciation is extended to the State Justice Institute and its executive director, David Tevelin, who monitored the project. Their perspicacity made the study possible.

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Preface

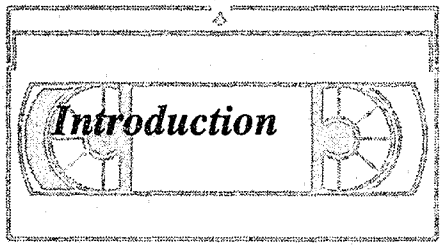
This report is about video recording as an alternative means to make the record of trial court proceedings. The subject is a sensitive one. It touches on the employment of shorthand reporters, traditional members of the American courthouse work group. It is also a complex subject: the work that court reporters do is essential to American appellate practice; shorthand reporters make up a significant proportion of the personnel who offer direct support to judges in a typical courthouse; the services performed by court reporters often go well beyond making the record of proceedings, and the nature of those services varies from courthouse to courthouse, courtroom to courtroom. Within this context of sensitivity and complexity, the preface answers three questions raised about the report while it was still in draft form.

First, the study was not intended to rate the advantages of alternative methods of court reporting. Audio recording, for example, is not addressed in this study. Traditional court reporting, however, sets the standard against which other methods of reporting must be measured. The comparisons found in the report between traditional court reporting and video recording, therefore, are (in the author's view) a methodological necessity, not an explicit or implied attempt to rate or recommend alternative approaches.

Second, despite the fact that the study was not commissioned to examine computer-aided transcription (CAT), the subject intruded throughout the research in a way that made it difficult to ignore. CAT was frequently brought up by lawyers and judges as the competing technology to video recording. Moreover, comparing video recording to court reporters, as one must, opens the door to comparing video recording to court reporters equipped with CAT and trained to use it at its highest potential. It proved difficult to altogether avoid glancing through that open door, with the result that computer-aided transcription is discussed in more than one place in the report, especially in the con-

text of policy flexibility and integration with other technology (one of the study's ten evaluation criteria).

Finally, video recording is a viable method of court reporting that compares favorably with traditional court reporting on eight of ten evaluation criteria used in the study. However, this report does not take a position about whether courts should convert to video recording. The reason for not making a recommendation is the belief by the National Center for State Courts and the author that complex and subtle interplays among people, technology, procedure, and goals are at work in court reporting and that those methods which may work well in one court will not necessarily work well in another. Hence, this is a guide to assist each court in deciding which court-reporting methods suit its circumstances and needs.



The practice in American courts of making a verbatim record of the proceedings affords an interesting illustration of how a procedural technique, which when superficially viewed seems to pertain merely to mechanical routine, can exert a vital and even dominating influence on the formulation of philosophy of adjudication as well as on day-by-day judicial administration.

—DAVID W. LOUISELL and MAYNARD E. PIRSIG, 1953

This report introduces judicial leaders and court personnel to a new way to make the "verbatim record" of trial court proceedings. In 1953 the legal scholars David W. Louisell and Maynard E. Pirsig argued that the verbatim record of proceedings influences the techniques and procedures followed in the courtroom, the behavior of lawyer and judge, and the interrelationships between them.[1] In spite of a profound respect for the significance of the record and for the profession of court reporting, Louisell and Pirsig acknowledged limits to what could be preserved through the written word.

> Of course it is true that the judge's manner or demeanor in speaking—those subtle nuances that can be conveyed by tone of voice or attitude of expression and which may be important to jurors—are in the nature of things not concomitantly recorded with the spoken word. This is one reason for the suggestion that trials be recorded as "*talking movies.*"

Absent a "talking movie," Louisell and Pirsig state that

> ... it is not unknown for counsel, faced with a trial judge guilty of prejudicial conduct by attitude, demeanor or tone of voice, to have the reporter note in the record the physical manifestations of such judicial conduct.[2]

The idea of using "talking movies" for making the record of trial proceedings was originally suggested by Judge Jerome Frank in *Law and the Modern Mind* in 1930.[3] That idea was never taken seriously, but Louisell and Pirsig con-

cluded their 1953 paper with a discussion of "proposals for mechanical recording" (i.e., audio recording). While they correctly predicted that "mechanical instrumentalities" would not displace court reporters in American practice but rather "be utilized by him in his ultimate and independent responsibility of obtaining and preserving the record," they also noted that what prompted consideration of audio recording were concerns based in part on "the desirability of effecting economies, and partly on the desirability of more accurately and fully reproducing the trial and exposing nuances not recorded with the written word."[4] Those concerns continue today.

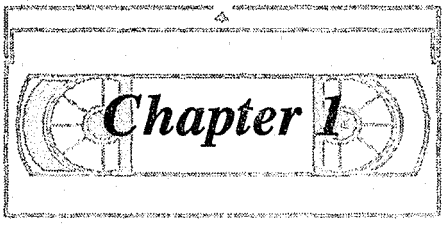
Since the advent of video recording in the courts in Kentucky in the mid-1980s, "talking movies" now join audio recording as an innovation that court leaders will be asked to consider. To aid them in their deliberations, the National Center for State Courts undertook a project to "assess the current experience with the use of videotape as a technique for making the record of state trial court proceedings." The objective of the project was to give state court chief justices, trial court presiding judges, and their corresponding administrative and support personnel the necessary background information needed to make an informed judgement about whether and how to proceed with the use of videotape as an official court record. This report is written to achieve that goal.

The report has five chapters. Chapter 1 introduces the history of videotaped trial records and describes the equipment found in all courts that use video recording to make the official record. Chapter 2 describes the central evaluation methods, highlights some of the findings, and identifies some limitations of the study. Chapter 3 describes the six study sites located in four states. Descriptions of the trial court context, the state's administrative structure, the agency behind implementation of video recording, the appellate context, and the system of court reporting are included in Chapter 3. Chapter 4 is the heart of the report. The ten evaluation criteria used to organize the study and the findings about each are separately examined. Chapter 5 presents the factors that judges and their administrative personnel should consider when deciding whether video recording is desirable in their jurisdiction. The chapter also makes and discusses a series of recommendations for implementation.

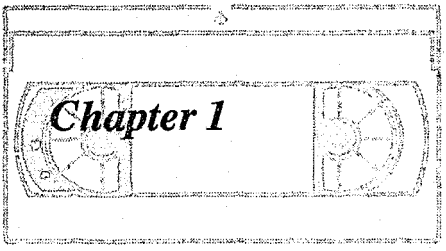
An appendix contains some of the data relied on most heavily for the study findings, a list of volunteer judges and lawyers who reviewed sample videotapes, sample rules and orders from several states that were written to enable video recording, and lists of individuals who were interviewed in all the sites. One of the valuable sources of information collected in the study were comments from an attorney survey questionnaire. These 370 comments have been organized and preserved as a separate document.

Notes

1. Louisell and Pirsig, 1953, p. 29 (emphasis added).
2. Ibid. p. 34.
3. Frank, 1930, p. 110 note†.
4. Louisell and Pirsig, 1953, p. 45.



History of Video Recording and the Nature of the Equipment Used in the Study Sites



History of Video Recording and the Nature of the Equipment Used in the Study Sites

History of Video Recording

Video recording was first used to make a record of court proceedings in the state of Illinois in 1968, where it was a supplement to stenographic reporting.[1] Video recording was used in 1971 in Ohio to present all the testimony and the judge's instructions to juries in civil cases, but not as the means of making the official record of proceedings. From 1973 through 1975, the Franklin County Court of Common Pleas in Columbus, Ohio, and the Hamilton County Criminal Court in Chatanooga, Tennessee, experimented with video recording of trial proceedings to make the "verbatim record." These initial efforts were seriously hampered by very obtrusive, expensive equipment that required operators for all cameras, additional lighting, and other adjustments in the courtroom. Mixed results led these experiments to be discontinued. Among the reasons for discontinuing video recording in Columbus and Chatanooga were objections from appellate judges and lawyers about the difficulty of working with videotape when reviewing a case.[2] Those objections continue to be a major issue in the debate about videotape today.

In 1982, Judge James S. Chenault instituted video recording to make the court record in the Madison County (Richmond, Kentucky) Circuit Court. The system installed by Judge Chenault requires a camera operator who works in a small antechamber adjacent to the courtroom to control the cameras. The videotape record is not transcribed; instead, the tape itself serves as the official record. The system has been operating continuously since 1982, and the judges and attorneys there regard it favorably.[3] However, Madison County's approach was not replicated elsewhere, particularly because it requires an operator to control the cameras.

Operatorless video recording to make the record of proceedings in trial courts was introduced in the courtroom of circuit court judge Laurence Higgins in Louisville, Kentucky, in December 1984. The system installed there was developed by the Louisville firm of Jefferson Audio Video Systems, Inc. (JAVS). Following a generally favorable experience with video

recording in Judge Higgins' courtroom in Louisville, judicial leaders became convinced that video recording would work and made a commitment to improve the technology and expand its use. During the next three years, 12 additional courts in Kentucky began using the JAVS system.

Contributing to Kentucky's decision to pursue video recording was a cutback budget imposed by the legislature because of revenue shortages. There was also a perception that the skills of the official court reporters were unsatisfactory. Very few official reporters used computer-aided transcription (CAT) systems, and a higher than normal percentage used manual shorthand.[4]

Early Problems in Kentucky

In the early years, problems were experienced with the video recording system, especially among appellate attorneys and judges. The original equipment did not use hi-fidelity sound technology, and appellate attorneys and judges complained about poor audibility, particularly of recorded bench conferences. In addition, the videotape provided to lawyers for preparing an appeal is a copy of the original recording, and may have a lower quality of sound and image than the original.

There also were occasional problems with equipment operation during trials. Recording equipment originally incorporated manufacturer's automatic rewind features (a tape that ran out would rewind automatically, and testimony previously recorded would be recorded over). JAVS equipment also used passive warnings (lights) to indicate when the equipment was not recording. Both the automatic rewind and the passive-warning features of the equipment on occasion caused trial records to be incomplete. (On one well-publicized occasion, so much of the record was lost that a mistrial was declared.)

Finally, the policy in Kentucky is that the tape itself is the official record on appeal, and written transcripts are not routinely available to attorneys as they brief a case for appeal. This policy is controversial, because lawyers and judges find the tape to be more difficult and time-consuming to work with than a written transcript.[5]

Expansion and Improvement in Kentucky

Limitations on purchase and installation funds caused the conversion from traditional reporting methods to video recording to occur gradually. During this expansion of the system, improvements in technology and procedure were incorporated along the way; Kentucky has passed through two generations of equipment and procedure and is entering a third, and the problems with the early system appear to have been largely eliminated. Hi-fidelity recording equipment is now standard, and cameras and microphones have been improved. The automatic rewind has been discontinued, and an audible tone now warns of recording failure or of a tape that is running out. Following a practice introduced in other states, Kentucky is adding two additional recording devices in the courtrooms to make original recordings for attorneys that are available at the close of the ses-

sion of court, thus reducing, if not eliminating, the need for attorneys to work with tapes that may be of diminished quality and making it more convenient to obtain them.

The judicial leaders in Kentucky do not plan to alter their policies about using videotape as the form of record for attorneys and appellate courts, at least for the foreseeable future. They intend instead to address complaints through improved playback equipment and better training for attorneys and appellate court personnel.

Institutionalization of Video Recording in Kentucky

In addition to the chief justice and the director of the state administrative office of the courts, Don Cetrulo, some appellate and trial court judges actively campaigned in support of video recording, both within the state and in other states. While one appellate court judge campaigned actively against the system, other judges on the circuit court and the court of appeals adopted a wait-and-see attitude and kept their own counsel as the system was developed.[6] As funds allowed, systems were installed where circuit court judges requested them. As the number of court reporter positions declined, law clerks for judges were added with funds made available through the reduction in court reporter salary costs.

In 1988, the state's court system won an award in national competition from the National Committee on Innovations of the Kennedy School of Government at Harvard University for its program of video recording. The award carried with it a grant for $100,000 to upgrade early installations of equipment and expand its use. In his speech to the committee in support of the program, Chief Justice Robert F. Stephens cited "cost, delay, and the quality of justice" as the three major complaints from the public about the court system, and he suggested that the video recording system has a positive effect on all three.

> What are the three major complaints from the public today about the court system? Cost, delay and quality of justice.
>
> We in the Kentucky Courts, with the help of Jefferson Audio Video Systems, have developed a court reporting system that, significantly and positively, impacts all three—it is cost effective for both the courts and the litigants, time efficient, and, above all, it substantially—visibly—improves the quality of the trial transcript, and with it the quality of justice.[7]
>
> —Chief Justice ROBERT F. STEPHENS

Following expansion after receiving the grant and additional state appropriations, video recording is found in 32 of the commonwealth's 91 circuit courtrooms. In the 30th circuit in Jefferson County (Louisville), all 16 courtrooms use video recording. In Madison County, where video recording has been used for eight years, there are judges and attorneys who have rarely worked in courts where there are court reporters, and they consider that practice as anachronistic.

Expansion to Other States

In July 1987 Judge John Skimas, of Vancouver, Washington, became the first judge to use the JAVS system outside of

Kentucky. Installations of the equipment in courtrooms in Raleigh, North Carolina, and Kalamazoo and Pontiac, Michigan, soon followed. By October 1989, the JAVS system existed in 60 courtrooms in the United States. These 60 sites are located in 11 states, and other states such as Minnesota and Maryland are preparing to implement video systems. **Figure 1.1** shows a list of the locations known to use the Jefferson Audio Video Systems Automatic Court Recording System. The sites are shown by state and city (with total number of systems in parentheses) and by court name. Except for the U.S. district court in Arizona and the probate court in Pontiac, they are all state courts of general jurisdiction. Some of the states listed are also planning to install JAVS systems in additional courtrooms.

Equipment and How it Works

The audio video recording system found in the courts uses voice activated cameras controlled by a patented computerized mixer developed by Jefferson Audio Video Systems, Inc. (JAVS). JAVS installs and warrants the complete system for one year and provides an ongoing maintenance service for all of the equipment after the first year, for approximately 5 percent of the purchase price. The equipment configurations are basically the same in all of the courts, with minor variations from site to site.

Recording System

Two to four videotape recording machines (VTRs) record the proceedings. An additional machine plays back videotaped depositions or other evidence, and anything played back on that machine is automatically recorded onto the machines that make the official record. The system includes video cameras, microphones, speakers, monitors, videotape recorders, miscellaneous cabling, optional equipment, and a computer that controls a sound mixer and camera operation. The typical layout for microphones includes separate coverage of the judge's bench, the counsel tables, the witness box, and the jury box. Cameras focus in particular on the bench, witness box, and counsel tables. The entire litigation area, however, is usually covered by the camera placement. Normally, the placement is arranged to specifically exclude the jury box.

The system is completely automatic, and no operator is required except to load the tape in the video recorders and to start the machines in the record mode. The cameras and video playback unit are switched by the "brain" of the system, which is the patented audio mixer. When the computer and monitors are left on during the day, the cameras and microphones work, and the system acts like a closed-circuit television system. What shows on the monitors is only recorded when the videotape recorders are engaged in the record mode. The cameras focus on one part of the courtroom at a time and the microphones are also switched as a person talks. The volume level for each speaker is adjusted automatically in the mixer. The audio mixer continually reads the ambient sound level in the room and gives priority to the dominant sound. There

Figure 1.1

Locations of JAVS Video Recording Systems

November 1989

State	City	(Number)	Jurisdiction
Arizona	Tucson	(2)	U.S. District*
Arkansas	Pine Bluff	(1)	Circuit Court
California	Riverside	(1)	Superior Court
Florida	Miami	(1)	Circuit Court*
Hawaii	Hilo	(1)	Circuit Court
Kentucky	Bowling Green	(2)	Circuit Court
	Catlettsburg	(1)	Circuit Court
	Covington	(1)	Circuit Court
	Elizabethtown	(2)	Circuit Court
	Frankfort	(1)	Circuit Court
	Glasgow	(1)	Circuit Court
	Hodgenville	(1)	Circuit Court
	Hopkinsville	(1)	Circuit Court
	Lexington	(4)	Circuit Court
	Louisville	(16)	Circuit Court
	Nicholasville	(1)	Circuit Court
	Richmond	(1)	Circuit Court
Michigan	Coldwater	(1)	Circuit Court
	Detroit	(1)	Circuit Court
	Howell	(1)	Circuit Court
	Kalamazoo	(1)	Circuit Court
	Pontiac	(2)	Circuit Court Probate Court
	St. Joseph	(1)	Circuit Court
North Carolina	Raleigh	(1)	Superior Court
Oregon	Portland	(1)	Circuit Court
	Salem	(1)	Circuit Court
Virginia	Salem	(2)	Circuit Court
Washington	Seattle	(3)	Superior Court
	Stevenson	(1)	Superior Court
	Spokane	(2)	Superior Court
	Vancouver	(1)	Superior Court

* Systems are not used to make the official record of court proceedings.

is one microphone recording at all times onto one channel of the audiotape, while the sound-mixed recording is directed to the other. Since there are a minimum of two recorders operating at the same time, each recording two channels, there is ample back up in the event some component of the system fails. The judge has a mute switch that may be used during bench conferences, and there is a control that engages just one camera and overrides the voice activation system. (This feature has sometimes been used improperly, resulting in the production of a record that does not capture the image of each speaker in the room.)

The systems generate date and time onto the videotape, which provides reference points for subsequent review. As with audiotapes (electronic sound recording) it is necessary that a log of proceedings be made with references to the date/time image on the screen at each pertinent point of the recorded proceeding. These are made by the judge in some courts or by the court clerks in others. (Tape counters provided on VTRs do not work to provide reference points, since readings vary from machine to machine.)

Playback Equipment

While the tapes may be played back on any standard VTR, special equipment is available (and highly recommended) for use when attorneys and judges work with tapes for appeals or other matters. The special equipment uses monitors instead of standard television screens for viewing. When tapes are played back on a standard television, commercial channels resume playing when the viewer stops the tape. This is annoying, particularly since the court record will often be played back at a volume setting that is higher than normal for television viewing.

The playback equipment also has special search features and a "speed viewing/listening" feature. The search equipment allows the tape to be run forward or in reverse at higher than normal speeds in programmable increments. A viewer uses the tape log to ascertain the portion of the record that is wanted and calculates how many hours or minutes of recorded time has elapsed between where the tape is and the section of tape that is sought. The amount of recorded time to run through (forward or back) is then entered into the program, and the tape runs quickly to the desired location. Programming is performed on a hard-wired console in 15-minute increments, or to the minute on a hand-held remote device. The monitor screen displays the search time as it is set and executed.

A speed viewing system (called a 2X device by the vendor) is also available. It plays the tape at twice the normal speed; in this mode, the picture can be seen and speakers understood while the reviewer is skimming the record. **Figure 1.2** summarizes the basic features of the system.

Other Features

Other major features of the JAVS system include:

- *Chamber Option:* gives the ability to monitor the courtroom from the judge's chamber as well as to originate proceedings from the chamber.
- *Dub System:* used to make copies of videotapes when they are needed.
- *Transcription Unit Option:* special VTR units can be set up with foot-pedal controls for transcribing purposes.
- *Holding Cell Option:* incorporates features for televising and two-way communication from remote sites for arraignments or other similar purposes.

Other Vendors

A characteristic feature of the JAVS system is a camera image that shifts from one place to another as the dominant sound shifts. Noises that occur during a period of relative quiet attract the camera and make it jump to the noise source and then return to the main speaker. This is a feature that some users of the JAVS system find annoying. Equipment being tested by other vendors will apparently not use the patented sound mixer that controls the voice activation feature. Instead, camera zones divide the room,

Figure 1.2

Basic Equipment Configuration

Recording System

- A voice activated hi-fidelity sound system
- 5 to 10 cameras
- 5 to 10 microphones
- 2 to 4 recording units
- 1 playback unit for depositions
- Time counter on screen for reference
- Monitor in courtroom and other locations
- Microphones and cameras in chambers
- 6-hour tapes
- Log required for reference
- Cost: $60,000-70,000

Playback System

- Any typical home video system will work
- High fidelity preferred—very important
- Monitor—not TV—preferred
- Programmable fast search feature is available and preferred
- 2X playback feature is available
- Cost $2,400-$3,800

and all zones are recorded and shown simultaneously on split screens. These new approaches are in the development stage only. The San Bernardino County, California, limited jurisdiction court uses one, and another is installed on a temporary basis in the federal district magistrates court in San Francisco.

The U.S. administrative office of the courts has accepted bids from three other vendors to install equipment experimentally in federal district courts in Philadelphia, New Orleans, and San Antonio. (JAVS has installed equipment in the federal court in Pittsburgh, the fourth court that is participating in the federal court experiment.) None of these systems are yet being used to make the official record. The U.S. administrative office of the courts will be evaluating its experimental systems during 1990.

A list of all vendor names, addresses and contact persons is included in Appendix D.

Notes

1. Coleman, 1977(b)

2. Kosky, 1975 p. 232; Coleman, 1977(a) p. 13. These concerns are also listed under "Practical and Procedural Issues" by Ernest Short and Associates in a report to the Judicial Council of California in 1976. See Ernest Short & Associates, 1976 p. 21.

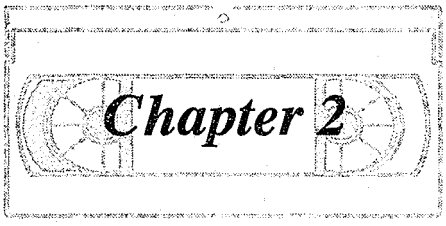
3 A visit was made by the NCSC to Richmond, Kentucky, in the summer of 1989. The two circuit court judges, the prosecuting attorney, two public defenders, and four private attorneys were interviewed. One judge and one attorney had little professional experience with other forms of reporting. The prosecuting attorney has worked with both traditional court reporting and video recording; and he disparages traditional methods. Attorneys in Richmond, as elsewhere, found that working with the tape for purposes of appeal was a drawback. In all other respects, they praised the system highly.

4. See Chapter 5, note 2.

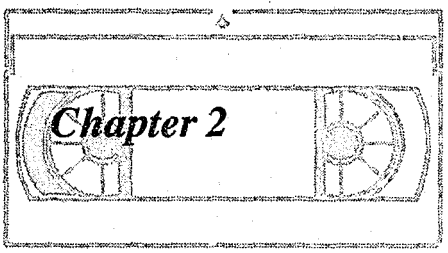
5. Virtually without exception, lawyers and judges interviewed for the study held this opinion.

6. Interviews were conducted with 9 of the 14 judges of the Kentucky Court of Appeals in the summer of 1989. The views of two judges who were not interviewed are well known (Judge McDonald and Judge Lester). One is a strong supporter and one is a vocal opponent. The opinion of judges on the intermediate court of appeals about video recording is mixed. Most of the judges acknowledge the savings in cost and time to produce the record, but they would prefer to use a transcript for routine review.

7. Chief Justice Robert F. Stephens, speech to the National Committee on Innovations, Kentucky School of Government, Harvard University (Date Unknown).



Methods and Evidence



Methods and Evidence

Ten evaluation criteria organize the evaluation study. Chapter 4 discusses in detail each of the criteria. These criteria reflect what previous research and writings on the subject have established as important for evaluating alternative approaches to making the record of trial court proceedings.[1]

Ten Evaluation Criteria

- Faithfulness (Accuracy of the Record)
- Ease of Review
- Expense
- Record Availability
- System Reliability
- Obtrusiveness
- Preservation of the Record
- Policy Flexibility and Integration of Other Technology
- Effect on the Court System and Legal Environment
- Resistance to Video Recording

Data collection for the study relied primarily on a survey of 1,708 lawyers, followed by interviews with nearly 100 appellate and trial judges, lawyers, and court administrative personnel in the states of Kentucky, Michigan, Washington, and North Carolina. To obtain additional information about the most important of the 10 criteria—the faithfulness of the record—volunteer lawyers and judges viewed videotapes obtained from the study sites and evaluated them using a structured questionnaire. Court budget and case records also were examined whenever possible to provide better empirical evidence about one or more of the criteria.

Attorney Survey

Since traditional court reporting has established the standard for an acceptable approach to making the record of proceedings, it was essential to the evaluation that video recording be compared with traditional court reporting on the central evaluation criteria. The method chosen to accomplish this was a survey of attorneys' experience with and attitudes about video recording and traditional court reporting. Underlying this approach were two assumptions: first, the evaluation criteria (particularly record faithfulness) are difficult to measure objectively, but

do lend themselves to quantitative measurement of reported experience and opinion through a survey.[2] Second, if attorneys report that in their experience court reporters perform better than video recording on the central evaluation criteria (i.e., faithfulness of the record, system reliability, record availability), then video recording is not a viable approach.

The attorney survey was administered to 1,708 attorneys in five cities where video recording is being used—Louisville, Vancouver, Raleigh, Pontiac, and Kalamazoo. The survey included questions on the type and length of experience of the attorneys, the frequency of their court appearances, and the number of times they had appeared in a video courtroom. Specific information was sought about the amount of experience the lawyers had with the appellate process (in general and with videotape) and with computer-aided transcription. The set of evaluative questions addressed system reliability; availability of records; how lawyers have used videotape; faithfulness of the record; advantages and disadvantages of video recording; and overall attitude about video recording both before and after experience with it. Some of the questions asked lawyers to compare their experience and opinions about video recording with their experience with court reporters. A copy of the questionnaire is found in Appendix A.

In general, the attorney mailing lists were designed to maximize the likelihood that attorneys would have had experience with the video system, and appellate experience in particular.[3] The questionnaires were mailed with a cover letter signed by the chief justice of the supreme court, the presiding judge of the local court, and the president of the local bar.[4] All attorneys were guaranteed confidentiality. After approximately three weeks, follow-up mailings were sent to attorneys who had not responded. **Table 2.1** shows the number of mailings and the response rates for each site.

Response Rate and Characteristics of Respondents

The overall survey response rate was 61 percent, and the response rate from Louisville, where attorneys have the most experience with video recording (it is installed in all 16 of the circuit courts), was 67 percent. **Figure 2.1** illustrates the distribution of responses for each site. One third of the responses are from Louisville attorneys.

Nearly all of the attorneys surveyed appeared in court during the past year, and over 80 percent of them appeared in court many times during the year, as **Table 2.2** shows.

Not so many had appeared in video courtrooms, however: in four of the five cities where attorneys were surveyed, video recording had been used for two years or less, and in only one of several courtrooms in the courthouse. In Pontiac, for example, there are 15 courtrooms, but only one video court; in Vancouver video recording is used in one of six courtrooms, in Kalamazoo in one of five, and in Raleigh in one of four. A majority of the respondents, therefore, have had relatively little experience appearing in a video

TABLE 2.1

Attorney Survey Response Rates

Site	Number of Surveys Mailed	Number of Valid Mailings	Number of Responses Received	Percentage of Responses Received
Vancouver	256	244	141	58%
Raleigh	287	282	167	59
Louisville	501	500	336	67
Pontiac	388	386	232	60
Kalamazoo	299	296	160	54
Totals	1,731	1,708	1,036	61%

FIGURE 2.1

Percentage of the Total Survey Response Represented by Each Site

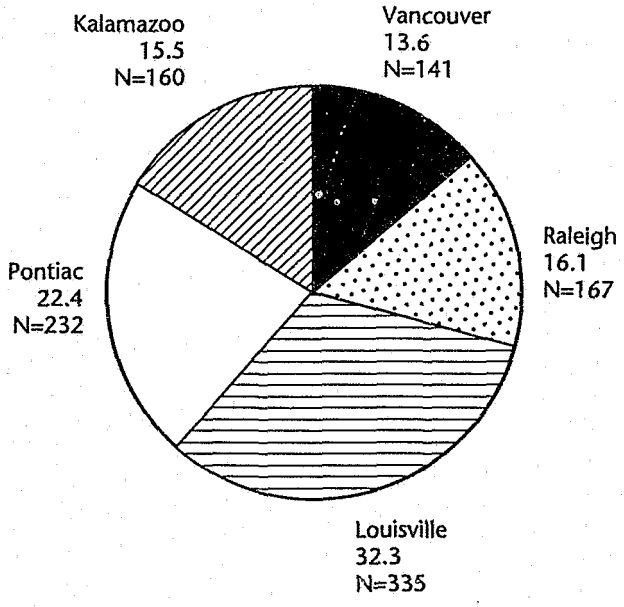


Table 2.2

Attorney Survey: How Often Did Responding Attorneys Appear in Court During the Last Year

Question

"During the Past Year, Approximately How Many Times Have You Appeared 'On the Record' in Any Proceeding in the Superior Court?"

	All Cases	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
	N=1016	N=139	N=166	N=325	N=231	N=157
None	6.2%	6.6%	5.4%	6.8%	0.4%	14.0%
1-4	11.7	10.9	18.7	14.5	2.2	13.4
5-12	18.5	21.2	34.9	18.2	8.2	14.6
13-24	20.1	23.4	27.7	21.5	14.3	14.6
25-52	21.7	11.7	10.8	23.4	33.3	21.0
53+	21.9	26.3	2.4	15.7	41.6	22.3

courtroom. As **Table 2.3** illustrates, 52 percent of the lawyers surveyed had appeared only 1 to 12 times during the past year in a video courtroom. About 25 percent of the respondents reported at least 13 appearances, and a roughly equal percentage of respondents had never appeared in a video courtroom. In Louisville, by contrast, video recording has been used in the court for more than four years, and by 1989 it was used in all 16 of the circuit court courtrooms.

Table 2.3 shows the difference between the experience of lawyers in Louisville and the lawyers in the other sites. In Louisville, over one-half of the attorneys who responded had appeared in a video courtroom at least 13 times during the past year, and 89 percent had some experience with video recording.

Another variable of special interest for interpreting the survey results was whether attorneys had some experience working with a videotape appeal. **Table 2.4** shows that relatively few attorneys outside Kentucky had this kind of experience. Nineteen percent of all of the attorneys (192) had used videotape at least once for an appeal, and most of them were from Louisville—42 percent of the respondents from Louisville had experience with videotape appeals (142). Responses from Louisville, therefore, represent opinions based on more relevant and extensive experience.[5]

Highlights of the Survey Responses

Highlights of the survey responses where attorneys evaluate video recording are shown in **Tables 2.5** through **2.10** In

Table 2.3

Attorney Survey: How Often Did Responding Attorneys Appear in Video Courtrooms During the Past Year

Question

"During the Past Year, Approximately How Many Times Have You Appeared in the 'Video Courtroom' in the Superior Court?"

	All Cases	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
	N=1,017	N=139	N=164	N=327	N=229	N=158
None	24.7%	25.2%	42.1%	11.0%	28.8%	28.5%
1-4	30.1	39.6	42.7	16.5	33.6	31.6
5-12	21.6	25.9	12.2	19.9	27.9	22.2
13-24	10.0	4.3	3.0	18.3	7.0	9.5
25-52	8.4	3.6		21.1	1.3	5.1
53+	5.2	1.4		13.1	1.3	3.2

Table 2.4

Attorney Survey: Number and Percentage of Attorneys Who Used Videotape to Work an Appeal During the Past Year

	All Cases	Vancouver	Raleigh	Louisville	Pontiac*	Kalamazoo*
Number	192	17	13	142	13	7
Percentage	19	12	8	42	6	4

* In Michigan, transcripts made from videotapes are required for all appeals.

answer to questions related to faithfulness of records (Table 2.5), reliability (Tables 2.6-2.7), and record availability (Table 2.7), attorneys' responses about video recording compare favorably to their responses about court reporters. Attorneys who believe video recording has more advantages than disadvantages are in the majority, and only 14 percent believe that the disadvantages outweigh the advantages (Table 2.8). In terms of overall attitude, roughly equal numbers of attorneys are positive (43 percent) or neutral (41 percent) about video recording, while

Table 2.5

Attorney Survey: Opinions About Faithfulness of Court Reporter and Videotape Records

Question

"A Court Reporter Makes A More Faithful Original Record than Does Videotape?"

	All Cases	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
	N=913	N=113	N=147	N=306	N=213	N=134
Agree	24.7%	22.1%	19.0%	32.3%	19.3%	23.8%
Disagree	75.4	77.9	80.9	67.7	80.8	76.1

only 15 percent have a negative attitude (Table 2.9).

Other highlights of the survey analysis include:

- Place of practice (except Louisville), age of the attorney, years of practice, type of practice, and experience with CAT did not appear to be related to whether attorneys were positive or negative about video recording.[6]

- The more experience attorneys had with video recording, the less likely they were to be "neutral" in their opinions. (See Appendix B2, where responses of attorneys who have used video recording to work on an appeal are compared with attorneys who have not. Also compare Louisville attorneys' responses to those of attorneys in other sites in Appendix B1.)

- Many more attorneys report a positive change in their attitudes about video recording after they have had experience with it rather than a negative change in attitude (Table 2.10).

- About one-half of all respondents agree that the length of time it takes to review videotapes offsets other special benefits of video recording; in Louisville, where attorneys have more experience with review of videotapes, 63 percent hold this view (see Question 22, Appendix B1).

- Opinions about whether video recording "improves the quality of litigation" are evenly divided, and this does not vary by location (see Question 23, Appendix B1).

Charts displaying survey results for each question and for each site are presented in Appendix B1. Appendix B2 compares the responses of attorneys who have worked with videotape on appeal with those who have not.

Table 2.6

Attorney Survey: Opinions About Dependability of Court Reporter and Video Recording Methods

Question

"A Court Reporter is More Dependable than Video Equipment?"

	All Cases	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
	N=913	N=117	N=148	N=307	N=208	N=133
Agree	41.1%	35.1%	44.6%	42.0%	41.4%	39.9%
Disagree	58.9	64.9	55.9	58.0	58.6	60.1

Table 2.7

Attorney Survey: Responses of Louisville Attorneys to Questions Comparing Video Recording and Court Reporters on the Criteria of Reliability of the Method and Availability of the Record

Question

"How Often Has a Proceeding Been Delayed
or Has a Proceeding Been Interrupted Because of a ..."

	Never	Rarely	Occasionally	Frequently
Video Equipment Problem (N=300)	47%	38	14	1
Court Reporter Problem (N=314)	31%	49	18	2

Question

"How Often Has a Record You Wanted Not Been Available When It Was Supposed to Be?"

	Never	Rarely	Occasionally	Frequently
Videotape (N=296)	72%	19	7	2
Court Reporter Transcript (N=214)	19%	39	31	12

Note: Responses of Louisville attorneys are shown in this table because the attorneys have worked as much with video recording as with traditional court reporting. Responses of attorneys from other sites are similar but tend to be more favorable to video recording.

Attorneys were invited to include their own comments on the survey forms (Question 27). There were 370 comments returned, and these were examined to determine what observations were most frequently made and what issues might be investigated more fully in the interviews. By far, the most frequent issue mentioned in comments was the difficulty of working with videotapes on review.[7]

Table 2.8

Attorney Survey: Opinions About Advantages Versus Disadvantages of Video Recording

Question

"Considering Everything, I Think Making a Video Record of Court Proceedings ..."

	All Cases	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
	N=951	N=127	N=150	N=310	N=224	N=140
Has More Advantages than Disadvantages	55.1%	53.5%	58.0%	53.2%	54.0%	59.3%
Has as Many Disadvantages as Advantages	30.8	29.9	34.0	26.1	35.3	31.4
Has More Disadvantages than Advantages	14.1	16.6	8.0	20.7	10.7	9.3

Table 2.9

Attorney Survey: Overall Attitude of Attorneys After Experience with Video Recording

Question

"Now That the System Has Been in Place for Some Time, What Is Your Overall Attitude?"

	All Cases	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
	N=950	N=129	N=146	N=309	N=223	N=143
Negative	15.3%	14.8%	7.6%	26.2%	9.8%	8.4%
Neutral	41.4	50.4	50.7	24.9	49.3	46.9
Positive	43.3	34.8	41.7	48.9	40.9	44.8

Table 2.10

Attorney Survey: Change in Attorney Attitudes After Experience With Video Recording *

	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
Negative Shift	10.5%	12.7%	21.2%	6.8%	5.7%
No Change	40.3	54.2	31.8	55.4	43.3
Positive Shift	49.2	33.1	47.1	37.9	51.0

* Table is derived by comparing each attorney's response to Question number 25 and Question number 26. (See Appendix B1.)

Interviews

Interviews with over 100 individuals were conducted during the study by telephone and in person when visits were made to the study sites. The interviews explored the experience judges and lawyers had with video recording, and their attitudes about it, in more depth than the survey could provide. The interview used a set of open-ended questions that varied somewhat depending on whether the person being interviewed was a lawyer, a trial judge, or an appellate judge. In all the interviews, the judges and lawyers were asked to distinguish between appellate court and trial court experience with video recording and to discuss the advantages and disadvantages of each.

Interview appointments with lawyers were arranged either by court personnel or, in the case of Louisville, by officials in the bar association. A requirement for the selection of attorneys to interview was that they have some experience working with videotape in an appeal. Interviews in Kentucky included (but were not limited to) 9 of the 14 appellate judges, 8 trial judges, and 14 lawyers who specialize in appeals. There were more interviews conducted in Kentucky than in the other states (because of Kentucky's more extensive experience), but responses from lawyers and judges in other states were similar to those in Kentucky. (This was also true for the attorney survey responses.)

The judges and attorneys interviewed all shared the opinion that the major disadvantage of videotape is that it is not easy to review. Some appellate attorneys made plain that they would do away with video recording for that reason alone, despite any other advantages it might have. With few exceptions, video recording was seen to have advantages for trial court purposes, was complained about as slow and frustrating to work with on appeal, was praised for capturing details that are not included in narrative transcripts, and was reported to have improved in quality since the original prototype systems were introduced in Kentucky.

Few appellate attorneys who were interviewed were aware that using hi-

fidelity playback equipment made a difference in the quality of the sound, and fewer still had used hi-fidelity equipment when reviewing videotapes. Only one appellate attorney had used the kind of playback equipment described in Chapter 1 that is recommended for appellate review, and most were unaware that special equipment was available.

In summary, interview results were consistent with the attorney survey results, but disclosed more fully the extent and strength of dissatisfaction about working with videotape on review and some of the reasons for that dissatisfaction. One reason attorneys have such a negative opinion about videotape is that they lack information about what kind of equipment is available to improve the quality of the sound during playback and to reduce the time it takes them to review videotapes.

Review of Sample Videotapes by Judges and Lawyers

The faithfulness of videotapes is an evaluation criterion of special importance. If judges and lawyers do not find that the quality of the videotape recording is adequate for purposes of appellate review, then on that basis alone video recording would not be a viable alternative to traditional court reporting. In order to look more closely at this criterion, and to supplement information obtained from the attorney survey and the interviews, 30 volunteer appellate judges, trial judges, and lawyers from several states were sent videotapes recorded in the study sites. Each participant was assigned to a three-person panel that reviewed the same taped proceeding. Two of the panelists used copies made from an original recording (with some loss in quality of sound and image); a third panelist was sent an original recording. The panelists were asked to watch the tapes and complete an evaluation questionnaire that focused on videotape quality.

The videotape samples included criminal and civil matters and one domestic relations trial. Tapes were chosen by project staff from court records (tape logs) made during the month of February 1989. The tapes were not randomly chosen; an effort was made to choose recordings that included trials, with a preference for trials that were concluded in one day. None of the tapes were seen before their selection, nor were they screened in any way by employees in the court. Twenty-five of the volunteers completed the evaluation. Fourteen appellate judges, four appellate lawyers, and seven trial judges responded.

Because the number of responses is small, the data are not summarized statistically. Tables showing all of the responses are included in Appendix C, together with a list of the volunteers who participated. The results are consistent with those of the attorney survey and the interviews. The majority of respondents concluded the exercise with a positive or strongly positive attitude about videotape (14 of 25); disagreed that court reporters usually make a more faithful record than the videotape they watched (16 of 25);

and believed that the record represented by the videotape they watched met or exceeded their idea of a minimum standard (20 of 25).

Limitations of the Study Method and Cautions About Interpretation

There are some limits to how far one can generalize from the evidence gathered in this study. The conclusion that video recording is a viable alternative to traditional reporting is a general one that may not apply to all courts.

There are four reasons for court leaders to exercise discretion about whether the project study findings would apply in their court. First, the opinions of judges and lawyers in the six cities are not necessarily representative of lawyers generally. Video recording was implemented in these cities to answer problems that had been experienced with traditional court reporting. The courts adopting video recording on an experimental basis were those assumed at the outset to have a good chance of success. Where those conditions are not found, the assessment by the local bar and judges could be different. In short, the study did not experimentally compare attorneys' and judges' attitudes in sites where video recording has not been considered, or has been considered and rejected, with sites where video recording has been implemented.[8]

Second, there were questions that could have been asked on the survey that were not asked. For example, lawyers were not asked whether they would have preferred that their courts increase the use of CAT, or otherwise improve the management of traditional court reporting, rather than implement video recording.

Third, sources for survey participants varied among the five sites, and our methods for selecting lawyers in each site were not entirely random. Departures from random selection were made, however, only when made necessary by the nature of the mailing lists available or to stratify the samples in favor of attorneys who were experienced in video courtrooms.

Finally, the evaluation of sample videotapes by the judges and lawyers was completed for only 10 different tapes and by a relatively small number of people (25). Although the tapes and the reviewers were selected without any conscious bias, the process was not random nor were the numbers large enough to claim general representativeness for either the tapes or the volunteers.

Summary

The evidence relied on most heavily for the conclusions drawn from this study are the opinions of large numbers of lawyers and judges who have experience with video recording and other forms of court reporting in six cities in four states.[9] Since court reporters typically make the record of proceedings in trial courts, the court reporter method has established the standards against which other forms of court reporting must measure up. For this reason, judge and lawyer opinions about video

recording were sometimes compared to their opinions about court reporting. Some characteristics of the study method that limit how much one can generalize from the study findings reported here have been noted by way of cautions.

The attorney survey, the interviews, and the reviews of videotape by lawyers and judges all point to the same major conclusions:

- Videotape is a viable alternative to traditional court reporting.
- Most judges and lawyers in the study sites have a favorable opinion about video recording.
- The major disadvantage of video recording as a record is that it is difficult to review.

Chapter 3 turns to the sites and describes the context in which video recording originated and has been studied. Chapter 4 returns to the 10 evaluation criteria and examines the findings about each one.

Notes

1. See, e.g., Greenwood and Dodge, 1976 p. 21-23; Steelman, 1988 p. 14.

2. It is important to note that research of the Federal Judicial Center (FJC) to comparatively evaluate stenographic and audiotape methods of reporting used experimental methods to directly compare accuracy and timeliness of transcripts produced by official court reporters and by transcription services working from audiotapes. Accuracy was evaluated by comparing matched pairs of transcript pages with each other and with audio recordings. The objective was to arrive at error rates that could be analyzed and compared statistically. Thousands of pages of transcripts were collected and reviewed, and the assistance of many law-trained professionals and professional editors was required. The process of identifying and counting errors required the definition of errors and types of discrepancies and consistent application of them to pages of transcript. Discussion of the FJC approach is beyond the scope of this report, but it is carefully described in Greenwood et al., 1983. Some of its problems have been reported in two critiques: see Coopers and Lybrand, 1983; Resource Planning Corporation, 1983. A detailed account of some of the basic linguistic analysis problems and contextual interpretation of what counts as an error, are found in Walker, "From Oral to Written: The 'Verbatim' Transcription of Legal Proceedings," PhD. Dissertation, Georgetown University, 1985.

3. Details about how the lists were compiled are not included in this report. They are available from the project director on request.

4. In North Carolina, the state court administrator signed the cover letter.

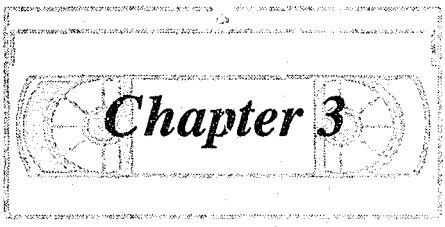
5. It is also known that the prototype recording equipment in Louisville was generally inferior to that used in other sites, that attorneys usually look at copies of tapes, and that rarely do attorneys review tapes on playback equipment that is optimal. It follows, therefore, that the Louisville attorneys' responses may not be reliable predictors of responses of experienced attorneys who have access to better recordings and playback equipment.

6. Statistical correlations between the profile of attorneys' experience (e.g., age, type of practice, CAT experience) and attitudes toward video recording were found to be weak, and, therefore, are not displayed here.

7. All of the comments have been compiled. They are grouped by site and by whether the overall attitude of the attorney was positive, neutral, or negative about video recording. Because of the length of the document that includes the comments, they are not included. Interested parties may obtain them from the project director.

8. See Chapter 5 for additional discussion of the reasons why court leaders should exercise caution in generalizing the findings of this study to their own court.

9. Only five cities were included in the attorney survey, but interviews were conducted with judges and lawyers in the small city of Richmond, Kentucky.



The Project Study Sites: Four States and Six Courts

Chapter 3

The Project Study Sites: Four States and Six Courts

This chapter examines the four states and the six courts that were the focus of the study. The courts were in Louisville and Richmond, Kentucky; Kalamazoo and Pontiac, Michigan; Raleigh, North Carolina; and Vancouver, Washington. The examination covers the jurisdiction and organization of the trial courts; state court organization; the agency behind implementation of video recording in the study sites; appellate court jurisdiction and structure; and the nature of the court-reporting system in the sites.

The sites are those where video recording has been used for the longest time in the United States. The comparison shows a diversity of state and local contexts within which video recording has begun and become well established.

Trial Courts: Jurisdiction, Caseload, and Organization

The courts in the study sites in Kentucky, Michigan, and Washington are courts of general jurisdiction where the judges hear a mix of civil, criminal, and domestic relations cases. In Raleigh, the courtrooms in the general jurisdiction court are dedicated to either civil or criminal cases. The video courtroom is a civil court.

Jurisdiction of the courts in Kentucky, Michigan, and Washington differ in some details, and the major difference in civil case jurisdiction between those three states and North Carolina is that domestic relations matters are not heard in the North Carolina Superior Court. (Domestic matters represent roughly one-third of the entire caseload in courts where they are heard.) **Table 3.1** summarizes the major jurisdictional characteristics in each of the courts.

For tort, contract, and real property rights cases, Kentucky differs from Michigan and North Carolina in that it has a lower limit on the value of cases: $2,500 as opposed to $10,000. Jurisdiction for civil cases in Washington's superior courts has no lower statutory limit, and jurisdiction for cases less than $10,000 is shared with the limited jurisdiction (district) court. As a practical matter, however, few of the civil cases in Washington that could be

Table 3.1

Summary of Subject Matter Jurisdiction for Trial Courts in the Study

	Tort Contract Real Property	Divorce Custody Support	Estate	Adoption	Paternity
Kentucky	Exclusive >$2,500	Exclusive	Exclusive $2,500	Exclusive	No
Michigan	Exclusive >$10,000	Exclusive	No	No	Shared
North Carolina	Exclusive >$10,000	No	Exclusive	Exclusive	No
Washington	Shared [1] <$10,000 Exclusive >$10,000	Exclusive	Exclusive	Exclusive	Exclusive

	Mental Health	Civil Appeals[2]	Agency Appeals	Felony Criminal[3]	Misdemeanor DUI[4]
Kentucky	No	Exclusive	Exclusive	Exclusive	Shared
Michigan	No	Exclusive	Shared	Exclusive	Shared
North Carolina	Exclusive	No	Exclusive	N/A	N/A
Washington	Exclusive	Exclusive	Exclusive	Exclusive	Shared

[1] Exclusive jurisdiction of all real property cases.

[2] Appeals from cases decided in a lower trial court.

[3] Also includes appeals of misdemeanor cases decided in a lower trial court.

[4] "DUI" refers to driving under the influence of alcohol.

heard in district court are filed in the superior court. Adoption and estate cases are not heard in the circuit court in Michigan, but are heard in the general jurisdiction courts in the other three states. Criminal case jurisdiction is virtually identical in Kentucky, Michigan, and Washington.

Table 3.2 summarizes official court names; location, size, and workload of the courts; and the number of video courtrooms. The sites vary substantially in population, number of judges, number of video recording systems used, and caseload. The caseloads of the courts

Table 3.2

Location, Population, Number of Judges, Caseload, and Workload of the Trial Courts in the Study Sites

	Vancouver	Kalamazoo	Pontiac	Louisville	Richmond	Raleigh
Court	Superior Court for Clark County	9th Judicial Circuit Court	6th Judicial Circuit Court	30th Circuit Court	25th Circuit Court	10th Judicial District Court
County	Clark	Kalamazoo	Oakland	Jefferson	Madison	Wake
County Population (1986)	211,300	217,700	1,025,800	680,700	83,900	365,500
Number of Judges	6	5	14	16	2	4
Civil	5,113[1]	991	10,816	2,305	N/A	1,632
Criminal	1,517	1,337	6,649	6,724	N/A	
Domestic		2,405	9,125	4,794	N/A	
Total	6,630	4,733	26,590	13,823		1,632
Judges per 100,000 Population	2.84	2.30	1.36	2.35	1.55[2]	1.09
Cases per Judge	1,326	946	1,899	864	N/A	816[3]

[1] Includes domestic relations cases.

[2] The number of judges per 100,000 population shown in the table takes into account the population of Clark County, which is also in the 25th circuit.

[3] Only two of the four judges in Wake County hear civil cases. The number of cases per judge shown in the table takes this into account.

vary both in total numbers and in cases per judge (workload). For example, Pontiac reports a caseload per judge that is much higher than the other courts. There are roughly twice as many judges per 100,000 population in Vancouver, Kalamazoo, Louisville, and Richmond than in Pontiac and Raleigh.

In the courts in Kentucky, Michigan, and Washington (where each judge hears a mix of criminal, civil, domestic relations, and other types of cases), the proceedings recorded in the courtrooms include both short and long matters—motions, arraignments, sentencings, agreed dissolutions, and trials, for example. The

courtrooms are permanently assigned to one judge, and video recording was installed in each when the judge requested or agreed to the installation. The context in Raleigh is quite different. Judges rotate through various districts in North Carolina, and the courtroom, therefore, is not permanently assigned to a single judge. Because of the organizational and jurisdictional characteristics of the court in Raleigh, no criminal or domestic matters are videotaped in North Carolina, as they are in the five other courts. Finally, the video courtroom in Raleigh is used by the judge who hears the daily calendar call (this is a review of the day's docket of cases and assignment of cases for trial).

The leadership structure—selection and tenure of chief judges—also varies among the courts. In Washington, there is no uniform procedure across the state that governs the selection of judges to supervise the operation of the superior courts. In Vancouver, the responsibilities of the presiding judge are assumed by the most senior judge. In North Carolina, a presiding judge of a district is determined by place of residence and by which judge has the most seniority in the district. In Michigan and Kentucky, supreme court rules require the election of a chief judge by the other judges in each circuit to serve a two-year term. The rules require that the chief judge be chosen for "administrative ability," not seniority, and the selection is ratified by the chief justice. Thus, there are two states (four courts in the study) where the top administrative judge is elected by other judges based on administrative ability, and two states (two courts in the study) where seniority determines who is the top administrative judge.

There are trial court administrators in all of the sites (except Madison County, Kentucky) who are responsible for overseeing the ministerial functions of the courts, but the involvement of the trial court administrator in working with the top administrative judges on matters of court appears to vary.

State Judicial System Administration

Two of the states have highly centralized statewide administration, with state funding of the courts; the other two states have decentralized administration, with substantially less state funding. In Kentucky and North Carolina, the state funds all or nearly all of the judiciary's expenses, except real estate. Court administrative personnel and support staff (e.g., trial court administrators, clerks, court reporters) in Kentucky and North Carolina are employees of the state and are subject to administrative direction from the office of the state court administrator.

The centralized structure in Kentucky provided a favorable setting in which state officials could institutionalize video recording. Kentucky also enjoyed strong interest in video recording by some trial judges and active support by the chief justice. In Kentucky, state officials moved as quickly as possible from experimentation to institutionalization. In four years, the commonwealth expanded the use of video recording from 1 to 32 courtrooms, which accounts for 40 percent of the state-

wide general jurisdiction court case filings. This level of support from the top was not found in North Carolina, where the state's top judicial officials are moving more cautiously.

In Washington, the state funds approximately one-half of the salaries for judges; in Michigan, the state funds 90 percent of judges' salaries with local funding used for the remaining costs of the judicial system.[1] Paralleling the funding structure, there is no centralized control of the employees of the local courts in Washington and Michigan. The administrative offices of the courts in Michigan and Washington have clearly defined responsibilities for which the cooperation of the local courts is required (e.g., the administration of the states' caseload reporting systems), but generally the involvement of the state administrative office in the operational affairs of the local courts is in an informational, educational, and advisory capacity. In program areas where the state assists with funding support—like video recording—the administrative offices in Michigan and Washington have a limited regulatory or supervisory role.

In all of the states, implementing video recording required special orders to authorize exceptions to the rules of appellate procedure (and in some cases to rules governing procedure in the trial courts). State administrative personnel in all the states, therefore, have had some involvement in the procedural aspects of implementing video recording, through the process of drafting special rules or enabling orders. In Kentucky, the state's involvement in promoting and overseeing the systems is very high. In the other states, the role of the administrative office as agent behind the video recording initiatives is less apparent, but has nevertheless been essential.

Agency Behind Implementation of Video Recording

In Kentucky, video recording began at the request of a trial court judge, James Chenault. This action was supported by the chief justice and the state court administrator, who were already favorably disposed to court-reporting methods that do not require employment of court reporters. The state court administrator in Kentucky was primarily responsible for institutionalizing video recording in the commonwealth, with strong support from the chief justice. Trial and appellate court judges who were vocal advocates of video recording also contributed to its growth and acceptance throughout the state.

In North Carolina, an incentive to experiment with video recording was created when the legislature called upon the court's leadership to examine alternatives to traditional reporting methods. In response, the administrative office of the courts proposed (among other things) a video recording experiment, which was agreed to by the supreme court. North Carolina, unlike the other three states, lacked a trial court judge urging the use of video recording and a higher court judge encouraging the trial courts to experiment with it. It was the trial court administrator in Raleigh who agreed to conduct the

experiment, in collaboration with the staff of the administrative office of the courts.

The impetus behind the first use of video recording in Vancouver came from the trial court judge himself, but the state court administrator had encouraged interest in video recording among the state's judges by providing information about it through judicial education programs. Once video recording was under way, a staff member of the office of the administrator for the courts (OAC) was assigned to oversee the experiment. Early coordination of the program and planning among the trial court judge, the trial court clerk, the court of appeals, and the local bar did not precede the change to video recording in Vancouver, and necessary adjustments to procedure for videotape appeals were not made. Neither the trial court clerk nor the clerk of court of appeals, for example, were aware that a videotape appeal needed to be processed differently than other appeals. The consequence was procedural confusion and delay, which caused unfavorable publicity when the first videotape appeal was filed (a criminal appeal with a court-appointed lawyer). Subsequently, a new OAC staff member took responsibility for communication and procedural coordination among the trial and appellate courts and the bar and offered a higher level of support for the program from the office of the administrator for the courts. The use of video recording in Washington has expanded since 1987 from one to eight courtrooms.

In Kalamazoo, the chief judge of the court was the moving party behind the use of video recording, while in Pontiac, the trial court administrator was the initiator—she proposed the idea to a receptive trial court judge. The administrative office of the courts in Michigan has supported efforts to experiment with video recording and took early charge of a formal process to obtain the necessary approval and accompanying procedural rules from the supreme court. Its first step was to obtain a consultant's assessment of the feasibility of using videotape in the courts in Kalamazoo and Pontiac.[2] A task force was then created by the state court administrator in Michigan to assist in the evaluation of the experiment.[3] The evaluation was favorable, and the use of video recording in Michigan, as in Washington, has increased rapidly. Ten courts are expected to use video recording by 1990. North Carolina, alone among the four states, continues to operate video recording as an experiment in just one court.

The Appellate Context in the Project Study Sites

Kentucky, Michigan, North Carolina, and Washington are all states with an intermediate court of appeal (IAC) and a court of last resort, the supreme court. From a practical standpoint, judgments of the trial courts—whether final or interlocutory—are reviewed first in the IACs of the states.[4] In Michigan, the supreme court's jurisdiction is exclusively discretionary. In Kentucky, North Carolina, and Washington, appeals from the death penalty are made directly to the supreme court. In North Carolina sentences to life imprisonment, and in Kentucky sentences to more than 20 years, are also directly appealed to the supreme court. Other

matters where the supreme courts have mandatory jurisdiction include certain executive agency appeals (North Carolina) and matters of constitutional law, conflict between state statutes and actions of state officials (Washington). This chapter, therefore, examines the characteristics of the intermediate courts of appeal in the four states, since these are the courts that resolve the vast majority of appeals from the trial courts.

Each of the IACs in the states is somewhat unique in organizational structure, resources and jurisdiction, and in the rules and procedures they follow for taking appeals from video recorded cases. For videotape appeals, Washington generally follows the procedures established in Kentucky (i.e., a presumption that the videotape will serve as the record), but Michigan requires that the videotape be transcribed for use on appeal. North Carolina's rules differ from the other states in that the choice of the form of the record is at the discretion of the attorneys. The rules relating to the use of videotape records for appellate review are summarized for each state in **Figure 3.1.**

Organization

Court of appeals judges are elected in all four states. Terms of office are six years in Michigan and Washington, eight years in Kentucky and North Carolina. In each of the states, the judges sit in panels of three to decide cases. Kentucky's judges have offices in their hometowns within a district from which they were elected, but they sit to hear cases in various locations throughout the state. The equipment for review of videotapes is located in their offices. In the other states, the court sits in specifically designated locations, except in unusual circumstances. Offices are in the district locations where the court normally sits to hear cases.

In two of the states, Kentucky and Michigan, the presiding judge of the court of appeals is elected by the other judges for four- and three-year terms, respectively. In North Carolina, the chief judge is appointed by the chief justice of the supreme court and serves at his or her pleasure. In Washington, the position of presiding judge rotates.

In Washington, there are now trial courts that use video recording within each of three geographic-based divisions of the court of appeals. Each division has a chief judge and the autonomy to establish its own procedures. Consequently, each division has a different character and is organized somewhat differently.

Jurisdiction

In Michigan and North Carolina, some final judgments of limited jurisdiction courts may be appealed to the court of appeals directly, but in Kentucky and Washington all judgments of limited jurisdiction courts are reviewed first in the general jurisdiction trial court. Interlocutory orders entered in the general jurisdiction court in all four states are reviewed by the court of appeals. All of the appellate courts hear appeals from executive agency administrative hearing orders.

Caseload and Workload

Table 3.3 summarizes selected characteristics of the IACs in each of the states. Using 1988 statewide filings as a meas-

Figure 3.1

Summary of Rules Governing the Use of Videotape on Appeal in the Four States

Kentucky "Order Establishing Procedures for Using Videotape Equipment to Record Court Proceedings" Adopted October 28, 1986	Tape is the record on appeal. Limited number of pages may be transcribed and attached as an evidentiary appendix to a brief (50 and 25 respectively, for the supreme court and court of appeals.) Appellate court may request that a transcript be made of any portion of the record, arrangements to be made by the state administrative office of the courts, costs paid by the parties. (This option is not used by the court in Kentucky.)
Michigan "Videotaped Record of Proceedings Administrative Order 1989-2"	Transcript of proceedings is required, but the videotape is also forwarded if an appeal is taken. A court reporter or reporter must certify that the transcript represents the "complete, true and correct rendition of the videotape."
North Carolina "Rules to Govern the Use of Video Court Reporting System During Test/Evaluation Period" Signed February 3, 1988	Tapes certified by the clerk of court "may" serve as a substitute for a "verbatim typed transcript" at counsel's discretion.
Washington "Establishment of Temporary Procedures for Experimental Use of Videotape Equipment to Record Court Proceedings in Clark County" No. 257 00-A-400 Order (July 2, 1987)	Videotape serves as record on review—rules generally follow Kentucky.

Table 3.3

Selected Characteristics of the Intermediate Courts of Appeal in the Study Sites, 1987

	Kentucky	Michigan	North Carolina	Washington
Mandatory Cases				
Filed	2,691	8,186	1,265	3,238
Disposed	2,304	7,502	1,310	3,870
Filed per 100,000 Population	72	89	20	71
Number of Judges	14	18	12	16
Number of Lawyer Support Personnel	22	84	28	32
Filed per Judge	192	455	105	202
Filed per Lawyer Support Personnel	122	98	45	101
Disposition by Opinion[1]	1,432	4,179	1,209	1,645
Per Judge	103	232	101	103
Per Lawyer Support Personnel	65	50	43	51
Percent Published Opinions[2]	10%	33%	"most"[4]	45%
Published Opinions per Judge[3]	10	77	81	46
Publication Decision	Court's Discretion	Court's Discretion	Court's Discretion	Division Discretion

[1] "Disposition by Opinion" generally includes "per curiam," "memo," and "order opinions" in each state.

[2] The source of this statistic is Kramer, Wilford J., *Comparative Appellate Court Structure and Procedures in the United States* (1983).

[3] The data are derived by applying Kramer's percentage to the number of dispositions by opinion, and dividing by the number of judges.

[4] For North Carolina, "most" was calculated at 80 percent.

Source: *State Court Caseload Statistics: Annual Report, 1987* (NCSC)

ure, Michigan has the highest absolute caseload (81,196) and per capita caseload (89 cases per 100,000 population) of the four states. The caseloads per 100,000 population in Washington and Kentucky are nearly identical (72, 71), but North Carolina has a much smaller caseload than the other states (20 cases per 100,000 population.) The number of judges in the courts varies from 12 to 18, and the number of lawyers (staff attorneys and law clerks) who support the judges ranges from 84 in Michigan (more than 4 lawyers per judge) to 22 in Kentucky (less than 2 lawyers per judge.) Total dispositions and dispositions per judge vary in a fashion similar to filings.

The question of interest when examining the caseload and procedure of the IACs in the study sites is whether there appears to be anything about the appellate courts in those states that would make them a more favorable environment for the introduction of video recording than in other states. More to the point is the question of whether something about the commonwealth of Kentucky made introduction of videotape as the record on appeal more feasible than in Michigan, where videotapes are transcribed for appeal. (In Washington and North Carolina, there has been no experience with videotape appeals, so it remains an open question whether the use of videotape for appeals will gain acceptance.)

As Chapper and Hanson have pointed out in recent research, there are important differences in caseload composition among IACs that appear to have a relationship to differences in how they operate and to why a procedure that is acceptable in one court is not acceptable in another. Examples of such differences include the percentage of the workload that consists of appeals of sentencing determinations of trial judges, or of the so-called *Anders* brief cases. Sentence reviews, for example, would require very little use of the trial court record, while *Anders* cases would require substantial review.[5] Although the frequency of these cases in the court's caseload and the procedures governing them are possible variations among the IACs that are relevant to this study, no data are available to examine the caseloads at this level of detail in the study sites.

The percentage of published opinions shown in Table 3.3 is a workload indicator that perhaps suggests a relevant difference between Kentucky and the other states. Kentucky stands out from other courts with an exceptionally low rate of published opinions (10 percent), while North Carolina publishes "most" of its opinions.[6] Michigan and Washington publish opinions at a rate that is three to four times greater than Kentucky: 33 percent in Michigan and 45 percent in Washington. If these percentages are applied to the number of cases disposed by opinion, it appears that appellate judges in Kentucky are responsible for significantly fewer decisions that are reasoned and polished for publication than are judges in the other states. Inferring that fewer published opinions relates positively to more ready acceptance by appellate judges of the use of videotapes for appellate review is speculative, but a possible relationship is worth keeping in

mind. Published opinions, presumably, presuppose a more thorough review and more frequent citations of the trial record.

Attitudes of the Appellate Judges

Interviews conducted with judges in the IACs, with state administrative officials, and with the clerk of the court of appeals in Kentucky suggest that the support of a majority of appellate court judges are not required to introduce video recording if the commitment to the system by the chief justice and the supreme court is strong. The majority of judges in the court of appeals in Kentucky accepted but did not generally favor the use of video recording for the first few years, although recently their opinions seem to have moved in a more positive direction. They believed that the system saved money at the trial level and agreed that video recording made records available much sooner. They disliked having to work with the videotape for review, described it as slow and frustrating, and would have preferred a policy that permitted transcription. They also complained of the quality of the recordings during the early years. With only one exception, however, they did not publicly oppose the policy established by the chief justice. By the latter part of 1989, the judges' reservations about the quality of the recordings have been largely removed, and some of their concerns about the difficulty of working with the videotape have abated due to the introduction of improvements in the equipment that addressed both concerns.

Before the use of video recording was begun in the first four experimental sites in Washington, the judges on the court of appeals agreed to review videotaped records on an experimental basis. It appeared to be implicit in Washington's approach to undertaking video recording that such consultation was a required, not merely a desirable, condition of implementation.

Judges of the IACs in Washington and North Carolina had yet to work on any appeals where a videotaped transcript was needed to decide the case at the time the study was conducted. (In Washington, video recording has been used in Vancouver for 18 months without having an appeal that required reference to a videotaped record reach the court of appeals.) The chief justice and the chief judge of one of the divisions of the court of appeals in Washington expressed the view that only experience would tell how the judges on the court would react to using videotaped records. (They did report a mix of private opinion about it among their colleagues.)

The System of Court Reporting in the Sites

Kentucky

The court-reporting system in Kentucky stands out in contrast to the other states. In Kentucky, salaries for court reporters were low, and the commonwealth's judicial leadership was trying to reduce court reporter expenditures even further when video recording was begun. Court reporters in Kentucky earned $13,200-$20,484, which was below the

norm nationwide.[7] Moreover, an unusually high percentage of reporters (about two-thirds) used manual shorthand in 1984, and only two reporters used computer-aided transcription.[8] In fiscal year 1981-82 Kentucky experienced a revenue shortfall that required reduced expenditures. In addition to routine measures like hiring freezes for court reporters and other court personnel, extraordinary measures were taken by the administrative office of the courts. Court reporters were urged to delay submission of fee bills for pauper transcripts, for example.[9] In the years that followed, the administrative office of the courts continued to search for ways to cut back on expenditures related to court reporting. They pooled reporters (Louisville), switched from salaried court reporters to contract reporters (thus saving the costs associated with fringe benefits and payment for days when little bench activity occurs in the court), and initiated video recording in Richmond and Louisville. While control of expenditures for court reporting is a perennial theme in court-reporting management literature and an objective in other courts, none of the states studied have so agressively sought to reduce statewide costs of court reporting as has Kentucky.

Michigan

Michigan is unique among the four states in that it has an established statewide testing and certification program for court reporters that existed before the video recording experiments were undertaken. The Court Reporting and Recording Board of Review is appointed by the supreme court to oversee the testing and certification process and to hold hearings on formal complaints made against court reporters. In Michigan, court reporter salaries appear to be equal to or above national averages, and reporters use a variety of modern techniques for court reporting, including computer-aided transcription.

When video recording was introduced in Kalamazoo and Pontiac, both courts had vacant court reporter positions. In Kalamazoo, the court normally employed five permanent court reporters (one per judge), supplemented by free-lance reporters when necessary. When the video recording experiment began, the court was experiencing a "tremendous backlog in transcript production," and the chief judge was employing temporary assistant reporters for four- and five-week periods to attack the backlog. The court had also been unable to fill a vacancy for one of the permanent full-time reporter positions during this time.[10] In Pontiac, each judge has a permanently assigned court reporter, and the court traditionally employed two roving reporters (one of whom is assigned to visiting judges.) The court had two vacancies in these full-time reporter positions when the video recording project was undertaken.[11] Kalamazoo and Pontiac show expenditures for contract court reporters that are higher than those in the other sites.[12]

In Kalamazoo, the court took active control of the entire process of court reporting when video recording began. Position descriptions and procedures were thoroughly revised, and the court's administrative personnel became involved in monitoring transcript production. In

addition, the court did not reduce its complement of full-time reporters after video recording was implemented. It was able, instead, to use the court reporter position freed up by the video recording system to provide back-up for the other four reporters. Court reporters were required under the new procedures to file monthly pending transcript reports that show the number, order date, and due date of all transcripts they are preparing. The deputy court administrator is able to use these reports to keep track of the workload of individual reporters. If a particular reporter begins to fall behind, or is faced with a particularly long transcript, substitutions in assignments can be made to allow the court reporter to catch up. The effects of this initiative appear to have been salutary—transcript production times have decreased since the changes went into effect in January 1988. (For a comparison of transcript production time between Kalamazoo and other sites, see Figure 4.5.)

North Carolina

Court reporters in North Carolina, like Kentucky, are employees of the state. In Raleigh, the court used five reporters, one of whom was a roving reporter; the remainder were assigned to courtrooms. Since the court began using video recording, a reporter was freed from a permanent courtroom assignment, and there are now two roving reporters. Because judges rotate through courts in their districts in North Carolina, there are no permanent relationships between judges and reporters. Most reporters outside of small rural jurisdictions in North Carolina use machine stenograph methods, with a few reporters using manual and stenomask techniques.[13]

The video recording experiment in Raleigh was just one of several initiatives introduced by the administrative office of the courts in North Carolina to improve the efficiency and accountability of its entire court-reporting system. Other steps that were taken included requiring reporters to file transcript production reports, creation of managing reporters, court reporter testing and certification programs, and expanded use of audio recording.[14]

Washington

Reporters in Vancouver primarily use machine stenographic techniques. Before the installation of video recording, a court reporter was assigned permanently to each judge. One of the court's six judges, however, did not use a court reporter, preferring instead to rely on an audiotape recording system. (This is unusual in courts of general jurisdiction.) Another judge employed a reporter who used computer-aided transcription and was skilled enough to demonstrate real-time translation to groups of judges in Washington. That reporter left the court in 1989, and a replacement was not hired. Instead, the second video recording system in Vancouver will be used in that courtroom beginning in January 1990.

Summary

Differences in jurisdiction and the types of cases heard in the video courtrooms in the four states are apparent from the study, although only North Carolina

restricts its use of video recording to civil cases (excluding domestic relations matters). Elsewhere, video recording is used for all of the major casetypes except juvenile offenders and abused children. Only relatively minor differences are apparent in the appellate court jurisdiction among the states, but organizational characteristics vary more noticeably. Kentucky differs from the other states by having a very low percentage of published opinions, and it is suggested that this is a factor that might be relevant for determining whether the use of videotape rather than transcript as the record on appeal will be more or less successful.

The circumstances surrounding court reporting in Kentucky—the birthplace of video recording—are somewhat unique. The level of technical sophistication among court reporters, and high incentives in the commonwealth to reduce costs of court reporting statewide, are particularly significant. These factors are important enough to deserve special consideration in the context of implementation, the subject of Chapter 5. Otherwise, there is a wide variety of circumstances surrounding court reporting among the study sites, including a court reporter certification program in Michigan and a courtroom in Vancouver where a judge who was used to a highly skilled CAT court reporter converted to video recording when that reporter left the court.

What emerges most clearly in the review of all of the sites is that a willing trial court judge and a tolerant supreme court appears to be all that is required for video recording to be implemented. When strong support from the state's top judicial leaders is also present, the use of video recording may expand rapidly.

Notes

1. National Center for State Courts, *State Court Organization, 1987*, Table 15.

2. See Steelman, 1987, for the report of the assessment.

3. Steelman and Lowe, 1988 p. 2.

4. Sources for jurisdictional information about the COLRs and the IACs in the study sites are (1) the annual reports for the states; (2) National Center for State Courts, *State Court Caseload Statistics: Annual Report, 1987*; and (3) *Shepard's Lawyer's Reference Manual*, 1988 Supplement.

5. Chapper and Hanson, 1990.

6. Kramer, 1983.

7. Conference of State Court Administrators, 1984 pp. 64-75.

8. Ibid.

9. Steelman, 1984 p. 23.

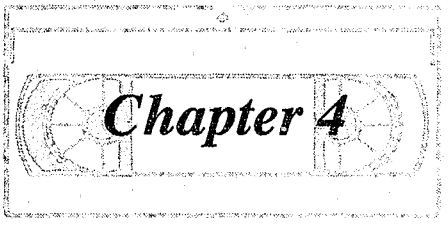
10. Steelman and Lowe, 1988 pp. 4-5.

11. Ibid. p. 8.

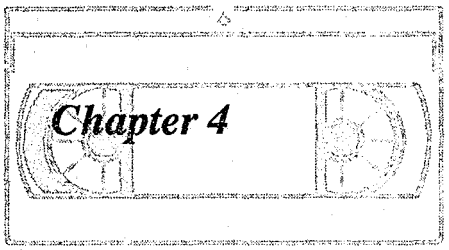
12. See Table 4.3 in Chapter 4.

13. Conference of State Court Administrators, 1984 p. 28.

14. Interview with Mr. Michael Unruh, Administrative Office of the Courts, North Carolina. No study of what effects the new procedures may have had on transcript production times in North Carolina had been made when our study was in progress.



Assessment of Video Recording on Ten Evaluation Criteria



Assessment of Video Recording on Ten Evaluation Criteria

Ten evaluation criteria relevant to court reporting organized the inquiry into the viability of video recording as a method of making trial court records. The criteria were adapted from those used in previous research and evaluations of alternative methods of court reporting.[1]

This chapter describes the study's findings about video recording in terms of each criterion. Discussions of some of the criteria are relatively long (e.g., "Expense") and others are brief (e.g., "Record Preservation"). The order in which the first five criteria are presented reflect their relative importance. Thereafter, no significance should be attached to the order in which the criteria are discussed.

Faithfulness (Accuracy) of the Record

> *Faithful— "true to the facts, to a standard or to an original"*
> —WEBSTER'S DICTIONARY

Making a faithful record—whether by primarily electronic or primarily human means—entails a complex process of encoding and decoding information. With video recording the encoded version of the record is the tape itself, which is made electronically and without human judgment. While the tape may contain all of the information about a court event, the information is inaccessible and useless without a decoder—the video playback equipment. When the videotape is played on suitable equipment, sounds and images of the event itself are recreated. A court reporter's encoded record requires human judgment. It exists on pieces of paper (and perhaps also in the form of digital data on an electromagnetic tape if computer-aided transcription is used). It, too, is useless without a decoder, which in this case is the human being who made the record. The decoded version of the record is a written narrative that describes the original event. It has been twice filtered through the intelligent discrimination of the court reporter—first when the information is encoded in the shorthand notes taken in the courtroom and again when the shorthand notes are decoded into the transcript. The recreation of the event occurs in the imagination of a law-trained professional reader who is aware that the court

reporter has applied judgment and discretion while making the record.[2]

When a written transcript is prepared by a court reporter, the process of record making is complete. The first usable form of the record in video recording—the playback of the tape—may go through one more stage. The events recreated through the playback may also be reduced to a narrative. This narrative is a second-generation, decoded form of the record and is presented to the reader in the same form as a court reporter's transcript. Thus, a record created through video recording may involve two distinct outputs and if it does, both of them must be faithful within the limitations of their media. Thus, studies of audiotape and videotape records may distinguish "tape accuracy" and "transcript accuracy." With videotape and audiotape records, moreover, the transcript may be verified by reference to the videotape. A court reporter's record does not allow such verification. In the event of a disagreement about whether the court reporter's transcript is faithful, there is no "objective" first-generation record that can help settle the matter (unless the reporter has used an audiotape as a backup.) **Figure 4.1** illustrates the utility of having the tape backup.[3]

Faithfulness v. Accuracy

Evaluations of alternative techniques for court record making have traditionally used accuracy (of the record and the transcript made from it) as a central evaluation criterion. Accuracy refers to the legal concept of a verbatim record, and it presupposes that what a court reporter does is record word-for-word what was said in court. Traditional evaluations that presupposed the word-for-word reporting concept sought to use statistical techniques to objectively assess record quality or accuracy. In *Management of Court Reporting Services*, for example, Greenwood and Dodge speak of error rates expressed as percentages, and say that optimum is "100 percent accuracy." In later work conducted at the Federal Judicial Center by Michael Greenwood and others, this

Figure 4.1

Comment from an Attorney Questionnaire About Verifying Faithfulness of a Transcript*

The question concerned how long my client's deceased son had been out of sight. Q.-"So it was less than 5 minutes?" A-"No, more than 5 minutes." The comma--which totally changes the answer--was inappropriate. With video, we could have judged this answer and realized what was intended instead of having to wonder two years later.

*This comment was included on the survey response identified as Questionnaire 2082. Hereafter such comments will be identified as (Q.2082).

method was applied. It proved to require a system of discrepancy classifications that is complex, expensive to undertake and, ultimately, subjective.[4] Contributing not least to the complexity is that "there is no clear consensus on what counts as a word."[5]

Following Walker and Saari, the approach used in this study evaluates trial court records in terms of the idea of faithfulness:[6]

> The concept of a *faithful representation of what was said or experienced at a legal event* is the genuine distillation of the true meaning of the verbatim record based upon research to date.[7]

A faithful record captures the verbatim concept by presenting "a faithful representation of the events that are considered by the legal world to be *information*."[8] Walker's approach implies that a record may be flawed not only when it conveys misinformation (a mistake, or a deliberate clean-up of the language of the speaker) or too little information (fails to capture contextually important behavior). More interestingly, her approach also suggests that a record may be flawed because it contains *too much information*, information that may be irrelevant. This proves to be a flaw with video recording, when the tape itself is relied on as the exclusive form of the record for appellate review as **Figure 4.2** illustrates.

The flaws that sometimes mar the products of the human court reporters are well known and documented. Reporters may mishear; they may make mistakes in keying; they may deliberately alter what they hear to conform to expectations of judges or lawyers or because they believe

Figure 4.2

Comments from Volunteer Judges and Lawyers Who Viewed Videotapes

Is the Record *too* Faithful?

- "11:06 - 11:13: Seven minutes of watching the judge read--what use is this?" (Panel #1B)
- "Numerous asides, pauses and false starts could be skipped over rapidly using a written record while they must be endured on a real time basis with this record." (Panel #6C)
- "[The tape is] too long and too boring." (Panel #6A)
- "I hope I never have to prepare an appeal from a videotape record. Faithful it may be. But the process as a whole will be terribly inefficient." (Panel #8C)
- "[T]he tape is almost too faithful. There is too much tedium. A good deal of time is wasted while meaningless and unimportant tasks are performed by the court and counsel." (Panel #1C)

that it is an appropriate exercise of professional judgment. Quoting from Walker:

> There is no real consensus in the reporting field about how much editing should be done, but the view expressed in an educational publication of the National Shorthand Reporters Association is as follows:
>
> > To edit or not to edit is not the question; every reporter does it in greater or less degree. It is well settled that the reporter should make every effort to eliminate obviously bad grammar from his transcript. The only questions are—whose utterances shall enjoy the privilege of being edited? and how bad must grammar be to warrant the reporter's departing from a strictly verbatim report? These are the questions that each reporter must answer for himself. Some judges and lawyers like to be edited and some do not.
>
> Note that this quotation makes the following points: (1) editing is done as a matter of course; (2) editing is differential as to speaker; (3) editing is ad hoc to the situation and reporter, and what the reporter knows about the intended reader (lawyer or judge); and finally, (4) sophisticated readers of transcripts are aware of the options of editing. Taken together, these points suggest that the National Shorthand Reporters Association (NSRA) guidelines implicitly recognize the points made earlier in this chapter that "strictly verbatim" is in practice neither an attainable nor a desirable standard.[9]

Moreover, written transcription by its nature does not capture all of the behavioral facts (gestures, expressions, pauses, speech tics, etc.) that comprise the *meaning* of what is occurring in court and help to convey "what really happened."[10]

Findings

The three methods used to evaluate the faithfulness of video recording were described in Chapter 2—an attorney survey, interviews, and review of sample videotapes by volunteer judges and lawyers. The premise underlying the data collection is that the best way to ascertain whether video recordings make a faithful record is to ask a large number of people who use them and understand their significance.

QUALITY OF RECORDING. Video recording compares favorably with traditional court reporting in the sites we studied. **Table 4.1** shows how attorneys responded to the statement: "A court reporter makes a more faithful record than does videotape." Most of them disagree. Attorneys who have used videotapes to work on an appeal, however, are more likely to agree than are attorneys who have not used videotape to work on an appeal. The opinions of this group may be more meaningful, since they are the attorneys who work with the videotapes in circumstances where the quality of the record is most important.

Problems with audibility are mentioned by attorneys and judges who have carefully watched or used videotapes, but the problems do not cause most lawyers and judges to have a negative opinion about videotape faithfulness overall. The results of the review of sample videotapes by judges and lawyers, reported in Ap-

Table 4.1

Attorney Opinions About Faithfulness of Court Reporter and Videotape Records

Question

"A court reporter makes a more faithful original record than does videotape."

	Attorneys Who Have Used Videotape to Work on an Appeal	Attorneys Who Have Not Used Videotape to Work on an Appeal
	N=191	N=846
Agree	35.3%	21.9%
Disagree	64.7	78.1

pendix C, illustrate this pattern. For example, while 11 of the 25 judges and lawyers found that inaudibility was a "more than minor" problem in the videotape they watched, only 7 of them agreed that court reporters would make a more faithful record, and 4 of the 11 believed that the videotape they watched was "below a minimal standard."

As discussed with the history of video recording in Chapter 1, complaints were commonly made about poor audio quality before the hi-fidelity systems were introduced. Viewers continue to experience problems with audio and video quality because they do not understand how to get the best results from available playback equipment or because they work (unnecessarily) with a poor copy. For example, among the five volunteer judges and lawyers who opined that the videotape they watched was "below a minimal standard," none of them watched the best quality recording on the recommended viewing equipment. All five watched a dubbed copy of an original recording, and only one played the tape on hi-fidelity VTR equipment.

Faithfulness is compromised most seriously by errors in operation of the system. (Problems due to system failure are rare, as will be discussed under "Reliability.") Limitations arising from microphone and camera placement, and behavioral characteristics of courtroom participants, also compromise record quality. These usually appear not to be serious, but they occur more frequently.

When a videotaped record is free of defects arising from these causes, it is superior to a court reporter record in "literal" faithfulness because of its breadth. It objectively captures events of which a narrative record is inherently incapable—visual forms of communication that are undeniably relevant to the record.[11] Attorneys who wrote comments on the attorney survey often mentioned this advantage of video recording, and some of the comments shown in Figure 4.3 are typical of what is said about the value of the more complete record.

FAITHFULNESS OF TRANSCRIPTS. In Michigan, attorneys and judges routinely work with the transcription of the videotaped record. The quality of the transcripts made from videotapes, therefore, was included in the evaluation in Pontiac and Kalamazoo. The appellate lawyers who were interviewed had no complaints about the quality of transcripts. Moreover, 65 percent of 332 attorneys from Pontiac and Kalamazoo who were surveyed disagreed that a court reporter will produce a more accurate record than a transcription service working from videotape.

Nine of 64 attorneys from Michigan who wrote comments on their questionnaires mentioned faithfulness of the record. Four of them expressed negative concerns. All of the comments about faithfulness found on the questionnaires from Michigan are shown in **Figure 4.3.** They are typical of both positive and negative comments related to the faithfulness criterion that were received on questionnaires from all of the sites.

Ease of Review: Videotaped Records and Appellate Review

The fact that a videotaped record is more difficult to review is obvious to anyone who compares the two experiences, and no conclusion from the evaluation emerged as clearly as this one: attorneys and judges do not like to work with the tape routinely, and there is nearly universal agreement that it is more time-consuming to work with a videotape than with a written transcript. What is not clear is the appropriate policy response.

There are two policy extremes found among the states where video recording is used regarding how the videotaped record should be used for appeals. At one extreme is Kentucky, where the tape alone serves as the official trial record. The state will not pay for transcripts made from videotapes for use in appeals by indigent defendants. At the other extreme is Michigan, where all videotapes are transcribed when an appeal is filed. This discussion considers the reasons for the respective policies adopted in Kentucky and Michigan, the advantages and disadvantages of each approach, and some of the resource requirements of the two approaches.

Kentucky's Reasons for Preferring Use of the Videotape as the Record for Appeal

The reasons for Kentucky's policy are spelled out in its application for an award and grant from the National Committee on Innovations, Kennedy School of Government, Harvard University. The following two statements paraphrase what Kentucky described in its application as the first and second priority goals the video recording project sought to achieve:

- Reduce costs to litigants by eliminating costly transcripts. Costs to the state (and taxpayer) for pauper transcripts are also reduced. Transcripts cost $2-$3 per page, while a six-hour videotape copy cost $15.

- Reduce delay by eliminating the time court reporters take to prepare the transcript. Attorneys have access to the

Figure 4.3

Comments from Michigan Attorneys About Faithfulness

- A machine does not know when it is not performing or is performing poorly. A court reporter is more likely to consciously make a good record. (Q. 3373)
- Because there is no single person responsible for the videotape, transcripts often get screwed up. No recordkeeping, etc. I presently have a murder appeal which was screwed up due to the videotaping. (Q. 3049)
- I had one occasion where the court clerk didn't have a tape in the video recorder and so nothing was recorded. (Q. 3267)
- I believe that a transcription service working from a videotape would produce an inferior transcript to a court reporter. (Q. 3191)
- Videotapes more accurately portray what happens in the courtroom, more so than reading the written words. (Q. 3381)
- Non-courtroom video (i.e., deps) - audio sometimes poor quality (i.e. shuffling papers, coughing) sometimes overrides testimony. Not a problem in the video courtroom. Better microphones there? Non-courtroom-deps-"talking head" appearance of defendant. Not a problem in video courtroom where camera angles change. (Q. 3108)
- Assuming reliability of process, video has two advantages: (1) a picture is worth 1000 words and (2) visual review minimizes error of context, etc. in reducing to writing. (Q. 3124)
- One can evaluate demeanor of witnesses by the use of videotape. (Q. 3028)
- Decorum of judges and attorneys and others readily seen. Sarcasm can be readily observed as can improper actions by both attorneys, courts and others. (Q. 4127)

tape at the close of each day's session of court and, if an appeal is contemplated, they can begin to work with the record immediately. Typically, transcripts take 60-120 days to produce.[12]

Kentucky's Policy— What Its Critics Say

The most outspoken critics of using the videotape exclusively for appellate review are the attorneys of the state department of public advocacy, who handle all appeals in Kentucky except those originating in Jefferson County. These public defenders routinely request extensions of time to file briefs in videotape appeals, and, in one case, they unsuccessfully petitioned the Kentucky Supreme Court to have the state pay for transcription of the videotape when the record included 21 videotape cartridges. This was followed, also unsuccessfully, by an appeal to the U.S. district court when the supreme court did not grant relief.[13] Al-

though the federal court did not grant relief, it ordered that video playback equipment be made available to the defendant in prison. Spokespersons for the Kentucky attorney general's office have also criticized the policy because it "consumes an inordinate amount of time. An attorney must listen to the entire tape and replay those portions relevant to the issues briefed in order to take notes."[14] One judge of the court of appeals has been outspoken in opposition to the policy requiring that the tapes be used for the record on appeal.[15] Other judges on the court of appeals have not publicly complained of the practice, but they agree that using videotapes is less convenient than using a transcript for appellate review.[16]

The burden of working with videotape is most extreme when the lawyer working on the appeal was not the lawyer at trial, as is the case with the public agency lawyers in Kentucky. The Louisville-Jefferson County Public Defender Corporation, a separate agency from the Kentucky department of public advocacy, handles all appeals from the Jefferson County Circuit Court. In effect, this means that the lawyers in that office work almost exclusively with videotape appeals, and they appear to believe that review is manageable when the record is short (one or two videotapes):

> ... given our caseload, it is unlikely that we will be able to file briefs within the thirty day period if the record on appeal is comprised of three or more videotapes.[17]

Jefferson County appellate defender Frank Heft is perhaps the most knowledgeable lawyer in the country about working with videotape appeals. Heft acknowledges the advantages of videotape for reducing time to prepare the record on appeal and for lowering the costs of obtaining it. Unlike the department of public advocacy, the attorney general, and the private bar, the Jefferson County public defender's office has availed itself of the equipment recommended in Chapter 1 for playback for appellate review, and attorneys in the office have become more adept at working with the tapes. Nevertheless, says Heft,

> the fact remains that we can review transcripts of evidence and make notes quicker than we can review videotapes and make notes.... In videotape cases ... requests for extensions of time to file briefs have necessarily become routine.[18]

Private attorneys, even those who have been present at trial, also complain about using the videotape and would prefer to have a transcript for a working record. Only one of the approximately 1,100 attorneys heard from in the study offered a comment that was contrary to the pattern:

> I didn't find it difficult to work with at all. I knew what I wanted to say, so I just looked it up (on the tape).

This Vancouver attorney worked on an appeal from a trial that lasted less than one day and was captured completely on one six-hour videotape. He also worked with

reviewing equipment provided by the court. Another Vancouver lawyer who praised video recording highly overall expressed the typical point of view:

> It takes three or four times as long (to work with the tape), even when you've tried the case. You may have to go over critical testimony many times.

The research yielded scores of similar comments from attorneys and judges; a selection is presented in **Figure 4.4.** A mix of attorneys who were positive, neutral, or negative overall about video recording are represented as authors of the comments. Attorneys who were neutral or negative about video recording were more likely to mention the problem of review.

The Response by Court Officials in Kentucky

Commonwealth court officials acknowledge that working with videotapes takes longer, but they nevertheless believe the use of videotapes as the record on appeal should be continued. Court of appeals data in Kentucky indicate that more than half of all video appeals involve a short record (one videotape or less), and that lengthy records (3-22 videotapes) are found in less than one quarter of the appeals.[19] The official view, therefore, is that the problems of working with a single videotape are manageable, and that the highly publicized cases where lawyers must spend a very long time preparing a brief from videotapes are the exceptions. In addition to the fact that most trials and appeals involve relatively short records, many appeals, no matter how long the trial, may require little work with the record. Finally, the problems associated with working with videotapes may be substantially alleviated by improved technology and new work habits. While experienced lawyers strongly resist changing their familiar work patterns, new lawyers who start their careers with video recording may experience to a lesser degree the frustrations expressed by other lawyers, particularly with better equipment for replay. Educating lawyers about improved equipment to review videotapes is under way in Kentucky. Kentucky intends to stay the course of present policy while new equipment and improved training is being tried. Only if those initiatives have been tried without success in reducing complaints from the appellate bar will the policy regarding transcription be reexamined, "because we will then have run out of other ideas."[20]

Summary of Michigan's Policy and Approach to Appellate Review of Videotaped Trial Records

In Michigan, statutes and court rules require that the record of proceedings be made and certified by an individual who is a certified court reporter or recorder. A court recorder is someone trained to properly transcribe court records made with electronic recording devices. In an administrative order entered by the supreme court in 1987, existing rules were modified so that the court reporter or recorder

Figure 4.4

What Attorneys Say About Working with Videotapes to Prepare an Appeal

- For appeal a video increases preparation, review, and makes the cites to the record very difficult. It also substantially increases the cost of appeal because of the difficulty and length of time to review testimony. (Q. 2131)
- Use of video on appeal is horrible! It is much too time consuming and it is beyond belief to think appellate courts will review them at all. (Q. 2391)
- Videotape is very useful in small cases of very short duration. It is miserable to deal with a long and complex case, especially on appeal. It is valuable as a visual supplement to a written transcript and as a training or self-critiquing tool. It can in no way equal the advantages of a human being, especially when the new computerized litigation support systems are utilized. (Q. 2108)
- In all of our appeals, we have had substantial portions of the trial transcribed. It is virtually impossible to prepare a brief from the videotape. (Q. 2353)
- The cost savings of videotape is great compared to a transcript. However, the savings are lost on appeal in the time it takes an attorney to review the tape. A better system to develop a real time index should be used. (Q. 2123)
- The appellate process from a video trial transcript is horrible. When the right points are finally found and noted in the brief all attorneys believe that appellate judges will not get out the tapes, find the appropriate portion of the trial, and watch the tape. It is very time consuming. (Q. 2352)
- Video is good, but very difficult to use on appeal. I almost always have the proceedings transcribed. (Q. 2389)
- I think the reduced cost and reduced time for preparing a record are great advantages of videotape. The longer time needed to review a videotape is an obvious disadvantage, but can be overcome by requesting a transcript when needed. I am in favor of continued use of videotape transcripts. (Q. 2211)
- If I were an appellate attorney for the Attny. General, Public Defender, or DPA I would hate to sit through the tape as opposed to having a transcript made. Money should be made available to those folks to have the tapes transcribed. (Q. 2363)

who transcribes a videotaped proceeding does not have to be present at the hearing, but only has to certify that the transcript represents "the complete, true and correct rendition of the videotape proceedings as recorded."[21]

Court officials in Michigan contract with certified court recorders to make the transcripts for appeal. There are two services operating in different parts of the state that transcribe videotapes from the four courtrooms. The services are noti-

fied by mail when a transcript is needed, and tapes are picked up by the transcription service or are shipped via a package carrier. Procedures for processing transcript requests vary among the courtrooms.

Transcripts requested by judges and lawyers in Pontiac for reasons other than an appeal are produced by an employee of the court who also operates a private business transcribing videotapes.[22] The fees charged by the transcription services in Michigan are identical to those charged by court reporters. It appears that this would also be true elsewhere.[23]

When video recording was introduced in Michigan, some trial court judges shared the view of Kentucky officials and believed that the requirement to transcribe the record was unnecessary and failed to take full advantage of the video system. Experience has led them to question the Kentucky approach, however, for the same reasons advanced by critics of the policy in Kentucky.[24]

Summary of the Policy Issues Regarding the Use of Videotape as the Record for Appellate Review

The advantages of using the videotape itself as the appellate record are that it is available more quickly and avoids the costs of having a transcript prepared. The disadvantages are that it takes more time to review and that videotape is not as convenient and flexible as a transcript (equipment is required). Lawyers and judges generally prefer a transcript for most routine review purposes. Because it takes longer, opponents argue that the savings in transcript costs are offset by the increased (and costly) time attorneys must take to prepare a brief. (This latter point will be discussed more fully under "Expense.")

When videotapes are transcribed for appellate review, as they are in Michigan, the complaints of judges and lawyers about video recording are avoided. The fact that a record was originally made by a video recording is transparent to them when they work with a transcript, and a videotaped version is still available immediately and can be referred to if the video record preserves visual evidence not preserved in the transcript. The disadvantage is that some of the savings in time, and all of the savings in cost of transcript preparation, are lost. All of the savings for the trial court that accrues from a less expensive approach to making the record remain, however, as will be clear from the discussion that follows.

Expense

Where video recording has been installed, reduction in the expenses associated with court reporting have been used in every case to persuade funding bodies to make the initial necessary appropriations. This section examines whether those claims are justified and the approximate magnitude of the savings realized.

To examine costs fully, those related to using the record must be considered in addition to those related to having it made. This translates roughly into a requirement to examine costs in both trial and appellate courts. Cost data from Seattle and

Pontiac illustrate the variety of cost factors that must be taken into account at the trial court level. Estimating costs at the trial level is comparatively straightforward, but evaluating costs at the appellate level is not straightforward, and some questic , remain unanswered. Because Kentucky is the only state where video recording is widespread, and because it has unitary budgeting for all of the courts, it is also possible to present an overview of the changes that have occurred in its statewide budget since video recording was introduced, before looking more closely at detailed cost considerations at the trial and appellate levels.

Kentucky's Statewide Budget for Court Reporting and the Video Recording Project, 1984-88

From 1984 to 1988, the state replaced 16 court reporter positions and three court reporter/secretary positions with video recording. The court reporter/secretary positions were replaced with three secretary positions at a cost of $47,800 (salary and benefits). The net savings associated with these changes was $318,000 for the 1988 fiscal year. The cost of operations for the video recording project (personnel and operating expenses) was $118,000 and included $35,000 for salaries and benefits of a video technician and secretary and $83,200 for videotapes, maintenance contracts, and other miscellaneous items. The net savings between the court reporter salaries that were avoided and the cost of video system operation amounts to $200,000. In 1988 the state also budgeted $386,000 in capital expense, primarily for the acquisition of seven new video recording systems.[25]

Between 1984 and 1988, Kentucky realized a 15 percent decrease in its budget for court-reporting services, including indigent transcripts. The savings realized from a projected budget (i.e., the costs of court reporting had the video recording program never begun) would have been greater, allowing for inflation of the 1984 salary figures. **Table 4.2** shows actual expenditure detail.

Comparative Costs for Equipment and Operation of Video Recording and Traditional Court Reporting in the Trial Courts

The purchase of video recording equipment is a substantial expenditure—$60,000 to $70,000. These capital costs are typically amortized on a five-year depreciation basis. Budget presentations typically contrast the expense of video recording system with costs to support court reporters.

The Video Recording Review Committee (VRRC) of King County, Washington, conducted an investigation of comparative costs for video and court reporter systems.[26] The VRRC report offers detailed documentation of cost factors. It is especially valuable because it itemizes the tasks and costs associated with operating the equipment in the courtroom and handling and processing the videotaped records. Data provided by the trial court administrator in Pontiac are also relatively detailed. Using the Seattle and Pontiac data, **Table 4.3** shows nine different cost items that need to be considered by court planners as they consider video

Table 4.2

Kentucky Expenditures for Court-reporting Services for Fiscal Years 1984 and 1988

	FY 84	FY 88	Percentage Change
Salaries	$1,373,264	$1,192,359	-13%
Benefits	259,819	241,555	- 7
Per diem	134,542	85,864	-36
Pauper transcripts	260,899	193,655	-26
Operating expenses	27,646	41,834	+51
TOTALS	$2,056,170	$1,755,267	-15%

Source: Administrative Office of the Courts

Table 4.3

Comparative Costs of Video and Court Reporter Systems in Seattle and Pontiac

	Seattle		Pontiac	
	Court Reporter	Video	Court Reporter	Video
Court reporter salary and benefits	$46,124		$45,455	
Substitute court reporters	64		2,875	
Video clerk salary and benefits		$ 1,160		
Records staff salary and benefits	2,767	3,890		$ 4,428
Equipment (Amortized over five years)	150	12,091	1,471	14,629
Equipment maintenance contract		3,023		3,461
Videotapes		2,426		3,612
Office supplies	385	100	4,500	1,125
Office space	955		819	819
TOTALS	$50,544	$22,690	$55,120	$28,124
Annual differences (court reporter v. video)		-27,854		-26,996

recording. Each of these items is discussed in turn. In Seattle and Pontiac, as the table shows, video recording is estimated to cost roughly one-half as much as traditional reporting.

COURT REPORTER SALARY AND BENEFITS. This is the major source of savings when courts convert courtrooms to video recording. If the court reporter routinely performs secretarial services for judges or plays a substantial role helping with clerical duties in courtrooms, consideration needs to be given to how those services will be performed if a court reporter position is abolished, and at what cost. The annual cost of court reporter salary and benefits in the sites varied from a low of about $22,900 in Kentucky to a high of $46,124 in Seattle.

CONTRACTUAL SERVICES FOR COURT REPORTER REPLACEMENTS. This item takes account of what is spent to replace court reporters with contract reporters when court reporters are absent from work. In Seattle, where there is a court reporter pool system, vacancies are almost always covered by other reporters in the pool. In Pontiac, each reporter is assigned to a judge, so a replacement must be hired to cover absences. This explains the relatively high cost of this item in Pontiac.

IN-COURT VIDEO CLERK SALARY AND BENEFITS. A videotape system requires someone to load and change tapes, make a written record when events occur in the courtroom (a tape log), and perform duties required to support the system. Pontiac and Seattle have written descriptions of the responsibilities associated with managing the video recording systems. In Pontiac, one person is responsible for all activities (in and out of court) that support operation of the system. In Seattle, the responsibilities are split among the in-court clerks and records management personnel. Pontiac officials estimate 400 hours annually for the video recorder/technician to complete all of the video recording operations tasks, but no detailed breakdown between in-court and out-of-court records management costs is available.[27] Typically, the tasks that are required for video systems include (1) keeping minutes of what occurs in court, by date and time (hour, minute, second) to provide a reference for later review of portions of the tape (these are called tape logs); (2) loading and unloading tape in the machines; (3) labeling tapes and tape boxes; (4) filing and retrieving tapes and tape logs; (5) maintaining records about tapes that are checked out to transcription services or attorneys; (6) copying tapes when necessary; (7) performing minor maintenance routines and overseeing vendor service; (8) assisting attorneys who may be using the court's viewing equipment; and (9) assisting with visitor orientations and public relations. (Task 9 is one that is necessary because there is a high level of interest among other court officials in this new technology, and visits and inquiries are common.)

How the court accomplishes task 1 (making the videotape log) varies among courts. In Kentucky, clerical staff or bailiffs are not typically present in court. The judges keep the log themselves, and if that practice changed, additional personnel would be needed. In Seattle, there is

a courtroom clerk in addition to court bailiffs, who are personal assistants to the judges. The courtroom clerk keeps minutes of the events in court as part of his or her duties, independent of video recording. These clerks now combine tasks of keeping the minutes and keeping the videotape log and are paid a salary increment for having assumed additional responsibilities related to operating the video recording equipment and keeping the log. In Raleigh and Vancouver, the judges' secretaries were able to keep the logs even when they were not present in the courtroom, by keeping an eye (and ear) on monitors in their offices.

Whether administrative personnel or judges keep the log and manage the equipment is an important decision that involves conflicting objectives related to expense, record and log quality, and effect on the legal environment. When the judges keep the logs, and do so poorly, it is difficult for court managers to do anything about it. Some lawyers object to the practice of having judges operate the equipment because it creates the opportunity for inappropriate manipulation of the record. These problems are avoided when court personnel, who are accountable to court administrators, are in charge of the record, although using court employees to operate the equipment and make the record is more expensive for courts that do not usually have clerical personnel present in court.

Records Staff Salary and Benefits. Videotapes require special handling and procedures that are different from those required for court reporter notes and transcripts. The activities associated with labeling, storage, retrieval, public access, and duplication of tapes were carefully studied in Seattle's VRRC study and are presented as a separate item in Table 4.4. While these activities need to be performed in any court, they are not usually accounted for in cost estimates. In Pontiac, they are included in the activities of the video clerk/technician and were estimated at 400 hours per year.

In Louisville, there is a video office where two staff members spend the majority of their time managing the video records system for 16 courtrooms (they also have the responsibility to organize, index, and store the court reporter notes that were left by court reporters). In Fayette County, Kentucky, one person who was responsible for processing all appeal-related records for five courtrooms when court reporters and transcripts were used now continues to do so when videotape is used in four of the five courtrooms. It appears, then, that courts are either able to accommodate the necessary tasks required by the video system by redistributing work or by adding positions up to about one full-time-equivalent clerical position for every four courtrooms that use videotape.

Equipment. The cost of purchasing the basic video recording system described in Chapter 1 is normally about $70,000 for the first courtroom; this includes playback, copying, and transcribing equipment that will not be purchased again with subsequent courtroom installations. The cost per courtroom will be nearer $60,000 for the subsequent installations. In Pon-

tiac, equipment is purchased through a capital equipment fund, and each department is charged a monthly depreciation and maintenance amount. Pontiac also pays monthly fees for transcript production equipment used by court reporters, as well as for the cost of the video recording equipment. Seattle shows only minimal equipment costs for court reporters.

Most courts depreciate video recording equipment on a five-year basis. Other courts show the annual equipment amortization on a seven-year scale (e.g., Wayne and Berrien counties in Michigan.)

EQUIPMENT MAINTENANCE CONTRACT. The vendor warrants and maintains the equipment for the first year of operation. Thereafter, the vendor offers a maintenance contract at 5 percent of the purchase price.

VIDEOTAPES. The vendor provides a one-year supply of tapes with the purchase of each system. Thereafter, the courts purchase tapes for approximately $5.00 each. The appropriate quantity will depend on how the courts conduct business and the procedures followed for taping in each courtroom.

OFFICE SPACE. This is a cost factor when special offices are provided for court reporters or for video technician staff. Storage space is also a factor; for one set of court reporter's notes for six hours, two videotape boxes will have to be stored. Both Seattle and Pontiac included office space for court reporters based on cost formulas used by their counties for square footage.

SUMMARY OF TRIAL COURT EXPENDITURES. **Table 4.4** provides summary comparisons of cost data provided by other courts, without detail. It is clear from Tables 4.3 and 4.4 and the supporting detail that the important variables are court reporter salary and benefits, personnel costs for operating and maintaining the video systems, and the capital costs of video equipment.

What makes video systems substantially less expensive than traditional court reporting is that the costs of video recording (equipment and video technician/clerk personnel) do not equal court reporter salary and benefits. If the cost difference per courtroom per year is projected for the entire court in Pontiac, where there are 14 courtrooms, the cost saving is approximately $377,944 annually. Seattle employs about three times as many judges as Pontiac, so a projected savings per year in Seattle would be around $1.17 million.

Costs for Appellate Case Processing

Cost factors at the appellate level include purchase of the equipment required for reviewing videotapes and the relative expense of using videotapes and narrative transcripts for appellate review. A six-hour videotaped record costs about $10 to $20. A transcript costs about $200. Because so many lawyers and judges say that working with videotape takes much longer than working with a written record, an offsetting increase associated with paying for the professionals' time must also be included as a cost factor. Each of

Table 4.4

Annual Costs for Trial Courts: Court Reporter v. Video System (per Courtroom)

	Video	Court Reporter	Difference
Louisville*	$10,600	$22,900	$12,300
Pontiac	28,124	55,120	26,996
Raleigh	14,467	32,006	15,539
Seattle	22,690	50,544	27,854

* Louisville's data only include costs of video recording equipment (53,000/ 5 years), and average court reporter salaries. It does not include any expenses associated with the cost of operation for court reporters (supplies, equipment, space, etc.) or the video system operation.

these factors—equipment costs, savings in transcript expense, and the potential for increase in professionals' time—are discussed below.

EQUIPMENT FOR THE APPELLATE COURTS. The cost of a playback system suitable for use by appellate courts is $2,480 or $3,800, depending on whether an optional speed-viewing playback enhancement feature is included. The basic system includes a monitor, tape player and a high-speed fast forward and rewind capability that is programmable. The more expensive system allows the tape to be played at twice normal speed. If one station was provided to each intermediate appellate judge, the total annual cost would be about $12,160 in Washington (16 judges), $9,120 in North Carolina (12 judges), and $10,160 in Kentucky (14 judges.) This assumes a five-year depreciation rate. In Michigan, where videotapes are not routinely used by attorneys to prepare briefs nor reviewed by the appellate court, there is little fiscal impact of the video system at the appellate level. (While appellate judges and lawyers must have some access to video playback equipment, they will not use it often, and a few stations will suffice for access. Trial courts have equipment available for lawyers.)

INDIGENT TRANSCRIPTS. Annual state costs for indigent transcripts were obtained from Kentucky and Washington. In 1988 they were $178,125 and $544,776, respectively. Since 1984, when the videotape program began in Kentucky, the actual annual costs for pauper transcripts have been reduced by 32 percent, from $260,899. This potential saving is only relevant if a state is considering a policy of using tapes, not transcripts, for appeal. When these savings are assumed, the off-

setting costs for playback equipment and possible increases in personnel need to be considered.

COSTS RELATED TO INCREASED TIME FOR REVIEWING THE RECORD. While it is universally agreed, or nearly so, that it takes staff attorneys and judges more time to review an appeal, the results are ambiguous when all of the available data are considered together and provide no sound basis for estimating the effect of this factor on system costs. The nine appellate judges in Kentucky who were interviewed reported that they are not taking any longer overall to complete their work on cases. Available data on criminal appeals from Louisville, moreover, show no evidence of a slowdown in case processing time (see "Timeliness," below). In 1988 the number of law clerks for the intermediate appellate courts was increased by one for 11 of the 14 intermediate appellate court judges, but the explanation for this appears to lie in Kentucky's continuing need to address overall caseload increases. Adding law clerks was a compromise between the judiciary and the legislature to increase appellate court resources in response to a rising caseload. The commonwealth has added no new judges to the court of appeals since it was created in 1977. Between 1977 and 1986, the filings in the court of appeals have nearly doubled, rising from approximately 1,800 to 3,500.

Public Defender

PERSONNEL COSTS. The Kentucky department of public advocacy and the Louisville-Jefferson County Public Defender Corporation—the two public agencies that represent indigent criminal defendants on appeal—both agree that using videotaped records for appeal preparation will inevitably either increase costs or lead to an increasing backlog of cases.

The office of public advocacy has not, however, increased personnel during the last four years as a consequence of the video recording effort. Lawyers in the agency say that preparation of briefs does take longer and that, as a consequence, they must compensate by working longer hours. They also say that extensions of time to file briefs are being requested and granted in more cases. Administrative officials in Kentucky agree that this seems to be happening.[28] The Louisville public defender office, on the other hand, has recently added one full-time lawyer whom they say is needed to keep work current now that the office works exclusively with video appeals.

While public defenders and state court officials agree that requests to extend the time to file briefs have increased with video recording they do not agree on all of the reasons for the increase. The disagreement concerns how frequently attorneys must work with records of long trials and what the overall effect is when the long trials are spread over the entire workload. Public defenders argue that the effect is significant. They handle criminal appeals exclusively and do not enjoy the benefit of having represented the defendant at trial. State court officials be-

Table 4.5

Number of Videotapes Making Up the Record for Kentucky Videotape Appeals in 1988

	Statewide	Jefferson County
Total number of videotape appeals	186	71
Total number of videotapes	397	151
Average number of videotapes per appeal	2.1	2.1
Median number of videotapes per appeal	1.0	1.0
Percentage of appeals with 1 videotape	51.1	49.3
Percentage of appeals with 2 videotapes	25.3	28.2
Percentage of appeals with 3 videotapes	11.3	12.7
Percentage of appeals with 4 videotapes	5.4	2.8
Percentage of appeals with 5-20 videotapes	7.0	7.0

lieve that while there is no doubt some effect, it is manageable because most records on appeal are relatively short.

Table 4.5 shows the data gathered in Kentucky about the length of videotaped records associated with appeals during 1988. Fifty percent involve one tape or a fraction of one tape, about 25 percent involve two tapes, and the remaining quarter of the cases have three or more tapes. Very few cases (7 percent) fall in the category that has been most often cited by attorneys in connection with extraordinary delays in filing briefs.

Data in Table 4.5 do not discriminate between criminal and civil appeals. Recently conducted research on the nature and composition of appellate caseloads shows that significantly more criminal appeals arise out of jury trials than is the case for civil appeals.[29] Thus, it may be the case that the view of the Kentucky administrative office of the courts about how frequently the public defender must work with long cases is an underestimation. More directly to the point, however, are data obtained from Kentucky about how long it takes on average to complete various stages of appeals—including briefing—for video and nonvideo appeals. These data are discussed more fully below in the examination of "Timeliness." They do not support the claim that videotape slows down the briefing stage, on average.

EQUIPMENT COSTS. The department of public advocacy's appellate defender section uses standard VCR equipment and a television to review tapes.[30] The Jefferson district public defender has acquired

reviewing equipment that is better suited to the task, including the JAVS system 2X review equipment. The actual costs for the equipment used by both agencies is not known. More relevant than the actual expenditures for equipment is the observation that each office should have the equipment described earlier that has been installed in the appellate courts in Kentucky. This equipment, including the 2X feature, costs $3,800 per station. The ratio of playback stations to attorneys, perhaps, should be 1:1.

Private Attorneys

Trial courts usually purchase video viewing equipment and make it available to lawyers at the courthouse. Only a few of the appellate attorneys interviewed used the court's equipment when they worked on appeals, however. Most preferred to use home-viewing or office equipment. No private attorney interviewed, even in the largest and most affluent firms, used the optimal configuration of playback equipment while reviewing videotaped records. Given the drawbacks inherent in a record that can only be accessed sequentially with today's technology, such equipment is highly desirable for attorneys who specialize in appeals. The best equipment does not make reviewing a videotape as convenient and fast as a written record, but it can significantly improve the process. The configuration needed is the same as that now available in the court of appeals judges' offices in Kentucky, which costs $2,480 to $3,800. It is unlikely that even a large firm would need more than one playback station.

Private Litigants

If an appeal is briefed using a videotape, the cost to the litigant for the record on appeal is negligible—about $15, compared to hundreds of dollars for a transcript of each day's proceedings.[31] For a short videotaped record (one day), many of the attorneys who were interviewed agreed that any increased cost charged to the litigant for briefing the case using the videotape would be minimal and likely would be at least offset by the transcript cost savings. It is not possible to say the same for longer records. No appellate attorney interviewed would hazard a guess about how clients would be billed differently for brief preparation in video cases than they would in cases where a transcript was used, nor whether savings from avoiding transcript costs would offset other increases.

Private attorneys generally say that for a long case the preferred option is to have the videotaped record transcribed. The costs to the litigants for a transcript are equal to or less than they would be if the record was taken in court by a court reporter.[32]

Summary of Cost Implications of Video Recording

There are savings in public expenditures at the trial court level when records are made using videotape instead of court reporters, and these are substantial. **Table 4.6** illustrates the potential savings in trial court expenditures that might be realized if video recording were widely used in a state, using the state of Washington as an example. The savings per courtroom are

Table 4.6

Cost Savings that Might Be Realized in Washington's Courts by Using Video Recording

Number of Courtrooms	Savings at $27,854 per Courtroom[1]	Savings at $22,283 per Courtroom[2]
133 (statewide)	$3,704,582	$2,963,639
66	1,838,364	1,470,678

[1] Cost savings documented in Seattle.

[2] These are 20 percent less than savings in Seattle, which would probably not apply ststewide.

shown at $27,854—equal to that documented in Seattle—and at $22,283, which is 20 percent less than the savings in Seattle. (Seattle's figures are probably too high to be applied fairly to the whole state.) The table also shows the estimated savings if all the superior courts in Washington converted to video recording and if just one-half of the courts converted.

States that followed Michigan's approach on the use of the record on appeal would realize savings proportional to those illustrated in the case of Washington, and no significant corresponding increases elsewhere would offset them.

If the Kentucky model is followed, however, estimating the statewide costs is a difficult task because of the effects on the appellate system. The savings realized through reduction in the costs for indigent transcripts must first be considered: in Washington, $544,776 was spent on indigent transcripts in 1988. Some part of this cost would be saved by avoiding transcripts, but the savings would depend on what percentage of all of the state's appeals arise out of the video courtrooms. Once the savings in transcript costs is determined, the additional costs the state expects to incur as a result of purchasing playback equipment for use by the appellate courts and public lawyers must be subtracted. These should be estimated at $3,800 per station and be depreciated on a five-year basis in order to arrive at annual costs.

Again, using Washington as an illustration, the annual cost for purchasing playback equipment for each of the state's court of appeals and supreme court judges would be $16,720. Far more costly, however, would be providing playback equipment for the public defenders, prosecuting attorneys, and other lawyers who would need it to work on appeals. For 78 workstations (an average of 2 for each of the state's 39 counties), the annual cost would be $59,280, or a total of $76,000. If

personnel must be increased in the appellate courts or other agencies to compensate for additional time required to work with a videotape on appeal, additional costs would mount quickly. Whatever these may be, they must also be subtracted from the estimated savings attributed to avoiding the costs of transcripts. In Washington, the addition of one law clerk for every two appellate judges (13 clerks at $35,000 per year for salary and benefits) would total $455,000, a sum that nearly eliminates the savings realized by avoiding transcript preparation.

Whether it is reasonable to assume that increases in personnel of the magnitude suggested above (one clerk for every two appellate judges) would be needed in the appellate courts *solely* as a consequence of using videotape as the official record on appeal is a matter of conjecture. A more reasonable assumption is that personnel would need to be added in the states' appellate defender offices. If Washington's appellate defender service added four new lawyers to compensate for working exclusively with videotape (this would be a proportional increase to what has occurred in the Louisville/Jefferson County appellate defender's office) the cost would be $120,000 (four attorneys at $30,000 per year.)

Therefore, it appears that a conservative analyst in Washington would combine the equipment costs ($76,000) and the costs associated with an increase in appellate defenders ($120,000) and see the savings by avoiding transcripts reduced by about half. If it proved necessary to increase the staff of the appellate courts by as much as one appellate clerk for every two appellate judges, the savings would disappear entirely.

It is very unlikely in practice that any state's systems would be either all video recording or all traditional court reporting. States are more likely to have a mix of video recording, traditional methods, audio recording, reporters using their own CAT systems, and even some courtrooms equipped as "computer-integrated courtrooms." The model for estimating costs savings presented in summary below is best used as a generalized framework around which concrete cost evaluations can be built for each state, based on the policy assumptions and cost factors that are appropriate there.

To summarize:

- Substantial cost savings for trial courts are possible where video recording is used instead of traditional court reporting.

- If videotapes are transcribed routinely, virtually none of the savings in trial court expenditures are affected.

- While the use of videotape instead of a transcript may save a substantial sum in direct costs for producing transcripts, there may also be new costs for equipment and additional lawyers in the appellate courts and public defender offices that could offset those savings entirely.

- Each item on the following model should be addressed by planners who are considering the cost/benefits of a video recording program in their state.

Model for Evaluating Comparative Statewide Costs of Video Recording and Court Reporter System for Making the Record of Trial Court Proceedings

Trial Court (costs per courtroom)	Appellate System
Court reporter salary and benefits	Appellate transcripts for indigents
Substitute court reporters	Costs for equipment for appellate judges and clerks to review videotapes
Video clerk salary and benefits	Additional staff attorneys in the appellate courts
Records staff salary and benefits	Additional equipment in public defender's offices
Equipment (Amortized over five years)	Additional lawyers in public defender's office
Videotapes	Additional equipment available for occasional use by public and private lawyers
Office supplies	
Office space	

Record Availability

An advantage claimed for videotape by its proponents is that one of the key time intervals in appellate case processing—notice of appeal to transcript/record production—is reduced significantly, because the videotape is available immediately upon the conclusion of the trial. A court reporter's notes, on the other hand, must be transcribed, and the corpus of "war stories" told by judges, court administrators, and attorneys is replete with tales of woe about how long it took to obtain the transcript required on appeal. Some data are available to put these stories in perspective and are presented below.

The interviews with judges and attorneys in all of the sites yielded consistent acknowledgments that a videotaped record was immediately available, and this was seen as an advantage. Just as consistently, however, judges and attorneys claimed that it takes them much longer to review the record when the

videotape is used for an appeal. In Kentucky, the lawyers who represent indigent defendants on appeal are convinced that the difficulty of working with videotape when preparing a brief makes the briefing time anywhere from two to five times as long. In Michigan, where the tape is transcribed, it is claimed that the transcription service used there produces a narrative record more quickly on average than court reporters do. This claim is also examined through available data.

Reducing appellate-court processing time ultimately means reducing the overall time from filing the appeal to final disposition. While achieving a reduction in time for any stage of appellate case processing offers *potential* for reducing overall time, this is not an absolute. If the change that contributes to reducing one interval causes an increase in time for one or more other intervals then the effects are offset. Data from Louisville suggest that video recording does reduce the time from notice of appeal to receipt of the transcript and record by the court of appeals and that other case-processing time intervals are not increased.

The Stages of Appellate Case Processing

The first stage of appellate case processing is preparing the record. The beginning of this stage is the filing of a notice of appeal. During this stage, the documents related to the case at the trial level are assembled and the report of proceedings (transcript) is prepared. This is when court reporters transcribe their notes and produce a readable record. The end of the stage is the filing of the transcript. By this time, attorneys have everything they need to begin preparation of briefs. In Kentucky, this requires only the inclusion of the videotape(s) with the case papers. In Michigan, this is the stage when the transcription service produces a readable record by transcribing the videotape.

The second stage is brief preparation. During this stage, attorneys work with the trial record to prepare their briefs. The appellant's brief is prepared first, filed at the court of appeals and made available to the respondent. This stage ends when all briefs have been prepared, exchanged, and filed.

Stage three is the period when the merits of the case are considered by the court of appeals. It has several recognized steps within it (e.g., ready to assignment to a panel; ready to oral arguments). This stage ends with an order or opinion.

Comparison of the Availability of Videotaped and Narrative Records for Appeal

A comparison of the criminal appeals from Louisville, as shown in **Table 4.7**, provides a direct measure of the effects video recording has on the period for preparing the record. The effects are salutary: in 1988 the record was completed and filed with the court of appeals in less than half the time on average when recorded on videotape (32 days) than when a narrative transcript is produced by a court reporter (67 days). Moreover, when the record is made by court reporters there are some cases that take an extremely long time before the record is produced—for

Table 4.7

Time from Notice of Appeal to Notice of Certification of the Record in Kentucky: Court Reporter v. Videotape Records, 1986-89 (Days)

		Longest	Shortest	Mean
1986	Court reporter (N=40)	224	13	87
	Video (N=12)	61	19	31
1987	Court reporter (N=69)	516	2	69
	Video (N=36)	62	4	30
1988	Court reporter (N=37)	467	22	67
	Video (N=52)	75	2	32
1989	Court reporter (N=20)*	91	1	35
	Video (N=38)	40	23	31

* Data for January 1, 1989 to June 30, 1989

Source: Clerk, Court of Appeals

example, the longest times for these cases in 1986, 1987, and 1988 were 224, 516, and 467 days, respectively. The longest time required to certify a videotape appeal, by contrast, was 75 days. These data, then, confirm the expectation that using videotape for the appellate record shortens the first stage of the appellate process and are consistent with judge and lawyer anecdotes about occasional, exceptionally long delays before the record can be obtained from court reporters.

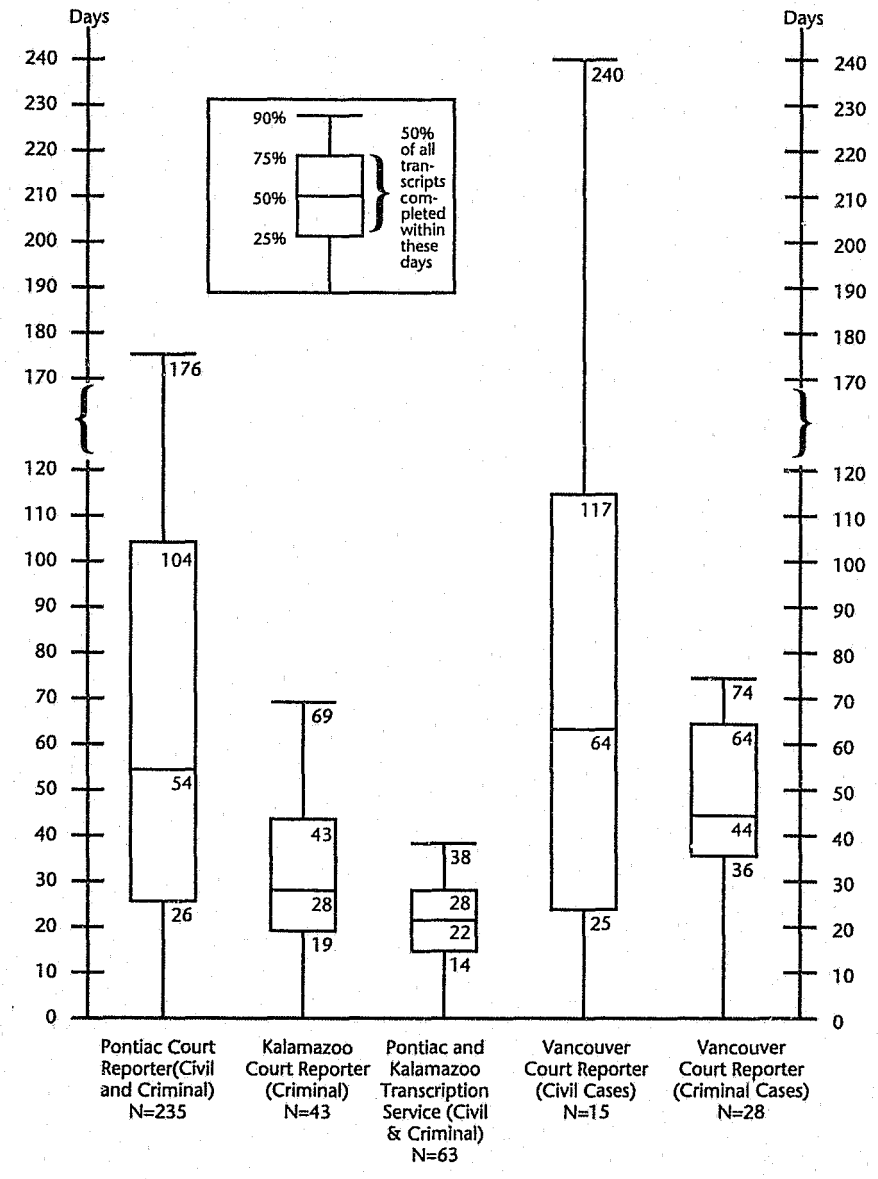
Comparison of Transcript Preparation Time for Narrative Records

Figure 4.5 illustrates how long it takes to prepare transcripts for appeals in the study sites in Michigan and Washington. (Data from North Carolina were not available.) The chart on the left shows the distribution of completion times for a set of appeals filed in Pontiac (Median=54 days). The next chart shows the completion times for a set of cases from Kalamazoo (Median=28 days). The middle chart shows the completion times for a set of video-recorded cases sent out to the transcription service from both Pontiac and Kalamazoo (Median=22 days). The charts on the right show the time needed to complete transcripts for civil and criminal appeals in Vancouver (Median= 117 and 44 days, respectively).

Each set of cases on which the charts are based was obtained by different methods for each location, owing to differences in record keeping and the availabil-

Figure 4.5

Time to Complete Appellate Transcripts: Comparison of Court Reporter and Transcript Service Performance in Michigan and Washington



ity of data. The set of cases from Pontiac was obtained from the clerk of the court and represents all cases (civil and criminal) that were disposed in 1988 that had a notice of appeal associated with them, and that had a record of the transcript completion date. For these cases, the transcripts were completed by court reporters.[33] The cases for Kalamazoo include only criminal appeals and represent a sample (every fifth case) from a pool of criminal cases for which an attorney was appointed to represent an indigent defendant on appeal in 1988 and 1989.[34] The set of cases from the transcript service represents all orders for transcripts received by them from the courts during two different periods in 1988 and 1989 (January 1-June 30, 1988, and January 1-April 31, 1989).[35] The data from Vancouver were obtained from a report prepared by the office of the administrator for the courts in Washington, and they include all appeals of each type for which transcripts were completed in 1988. (Washington records these interval data as a matter of routine in the automated case record system maintained by the state for the appellate courts.)[36]

The data displayed in Figure 4.5 show a marked difference between the time it has been taking to prepare transcripts from video recordings in Michigan and how long it has been taking to have transcripts completed by court reporters in Pontiac and in Vancouver.

The extremes for transcript production time shown in Figure 4.5 also confirm the war stories told by judges and attorneys about occasional very long delays. The figure also shows the difference between Kalamazoo and Pontiac; i.e., transcripts are prepared more quickly in Kalamazoo, almost as quickly as the transcript service prepares them. The reasons for this—the management initiatives undertaken in Kalamazoo—were discussed in Chapter 2.[37]

These data confirm that delay in transcript production has decreased in Michigan for cases that have been videotaped. More interestingly, however, the data show that transcript production times in Kalamazoo are much shorter than Pontiac, presumably because of differences in the way court reporting is managed. Thus, the data also suggest that transcripts may be produced as quickly with traditional court-reporting methods, if the court-reporting system is managed to achieve that goal.

Effect of Using Videotape on Overall Appellate Case Processing Time in Kentucky

Videotape was introduced in one courtroom in Louisville just before 1985. By mid-1987, more than half of the courtrooms were making videotaped records, and by 1989 all cases filed in the Jefferson County Circuit Court have a videotape as the record of proceedings. **Figure 4.6** shows the pattern of video recording installation. **Figure 4.7** shows the changes in the average number of days to complete the appellate process, and the average number of days to complete each of the three major stages that make up the total, over the years when video recording in Louisville expanded.

During the period when videotape installation expanded to 100 percent of the courtrooms, the time to prepare the

Figure 4.6

Increase in Video Installations (Louisville)

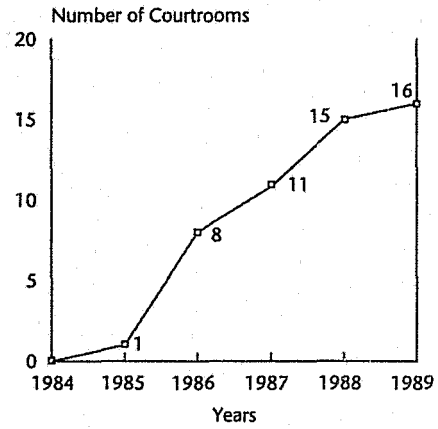
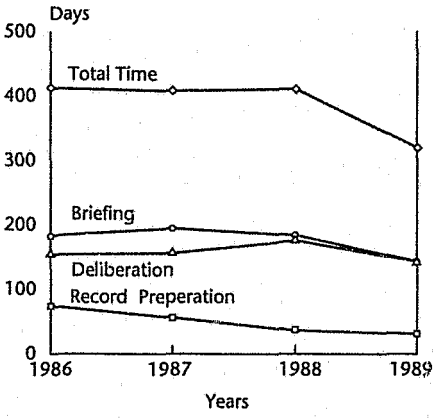


Figure 4.7

Kentucky Appellate Case-processing Time Intervals, 1986-89



record has steadily decreased. The overall case processing time remained steady for three of these years and then dropped in 1989. This is consistent with what was predicted by the policymakers in Kentucky.

The data for the second stage of the appellate process show a pattern that would not have been predicted from the interviews. Interviews suggest that the average time to complete the briefing stage for criminal cases would increase as more and more appeals rely on a videotaped record, because it takes longer for attorneys to work with videotape appeals. As a result, more extensions have to be requested. As Figure 4.6 shows, however, no increase has occurred. The Louisville public defender offered the following hypothesis to explain why these data do not reflect the trends that are predicted in interviews. During the period when appealed cases that used videotape increased, rules relating to the appeal of pretrial motions to suppress evidence also changed. The rule change increased guilty pleas, because defendants who did so did not lose the right to appeal adverse decisions on the suppression of evidence. The hypothesis suggests that more appeals are filed based on the short records of motion hearings, rather than on longer records of trials. As a result, the adverse effect of videotape on time to prepare briefs in cases that go to trial is being offset by fewer cases being tried and more cases being appealed from motion hearings with short records.[38] Data that would confirm

Table 4.8
Appellate Case Processing Time in Kentucky: Court Reporter v. Videotape Records, 1986-89 (Days)

	July-Dec. 1986		1987		1988		Jan.-June 1989	
	Court Reporter	Video	Court Reporter	Video	Court Reporter	Video	Court Reporter	Video
Record Preparation	87 (N=40)	31 (N=12)	69 (N=69)	30 (N=36)	67 (N=37)	32 (N=52)	35 (N=20)	24 (N=38)
Briefing	182 (N=29)	188 (N=7)	196 (N=50)	193 (N=35)	183 (N=32)	190 (N=46)	149 (N=10)	142 (N=28)
Deliberation	155 (N=25)	154 (N=1)	155 (N=54)	159 (N=33)	181 (N=43)	173 (N=29)	150 (N=10)	141 (N=19)

this explanation for the decrease were not available, since summary records maintained by the clerk of the court of appeals or the appellate defender do not make the necessary distinctions among casetypes.

Table 4.8 shows the data used in Figure 4.6 in table form and compares the trends for videotape appeals to trends for appeals from court reporter transcripts. It is interesting to note that the trends in the briefing stage for both videotape and court reporter appeals shown in Table 4.8 generally track together, and there is no consistent pattern of one being shorter or longer than the other (and very little difference between them). The time for both videotape and court reporter briefing decreases noticeably in 1989.

Interview data was less clear about predicting delays in the deliberation stage of appeals as a consequence of video recording. On the one hand, outspoken critics of the video system say that the need to refer to videotapes instead of a record are slowing the court down. In a letter to the president of the National Shorthand Reporters Association, one of the judges of Kentucky's court of appeals said it was difficult to keep abreast of the appellate workload as a consequence of videotapes.[39] In contrast to this judge's view, nine judges of the court of appeals who were interviewed reported no delay in disposing of video appeals.[40] They generally agreed with their colleague who opposes video recording that staff attorneys and judges had to spend more time on the case when review of a videotaped record was important to the deliberation, but they said it did not cause them to take longer to complete their deliberation and write the decision.[41] (Appellate lawyers in civil practice also said that although they experienced difficulty and frustration in briefing videotaped cases, they completed the briefs in a timely manner.)

The data from Louisville tend to confirm the view of the majority of the court of appeals judges.

Trial Court Experience with Availability of Videotaped Records

The verbatim record of proceedings, although made primarily to serve the purposes of appellate review, has uses at the trial court level as well. Three are most common. First, the record is reviewed by lawyers and judges to confirm findings and orders delivered orally by the judge and agreements reached by the parties, when written orders are being prepared. Judges will also occasionally refer to the record to confirm matters of fact when writing their decisions. Second, the evidence of witnesses offered at trial is sometimes read back in open court during the trial for clarification, emphasis, or impeachment. The record is similarly used on occasion at the request of juries during their deliberation. Finally, attorneys may refer to the record during lengthy trials to assist them in preparation or presentation of their case the next day. When trials are not completed in consecutive days, attorneys (and judges) may refer to the record to refresh themselves about the case before the proceedings recommence, particularly when the hiatus extends to weeks or months.

By its nature, the video record is available more quickly than a court reporter's written narrative.[42] In practice, the videotaped records have proved to be quickly available. When lawyers are provided personal copies of videotapes in the form of dubbed copies, some attorneys have experienced delays of up to several days in having them made, but this is a rare occurrence. Even this occasional (and minimal) delay is avoided by courts that install third and fourth VTR decks in the courtroom to make original recordings for attorneys.

In summary, interview statements by judges and attorneys, comments written by attorneys on questionnaires, and attorney responses to structured questions on the questionnaire all said the same thing—an advantage of videotape is the ready availability of the record. The attorney questionnaire responses from Louisville, for example, are shown in **Table 4.9.** Louisville attorneys work as frequently with video recording as with court reporters (probably more frequently in recent years).

Conclusion

Experience with appeals sufficient to measure the effect video recording is having on the time to process appeals is found only in Kentucky. The available data from Louisville confirm the expected decrease in the time to prepare the record of the appeal but do not indicate that there are any offsetting increases in the time to prepare briefs or in the deliberation stage of the appellate process, as some lawyers and judges have predicted. In Michigan, where the videotape is transcribed before it is used by the lawyers and the appellate court, there are no data available to directly compare the stages in appellate case processing for appeals filed from videotape and court reporter records. The transcription service, however, reliably produces transcripts within 30 days for nearly all of its work, and no recorded

Table 4.9

Louisville Attorney Responses on Record Availability

Question

"How Often Has a Videotape Record or Transcript Ordered from a Court Reporter Not Been Available When It Was Supposed to Be?"*

	Never/ Rarely	Occasionally/Frequently
Videotape not available (N=296)	91%	9%
Transcript not available (N=314)	58%	42%

*Table refers to Questions 11 and 16.

case took longer than 70 days. By contrast, traditional court-reporting methods do not result in reliably short times for transcript production, with occasional extremes that are disconcerting.

System Reliability

System reliability with video recording is determined by the frequency of equipment malfunctions and disruptions and delays in court proceedings due to necessary repairs. Is the system ever inoperable? If yes, how often is it inoperable and for what duration? If repairs are necessary, how quickly are they initiated and completed? How does the court proceed, if at all, during these occasions? All of these questions address system reliability.

The information gathered in the evaluation process, including interview results and attorney survey results, consistently indicate that the video recording equipment being used is very reliable. Court personnel in most of the sites have reported few equipment malfunctions over years of operation. More frequent were reports of equipment problems in the sites during the first few days or weeks of operation. In Kalamazoo and Pontiac, for example, mechanical problems included a failure of an audio computer chip in the main control box, blue streaks on the video monitors due to excessive light exposure, and lines on monitors when one camera failed. When these problems occurred, the remaining audio chips and associated microphones in the first case and the audio component of the system in the second and third cases produced an audible audio record. The problems were corrected either by equipment replacement within a day (audio chip), equipment adjustment within a day (excessive brightness), and camera replacement within a day (camera failure).

The experience reported by judges and court staff in other sites is similar. Few mechanical problems have occurred, usually soon after installation, and when they did occur the systems rarely caused

disruptions or failed to produce a record, nor did they require personnel substitutions or replacements in order to continue court proceedings. The court in Raleigh was one of the exceptions. The clerk there reported, "In the beginning there were aright many bugs in the system," and that the video recording system could not be used for two days.

When mechanical problems have occurred, necessary repairs have been made quickly, either by a member of the judicial staff or by a vendor's representative. Some judges report that through communication with the vendor and after some experience with the equipment, court personnel are capable of making adjustments and corrections in the system. In one court, this included identifying a faulty computer board in the main system control box and replacing it with a new board that was sent by overnight mail.

Audio dead spots—areas in the courtroom where the audio system does not pick up sound as thoroughly as it does in all other areas—have been mentioned in interviews. Adjustments in microphone placement corrects this problem in most cases. To assure consistently good audio pickup, court participants are discouraged from wandering around the courtroom and speaking while walking away from the witness stand or jury. Most attorneys who mentioned this during interviews indicated that these constraints help them correct bad habits, such as speaking with their backs turned to the jury. In any case, the dead spots and wandering affect the uniformity of the recorded speech—its volume or clarity—but a listener can make out what was said by adjusting the volume.

Reliability of recording has been compromised most seriously by operator errors, and some of the equipment features that contributed to these problems have been corrected. Recording equipment originally incorporated manufacturer's automatic rewind features: a tape that ran out would rewind automatically, and testimony previously recorded would be recorded over. On one well-publicized occasion, so much of the record was lost when this occured that a mistrial was declared. In addition, the vendor originally used passive warnings (lights) to indicate when the equipment was not recording. Both the automatic rewind and the passive warning features of the equipment on occasion have caused trial records to be incomplete.

While the equipment is simple to operate, some training is required. There is no safeguard against failing to turn the equipment on and starting the record mode, except care and paying attention. Just as courtroom participants must look to see if the court reporter is present in the courtroom before beginning the session of court, so they must check to see if the video recording equipment is turned on.

Since no system of reporting is free of problems with reliability, including the familiar court reporter method, videotape reliability must be compared with the reliability of traditional court reporting. While interviews and anecdotes help to understand the nature of problems and uncover experiences that are frequent and consistent, the significance of the reports

is more difficult to determine. In order to assess reliability of video recording in a more meaningful way, questions were included in the attorney survey that allowed comparison of attorneys' experiences with and attitudes about the relative reliability of video recording and the familiar court-reporting method.

The attorney surveys included the question, "How often has a proceeding been delayed or has a proceeding been interrupted because video equipment did not function properly?" Ninety-two percent of the respondents indicated that this "never" or "rarely" occurred, and 8 percent said it occured "occasionally" or "frequently" (total n=899).

A similar question was asked of attorneys regarding court reporting. In answer to the question, "How often has a proceeding been delayed or been interrupted because a court reporter was late, unavailable, or needed a break," 74 percent of the respondents indicated that this "never" or "rarely" occurred and 26 percent that this "occasionally" or "frequently" occurred (total n=984). **Table 4.10** breaks down the results by site.

Attorneys also indicated the extent to which they agreed or disagreed with this direct statement: "A court reporter is more dependable than video equipment." The responses indicate a predominance of favorable attitudes about video recording reliability, as shown in **Table 4.11.**

In summary, attorneys and judges who use the systems consider them reliable; and mechanical difficulties, if and when they occur, rarely prevent court proceedings from continuing or prevent a record from being made. Repairs, when necessary, are made quickly, and adjustments and corrections can often be made by judicial staff. Since proceedings typically have not been disrupted, substitute personnel have not been necessary. Human errors have caused more problems than has the proper functioning of the equipment itself. Mechanical aids have been developed to help personnel avoid these errors (e.g., VTRs no longer have an automatic rewind feature, and audible warnings are replacing passive indicators of operational problems.) A series of lights and other monitoring signals indicate that tapes are in the VTR and are recording speech and images in the courtroom. Other signals visible to both judge and counsel indicate that the system has been turned on.

Obtrusiveness

This evaluation criterion includes the degree to which video recording affects courtroom decorum, alters courtroom proceedings substantially, or influences the behavior of courtroom participants. Information about obtrusiveness is drawn from interviews of judges and attorneys, comments by attorneys written on survey questionnaires, and personal observations made by the project staff in courtrooms while proceedings were being conducted.

The cameras used for the system are small and are fixed high on the walls, typically in the front and back of the courtroom. The microphones are quite small and are built into or attached to existing furniture. The microphones are

Table 4.10

Attorney Experience with Trial Delay with Video Recording and Court Reporters

	Never/Rarely	Occassionally/Frequently
All sites		
Video[1]	91.9%	8.0%
Court reporter[2]	73.7	26.3
Vancouver		
Video	91.8	8.2
Court reporter	71.4	22.6
Raleigh		
Video	67.9	5.7
Court reporter	78.9	21.1
Louisville		
Video	85.3	14.7
Court reporter	80.3	19.7
Pontiac		
Video	95.3	4.7
Court reporter	62.6	37.4
Kalamazoo		
Video	99.3	0.7
Court reporter	67.9	32.2

[1] "How often has a proceeding been delayed or has a proceeding been interrupted, because video equipment did not function properly?"

[2] "How often has a proceeding been delayed or been interrupted because a court reporter was late, unavailable, or needed a break?"

Table 4.11

Attorney Responses Comparing Dependability of Court Reporters and Video Recording

"A Court Reporter is More Dependable Than Video Equipment"

	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
	N=117	N=148	N=307	N=208	N=133
Agree	35.1%	44.6%	42.0%	41.4%	39.9%
Disagree	64.9	55.0	58.0	58.7	60.2

narrow, black, cylindrical devices that are attached to counsel tables, jury box rail, podium, witness stand, and bench. No special lighting is required to operate the system. If lighting is not adequate at the time of installation, one or two additional light fixtures similar to those already used in the courtroom may be added, but for most courtrooms this is not necessary. Microphone placement is dictated by existing courtroom design and the need to keep each microphone zone independent. Modifications of the courtrooms have not been required.

Attorneys who have been interviewed indicate unanimously that the cameras and microphones are not distracting either to them or to clients, jurors, or witnesses. Other than the reading of a statement at the beginning of proceedings in some jurisdictions by the judge explaining the use of video equipment as a pilot project, the use or presence of the equipment does not interfere with or disrupt court proceedings. Attorneys generally report that court participants forget about the system very soon after proceedings begin.

Most attorneys and judges who were interviewed felt that courtroom decorum and demeanor, when it is affected at all, is improved with the use of audio-video equipment. Attorneys report that conduct by judges during proceedings is less likely to be inappropriate or questionable with an audio-video system making the record. Judges report the same thing about attorneys. Many attorneys report that they use tapes of proceedings in which they are participants to review and modify their courtroom appearance, demeanor, and speaking style. The purpose typically is to be more effective in representing their client, particularly if a jury is involved.

In Kalamazoo, the video courtroom has a monitor that is visible to attorneys and others who participate in the proceedings. This was reported to be a distraction to some attorneys.

Some judges report that they occasionally must remind counsel to avoid speaking too far behind the podium or counsel table or to avoid speaking from locations that experience shows are "conflict zones" between two microphones. When speaking from these spots, the dominance of one microphone is not well established, and volume and picture may fluctuate, or the camera may not show the speaker.

Preservation of the Record

Videotaped records of court proceedings, like the paper notes of court reporters, must be preserved for as long as statutes or court rules require. Although owners of home video recordings have been warned that deterioration in their tapes could occur within five years after they are made,[43] the technical research relied on by archivists, and the experience of broadcasting, suggests that a 20-year minimum life can be expected for recordings on today's high-quality tape.

Ampex Corporation, a leading manufacturer of videotape, guarantees that its product can be expected to function for 25 years.[44] According to Eric Mankin, of *Electronic Media*, recordings made over 25 years ago with what is antiquated technology by today's standards (on 2-inch

Table 4.12

Statutory Requirements Governing Verbatim Records Preservation*

	Offense/Court	Preservation Period (Years)
Kentucky	All Courts	5
Michigan	Felonies	15
	Other Offenses	10
	District Court	6
North Carolina	Superior Court	10
	District Court	5
	Special Proceedings	1
	Juvenile Proceedings	90 Days
Washington	Criminal Cases	15
	Civil Cases	7

* Refers to untranscribed notes, tapes, and recordings.

tape), "have suffered no detectable changes through the years."[45] Today's videotape, in the 3/4-inch format, is made with a polyester-based material that is more stable and durable than the cellophane-based early tapes.[46] The National Archives reports that an unpublished study by the National Bureau of Standards and Technology on the longevity of electromagnetic tape concludes that tapes manufactured with modern techniques can be expected to last 20 to 30 years with reasonable care.[47] These findings are acknowledged by the National Center for Film and Video Preservation as well, "While there is evidence that tapes produced in recent years may retain an acceptable signal for at least twenty to thirty years and possibly for as long as one hundred years, there does not yet exist a means to guarantee a shelf life equal at least to that of safety film."[48] The weight of authority, therefore, supports the notion that 20 to 30 years is a conservative expectation for videotape longevity, if tapes are properly handled and stored.

Table 4.12 shows information provided by personnel in the state court administrator's offices of Kentucky, Michigan, North Carolina, and Washington about how long court reporter's notes must be preserved in their states. Fifteen years for criminal proceedings in Washington and Michigan is as long as any record must be preserved in the study sites.

Where state statutes require preservation for 20 years or more, video recording would not appear to be appropriate unless records retention practices were revised. In the states studied, however, the longevity of videotapes should not be a concern, if we assume that proper care is taken in their storage.

Videotapes are more susceptible to damage or deterioration than court reporter's paper notes or narrative transcriptions. They must never be exposed to electromagnetic fields, they should not be left in direct sunlight, nor stored in rooms where the temperature fluctuates severely. Storage rooms should not be hot, and the ideal conditions for storage are temperatures in the lower 70s F. with humidity near 45 percent, ± 10 percent. Tapes should be rewound onto the take-up reel on the cassettes after playing and stored with the take-up reel down.

Policy Flexibility and Integration with Other Technology

Policy flexibility relates to the court's ability to change between systems for making a record. The video recording systems are self-contained and would replace other types of recording systems, or operate in conjunction with them, in any one courtroom. The systems are not portable. Although there is nothing about the equipment itself that precludes having a court reporter in the courtroom to make the record, courts can obtain funding to purchase video recording equipment by showing that it is less expensive over the long run than employing court reporters. This means that one or the other system would normally be used, but not both in the same courtroom.

Video Recording and CAT-Brief Comments on Respective Advantages

It was not uncommon during the study for computer-aided transcription (CAT) to be mentioned by attorneys and judges as either an alternative or complementary technology to video recording. Since video recording does not require a court reporter and CAT is a way that court reporters can produce written transcripts more efficiently, these systems might be viewed as competing technologies. Unfortunately, court officials and court reporters themselves tend to express the extreme view that implementation of video recording will exclude the continued use of court reporters. This need not, and probably should not, be the case. The view that the technologies compete is based on the assumption that both approaches would not be developed to an appropriate degree in a modern courthouse. It is true that the technologies compete in the sense that they are two different approaches to producing virtually instantaneously a usable form of the record. The respective advantages of video recording and CAT technology are so fundamentally different, however, that a decision to install video recording in one or more courtrooms need not interfere with improving CAT capabilities in courthouses.

While video recording might be less expensive and easier to use at its fullest potential for routine cases in the courthouse than is CAT, it does not provide the special advantages that CAT could offer to a courthouse and bar. Modern CAT technology offers potential advantages that should not be overlooked in a modern courthouse, and its tandem use with video recording appears highly desirable. Unlike CAT technology, video recording cannot link the process of making the record of

trial proceedings with automated data processing, nor can it offer to persons with hearing or speech disabilities some of the special benefits of CAT's real-time translation capability. In the near term, it would make sense for courts to explore some mix of both technologies and close the door on neither.

Integration with Video Depositions and Closed Circuit Television

Video recording for making the trial record can be integrated with other uses of video technology. Attorneys speak favorably of the convenience of having video playback equipment available in the courtroom when videotaped depositions or other videotaped evidence will be used. There is also potential to integrate video recording for making the trial court record with such applications as closed-circuit arraignments or remote appearance of parties. Some of those applications, in turn, are being used in conjunction with digital transmission of court data and FAX documents.

Effect on the Court System and Legal Practice

Four characteristics of video recording figure prominently in the effects video recording has on the court system and legal practice. These are the flexibility afforded the trial judge by not having to depend on a court reporter to make the record; the instant availability of the record; the recreation of courtroom events in the appellate record; and the educational uses of videotapes.

Flexibility

Trial judges in the courts where video recording is used appreciate the flexibility video recording offers them in scheduling and conducting hearings. Trials can continue beyond scheduled adjournment without inconveniencing court reporters, and short matters can be scheduled early in the day, or at any time it is convenient for the judge and the lawyers. Judges also notice that they now "go on the record" more extensively, and as a result disagreements among the parties about what was ordered or agreed to can be more easily settled. **Figure 4.8** presents comments from trial judges that are typical.

Court administrative staff and lawyers also report changes in the way they are able to use their time. The monitors located in offices around the courthouse allow them to work on other tasks intermittently, while keeping an eye and ear on the monitor. Some clerks are able to maintain the log of proceedings while working in offices adjacent to the courtroom. The trial court administrator in Raleigh, for example, follows the calendar call from her office as it takes place in the presiding courtroom. She is thus able to keep track of what is occuring while remaining in her office. If the presiding judge needs assistance with a scheduling problem, the trial court administrator is aware of it. Attorneys were observed keeping track of the progress of the calen-

Figure 4.8

What Judges Say About Flexibility of Video Recording*

- "My reporter didn't like to stay past five o'clock even if there is just one more witness to go. I can now plan my docket better, more efficiently."
- "I would not go back. It makes such a difference in the number of cases I can schedule."
- "The video system is always available; I don't hesitate to make a record."
- "I now see no reason to talk with attorneys off the record."
- "I now have more control over my time because I'm not dependent on others."

*Source: Interviews with trial judges in Louisville. Each comment is from a different judge.

dar while conducting other business in some of the court's offices in both Vancouver and Raleigh.

Availability of the Record

Being able to obtain a copy of the record quickly and inexpensively allows lawyers and judges to change their practices in helpful ways. Lawyers say they are able to use copies of the record to confirm oral findings and orders of the judge more frequently than when they had to order a transcript. Judges refresh their memories about what was said in court after some time has gone by and review evidentiary matters while writing opinions. Lawyers will review what occurred during pretrial hearings, or on previous days of trial, in preparing for trial or at the trial itself. Videotapes are also used to satisfy juror requests to have testimony read back. When these requests occur in video courtrooms, the appropriate portion of the proceeding is now played back to the jurors. Judges and lawyers say the appropriate parts of the record can be located more quickly than a court reporter can find the passage in notes. At the appellate level, staff attorneys mentioned that the ready availability of the record was very useful for expediting motions referred to the appellate court for emergency rulings on matters in progress in the trial court. **Figure 4.9** includes comments judges and lawyers have made about the advantages offered by the ability to quickly replay videotape in the courtroom.

Recreation of Courtroom Events (Record Faithfulness)

The video record gives the viewer a more accurate understanding of precisely what occurred in court. Since that is the rationale for having a record in the first

Figure 4.9

Comments on Playback in Court for Jurors

- The replay opportunities for jury consideration is a strong point. As is reduced costs of transcripts. (Q. 3293)
- In the worst case, it takes me ten minutes to find the right part of the tape to play back for the jury. (Trial Judge)
- What trial judge or lawyer has not gritted his or her teeth while the stalwart court reporter droned on, doing his best to read back the "Q & A'S" from his notes, to the everlasting boredom of all. The ability to play back such testimony directly in "real time" with all the factors affecting credibility visible once again for the jury, is one of the most significant and far reaching changes in trial practice brought about by the new video technology. (Trial Judge)
- Court reporters can't find and read back their testimony so quickly when the jury wants it. (Prosecuting Attorney)

place, an opportunity to improve the quality of justice is inherent in the approach. Nonverbal behavior of judges or lawyers that is prejudicial, but would not normally be preserved in the narrative form, may be raised on appeal with support in the video record. Better, lawyers and judges say the video record has a positive effect on their behavior in the courtroom, and thus the effects of video are preventive as well as remedial. (One judge became aware through the camera of his habit of tapping a pencil and frowning when he thought a witness was not telling the truth and began to guard against the habit.) **Figure 4.10** is illustrative of typical favorable attorney comments about the effects of video recording on trial practice.

Education

Videotape is particularly well suited to educational uses, and many attorneys whom the project staff interviewed indicated that the videotapes are particularly useful to them for self-improvement. In addition, the tapes are used within law firms to educate younger or less-experienced attorneys. Some lawyers reported bar association plans to use videotapes of trials for public education regarding the court system and court procedures: selected videotapes would be used by judges and attorneys when they appear before various social, voluntary, or service groups in the community. Likewise, some mentioned that school systems would probably appreciate the use of videotape of actual proceedings for instructional purposes.

Concerns About Effects of Videotape on Legal Practice

There are concerns as well, however, about how videotape records might be misused, to the detriment of legal practice

Figure 4.10

What Attorneys Say About Positive Effects of Video on Trial Practice

- I think judges' attitudes toward attorneys are more "controlled" in courtrooms where video equipment is used. (Q. 3038)
- I conducted the first jury trial in the Oakland Circuit that proceeded with video recording. I said then, and repeat, that it has no equal in preparation assistance for the next day, technique improvement and educational benefits. (Q. 3322)
- There are certain judges on the bench that display questionable judicial temperament. Videotape is an excellent mechanism for the supreme court to monitor this highly sensitive aspect of the courtroom. Video recording should not be discretionary for the judges—all proceedings should be videotaped. (Q. 3252)
- You have overlooked the improvement in the performance of judges that will result. Over time the use of tapes by the appellate courts to review the trial courts will produce a higher degree of justice. All trials should be videotaped. (Q. 1034)
- The video is great because you can "see" what happened. It also has positive advantages for tactical use during trial, i.e., easy review of testimony. (Q. 253)
- All open court proceedings should be videotaped and kept for a set period. Judges and attorneys have become too inclined to go "off the record." Videotapes should be required or part of the record or appeal. (Q. 1207).
- A videotape reviewed by the court to identify some uncertainty in this proceedings is the best form of appellate review. (Q. 1113).

as **Figure 4.11** illustrates. Some attorneys fear that appellate courts may usurp the prerogatives of the trial judge and jury. Some appellate judges report that they would prefer to work with the "cold" record in most cases, so that they would not be distracted or "tempted" to be inappropriately influenced by appearance or demeanor of witnesses. Both race and manner of dress were mentioned by appellate judges as things they "do not need to know" about witnesses. On the other hand, appellate judges also reported that occasions arise when the specific issue they are asked to rule on is preserved in the video record but is not preserved, or not preserved as effectively, in a narrative record. Appeals made by sentenced defendants from a plea of guilty—claiming that their waiver was not made knowingly, or that they were incapable of understanding its significance—are a class of appeals where appellate judges have found that seeing and hearing the proceeding has made them more secure in their decisions.

Some lawyers have also raised questions about whether certain uses of videotape at the trial level may prove improperly influential. Showing selected por-

Figure 4.11

Concerns Attorneys Have About Appellate Review

- I think you need to survey appellate court judges to see if they really can keep from second guessing the trial court on issues of credibility and demeanor of the witness. (Q. 4)
- Historically the appellate court has not looked at the demeanor of witnesses in making its evaluation of the record. I think video records will alter that rule and that such an alteration will change our trial system greatly. (Q. 236)
- Will the use of videotapes now allow appeals courts to review issues of "credibility" which have traditionally been left to the province of the "trier of fact." (Q. 4151)
- My only concern with video is that appellate judges might be influenced more by personality, emotion, etc., than by actual cold written transcript of proceedings. I would like to know how other attorneys feel. (Q. 1224)
- It is also probable that appellate judges will use the tape to try to weigh the credibility of witnesses rather than review only the evidence. I would be more interested in a court reporter with a real time transcription system. (Q. 2003)
- Doubt that justices actually review videotape on appeal. (Q. 2111)
- Since the reviewing court would be reviewing witnesses actually testifying, it may have a tendency to begin judging "credibility" of witnesses, which is the province of the trial court ... for this reason videotape may be detrimental. (Q. 3333)

tions of videotapes to jurors, for example, has been questioned. The question concerns whether additional psychological weight may be given by the jury to a part of the testimony they see and hear during a replay that is not balanced by seeing and hearing the related testimony. If direct testimony is replayed, for example, should a replay of cross-examination also be required?

Summary

The concerns illustrate that not all of the effects this new dimension in court records brings to the legal environment may be positive. If nothing else, video recording introduces new issues to be resolved by the higher courts. Whether specific uses of video recording will prove contrary to good legal practice is something to be determined by the courts themselves.

In the meantime, it is instructive to consider results of two of the questions included in the attorney survey. One question asked attorneys the extent to which they agreed or disagreed that "having videotaped records of court proceedings improves the quality of litigation." On this question, attorneys were evenly divided. About half of them agreed with the statement (52 percent) and half

disagreed (48 percent). **Table 4.13** shows how the attorneys responded in each site.

Attorneys were also asked whether, "considering everything," video recording offered more advantages, more disadvantages, or whether the advantages and disadvantages were about the same. Here the results are quite different. Very few attorneys thought there were more disadvantages than advantages (14 percent). Many more of them thought the advantages were greater than the disadvantages (55 percent) than thought they were about the same (31 percent). **Table 4.14** shows the results for each site, and again, there is no meaningful difference in responses among the sites.

Resistance to Video Recording

A significant disadvantage of video recording is resistance that may be encountered among members of the legal community. That resistance goes beyond

Table 4.13

Attorney Opinions About the Quality of Litigation

"Having Videotaped Records of Proceedings Improves the Quality of Litigation"

	All Sites	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
Agree	51.9%	46.9%	53.6%	50.7%	57.6%	38.4%
Disagree	48.1	53.1	46.3	49.3	42.5	51.5

Table 4.14

Attorney Opinions About Advantages Versus Disadvantages of Video Recording

"Considering Everything, I Think Making a Video Record of Court Proceedings ..."

	All Sites	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
More advantages than disadvantages	55.1%	53.5%	58%	53.2%	54%	59.3%
Advantages equal disadvantages	30.8	29.9	34	26.1	35.3	31.4
More disadvantages than advantages	14.1	16.6	8	20.6	107	9.3

routine resistance to change, and it should not be underestimated. Resistance from court reporters is the most important factor, but concerns of judges and lawyers also need to be addressed.

Resistance from Court Reporters

Video recording is perceived as a threat to the livelihood of court reporters, some of whom admit that self-interest underlies some of their opposition to video recording.[49] While the scope of this discussion precludes evaluating the extent to which video recording reduces present and future employment opportunities for verbatim reporters, there is no doubt that video recording is publicly *presented* in this light.[50] Newspaper articles about video recording headlined "Court Reporters on Way Out?," "Cameras May Replace Court Reporters," and "Videotape Record Program Worries Court Reporters" are typical.[51] Moreover, leading advocates of video recording like state court administrator Don Cetrulo, of Kentucky, predict the demise of the court reporter profession as a consequence of technological advances—"I can't believe anyone thinks there will be court reporters in the year 2000. You've got to get started [making use of available technology]."[52] Court reporters, therefore, closely watch video recording installations and publicize problems if they occur. **Figure 4.12** illustrates typical "bad press" headlines from selected periodicals.

Reporters also appeal to the local and state bar associations to resist video recording. In an advertisement placed in the *National Law Journal* by the Kentucky Shorthand Reporter's Association (shown in Figure 4.12), for example, the message appeals to lawyers' preference for the traditional transcript (as opposed to a "batch of 90 minute [sic] tapes") and suggests that video recording will make the lawyer less "efficient."

Court reporters are well organized at both the national and state levels, and they apply their resources effectively. This was demonstrated during their campaign against the use of audio recording in the federal and state courts in the 1980s.

> The NSRA hired lobbyists to press the cause of stenotype reporting; issued legislative/regulatory alerts (e.g., Alert, 10/16/83) to its members on the progress of the [Federal Judicial Center] test. Articles in the house organization, National Shorthand Reporter (NSR) appeared often, and continue to do so as of this date (Fall, 1984).[53]

Shorthand reporters have taken steps similar to those employed for audio recording to oppose introduction and expansion of video recording, as Figure 4.12 illustrates. In short, shorthand reporters are formidable opponents to introduction of video recording in trial courts.

Resistance from the Bar and Bench

Public opposition to video recording from the organized bar or from judges' associations did not occur in any of the study sites. In Kentucky, the Louisville Bar Association's appellate practice section opposes, in particular, the court policy of restricting appellate review to videotapes instead of a written transcript, and the lawyers favor changes to make the rules less restrictive. They present their

Figure 4.12

"Bad Press" on Video Recording

"Video Failure Produces Retrial in Kentucky"
[National Shorthand Reporter, August 1989, p.16]

"Court Limits Videotape Pilot Sites"
[Michigan Shorthand Reporter, March 1989]

"Can Blind Justice Survive on Videotape?"
[Oregon State Bar Bulletin, Vol. 48, No. 10, August/September 1988]

"Court Reporters Challenge Videotape Cost Savings Claims"
[Tacoma News Tribune, September 20, 1988]
"Expanded Videotaping of Court Proceedings Debated"
[Tacoma News Tribune, September 9, 1988]

"Public Defenders Come Out Against Video Appeals"
[Commonwealth Classic, Vol. 2., No. 1, July 1988]

"Fund Raising is Key for Videotape Defeat"
[Michigan Shorthand Reporter, Summer 1989]

"Videotape Project Criticized in Ky."....
"Videotape Project in Kentucky Hit by Critics"
[National Law Journal, July 24, 1989]

views and urge policy changes through rule-making and policy evaluation committees in the state, but have not engaged in public opposition. Some appellate lawyers and judges interviewed in Kentucky indicated that higher levels of opposition to the policy on use of videotapes for review were being avoided out of respect for the chief justice.

In Oregon, however, the Joint Shorthand Reporters Committee of the Oregon State Bar approved a resolution calling,

among other things, for a prohibition against the use of video recording, or any changes in the way Oregon's trials are reported, without prior consent of all parties. Several other associations of trial lawyers in Oregon "expressed concern" over videotaped trials.[54]

Some judges have publicly opposed video recording. As previously noted, one appellate court judge in Kentucky spoke out often against video recording and worked cooperatively with court reporters to have his view shared widely. No parallel to this was discovered in other sites, although it was plain that there is diversity of attitudes among judges about video recording. One trial judge in Maryland, for example, has said that video recording

> will discourage settlements. It will encourage lengthy speeches. People in mental cases will be encouraged to perform, because they will know that they are being videotaped."[55]

These views, particularly those predicting that lawyers and litigants will "perform," are not uncommonly expressed by lawyers and judges before they have experience with video recording in practice. The concerns prove not be warranted by experience.

Change in Attorney Attitudes with Experience

A basis on which to assess changes in attorney attitudes about video recording after experience with it was incorporated in the attorney survey: lawyers were asked to indicate their opinions about video recording before they had experience with it and to indicate their opinions after gaining experience. The results show that twice as many lawyers developed a more favorable attitude after experience with video recording than did those whose attitudes moved in a negative direction. **Table 4.15** shows how the attorneys in each state reported their change in attitudes.

Table 4.15

Attitude Change by Lawyers After Experience With Video Recording

	Vancouver N=124	Raleigh N=142	Louisville N=302	Pontiac N=222	Kalamazoo N=141
Negative shift in attitude	10.5%	12.7%	21.2%	6.8%	5.7%
No change in attitude	40.3	54.2	11.9	55.4	43.3
Positive shift in attitude	49.2	33.1	47.1	37.9	51.0

* Table uses data from Questons 25 and 26 in the attorney survey. See Appendix B1.

Conclusion

Opposition to video recording by shorthand reporters is to be expected and should not be underestimated. Opposition from judges and lawyers that is similarly organized and from the public is less likely.

While it is unrealistic to expect that any program of education or public information about video recording will influence the political action taken by court reporters, such activities may counter misinformation and allay anxieties of lawyers and judges about video recording. This is an important element to consider as part of an implementation plan, which is the subject of Chapter 5.

Notes

1. Greenwood and Dodge, 1976, grouped 26 evaluation criteria under five major headings. Three of the five—costs, time, and accuracy—match three of the evaluation criteria used in this study. Steelman applied the Greenwood and Dodge criteria in several studies of court reporting. He used a 12-criteria approach in one study (Steelman, 1984) and a 14-criteria approach in another (Steelman, 1988). This study conflates some of Steelman's criteria (e.g., "videotape accuracy" and "transcript accuracy" into "faithfulness") and does not use others as major criteria, although they are addressed in the report (e.g., "suitability for education"). In general, however, the criteria are very similar.

2. The union of understanding between court reporter and lawyer about what is relevant to the record is central to Saari's argument that court reporters, like lawyers, are professionals. (Saari, 1988).

3. Court reporters often make their own audiotapes for a backup they use when they have questions about their notes. The president of the Michigan Shorthand Reporters Association recently argued against this practice. "A profession that is fighting against video and audio as a means of making the record should not condone the use of tape recorders." Hyland, "Presidents Message: Fund Raising is Key for Videotape Defeat," *Michigan Shorthand Reporter*, summer 1989.

4. See Chapter 2, note 2.

5. Walker, 1986b p. 425.

6. Walker, 1986a and 1986b. Saari, 1988.

7. Saari, 1988 p. 47 (emphasis added).

8. Walker, 1986a (emphasis added).

9. Walker, 1986a. She is quoting from *National Shorthand Reporter*, 1962 p. 26. She notes that the selection quoted is also found in the 1982 version of the pamphlet.

10. Walker, 1986b.

11. Blanck, 1987 (a)(b); Blanck et al., 1985.

12. National Committee on Innovations, Kennedy School of Government, Harvard University, Application from the Commonwealth of Kentucky, Kentucky Court of Justice, April 1, 1988 (Application #214) P. 3.

13. *Foster v. Kassulke*, U.S. District Court, Western District of Kentucky, C-89-160.

14. Letter from assistant attorney general Kay Winebrenner to Kentucky shorthand reporter Ann Leroy, quoted in Sanders, "Technology and the Politics of Change," *Oregon State Bar Bulletin*, Volume 48, No. 10, Aug/Sept. 1988.

15. See, e.g., Blum, "Videotape Project Criticized in Kentucky," *National Law Journal*, July 24, 1989, at 7.

16. All 9 of 14 judges of the court of appeals in Kentucky who were reached for interviews expressed this view. For some of them, saying that videotape is "less convenient" than a transcript is an understatement of their opinion.

17. Letter from Frank W. Heft, Jr., and J. David Niehas to David Greene, May 25, 1989. This lengthy letter explores the advantages and disadvantages of videotape in considerable detail. It represents a revision of the opinions Mr. Heft expressed in an article published in the *Louisville Lawyer*, "Pros and Cons of Videotape Appeals," Louisville Bar Association, Fall 1987. The views expressed in the later letter are more positive. In particular, he appreciates the faithfulness of the record and the utility of a record that "brings a trial or courtroom proceeding to life."

18. Ibid.

19. Kentucky officials examined appellate court records and identified 186 appeals in 1988 where videotapes were used as the record. Of these, in just over half (51 percent) of

the cases just one videotape was involved. In another 25 percent of the cases there were two videotapes and the remaining 25 percent had a number of tapes ranging from 3 to 20.

20. Telephone communication from Don Cetrulo, Director, Administrative Office of the Courts, to William Hewitt, National Center for State Courts, October 17, 1989.

21. Administrative Order 1987-7.

22. In 1988 nearly 10,000 pages of transcript were ordered from this individual, the majority of which (6,089 pages) was requested by attorneys whenever litigation occurred. Periodically, hundreds of pages of daily copy was provided to the attorneys in the case.

23. Officials in Seattle, for example, have determined that trained personnel are available to produce transcripts from videotape at rates comparable to those charged by court reporters.

24. Circuit Court Judge Richard Ryan Lamb, the first judge in Michigan to use videotape, speaks of his change in views in a letter to the president of Jefferson Audio Video Systems, Inc., dated July 27, 1989. Ronald J. Raylor, circuit court judge in Berrien County, shares the view that a "much better system of quick review and location of specific parts of the trial record must be provided" before transcript preparation can be eliminated.

25. These data and the costs data about Kentucky between 1984 and 1988 were obtained primarily from Kentucky's application to the Kennedy School of Government for the National Committee on Innovations award. The data were examined by the committee and field representatives who visited Kentucky in 1988.

26. The committee was chaired by the county clerk (department of judicial administration) and included members of the public and private bar, the county council, and the executive's budget office as well as court reporters and trial court administrative staff.

27. The source of the estimate of 400 hours per year is Steelman, 1988 p. 48.

28. In a few cases documented by the National Shorthand Reporters Association through their work with the office of public advocacy, lawyers have been ordered to show cause why they should not be fined for failing to file timely briefs after a 90-day extension was granted. In their briefs they attribute most of the delay to video recording. See *Thomas v. Kentucky*, Response to Order to Show Cause, filed December 1, 1988.

29. Chapper and Hanson, Study of Intermediate Courts of Appeal, research in progress, 1989.

30. Given the workload of the office, the well-publicized problems attorneys have encountered in meeting deadlines for briefs and the experiences noted by attorneys with poor fidelity of the records, this is somewhat surprising. An appellate defender office should be working with original (not dubbed) recordings of the events, hi-fidelity playback equipment, high-quality monitors, and the programmable real-time search equipment.

31. Per page transcript costs in Seattle: civil proceedings with a 30-day delivery time is $3.25 for the original and 25¢ for each copy page; for a 200-page transcript the cost is $700.

32. A court reporter transcription service in Seattle quoted $3.25 (30-day delivery) and $4.25 (3-day delivery) per page. Another transcription service quoted $14 hourly rate and three days maximum delivery time for each tape. Based on a 200-page transcript, the respective costs would be $850 and $336 (if the transcription service took 24 hours to transcribe the tape).

33. A very small number of cases (about 1 in 16) *may* have had the transcript prepared by the transcription service from videotape, since the video program had begun in Michigan during this time. The effect of this on the character of the aggregate data is believed to be minimal to negligible.

34. This was the only source that court personnel could make available for appeals

known to have been filed. A sample of every fifth case was taken because recording the data for all cases in the pool required lengthy records searches.

35. The data for 1988 were collected during the second half of 1988, under one ownership of the service, and again in May of 1989, when ownership had changed. The gap in the periods covered by the data (July-December 1988) was caused by the records of the first owner, which were no longer readily available when data were collected in 1989.

36. The cases shown for Washington are not a sample, but the entire set. The data are similar to those of 1987 and 1988, as are data for all cases filed in division II of the Washington Court of Appeals, the division that hears cases from Vancouver. The mean time of the same interval for all of the cases filed in division II, for example, was 61 days for civil cases and 58 days for criminal cases.

37. Although the number of cases was too small to warrant inclusion in the figure, data from Kalamazoo showed transcript completion times similar to those for Pontiac for a 15-case random sample of criminal appeals in 1987, before the initiation of the court reporter management procedures.

38. Explanation offered by Frank Heft, chief appellate defender, Jefferson district public defender.

39. Letter from Charles B. Lester to Jerome E. Miller, president of NSRA, February 22, 1989.

40. In addition to the nine judges interviewed, two of the judges who were not interviewed hold well-known views about video recording. These are Judge Michael O. McDonald (strong proponent) and Judge Charles B. Lester, referred to here.

41. A question not addressed in this paper, but that needs examination, is how often the record is central, or even peripherally important to the kinds of cases that are typical of an IAC caseload.

42. An exception to this is when the narrative is produced simultaneously with the evidence by a skilled court reporter using computer-aided transcription. This practice is relatively rare today, because it is a task that requires extra concentration that is difficult to maintain by one reporter for more than an hour, it requires skills that most court reporters have not yet mastered, and the equipment typically used in courtrooms does not support it.

43. "Consumer Edition: Roberta Baskin" (WJLA television, Washington, D.C., evening news broadcast, February 27, 1989).

44. Mankin, *Electronic Media*, vol. 7, no. 33, Chicago, Ill. (August 15, 1988). Sony makes similar claims about its electromagnetic tapes.

45. Ibid.

46. Ibid.

47. Telephone interview with Alan Calmes, preservation officer, National Archives, in Washington, D.C. (June 13, 1989).

48. *Conservation Administration News*, vol. 33, no. 7 (April 1988).

49. See, e.g., Sanders, 1988 p. 13.

50. There is some evidence that the demand for the skills of verbatim reporters is so great that the practical effect of the introduction of video recording on employment opportunities may be negligible. It is generally believed, for example, that the supply of qualified reporters in California is well below the demand. Similar circumstances appear to prevail in Michigan and are reported in other areas of the country. The use of shorthand reporters and computer-aided transcription for real-time reporting for the hearing impaired (in many service settings outside as well as within the courts) appears to be a growth industry for reporters. See, e.g., Block, "The Politics of Captioning"; and Grace, "What Captioning Means to Late Deafened Adults," *National Shorthand Reporter*, May 1989; Karlovatis, "Captioning the Today Show," *Na-*

tional Shorthand Reporter, August 1989; Klink, "Helping a Judge Hear with His Eyes," *National Shorthand Reporter*, July 1984.

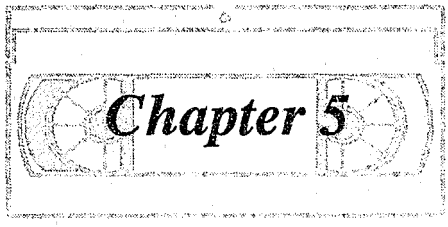
51. *ABA Journal*, May 1989; Michigan Courts clipping service article, source unknown; and *The Capital*, August 10, 1989 (Baltimore, Md.).

52. Blum, "Videotape Project Criticized in Kentucky," *National Law Journal*, July 24, 1989.

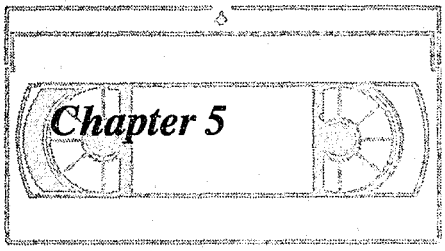
53. Walker, 1986(a) note at p. 219.

54. Sanders, 1989 p. 9.

55. *Prince George's County Journal* (Md.), August 1989, p. 16.



Implementation



Implementation

The study of video recording in the six courts and four states shows that it works well in those courts and is, therefore, a possible alternative to traditional court-reporting methods. The first part of this chapter reviews issues that will be relevant to court decision makers who are deciding whether video recording is also possible, and more importantly *desirable*, as an alternative in their own court. The chapter then makes recommendations about implementing video recording and concludes by presenting excerpts from an appellate lawyer's account of experience with 92 videotape appeals.

Deciding About Implementation— The Framework

Introducing video recording in a trial court changes familiar custom, tradition, and psychological factors associated with creation of the verbatim record, described by Louisell and Pirsig as "a dominant influence in making the appellate process a cornerstone of American adjudication."[1] The changes begin with the courthouse work group itself— familiar professional positions (and often familiar *people*) are replaced with machines. In turn, judges, lawyers, and courtroom staff are required to change familiar patterns of courtroom behavior to ensure that the machines record the proceedings faithfully.

Video recording also introduces the possibility of using videotape as the record that judges and lawyers are obliged to work with on appeal. If this option is chosen, there is an additional implementation problem to face—weaning lawyers and judges from the written transcript of proceedings. They will be expected to work instead with specialized VTR equipment, in a different communication medium, and with different rules for appellate procedure. The change is traumatic for some lawyers and judges, and disliked by virtually all of them.

There are, therefore, two questions that court leaders need to resolve about what uses of video recording are desirable in connection with the record of trial court proceedings. The first is whether video recording should be used to record the

proceedings in the first place. The most profound factors relating to that decision are the consequences of replacing court reporters with machines: changing the basic nature of the courthouse work group, changing behavioral patterns of courtroom personnel, and, not least in importance, encountering high levels of resistance from court reporters and from some judges and members of the bar.

The second question arises if video recording will be an alternative to using court reporters— it involves choosing between policy favoring use of the videotape as the primary form of the record on appeal, or policy requiring that videotapes be transcribed into a narrative transcript.

Within this general framework, the remainder of this chapter explores the issues for court leaders to consider before deciding whether video recording is a desirable option. This is followed by a discussion of the major stages in implementation, grouped according to the organizational level at which they must be addressed.

Deciding Whether to Use Videotape to Record Court Proceedings

The study suggests that jurisdictional characteristics are not a factor that determines how well video recording will work in a court. Characteristics of the states and the sites that do appear to have a bearing on whether it is possible or desirable to undertake video recording in trial courts are outlined below. These characteristics are divided: first, into factors that were common to all of the study sites and that appear to be sufficient conditions for making it possible to undertake video recording; and second, into factors that were found in some but not all of the sites. This second group of factors may contribute to the level of interest in video recording in a state.

The conditions that were common to all the sites include these three factors, which appear to be sufficient for video recording to take root in a state.

- A trial court judge makes a request to use video recording, or is favorably disposed to trying it;
- The state's supreme court, especially the chief justice, responds favorably to interest in video recording expressed by trial court judges;
- Video recording is implemented on an experimental basis in a few courts at a time.

The circumstances that may exist in a state to give rise to one or more of the preceding conditions are complex. No consistent set of factors explains why video recording is viewed as desirable, but one or more of the rationales or conditions listed below were found in all the sites. Most of the factors held true in all of the sites, but none were true of all of them.

- There was a shortage of court reporters in the local court;

- The cost of court-reporting services was perceived as a problem by local funding agencies;

- In the trial courts where video recording was experimentally introduced, trial court administrative personnel were not previously involved in coordinating, monitoring, and managing transcript production;

- There was a perception by one or more local judges that court reporters were not providing high quality or timely transcripts, or both;

- The administrative office of the courts committed staff and cash resources to support an experimental use of video recording in some trial courts;

- Court reporters in the experimental sites were not employed in a multipurpose capacity (e.g., as confidential assistants to the trial judges or as in-court clerks);

- There was a perception that problems with the quality, timeliness, or cost of court reporter services was a statewide phenomenon.

Research into the underlying causes for the conditions listed above, particularly those that relate to perceived dissatisfaction with court reporters and unmanaged court reporting in the trial courts, was beyond the scope of this study. Consequently, they are only presented as facts for court leaders to consider when they assess the feasibility of introducing video recording in their courts. A variety of responses could be made to one or more of the conditions listed above, and video recording is just one of them.

This concludes the summary of contextual factors that court leaders will want to consider as they assess the possibility and desirability of implementing video recording. Before turning to recommendations for successful implementation of video recording, however, the perspectives of court reporters and the project staff about the limitations of this study deserve a brief discussion.

Court Reporters' Perspective on the Study's Methods and Implications

Representatives of the National Shorthand Reporters Association (NSRA) served as advisors to this study and provided oral and written commentary on the study methods, assumptions, and results at many points along the way. These comments are summarized below, and court leaders are encouraged to consider them in their deliberations about video recording and the findings presented in this report.

Absence of Experimental Methods. The study did not experimentally compare the satisfaction of attorneys with court reporters between sites where video recording has been introduced and sites where it has not been considered, or has

been rejected. Therefore, attorney responses to some of the questions that explicitly or implicitly imply a degree of dissatisfaction with court reporters (e.g., questions about comparative faithfulness of videotape and court reporter records, reliability of video recording and court reporters, availability of records) should not be generalized to all court environments.

LIMITATIONS IN ATTORNEY SURVEY DESIGN. Questions that could have been asked in the survey were not asked. For example, lawyers were not asked whether, if given a choice, they would have supported video recording in the first place. They also were not asked whether they believed improved management of court reporting would solve perceived problems with court reporting, nor whether they would prefer the use of CAT to video recording.

UNIQUENESS OF KENTUCKY. The context of court reporting in Kentucky was unique, in the opinion of the NSRA, and the factors that contributed to the introduction of video recording and its continued expansion there should not be assumed to apply elsewhere.

> [S]alaries and benefits for court reporters at the onset of video use were nearly the lowest in the nation and such things as reporter management, motivation, morale and skills were abysmal. At the onset of video court reporting in Kentucky, that state's official court reporters, with few exceptions, were (perhaps understandably given the state's commitment to their role) decades behind the rest of the nation in terms of their skills and techniques. Many were in reality shorthand secretaries who had been placed in situations requiring training and skills far beyond what could be expected of them. Obviously these factors would have massive relevant effects on opinions of their worth and the worth of a new system that replaced them.
>
> Therefore, [when findings of the study suggest that video recording compares favorably with court reporting] at the very least the reader needs to be told not to, and why not to, draw the same conclusions in situations that are tremendously different from those where the opinions were taken, as is the case almost everywhere.[2]

IMPORTANCE OF CERTIFICATION PROGRAMS. In three of the four states that were studied, there is no testing program or certification program for court reporters. In the NSRA's experience, appropriate testing and certification improves reporting quality and, as a result, makes a difference in the perceptions of the bench and bar.[3]

COMPARING VIDEO RECORDING TO TRADITIONAL REPORTING IS SHORTSIGHTED. The NSRA believes that court leaders should not only compare the relative advantages of traditional court reporting and video recording but consider the potential advantages of equipping courthouses with CAT systems and peripheral applications that support rapid transcription from notes to hard copy, provide real-time translations of text projected on video screens, have access to text databases through computer networks, and integrate court-reporter stenograph terminals and court management information systems. Were these applications

developed in courts, the cost benefits of court reporter versus video recording systems would look quite different, i.e., not favorable to video recording.

Author's View of the Court Reporters' Perspective

Some of the points raised by the NSRA have previously been acknowledged in Chapter 2. In addition, the project staff agrees with the NSRA that this study does not compare video recording and the advantages and disadvantages of shorthand reporting enhanced by CAT and also believes that such a study would be beneficial. It is also true that some attorneys and judges spoke highly of CAT as an alternative or complement to video recording in the courts. Based on the apparent advantages of CAT, it is recommended that court decision makers consider those advantages in their decision and maintain a flexible policy about alternative techniques for court reporting.

The project staff and the NSRA do not agree on the importance of certification. The disagreement does not extend to the intrinsic benefits of setting standards for official court reporters and the importance of a training and certification program to achieve those standards. But, as described in Chapter 3, Michigan does have such a program, and video recording has been introduced there successfully and has rapidly expanded. Moreover, attorney responses to the survey were at least as favorable to video recording as were the responses from attorneys in other sites, and Michigan attorneys generally were more favorable to video recording than were Kentucky attorneys.

Review

The focus of the preceding discussion has been on factors court leaders should consider in determining whether a program to implement video recording is possible or desirable in their state or local court. Video recording introduces major changes in the court. A decision to go farther and use videotape as the record on appeal adds an additional dimension to the changes and has unsettling effects on familiar practices related to preparing appeals. Three conditions that are probably necessary to implement video recording, and seven characteristics that may relate causally to them, have been described.

While video recording has gained acceptance in the study sites, court leaders should keep in mind some limitations of the study methodology and characteristics of the sites that may limit how these findings can be applied to other courts.

The remainder of this chapter discusses recommendations, procedures, and resources required for video recording implementation as well as what policy court decision makers may want to adopt regarding use of videotapes or transcripts as the record for appeal.

Implementing Video Recording

It is assumed that before a court begins to implement video recording that fund-

ing has been secured or is known to be available to purchase equipment; that there are trial judges willing to have video recording in their courts; and that the undertaking has the support of the chief justice and the supreme court.

The considerations to address and the recommended steps to take to obtain high quality videotape records, a smooth transition from traditional reporting to video recording, and satisfaction among users of the system are interconnected. In the discussion that follows, implementation stages or issues are grouped into three categories based on the organizational level to which they are appropriate. There are 12 items recommended for all courts and states to include in their implementation plan. Four additional recommendations are made for states that choose to use videotape as the record on appeal (items (3)(1)-(4)), and two additional recommendations are made for states that choose to transcribe videotapes for the purpose of appeals (items (3)(5)-(6)). **Figure 5.1** illustrates the recommended implementation stages. It shows the relationships among the stages and indicates the issues that need reciprocal communications between state and local officials and processes that are iterative.

Recommendations for State-level Attention

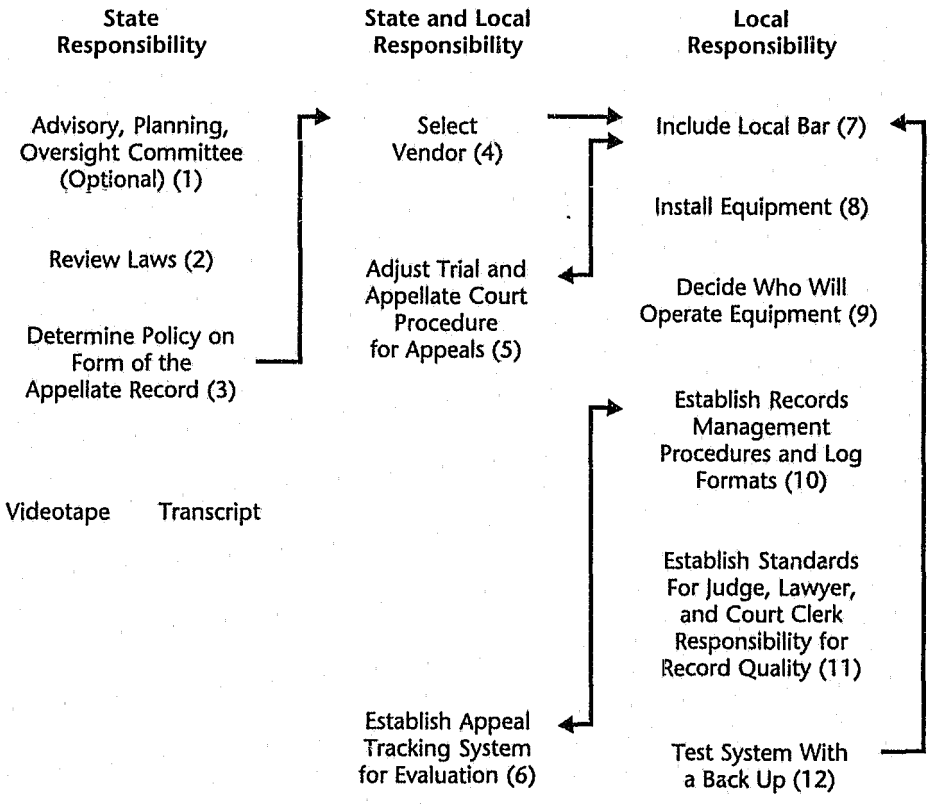
Three activities need to be carried out at the state level by the administrative office of the courts in consultation with judges, lawyers, and trial court employees. Item one may not be appropriate for all states, but it has been used in some of the study sites and may be advisable in other states as well; items two and three are necessary activities.

ORGANIZE AN ADVISORY AND PROJECT OVERSIGHT COMMITTEE (OPTIONAL) (1). This step was taken in Michigan and in King County, (Seattle) Washington, before implementing video recording. Such a step might be required by enabling legislation that establishes funds for video recording, and it is useful for identifying and resolving policy disputes or for resolving political conflict. This step is recommended in states where the chief justice or supreme court has some question about the practical or political desirability of video recording. The committee can be especially useful if there is representation from legislative as well as judicial branch officials.

REVIEW REGULATIONS (STATUTES, RULES, CANONS) (2). Courts in some states may have laws regulating how court records are made that conflict with the use of video recording, although the regulation may not have been enacted with such an objective as an intention. Statutes requiring that a court reporter make a record of all court proceedings, or that require one court reporter for each judge, are examples of regulations that may need revision. Other adjustments might be advisable or required where there are regulations that were not intended to restrict the use of alternative court-reporting methods, but which may be inconsistent in their letter with video recording, or with procedures related to video recording, that

Figure 5.1

Implementing Issues and Recommended Activities



the court wants to follow. Regulations prohibiting "cameras in the courtroom" or taking photographs of criminal defendants or jurors are typical examples. In Minnesota, court leaders debated alternative ways to reconcile regulations assuring public access to court records with the court's desire to restrict access by the news media or general public to videotapes of court participants. Courts in Washington and Minnesota solved this problem by applying "protective orders" to video recordings.

All states will no doubt have some adjustments to make in their regulations. Finding these and coordinating the process of drafting adjustments is a task that falls to the staff of the administrative

office of the courts or the supreme court. It is recommended that this be undertaken early in the planning process. The supreme court's inherent power to regulate the administration of the courts appears to provide sufficient authority for special orders or rules the supreme court finds necessary or desirable to permit and regulate video recording. (Examples of enabling rules or orders are found in Appendix E.)

RESOLVE THE POLICY THE COURT WILL FOLLOW REGARDING THE FORM OF THE RECORD (3). This step is most important for successful implementation. The choice is between two major alternatives. A third compromise approach has not been tried and tested in practice, but warrants consideration. The choices are as follows:

- *Use the videotape itself as the record routinely used on review (Kentucky's approach).*
  When this choice is made, public funds are not used to pay for transcripts used by appellate defenders in criminal cases, and if private attorneys arrange for transcripts made from videotape or hire court reporters to make a second record, the tape is the official record and citations to the record in briefs must be made to the tapes, not to pages of a transcript.

- *Transcribe videotapes and use the transcript as the record routinely referred to on review.*
  When this option is chosen, the tape is the official record and may be referred to in the appeal. The transcript is normally used for appellate briefs and opinions.

- *Permit transcripts to be used for briefs (and paid for by the state in indigent criminal cases) if the record of the trial court proceedings is not fully captured within one or two videotapes.*
  No state is known to have adopted a policy like this one. It is recommended for consideration, based on study findings that suggest that the disadvantages of working with a videotape on appeal increase disproportionately as more tapes are involved.[4]

Choosing correctly among these alternatives is as important to the success of video recording as the adequacy and correct installation of the equipment itself. A decision to use videotape as the record on appeal needs to be reasoned through carefully—the advantages may not outweigh the disadvantages, especially during early experimentation.

If the Kentucky approach is chosen (videotape is the record), all of the practices and habits that are familiar to appellate judges and lawyers are changed: lawyers and judges are restricted in where they can work; it is slower to move between different parts of the transcript; note-taking involves translating spoken words or visual images into written text, instead of simply copying what has already been translated; and even the form of citations is different and requires more words—instead of a note that indicates page and line numbers, the citation must

include a tape number, month, day, year, hour, minute, and second at which the reference begins as recorded on the videotape (e.g., Tape No. 11111-1, 10/27/89; 14:24:05.) Lawyers reported in interviews that listening, stopping, and backing up to find where the cited portion of the record begins is very slow and frustrating, and it disrupts their thought process. Judges and law clerks report that often the cites are imprecise (or incorrect) as well, which may indicate that lawyers are unable to comply with the standards expected of them.

One consequence of using videotape as the record, therefore, is that resistance to video recording increases among members of the appellate bench and bar because of the change in familiar practices that is required. A second consequence is that implementation is more complex: procedures for filing appeals must be more carefully analyzed and changed more extensively if videotapes are not transcribed; the amount of equipment required is greater, and must include features not found in standard VTRs to compensate for more frequent and intensive use; there is a need to train lawyers and judges in the proper operation of specialized equipment; finally, because reviewing the record and writing briefs have such fundamentally different mechanics, lawyers should be offered training in techniques that will help them make the transition to videotape more smoothly.

Having videotapes routinely transcribed for appellate review requires a transcription service and new routines for ordering and certifying transcripts and quality control mechanisms. If there are personnel or transcription services located near the video courts that are trained and experienced in transcribing audiotapes for court transcripts (as was true in Michigan), the transition from court reporters to video is relatively simple. If personnel must be trained and services developed, a higher level of court administrative staff effort is required.

Depending on which form of the record is chosen for appeal— videotape or transcript—implementation steps unique to each choice need to be carried out. These are discussed below.

Steps Required in States Where the Videotape Serves as the Record on Appeal. When a videotape serves as the primary record on appeal, the planning and implementation involves four unique stages.

(1) *Determine the Type and Quantity of Specialized Playback Equipment Needed.* Briefing and reviewing cases using videotape are different and generally slower processes than working with a printed transcript. Although review can be completed using ordinary home video playback equipment, the work will go more slowly and be more frustrating than if specialized equipment is used. Four playback system enhancements are recommended below; as each capability is added, review becomes faster and less annoying to the person reviewing the tape. The price of a system that includes the first three is about $2,400 (equivalent to the cost of 800 pages of transcript at $3.00 per page); the cost for all four is $3,800.

- Hi-fidelity sound on the playback unit. Tapes are recorded in high fidelity, but if the playback equipment does not have hi-fidelity, the difference in audio clarity and dynamic range is great. It can make the difference between whether parts of the record are audible or inaudible.

- A monitor, not a television. When a TV is used instead of a monitor, the commercial programming on the VTR channel is heard and seen when the VTR is placed in the "stop" mode. This is distracting, and volume when the regular programming resumes is usually louder than is comfortable for the listener.

- A programmable fast-forward and -reverse search capability. This allows the reviewer to program the equipment to move rapidly forward or back to a designated place on the tape, at speeds greater than normal fast forward or reverse. It speeds review.

- A 2X review capability. This allows the reviewer to play tape at twice the normal speed—to skim portions of the tape. Depending on the voice qualities and how fast the speaker talks, what is being said is usually intelligible. This also speeds review.

The number of required playback workstations will depend on the number and location of trial courts with video recording. As the frequency of videotaped appeals increases, the need for playback workstations increases. When videotaped appeals are rare, and when the appellate court judges and law clerks work in the same building, only one unit is needed. If judges and law clerks work in offices scattered around the state, as in Kentucky, each judge needs a playback station, even when videotape appeals make up a relatively small percentage of the caseload.

(2) *Train Judges and Lawyers in Operation of the Playback Equipment.* Aptitudes and attitudes determine how "easy" it is to operate equipment or perform mechanical tasks— by analogy, the steps and sequence for changing a car tire may be obvious and simple for many (if unpleasant), but there are some who do not know how to do it. Experience in the study sites demonstrates that effective training in equipment operation involves selecting the correct people to train, arranging an appropriate time and forum, and retraining or training for new personnel as required. In both Kentucky and Washington, equipment was underutilized or used inefficiently because training was hurried and law clerks paid little attention; and, because equipment is used only intermittently, lessons were forgotten between learning and use, or the person trained was no longer employed or was the wrong person to train in the first place. Poor training exacerbates predictable complaints and resistance from law-

yers who are required to abandon the written word in favor of a less familiar and less "intellectual" medium.

(3) *Address the Need for Training on How to Brief a Videotape Appeal.* Becoming familiar with the operation of equipment is only part of a required training agenda. Lawyers will need to change work habits and develop new approaches to preparing a brief in response to sequential access to information (rather than the random and simultaneous access that a transcript allows). Since only a handful of attorneys in the world (all of them in Kentucky) have worked on more than a few videotape appeals, this is a challenging item on the implementation agenda, but one that needs attention, nevertheless.

(4) *Provide or Regulate a Transcription Service that Meets Acceptable Standards for Transcribing Videotape.* Some transcription will be desirable, even when the videotape is the usual form of the record on appeal. When trials are lengthy and the consequences of appeal are significant, most appellate lawyers say they will arrange to have a transcript made. It is recommended based on the study findings, moreover, that court policy provide for buying a transcript for use by appellate defenders who are involved in an appeal of a lengthy trial (more than two or three tapes). The weight of opinion to date suggests that requiring appellate defense attorneys (who are usually not present at the trial) to work with more than one or two videotapes imposes an unreasonable burden on them and may require justifiable extensions of time to prepare briefs if a transcript is not available.[5]

Since transcription in both the public and private sectors is inevitable, it is recommended that the court ensure appropriate levels of consistency and quality in the transcripts produced. This suggests some form of quality control and certification. These issues are discussed below in the steps required when videotapes are routinely transcribed for appellate review.

Steps Required When the Videotape Is Transcribed. Courts have two options: they can contract with private services or develop the capability within the court. In either case, the court must be involved in the developing and regulating of high-quality transcription services.

(1) *Select or Develop a Transcription Service.* Transcription services need to be evaluated on four essential criteria: accuracy, knowledge of the correct form of official transcripts, speed, and cost. Convenience and the stability of the company (likelihood that they will continue in business) are also considerations. In some states or cities, there are individuals who have experience transcribing audiotape records for the court, and court reporters may be interested in contracting for the transcription service. The U.S. administrative office of the courts maintains a list of services approved to provide transcripts for federal court appeals (there are services approved in all but 17 states.)

These services may be useful to state courts for transcribing videotapes, as well.

Where no experienced service exists, the court will need to cultivate its development, either as a service provided by the court or as an approved contracting agency. In Pontiac, the court uses one service to make transcripts for appeals and another (a court employee who has a private transcription service on the side) to make transcripts requested by lawyers and judges for purposes other than appeal.

Court managers should be aware that transcription equipment for videotape is specialized. Ordinary dictaphone foot pedals should not be expected to work smoothly with any VTR equipment. Transcriptionists *must* have hi-fidelity VTRs and use monitors instead of TVs for tape viewing; moreover, an individual who has a negative attitude about the introduction of videotape records in the court would be an imprudent choice to serve as a transcriptionist, especially if the playback equipment the person uses is not designed for the task.

(2) *Establish Procedure for Processing Transcript Requests.* Unlike traditional court-reporting records, the court owns and manages the videotape, which is the official record. To have a transcript made, the tape must be requested from the court and returned to it. This involves court employees in the activities that are required to have a transcript made. While this means new responsibilities for court staff, it also provides an opportunity for the court to monitor the number of transcript requests, the length of transcripts, and the timeliness of production. This makes it possible to evaluate the performance of the transcript service and to identify sources of problems. It is recommended that the court adopt the following procedures to reduce delay in appellate case processing and to preserve data required for management and evaluation purposes.

- Requests for transcripts should be made in writing and filed with the court by the attorneys. The case number, date of each request, and the requesting party should be recorded. A form can be used for this.

- The court should process transcript requests and send the tapes and a work order to the transcription service by the close of the next working day. The date the work order is forwarded to the transcription service should be recorded. The work order should specify the expected completion date—usually 15 days, no more than 30 days for very long requests (more than three videotapes).

- A messenger service or overnight package delivery service should be used, and the fee for this collected as part of the costs.

- The transcription service should be required to send or deliver the transcript directly to the attorney(s) in addition to the court officials who are required to have it.

- The transcription service should be required to return a notice to the court

video records manager attesting to the date the transcript is completed and delivered. This notice should include the number of transcript pages.

- All transcript work orders should be entered into a "tickler" system that identifies orders outstanding for longer than the period allowed. Court staff should follow up on these delinquent orders. When the notice of completion is returned, the return date should be recorded.

Recommendations for Joint State and Local Attention

SELECT THE VENDOR AND EQUIPMENT TO BE USED IN THE TRIAL COURT (4). Court leaders who plan to implement video recording in 1990 in a state general jurisdiction trial court should note that only one vendor has a proven record of success in installing and providing service for a video recording systems that make a faithful record and are unobtrusive and reliable. If this vendor's system has features and characteristics of operation that the court finds undesirable (e.g., the voice-activated full-screen image that switches the picture from speaker to speaker, sometimes described by viewers as annoyingly jumpy), a court should *thoroughly* investigate other options before committing itself to video recording without a back-up alternative.

It appears unlikely, given the experience in the sites studied, that video recording can be successfully implemented with off-the-shelf components and technical support provided only by the vendors of the different components, or by court or county employees. Moreover, the systems that are under development by several vendors, but which have not been in operation and evaluated in a courtroom, should be installed only in tandem with back-up reporting systems for a minimum period of several months.

Vendor selection should also address contracts for system maintenance after the warranty period expires. The most well-established vendor in this field (Jefferson Audio Video Systems, Inc.) charges 5 percent of the purchase price to maintain the system after the initial one-year warranty period. In states where many systems are installed, state officials are negotiating package contracts for all of the equipment, at a lower unit cost.

MAKE REQUIRED ADJUSTMENTS TO PROCEDURE FOR PROCESSING APPEALS (5). The requirements for this step are determined by the decision the court makes about whether videotapes or transcripts made from them will be used on appeal. Using videotape as the record requires more changes because details of forms and procedures developed for cases requiring preparation of a transcript by a court reporter will not apply to videotaped appeals. Procedures for transcribed videotape appeals may also change, but these changes are more likely to affect trial rather than appellate court procedure. Washington's appellate rules governing a "statement of arrangements" regarding the preparation of a transcript are an example of a procedure and a case-processing interval that is unnecessary and confusing in the context of videotape appeals.

Each local court, moreover, can be expected to have formal and informal

procedures followed by court clerk's office personnel, lawyers, and court reporters that will not apply to videotape appeals. New responsibilities need to be assumed by court clerk's or court administrator's office personnel with videotape, since there is no longer a court reporter at the hub of the recording and transcript preparation process.

In Washington problems associated with the procedure on appeal arose with the very first appeal filed from videotaped proceedings, when the lawyer appointed to represent a criminal defendant received inappropriate instruction from the court of appeals. That case, a criminal appeal, had not been decided by late 1989.

> Staff from the appellate court should be involved from the beginning in drafting the videotape plan. No one wants surprises, or delays, when the first case is appealed.[6]

In short, staff in both the trial and appellate court clerks' offices must examine each activity that will require a videotape appeal, compare the activities for their fit with existing procedure, and make the necessary adjustments. Communication both ways, and with the trial court judges' staff, is essential.

Establish a Tracking System to Identify Videotape and Non-videotape Appeals (6). Experience in all of the sites proves a need to evaluate the effects the videotape system is having on the pace and cost of appeals. (Often, an evaluation requirement is attached to funding, but evaluation of innovations is a sensible practice in any case.) The data required for evaluation are not easily retrievable if there is no way to begin tracing *all* appeals filed *at the trial level* and no procedure for flagging each videotape appeal. The flag must be attached at the time the notice of appeal is filed, and it must follow the case into and through the appellate system. If there is a complete inventory of appeals filed at the trial level, and a way to distinguish videotape from traditional appeals, it is relatively easy to compare the pace of both kinds of appeals at each case-processing stage and overall. Interestingly, in *none* of the study sites was this capability possible from the beginning of the experiment, but Kentucky and Washington made the necessary adjustments after years of operation.

Recommendations for Local Court Attention

Involve Bar in Implementation Planning (7). The purpose of this step is to avoid oversights in planning during the next five steps. Lawyers have a perspective on the courtroom and court procedure that is different from that of the judges and administrative staff. The quality of planning is enhanced if that perspective is acknowledged and used. The prosecuting attorney and public defense lawyers are of special importance since they appear in court so frequently.

The priorities of the court and the bar about the way video recording equipment should be installed and the procedure that should be followed in its operation may not always coincide, but inevitably there will be some room for accommodation

between the court's priorities and those of the bar. A judge, for example, may tend to underestimate the frequency and range of attorneys' movement when they speak in the courtroom and establish requirements for microphone and camera coverage that are incomplete. Or judges may plan to restrict attorney movement to accommodate the recording equipment and underestimate the degree of resistance they will encounter from the bar or how frequently they would have to interrupt the proceedings to enforce the restrictions on customary movement in the courtroom. Joint discussion among the judge, the vendor, and members of the bar offers potential for arriving at the optimal accommodation between behavioral custom and technical requirements for high-quality recording.

Install the Equipment (8). This step requires an initial design based on floor plans and descriptions of the physical features of the courtroom and chambers. This step will usually be required before a firm price can be obtained from the vendor. The initial plan may need to be modified during installation if circumstances present themselves that were overlooked during the initial design. Finally, testing will be required under live courtroom conditions to determine whether the design works as intended. Video recordings made during a variety of hearings and with a variety of lawyers and witnesses should be reviewed by judges and appellate lawyers. This is necessary to identify problems with the recording system that need to be corrected with technical adjustments or, if that it not possible, with procedures governing courtroom behavior.

Decide Who Will Operate the Equipment and Make the Videotape Log (9). Two approaches to system operation are used in the sites studied. Under one approach, the trial judge operates the equipment (turns it on and off, changes tapes) and records on a tape log the time at which key events occur during the court session. Court clerical personnel perform all or some of these tasks under alternative approaches. The former approach may offer the advantage of minimizing costs associated with the number of court clerical personnel the court employs. Whether cost savings will be realized depends on how the court personnel are assigned to carry out other clerical responsibilities related to courtroom operations. Whether it is *possible* to use the judge as the equipment operator depends on whether the trial court judge will agree to perform those activities. Some judges prefer accepting those responsibilities, perhaps as a trade-off to obtain funding for other kinds of clerical assistance (e.g., law clerks); while others grudgingly agree to the responsibility. Some judges perform the required equipment operation activities conscientiously, while others are more perfunctory in their approach.

It was found that some attorneys object to having the judge operate the system. In their view it gives a trial judge an otherwise avoidable opportunity to inappropriately manipulate the record, in ways that would be more visible or difficult to achieve when a court reporter makes the record or when a court clerk is respon-

sible for system operation. Some instances were noted where the quality of system operation or the quality of the recording log were substandard and needed improvement when these were the responsibility of judges. (One judge, for example, routinely disables the voice-activated camera feature, so that only one camera is in operation. This results in incomplete video coverage, although the audio is complete.) One of the disadvantages of having judges responsible for these activities is that it is more difficult for administrative personnel to impose standards of performance, correct undesirable practices, and take action to enforce standards. Moreover, when a judge would prefer not to be responsible for operating the equipment, and does so in substandard fashion, no one is satisfied, and the result is poor record quality.

In spite of some potential for costs savings when judges operate the system, it is recommended that courts avoid the practice; the cost savings are modest, in any case.[7] Achieving and maintaining high standards for system operation should be the controlling concern.

Design Videotape Log Formats and Records Management Procedure (10). These procedural elements of video recording are interrelated, and related also to the court's calendaring system (daily and weekly schedule of hearings). Some courts keep separate tapes on which they record the short hearings they conduct, usually separated also by the casetype (civil, criminal, domestic), and they record trials and other longer matters on one or more tapes dedicated to that trial. More complex indexing and storage procedures are required for this approach (as well as more switching of tapes by the system operator) than for an approach where a single tape is used to record everything presented for the record in the courtroom each day (only in unusual circumstances would one six-hour tape not suffice to store the record for each day).

When the one-tape/one-day approach is used, records of the proceedings are accessed by date and then by scanning the log of the tape in question to find the desired portion. Tape logs may be maintained in a chronological file or kept with the tape itself (which is simply shelved in chronological order) or both. When this records management approach is used, there is rarely a need to interrupt a session of court to change a tape or to be concerned about a tape running out while a hearing or trial is in progress. A disadvantage of the one-day/one-tape approach is that records of no interest to one user of a particular tape are interspersed with the record that is of interest (judges often hear motions during trial recesses). A second disadvantage is that changing tapes every day will leave tapes with what could be hours of unrecorded tape on slow court days. In both approaches, a complete record of all of the proceedings that may be relevant to an appeal are likely to be recorded on different tapes.

Neither of these approaches, nor variations of them, are recommended; what will work best in one court may not work in another. However, it *is recom-*

mended that the court select the procedure that fits best with each of the following, listed in priority order:

- The procedure should never require changing a tape while a hearing or trial is in progress;
- The procedure should minimize the need to change tapes during the day;
- The procedure should minimize the need to make copies of original recordings; and
- The procedure for storage and retrieval of recorded proceedings should be simple and require only a minimal number of indexes that have to be created and maintained.

The cost of unused portions of videotapes is less important than the other factors listed above and should not be allowed to control the procedure. Court supervisors should be especially alert to preventing frugal court clerks from saving tape at the expense of occasionally having a tape run out during a trial.

Preferred log formats will depend on how the previous choices are made. Log notations for motions require a different style of entry in the log than do notes for events in trials. In addition, calendar entries during motions for many different cases may need to be made in a very short time (or the log detail created after the session of court). For a motions log, it may only be necessary to note on the court calendar the cases that were heard within each five-minute interval in court and then create the official tape log while the court session is in recess, or after the session ends.

ESTABLISH STANDARDS FOR IN-COURT DUTIES OF JUDGES, COURT STAFF, AND LAWYERS RELATED TO MAKING THE RECORD (11). The behavior of each participant in the courtroom affects the quality of the record. Unlike traditional court reporting where there is a professional present in the courtroom whose sole responsibility is to make a high-quality record (the court reporter), video recording requires judges, court staff, and lawyers to assume greater responsibility for record quality.

The trial judge has an obligation to allow court personnel the opportunity to activate the recording before the session of court begins and to be sure that no substantive matters are discussed after the machine has been taken out of the record mode. The judge has a responsibility to learn the "zones of conflict" between microphones and spots where the audio pickup is weak (if any) and to remind attorneys not to stand and speak from those areas. The attorneys need to pay attention to those areas and learn to avoid them. Courtroom personnel must alert the participants if the judge or attorneys have inadvertently compromised the quality of the record and take any corrective action required to correct or "settle" the record. Court personnel should have clearly established obligations and duties with respect to the record; e.g., the form

and content of the logs, and a duty to interrupt if a problem has arisen.

TEST THE SYSTEM FOR A MINIMUM OF 30 DAYS (12). This step is recommended for two reasons. First, it provides a period in which the equipment can be tested and any defective parts or components identified. Second, the quality of the tapes can be reviewed under a variety of conditions (different types of trials, different lawyers, different witnesses.) After reviewing the tapes, camera and microphone placement may need to be discussed with the vendor and adjustments made (if possible) or sensitive areas in the courtroom identified for lawyers to avoid when standing and speaking.

Conclusion

Video recording reliably makes a faithful and readily available record of court proceedings at relatively low cost. The purpose of having the record—appellate review of trial proceedings—is served in a convenient and familiar fashion when a videotape is transcribed. Appellate review is served in a less convenient but more faithful manner (videotape preserves information about the trial that is not captured in a narrative record) when the tape itself serves as the record for appellate review. Lawyers express reservations about being required to use the videotape exclusively as the record on appellate review; for many of them, the disadvantages of working with a videotape are seen as great enough to offset all of its other advantages.

Video recording has gained general acceptance and is viewed favorably among most lawyers in the sites where it is used. Whether video recording is a desirable alternative courts other than the study sites, however, is a decision that must be left to the judgment of officials in those courts. The quality of videotape records and the overall utility of video recording as a method of court reporting—like the quality and utility of traditional court reporting—are not achieved without care and proper management. Will officials in every court want to take on management responsibility in an area traditionally left to lawyers and court reporters? Moreover, conversion from traditional court reporting to video recording in one or more courtrooms is a major undertaking. Therefore, whether video recording is desirable in a court is a determination only local officials can make; they alone are in a position to compare their circumstances with those of the courts described in this report.

Since the primary purpose of this report is to guide decision makers to information that has practical application, it is fitting to conclude the report by drawing attention to the reflections of two lawyers who have, perhaps, more experience with video recording than any other legal professionals. These are the chief and deputy appellate defenders in Louisville, where videotaped trial records are made in all of the courtrooms in the circuit court. Excerpts from an article written in the *Louisville Lawyer* in 1987 and a letter written to the president of Jefferson Audio Video

Systems, Inc., in May 1989 reveal how, and why, the opinions of these lawyers changed as they gained experience with video recording and as the video recording equipment improved.

Fall 1987

— Frank W. Heft, Jr.
Chief Appellate Defender
Louisville, Kentucky

The use of video tapes has been ushered in with the promise of economy and efficiency in the appellate process. However, the limited advantages do not seem to outweigh the obvious disadvantages that are visited upon appellate advocates. Simply too much time is consumed in reviewing non-essential footage, in attempting to find certain passages on numerous six-hour videotapes and in trying to discern garbled testimony and inaudible bench conferences.[8]

May 1989

— Frank W. Heft, Jr., and J. David Niehaus
Chief Appellate Defender and *Deputy Appellate Defender*
Louisville, Kentucky

Since the use of videotape to record court proceedings was introduced to record proceedings in Jefferson Circuit Court in May, 1985, we have handled approximately 92 appeals or appeal-related cases that utilized the videotapes as the records on appeal. Of those 92 cases, we had serious problems with the videotapes in seven of them .... Over the years, it appears to us that the quality of the videotape recordings has improved and, as we will explain in more detail later in this letter, most of the technical problems seem to have been eradicated.

The primary advantage of videotape for records on appeal is that it has, for all practical purposes, eliminated the need to request extensions of time for the preparation of the record on appeal. ...We cannot think of any instance in which we have requested an appellate court to grant us an extension of time because the videotape had not been prepared within the time limits specified for certification of the record on appeal ....

Our trial attorneys also benefit from the speed with which videotapes are available. For example, if there are hearings several weeks or days prior to trial, the trial attorney can obtain a videotape of those proceedings in a very short time and be able to use it in preparing for trial or at the trial itself. It was the rare exception that we would be able to obtain a transcript of evidence in such a short period of time.

When the videotape system of recording proceedings was first adopted in Jefferson Circuit Court, our primary complaint was that the quality of bench conferences was extremely poor.... In recent years, it has become apparent to us that the quality of the videotape system has improved substantially ... problems seem to be confined to situations in which a lawyer, while addressing the jury in opening statements or closing arguments, is located between two microphones and there may be confusion as to which microphone should actually be picking up the attorney's voice. However, that problem is minimal....

The biggest disadvantage to the use of videotape records on appeal is that they inevitably take longer to review than a transcript of evidence. We have had a great deal of experience using videotape records and have accordingly become more efficient in our review of them. However, the fact remains that we can review transcripts of evidence and make notes quicker than we can review videotapes and make notes. Our long-standing office policy has been to file appellate briefs without seeking extensions of time. In all but the rarest of cases, we were able to comply with that policy in handling appeals that utilized transcripts as the record. We found that we could, in general, file

our appellate briefs within thirty days of certification of the record on appeal in transcript cases. In videotape cases, however, requests for extensions of time to file appellate briefs have necessarily become routine....

... We do not mean to suggest that we request extensions of time in all videotape cases. Indeed, if the record on appeal consists of one or perhaps two videotapes, we may very well be able to review the tape(s) and file the brief within the thirty day time period. However, given our caseload, it is unlikely that we will be able to file briefs within the thirty day time period if the record on appeal is comprised of three or more videotapes....

Lastly, it seems that use of a videotape record is advantageous in the sense that the reviewing courts are virtually in the same position as the trial judge and have equal and ample opportunity to observe not only a witness's demeanor, but also the voice inflections of all of the speakers, whether they are witnesses, judges, or attorneys. The videotape undoubtedly brings a trial or a court proceeding to life. It is capable of recreating the tenor and atmosphere in a courtroom that cannot be captured on the pages of a transcript. Seeing and hearing what actually happens in a courtroom necessarily gives the viewer a more accurate understanding of precisely what occurred than the words printed in a transcript. With more appropriate and realistic periods established for the filing of briefs in order to accommodate the increased time required to review the videotapes, most if not all of our problems would be resolved.[9]

Notes

1. Louisell and Pirsig, 1953 p. 33.

2. Jerome E. Miller, past president of NSRA and project advisor. Letter to William E. Hewitt, December 11, 1989.

3. Ibid.

4. Further exploration and discussion of the possible advantages and disadvantages of this mixed approach are planned for future work.

5. Discussions with attorneys in the Kentucky department of public advocacy suggest that procedural delays contribute substantially to the reasons why extensions of time to file briefs are routinely requested. By a special provision of Kentucky rules of procedure, the commonwealth's public defender is allowed 30 days from the date the record of trial proceedings is filed in the court of appeals to compile the appellant's brief. Normally, however, the case is *not assigned* to a lawyer until about 30 days after it is filed. Extensions of time to file briefs are, therefore, an institutionalized routine for all of their cases. By contrast, no civil appellate attorney interviewed in Louisville reported having to file for an extension of time to compile the brief in any videotape case, and some appeals that were discussed originated from five-to-seven-day trials.

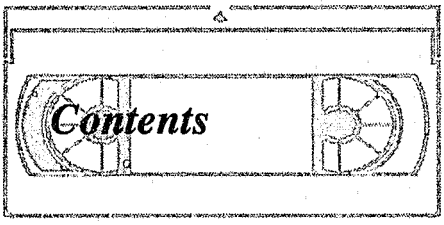
6. Ms. Bobbi Olsen, court services specialist, office of the administrator for the courts, state of Washington, interview comment. Ms. Olsen is the coordinator for the video recording project in Washington.

7. See the discussion of costs for court personnel in Chapter 4.

8. Heft, 1987 p. 12.

9. Heft and Niehaus, 1989.


Appendices



Appendix A

National Center for State Courts and State Justice Institute
Evaluation of Video Recording for Making the Trial Court Record

Staff Use Only

ATTORNEY QUESTIONNAIRE

Questionnaire # State/County id (1)

(2)

PART A — Length and Type of Experience of the Responding Attorneys

1. Approximately how many years have you practiced law? years (3)

2. Which of the following best describes your practice? (circle one) (4)

   1 = general practice
   2 = mostly civil plaintiff
   3 = mostly civil defendant
   4 = mostly criminal
   5 = mostly domestic relations
   6 = other (specify)_____

3. Are you a prosecuting attorney? No Yes (5)

4. Are you regularly employed as a salaried, appointed, or contractual public defender?

   No Yes (6)

   If yes, please estimate the percent of your time. percent (7)

5. During the past year, approximately how many times have you appeared "on the record" in any proceeding in superior court? (circle one) (8)

   None 1-4 5-12 13-24 25-52 53+

6. During the past year, approximately how many times have you appeared in the "video" courtroom in the Clark County Superior Court? (circle one) (9)

   None 1-4 5-12 13-24 25-52 53+

7. During the past year, have you been involved in any cases where an appeal has been filed? No Yes (10)

   If yes, about how many cases? (11)

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8. In the course of your career, have you ever used a court reporter equipped with a computer (CAT) for either of the following purposes:

8a.	Expedited copy?	No	Yes	(12)
	If yes, in how many trials?			(13)
8b.	Litigation support features?	No	Yes	(14)
	If yes, in how many trials?			(15)

PART B - Experience With Videotapes and Court Reporters

By circling the appropriate numbers, please indicate the frequency in which you have encountered the following situations:

IN YOUR EXPERIENCE WITH VIDEOTAPE:

		CIRCLE ONE				
		Never	Rarely	Occasionally	Frequently	
9.	How often has a proceeding been delayed, or has a proceeding been interrupted, because video equipment did not function properly?	1	2	3	4	(16)
10.	How often have the parties agreed to proceed without a record to avoid delay when video equipment did not function properly?	1	2	3	4	(17)
11.	How often has a videotape record you wanted not been available when it was supposed to be?	1	2	3	4	(18)
12.	How often do you use the VCRs provided by the court to make your own recording of the proceeding?	1	2	3	4	(19)
13.	How often have you had a videotape record transcribed into written form to make it easier to use?	1	2	3	4	(20)

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IN YOUR EXPERIENCE WITH COURT REPORTERS:

	CIRCLE ONE				
	Never	Rarely	Occasionally	Frequently	
14. How often has a proceeding been delayed or been interrupted because a court reporter was late, unavailable, or needed a break?	1	2	3	4	(21)
15. How often have the parties agreed to use audiotape or to proceed without a record when a court reporter was not available?	1	2	3	4	(22)
16. How often has a transcript you ordered from a court reporter not been available when it was supposed to be?	1	2	3	4	(23)

HOW VIDEOTAPES AND TRANSCRIPTS ARE USED:

In our research, we will be able to get objective information about transcripts ordered for appeals (the numbers of transcripts, page length and the elapsed time from ordering to filing, etc.). What we *cannot* get is information about transcripts ordered by lawyers for purposes *other than appeal*, nor information about how lawyers use videotaped records.

Your responses to the next set of questions will give us a much more complete picture of lawyers' experiences with trial court records.

17. During the past year, have you used *videotaped* records of court proceedings for any of the following purposes? (Place a check mark by any that apply) (24)

- ☐ work on an appeal
- ☐ prepare for next day's trial
- ☐ prepare a motion or order
- ☐ other (describe)
- ☐ to improve your courtroom techniques
- ☐ to educate other attorneys
- ☐ for a client's information

18. During the past year, *excluding transcripts ordered for work on an appeal* about how many times have you ordered a transcript from a court reporter? (25)

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IF YOUR ANSWER IS 0, PLEASE SKIP TO QUESTION 19.

18a. About how long did it take to get the *last* transcript you ordered?
number of: days, weeks, months (check one) (26)

18b. What was the page length of this transcript? (27)

PART C - Opinion Survey

By circling the appropriate number, please tell us the extent to which you agree or disagree with the following statements.

	CIRCLE ONE				
	Agree Strongly	Agree	Disagree	Disagree Strongly	
19. A court reporter is more dependable than video equipment.	1	2	3	4	(28)
20. A court reporter makes a more faithful original record than does videotape.	1	2	3	4	(29)
21. A court reporter will produce a more accurate transcript than a transcription service working from videotape.	1	2	3	4	(30)
22. Any special benefits of videotape are offset by the length of time it takes to review.	1	2	3	4	(31)
23. Having videotaped records of proceedings improves the quality of litigation.	1	2	3	4	(32)

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24. Considering everything, I think making a video record of court proceedings: (circle one)

Is a very good thing	Has more advantages than disadvantages	Has as many disadvantages as advantages	Has more disadvantages than advantages	Is a very bad thing	
1	2	3	4	5	(33)

25. When the introduction of video recording in your court was first announced, how would you describe your reaction? (circle one)

Highly Skeptical	Skeptical	Didn't care	Enthusiastic	Strongly enthusiastic	
1	2	3	4	5	(34)

26. Now that the system has been in place for some time, what is your overall attitude? (circle one)

Strongly Negative	Negative	Neutral	Positive	Strongly Positive	
1	2	3	4	5	(35)

27. What have we **NOT** asked? Please note any comments you have about the pros or cons of using videotape that you think we are overlooking or that you think are especially important. (36)

Comments: _____

_____

_____

_____

_____

_____

_____

_____

_____

Appendix B1

QUESTION #1

"Approximately How Many Years Have You Practiced Law?"

	All Cases	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
	N=1,037	N=148	N=168	N=336	N=232	N=160
0-7 Years	21.5%	23.4%	28.0%	25.9%	13.8%	15.0%
8-12 Years	27.1	37.6	25.6	25.3	21.6	31.3
13-19 Years	24.0	22.0	29.2	22.0	25.0	23.1
20+ Years	27.4	17.0	17.3	26.8	39.4	30.6

QUESTION #2

"Which of the Following Best Describes Your Practice?"

	All Cases	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
	N=1,018	N=139	N=163	N=327	N=231	N=158
General Practice	33.7%	37.4%	25.8%	35.5%	33.3%	35.4%
Mostly Civil	40.8	31.0	54.6	40.4	45.5	29.2
Mostly Criminal	7.2	18.7	4.3	6.1	2.2	9.5
Mostly Domestic Relations	5.2	4.3	2.5	3.4	9.1	7.0
Other	13.2	8.6	12.9	14.7	10.0	19.0

QUESTION #3

"Are you a Prosecuting Attorney?"

	All Cases	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
	N=1,021	N=139	N=164	N=328	N=231	N=159
NO	95.0%	92.1%	98.8%	96.3%	97.0%	88.1%
YES	5.0	7.9	1.2	3.7	3.0	11.9

QUESTION #4

"Are You Regularly Employed as a Salaried, Appointed, or Contractual Public Defender?"

	All Cases	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
	N=1019	N=139	N=164	N=326	N=232	N=158
NO	93.4%	84.9%	96.3%	96.9%	92.2%	92.4%
YES	6.6	15.1	3.7	3.1	7.8	7.6

QUESTION #5

"During the Past Year, Approximately How Many Times Have You Appeared 'On the Record' in Any Proceeding in the Superior Court?"

	All Cases	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
	N=1,016	N=139	N=166	N=325	N=231	N=157
NONE	6.2%	6.6%	5.4%	6.8%	0.4%	14.0%
1-4	11.7	10.9	18.7	14.5	2.2	13.4
5-12	18.5	21.2	34.9	18.2	8.2	14.6
13-24	20.1	23.4	27.7	21.5	14.3	14.6
25-52	21.7	11.7	10.8	23.4	33.3	21.0
53+	21.9	26.3	2.4	15.7	41.6	22.3

QUESTION #6

"During the Past Year, Approximately How Many Times Have You Appeared in the 'Video Courtroom' in the Superior Court?"

	All Cases	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
	N=1,017	N=139	N=164	N=327	N=229	N=158
NONE	24.7%	25.2%	42.1%	11.0%	28.8%	28.5%
1-4	30.1	39.6	42.7	16.5	33.6	31.6
5-12	21.6	25.9	12.2	19.9	27.9	22.2
13-24	10.0	4.3	3.0	18.3	7.0	9.5
25-52	8.4	3.6		21.1	1.3	5.1
53+	5.2	1.4		13.1	1.3	3.2

QUESTION #7

"During the Past Year, Have You Been Involved in Any Cases Where an Appeal Has Been Filed?"

	All Cases	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
	N=1,018	N=139	N=166	N=325	N=230	N=158
NO	35.4%	48.2%	29.5%	34.8%	21.3%	51.9%
YES	64.6	51.8	70.5	65.2	78.7	48.1

QUESTION #8

"During the Course of Your Career, Have You Ever Used a Court Reporter Equipped with a Computer (CAT) for Either of the Following Purposes?"

Expedited Copy

	All Cases	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
	N=997	N=132	N=161	N=322	N=226	N=156
NO	74.6%	75.0%	78.9%	77.0%	63.3%	81.4%
YES	25.4	25.0	21.1	23.0	36.7	18.6

Litigation Support Features

	All Cases	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
	N=953	N=127	N=156	N=308	N=212	N=150
NO	87.1%	91.3%	85.3%	88.3%	82.1%	90.0%
YES	12.9	8.7	14.7	11.7	17.9	10.0

QUESTION #9

"How Often Has a Proceeding Been Delayed, or Has a Proceeding Been Interrupted, Because Video Equipment Did Not Function Properly?"

	All Cases	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
	N=899	N=110	N=140	N=300	N=214	N=135
Never	63.8%	73.6%	67.9%	47.0%	68.7%	81.5%
Rarely	28.1	18.2	26.4	38.3	26.6	17.8
Occasionally	7.2	6.4	5.0	13.7	4.2	0.7
Frequently	0.8	1.8	0.7	1.0	0.5	

QUESTION #14

"How Often Has a Proceeding Been Delayed or Been Interrupted Because a Court Reporter Was Late, or Needed a Break?"

	All Cases	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
	N=984	N=133	N=161	N=314	N=230	N=146
Never	23.7%	24.8%	28.0%	30.9%	15.2%	15.8%
Rarely	50.0	52.6	50.9	49.4	47.4	52.1
Occasionally	23.6	21.1	20.5	17.5	33.5	26.7
Frequently	2.7	1.5	.6	2.2	3.9	5.5

QUESTION #10

"How Often Have the Parties Agreed to Proceed Without a Record to Avoid Delay when Video Equipment Did Not Function Properly?"

	All Cases	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
	N=875	N=104	N=134	N=301	N=206	N=130
Never	92.1%	95.2%	91.8%	88.4%	91.7%	99.2%
Rarely	4.7	3.8	6.0	6.3	4.4	0.8
Occasionally	2.9	1.0	2.2	5.0	2.9	
Frequently	0.3			0.3	1.0	

QUESTION #11

"How Often Has a Videotape Record You Wanted Not Been Available when It Was Supposed to Be?"

	All Cases	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
	N=870	N=108	N=135	N=296	N=200	N=131
Never	81.7%	88.9%	88.1%	72.0%	82.5%	90.1%
Rarely	12.5	7.4	6.7	18.9	13.5	6.9
Occasionally	4.5	3.7	3.7	6.8	4.0	1.5
Frequently	1.3		1.5	2.4		1.5

QUESTION #16

"How Often Has a Transcript You Ordered from a Court Reporter Not Been Available when It Was Supposed to Be?"

	All Cases	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
	N=982	N=132	N=161	N=314	N=230	N=145
Never	19.3%	42.4%	24.2%	18.8%	7.0%	13.8%
Rarely	33.0	34.8	34.2	38.9	24.3	31.0
Occasionally	36.0	20.5	32.9	30.6	52.2	40.0
Frequently	11.6	2.3	8.7	11.8	16.5	15.2

QUESTION #12

"How Often Do You Use the VCRs Provided by the Court to Make Your Own Recording of the Proceeding?"

	All Cases	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
	N=891	N=110	N=138	N=300	N=210	N=133
Never	74.9%	78.2%	80.4%	67.3%	85.2%	66.9%
Rarely	14.0	16.4	9.4	16.0	10.0	18.8
Occasionally	7.9	5.5	9.4	11.0	2.9	9.0
Frequently	3.3		0.7	5.7	1.9	5.3

QUESTION #13

"How Often Have You Had a Videotape Record Transcribed into Written Form to Make It Easier to Use?"

	All Cases	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
	N=886	N=107	N=139	N=300	N=208	N=132
Never	60.3%	72.9%	69.1%	47.7%	52.4%	81.8%
Rarely	15.5	12.1	12.9	20.0	15.4	10.6
Occasionally	14.1	5.6	11.5	20.7	17.3	3.8
Frequently	10.2	9.3	6.5	11.7	14.9	3.8

QUESTION #15

"How Often Have the Parties Agreed to Use Audiotape or to Proceed Without a Record when a Court Reporter Was Not Available?"

	All Cases	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
	N=975	N=130	N=160	N=311	N=229	N=145
Never	69.9%	67.7%	62.5%	71.4%	66.8%	82.1%
Rarely	21.1	20.8	20.0	21.9	24.9	15.2
Occasionally	7.8	9.2	15.0	6.1	7.9	2.1
Frequently	1.1	2.3	2.5	0.6	0.4	0.7

QUESTION #17

"During the Past Year, Have You Used Videotape Records of Court Proceedings for Any of the Following Purposes?"

Work on an Appeal

	All Cases	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
	N=1,035	N=141	N=167	N=335	N=232	N=160
NO	81.5%	87.9%	92.2%	57.6%	94.4%	96.3%
YES	18.5	12.1	7.8	42.4	5.6	3.8

Prepare for Next Day's Trial

	All Cases	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
	N=1,035	N=141	N=167	N=335	N=232	N=160
NO	90.9%	93.6%	95.8%	83.9%	94.8%	92.5%
YES	9.1	6.4	4.2	16.1	5.2	7.5

To Improve Your Courtroom Techniques

	All Cases	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
	N=1,035	N=141	N=167	N=335	N=232	N=160
NO	84.2%	85.8%	86.8%	74.0%	94.0%	86.9%
YES	15.8	14.2	13.2	26.0	6.0	13.1

To Educate Other Attorneys

	All Cases	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
	N=1,035	N=141	N=167	N=335	N=232	N=160
NO	93.0%	96.5%	95.2%	89.0%	96.6%	91.3%
YES	7.0	3.5	4.8	11.0	3.4	8.8

For a Client's Information

	All Cases	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
	N=1,035	N=141	N=167	N=335	N=232	N=160
NO	87.4%	94.3%	93.4%	75.8%	95.3%	88.1%
YES	12.6	5.7	6.6	24.2	4.7	11.9

Other Purpose

	All Cases	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
	N=1,035	N=141	N=167	N=335	N=232	N=160
NO	93.9%	93.6%	94.6%	91.3%	97.0%	94.4%
YES	6.1	6.4	5.4	8.7	3.0	5.6

QUESTION #19*

"A Court Reporter is More Dependable than Video Equipment?"

	All Cases	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
	N=913	N=117	N=148	N=307	N=208	N=133
Agree Strongly	8.9%	10.3%	7.4%	11.1%	8.2%	5.3%
Agree	32.2	24.8	37.2	30.9	33.2	34.6
Disagree	52.7	61.5	48.6	53.1	50.5	51.9
Disagree Strongly	6.2	3.4	6.8	4.9	8.2	8.3

*Data for Question #18 is omitted because too many responses were invalid or were omitted.

QUESTION #20

"A Court Reporter Makes a More Faithful Original Record than Does Videotape?"

	All Cases	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
	N=913	N=113	N=147	N=306	N=213	N=134
Agree Strongly	5.4%	4.4%	3.4%	8.8%	3.3%	3.7%
Agree	19.3	17.7	15.6	23.5	16.0	20.1
Disagree	63.1	67.3	68.7	57.2	64.8	64.2
Disagree Strongly	12.3	10.6	12.2	10.5	16.0	11.9

QUESTION #21

"A Court Reporter Will Produce a More Accurate Transcript than a Transcription Service Working from Videotape?"*

	All Cases	Pontiac	Kalamazoo
	N=332	N=206	N=126
Agree Strongly	6.3%	5.8%	7.1%
Agree	28.9	26.7	32.5
Disagree	57.5	59.7	54.0
Disagree Strongly	7.3	7.8	6.3

*Responses of Vancouver, Raleigh, and Louisville do not apply to this question.

QUESTION #22

"Any Special Benefits of Videotape Are Offset by the Length of Time it Takes to Review?"

	All Cases	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
	N=892	N=116	N=139	N=304	N=201	N=132
Agree Strongly	15.9%	17.2%	6.5%	29.9%	8.0%	4.5%
Agree	34.5	31.0	38.1	32.6	36.3	35.6
Disagree	46.1	47.4	52.5	34.5	52.7	54.5
Disagree Strongly	3.5	4.3	2.9	3.0	3.0	5.3

QUESTION #23

"Having Videotaped Records of Proceedings Improves the Quality of Litigation?"

	All Cases	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
	N=869	N=113	N=136	N=294	N=198	N=128
Agree Strongly	6.2%	7.1%	5.1%	4.4%	7.6%	8.6%
Agree	45.7	39.8	48.5	46.3	50.0	39.8
Disagree	40.7	44.2	41.2	38.8	36.4	48.4
Disagree Strongly	7.4	8.8	5.1	10.5	6.1	3.1

QUESTION #24

"Considering Everything, I Think Making a Video Record of Court Proceedings ..."

	All Cases	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
	N=951	N=127	N=150	N=310	N=224	N=140
Is a Very Good Thing	11.6%	10.2%	10.7%	11.9%	10.7%	14.3%
Has More Advantages than Disadvantages	43.5	43.3	47.3	41.3	43.3	45.0
Has as Many Disadvantages as Advantages	30.8	29.9	34.0	26.1	35.3	31.4
Has More Disadvantages than Advantages	12.2	14.2	6.7	17.7	9.4	8.6
Is a Very Bad Thing	1.9	2.4	1.3	2.9	1.3	0.7

QUESTION #25

"When the Introduction of Video Recording in Your Court Was First Announced, How Would You Describe Your Reaction?"

	All Cases	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
	N=949	N=128	N=146	N=304	N=226	N=145
Highly Skeptical	3.5%	4.7%	1.4%	5.3%	3.5%	0.7%
Skeptical	34.0	42.2	24.0	37.8	24.8	43.4
Didn't Care	36.2	32.0	38.4	28.3	47.8	36.6
Enthusiastic	24.3	20.3	33.6	27.0	22.6	15.9
Strongly Enthusiastic	1.9	0.8	2.7	1.6	1.3	3.4

QUESTION #26

"Now That the System Has Been in Place for Some Time, What Is Your Overall Attitude?"

	All Cases	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
	N=950	N=129	N=146	N=309	N=223	N=143
Strongly Negative	3.6%	4.7%	2.1%	6.5%	2.2%	
Negative	11.7	10.1	5.5	19.7	7.6	8.4%
Neutral	41.4	50.4	50.7	24.9	49.3	46.9
Positive	36.6	29.5	33.6	40.5	37.2	37.1
Strongly Positive	6.7	5.4	8.2	8.4	3.6	7.7

QUESTION #27

"Please Note Any Comments You Have About the Pros & Cons of Using Videotape That You Think We Are Overlooking or That You Think Are Especially Important."

	All Cases	Vancouver	Raleigh	Louisville	Pontiac	Kalamazoo
	N=1,037	N=141	N=167	N=335	N=232	N=160
Number Who Commented	370	54	31	167	66	52
Percent Who Commented	35.6%	38.3%	18.5%	49.7%	28.4%	32.5%

Appendix B2

QUESTION #5

"During the Past Year, Approximately How Many Times Have You Appeared 'On the Record' in Any Proceeding in the Superior Court?"

	Attorneys that have used video for an appeal	Attorneys that have not used video for an appeal
	N=189	N=829
NONE	0.5%	7.5%
1-4	6.3	13.0
5-12	15.3	19.2
13-24	20.6	20.0
25-52	28.0	20.1
53+	29.1	20.1

QUESTION #6

"During the Past Year, Approximately How Many Times Have You Appeared in the 'Video Courtroom' in the Superior Court"

	Attorneys that have used video for an appeal	Attorneys that have not used video for an appeal
	N=191	N=828
NONE	3.1%	29.7%
1-4	17.3	33.0
5-12	21.5	21.6
13-24	21.5	7.5
25-52	24.6	4.6
53+	12.0	3.6

QUESTION #8

"During the Course of Your Career, Have You Ever Used a Court Reporter Equipped with a Computer (CAT) for Either of the Following Purposes?"

Expedited Copy

	Attorneys that have used video for an appeal	Attorneys that have not used video for an appeal
	N=188	N=811
YES	37.2%	22.6%
NO	62.8	77.4

Litigation Support Features

	Attorneys that have used video for an appeal	Attorneys that have not used video for an appeal
	N=181	N=774
YES	16.6%	12.0%
NO	83.4	88.0

QUESTION #9

"How Often Has a Proceeding Been Delayed, or Has a Proceeding Been Interrupted, Because Video Equipment Did Not Function Properly?"

	Attorneys that have used video for an appeal	Attorneys that have not used video for an appeal
	N=188	N=846
Never	44.7%	69.0%
Rarely	40.4	24.8
Occasionally	12.8	5.8
Frequently	2.1	0.4

QUESTION #14

"How Often Has a Proceeding Been Delayed or Been Interrupted Because a Court Reporter Was Late, or Needed a Break?"

	Attorneys that have used video for an appeal	Attorneys that have not used video for an appeal
	N=189	N=797
Never	21.7%	24.2%
Rarely	51.9	49.4
Occasionally	23.3	23.7
Frequently	3.2	2.6

QUESTION #11

"How Often Has a Videotape Record You Wanted Not Been Available when It Was Supposed to Be?"

	Attorneys that have used video for an appeal	Attorneys that have not used video for an appeal
	N=187	N=685
Never	67.9%	85.5%
Rarely	17.1	11.2
Occasionally	11.8	2.5
Frequently	3.2	0.7

QUESTION #16

"How Often Has a Transcript You Ordered from a Court Reporter Not Been Available when It Was Supposed to Be?"

	Attorneys that have used video for an appeal	Attorneys that have not used video for an appeal
	N=188	N=796
Never	14.9%	20.4%
Rarely	37.8	31.9
Occasionally	32.4	36.9
Frequently	14.9	10.8

QUESTION #12

"How Often Do You Use the VCRs Provided by the Court to Make Your Own Recording of the Proceeding?"

	Attorneys that have used video for an appeal	Attorneys that have not used video for an appeal
	N=188	N=705
Never	59.0%	79.1%
Rarely	19.7	12.5
Occasionally	13.8	6.2
Frequently	7.4	2.1

QUESTION #13

"How Often Have You Had a Videotape Record Transcribed into Written Form to Make It Easier to Use?"

	Attorneys that have used video for an appeal	Attorneys that have not used video for an appeal
	N=188	N=700
Never	33.5%	67.6%
Rarely	25.0	12.9
Occasionally	23.4	11.6
Frequently	18.1	8.0

QUESTION #17

"During the Past Year, Have You Used Videotape Records of Court Proceedings for Any of the Following Purposes?"

Prepare for Next Day's Trial

	Attorneys that have used video for an appeal	Attorneys that have not used video for an appeal
	N=191	N=846
NO	75.9%	94.3%
YES	24.1	5.7

Prepare a Motion or Order

	Attorneys that have used video for an appeal	Attorneys that have not used video for an appeal
	N=191	N=846
NO	49.2%	88.4%
YES	50.8	11.6

To Improve Your Courtroom Techniques

	Attorneys that have used video for an appeal	Attorneys that have not used video for an appeal
	N=191	N=846
NO	63.9%	88.8%
YES	36.1	11.2

To Educate Other Attorneys

	Attorneys that have used video for an appeal	Attorneys that have not used video for an appeal
	N=191	N=846
NO	84.8%	94.9%
YES	15.2	5.1

For a Client's Information

	Attorneys that have used video for an appeal	Attorneys that have not used video for an appeal
	N=191	N=846
NO	64.9%	92.6%
YES	35.1	7.4

Other Purpose

	Attorneys that have used video for an appeal	Attorneys that have not used video for an appeal
	N=191	N=846
NO	90.1%	94.8%
YES	9.9	5.2

QUESTION #19

"A Court Reporter is More Dependable than Video Equipment?"

	Attorneys that have used video for an appeal	Attorneys that have not used video for an appeal
	N=185	N=729
Agree	42.1%	40.8%
Disagree	57.9	59.3

QUESTION #20

"A Court Reporter Makes a More Faithful Original Record than Does Videotape?"

	Attorneys that have used video for an appeal	Attorneys that have not used video for an appeal
	N=185	N=730
Agree	35.3%	21.9%
Disagree	64.7	78.1

QUESTION #22

"Any Special Benefits of Videotape Are Offset by the Length of Time It Takes to Review?"

	Attorneys that have used video for an appeal	Attorneys that have not used video for an appeal
	N=177	N=712
Agree	63.2%	47.2%
Disagree	36.8	52.8

QUESTION #23

"Having Videotaped Records of Proceedings Improves the Quality of Litigation?"

	Attorneys that have used video for an appeal	Attorneys that have not used video for an appeal
	N=179	N=691
Agree	44.7%	53.8%
Disagree	55.3	46.2

QUESTION #24

"Considering Everything, I Think Making a Video of Court Proceedings ..."

	Attorneys that have used video for an appeal	Attorneys that have not used video for an appeal
	N=188	N=765
Has More Advantages than Disadvantages	45.2%	57.6%
Disadvantages=Advantages	28.7	31.2
Has More Disadvantages than Advantages	26.1	11.1

QUESTION #25

"When the Introduction of Video Recording in Your Court was First Announced, How Would You Describe Your Reaction?"

	Attorneys that have used video for an appeal	Attorneys that have not used video for an appeal
	N=184	N=767
Highly Skeptical	4.9%	3.1%
Skeptical	39.7	32.6
Didn't Care	29.3	37.9
Enthusiastic	22.3	24.9
Strongly Enthusiastic	3.8	1.4

QUESTION #26

"Now That the System Has Been in Place for Some Time, What Is Your Overall Attitude?"

	Attorneys that have used video for an appeal	Attorneys that have not used video for an appeal
	N=186	N=766
Strongly Negative	9.7%	2.1%
Negative	24.7	8.5
Neutral	18.3	46.9
Positive	34.4	37.3
Strongly Positive	12.9	5.2

Appendix C1

Summary of Responses from Volunteer Judges and Lawyers for Evaluation Questions Related to Faithfulness of the Record

Question — **Distribution of Responses**

#8. Did the court's operator ever not turn the machine on before the hearing or session began (or resumed), turn the machine off before the hearing ended or recessed, or something similar?

Never	1-2 times	3-5 times	6 or more times
18	6		1

9. Did some portion of the proceeding not get recorded because of a machine malfunction or tape defect?

Never	1-2 times	3-5 times	6 or more times
18	6		1

10. To what extent was inaudibility a problem?

Did not occur	Very minor	Minor	More than minor	Serious problem
1	7	6	9	2

11. How often did you find that speakers could not be identified?

Never	1-2 times	3-5 times	6 or more times
8	7	4	6

11a. To what extent was the transcript not matching the tape a problem? (Panels #9 and #10 only)

Did not occur	Very minor	Minor	More than minor	Serious problem
1	2	3		

13. A court reporter would usually make a more faithful record than this videotape.

Strongly agree	Agree	Disagree	Strongly disagree
3	6	13	3

14. The record represented by this videotape:

Exceeded by far my idea of a minimal standard	Was better than my idea of a minimal standard	Met my idea of a minimal standard	Was below a minimum standard	Was very bad, far below a minimum standard
1	9	10	5	0

15. Before you participated in this review, how would you describe your expectations about video recording?

Strongly negative	Negative	Neutral	Positive	Strongly positive
0	0	8	14	3

16. Now that you have completed this review, how would you describe your attitude?

Strongly negative	Negative	Neutral	Positive	Strongly positive
1	7	3	9	5

Appendix C2-A

Did the Court's Operator Ever Not Turn the Machine on Before the Hearing or Session Began (or Resumed), Turn the Machine Off Before the Hearing Ended or Recessed, or Something Similar? (Question 8)

Panel number	Number of responses received to date	Tape source	Distribution of responses			
			Never	1-2 times	3-5 times	6 or more times
1	3	NC	2	1		
2	2	NC	2			
3	2	KY	1	1		
4	1	KY			1	
5	3	KY	2	1		
6	3	KY	3			
7	3	WA	1	2		
8	2	KY	2			
9	3	MI	2	1		
10	3	MI	3			
Totals	25		18	6	0	1

Appendix C2-B

Did Some Portion of the Proceeding Not Get Recorded Because of a Machine Malfunction or Tape Defect? (Question 9)

Panel number	Number of responses received to date	Tape source	Distribution of responses			
			Never	1-2 times	3-5 times	6 or more times
1	3	NC	2	1		
2	2	NC	1	1		
3	2	KY	2			
4	1	KY				1
5	3	KY	2	1		
6	3	KY	3			
7	3	WA	1	2		
8	2	KY	2			
9	3	MI	2	1		
10	3	MI	3			
Totals	25		18	6	0	1

Appendix C2-C

To What Extent Was Inaudibility a Problem? (Question 10)

Panel number	Number of responses received to date	Tape source	Distribution of responses				
			Did not occur	Very minor	Minor	More than minor	Serious problem
1	3	NC			1	2	
2	2	NC		2			
3	2	KY			1	1	
4	1	KY		1			
5	3	KY		1		2	
6	3	KY	1	1	1		
7	3	WA				1	2*
8	2	KY		1	1		
9	3	MI			1	2	
10	3	MI		1	1	1	
Totals	25		1	7	6	9**	2

* Comments clarify that this problem was due to poor microphone coverage during an *in camera* interview between judge and children in a custody proceeding.

** Among the 11 individuals who found inaudibility to be more than a minor problem, 5 respondents also reported a negative response to question #17 (overall attitude after viewing the tapes). An equal number reported a positive overall assessment, and one respondent was neutral.

Appendix C2-D

How Often Did You Find That Speakers Could Not Be Identified?*
(Question 11)

Panel number	Number of responses received to date	Tape source	Distribution of responses			
			Never	1-2 times	3-5 times	6 or more times
1	3	NC			1	2
2	2	NC		2		
3	2	KY	1		1	
4	1	KY	1			
5	3	KY		2		1
6	3	KY	2		1	
7	3	WA	1	2		
8	2	KY	1			1
9	3	MI	1		1	1
10	3	MI	1	1	1	
Totals	25		8	7	4	6

* Differences in interpretation of the question might explain both the spread and the contradictory impressions of individuals who viewed the same tape.

Appendix C2-E

(Only for Respondents Who Viewed Tapes from Michigan)

To What Extent Was the Transcript Not Matching the Tape a Problem? (Question 11a)

Panel number	Number of responses received to date	Tape source	Distribution of responses				
			Did not occur	Very minor	Minor	More than minor	Serious problem
9	3	MI	1	1	1		
10	3	MI		1	2		
Totals	6		1	2	3		

Appendix C2-F

A Court Reporter Would Usually Make A more Faithful Record than This Videotape. (Question 13)

Panel number	Number of responses received to date	Tape source	Distribution of responses			
			Strongly agree	Agree	Disagree	Disagree strongly
1	3	NC	1	1	1	
2	2	NC		1	1	
3	2	KY			2	
4	1	KY				1
5	3	KY		1	2	
6	3	KY			2	1
7	3	WA	1	1		1
8	2	KY		1	1	
9	3	MI	1	1	1	
10	3	MI			3	
Totals	25		3	6	13	3

Appendix C2-G

The Record Represented by This Videotape:
(Question 14)

Panel number	Number of responses received to date	Tape source	Exceeded by far my idea of a minimal standard	Was better than my idea of a minimal standard	Met my idea of a minimal standard	Was below a minimum standard	Was very bad, far below a minimum standard
1	3	NC			1	2	
2	2	NC	1	1			
3	2	KY			2		
4	1	KY		1			
5	3	KY		1	2		
6	3	KY		2	1		
7	3	WA		1	1	1	
8	2	KY		1		1	
9	3	MI		1	1	1	
10	3	MI		1	2		
Totals	25		1	9	10	5	0

Appendix C2-H

Before You Participated in This Review, How Would You Describe Your Expectations About Video Recording? (Question 15)

Panel number	Number of responses received to date	Tape source	Distribution of responses				
			Strongly negative	Negative	Neutral	Positive	Strongly positive
1	3	NC			1	1	1
2	2	NC					2
3	2	KY			1	1	
4	1	KY			1		
5	3	KY				3	
6	3	KY			1	2	
7	3	WA			1	2	
8	2	KY			1	1	
9	3	MI			2	1	
10	3	MI				3	
Totals	25		0	0	8	14	3

Appendix C2-I

Now That You Have Completed This Review, How Would You Describe Your Attitude?* (Question 16)

Panel number	Number of responses received to date	Tape source	Distribution of responses				
			Strongly negative	Negative	Neutral	Positive	Strongly positive
1	3	NC		3			
2	2	NC				1	1
3	2	KY				1	1
4	1	KY					1
5	3	KY				2	1
6	3	KY			1*	2	
7	3	WA	1	1			1
8	2	KY		1	1		
9	3	MI		1		2	
10	3	MI		1	1	1	
Totals	25		1	7	3	9	5

* Positive for trial use to review testimony. Negative for appellate review.

Appendix C2-J

Shift in the Attitudes of Volunteer Lawyers and Judges After Reviewing Videotapes*

	Change in a negative direction	No change in attitude	Change in a positive direction
Number of individuals	11	6	8

* To establish the attitude change, numeric scores for question #15 were subtracted from scores for question #16. If the result was a negative number, the change in opinion was downward, but the overall opinion was not necessarily negative. For example, some respondents changed from "strongly positive" to "positive."

Appendix C3

Names, Titles, and Addresses of Volunteers Who Reviewed Sample Videotapes

Honorable Carl W. Anderson
Administrative Presiding Justice
Court of Appeals
455 Golden Gate Avenue, Room 4200
San Francisco, CA 94102

Honorable John E. Babiarz, Jr.
Associate Judge
Superior Court of Delaware
11th and King Streets
Wilmington, DE 19801

Honorable Morton Brody
Chief Justice, Maine Superior Court
Courthouse
95 State Street
Augusta, ME 04330

Honorable Robert Chapman Buckley
Justice, Illinois Appellate Court
1st Judicial District, Division One
2882 Richard J. Daley Center
Chicago, IL 60602

Mr. Brian K. Burke
Baker and Daniels
810 Fletcher Trust Building
Indianapolis, IN 46204-2454

Honorable Linda Chezem
Judge, Indiana Court of Appeals
State House
Indianapolis, IN 46204

Honorable Robert W. Clifford
Associate Justice, Supreme Judicial
Court of Maine
2 Turner Street, 2nd Floor
Auburn, ME 04210

Honorable Samuel W. Coleman III
Judge, Court of Appeals of Virginia
101 Lee Street, Suite 1
Bristol, VA 24201

Honorable Dennis L. Draney
Judge, 8th District Court
Uintah County Courthouse
147 East Main Street
Vernal, UT 84078

Mr. Earl F. Dorius
236 State Capitol
Salt Lake City, UT 84114

Mr. William A. Ellis
Commissioner
Court of Appeals, Division I
1 Union Square, 600 University Street
Seattle, WA 98101

Honorable Hardy Gregory, Jr.
Justice, Supreme Court of Georgia
528 State Judicial Building
Atlanta, GA 30334

Honorable Zerne P. Haning III
Justice, Court of Appeals
455 Golden Gate Avenue, Room 4200
San Francisco, CA 94102

Honorable Thomas A. Hett
Circuit Judge, Illinois Circuit
Court of Cook County
2600 S. California Avenue, Room 506
Chicago, IL 60608

Honorable Richard C. Howe
Associate Chief Justice
Supreme Court of Utah, The Capitol
Salt Lake City, UT 84114

Honorable Bruce E. Kaufman
Judge, District Court
P.O. Box 2268
Santa Fe, NM 87504-2268

Honorable Louis A. Lavorato
Justice, Supreme Court of Iowa
State Capitol
Des Moines, IA 50319

Honorable Harry W. Low
Presiding Justice
Court of Appeals
455 Golden Gate Avenue, Room 4200
San Francisco, CA 94102

Honorable Julia M. Nowicki
Associate Judge, Illinois
Circuit Court of Cook County
1802 Richard J. Daley Center
Chicago, IL 60602

Honorable Stephen E. Platt
Judge, Elkhart Superior Court #2
315 South Second Street
Elkhart, IN 46516

Mr. John F. Prescott, Jr.
Ice, Miller, DoNadio, & Ryan
1 American Square, Box 82001
Indianapolis, IN 46282

Honorable Jack P. Scholfield
Judge, Court of Appeals
Division I, 1 Union Square
600 University Street
Seattle, WA 98101

Honorable William Douglas Stein
Justice, Court of Appeals
455 Golden Gate Avenue, Room 4200
San Francisco, CA 94102

Honorable Michael J. Voris
Judge, Ohio Court of Common Pleas
270 East Main Street
Batavia, OH 45103

Mr. Joshua G. Vincent
Hinshaw, Culbertson, Moelmann,
Hoban & Fuller
222 North LaSalle Street, Suite 300
Chicago, IL 60601-1081

Appendix D

Vendors

Jefferson Audio Video Systems, Inc. (JAVS)
13020 Middletown Industrial
Boulevard, Louisville, KY 40223
(502) 244-8788
Contact: David Green
President

Court Vision Communications, Inc.
86 Long Court
Thousand Oaks, CA 92360
(805) 496-4692
Contact: Don W. Mettert
Chief Executive Officer

Video Judicial Systems
33 New Montgomery Tower, Suite 280
San Francisco, CA 94105-9763
(415) 227-0800
Contact: Deno Kannes
Chief Executive Officer

Sound Systems, Inc.
6 Bysher Avenue
Flourtown, PA 19031
(502) 267-8640
Contact: Ed Fettinger

Pran, Inc.
790 Rock Street
New Braunfels, TX 78130
(512) 625-2376
Contact: Scott King

Tim Landry Sound Construction
962 Robert E. Lee Boulevard
New Orleans, LA 70124
(504) 282-2042
Contact: Tim Landry

FOR PRELIMINARY INFORMATION ABOUT THESE VENDORS

Contact: William E. Hewitt
National Center for State Courts
300 Newport Avenue
Williamsburg, VA 23187-8798
(804) 253-2000

Appendix E

Examples of Enabling Rules and Orders

KENTUCKY

Kentucky Supreme Court Order Establishing Procedures for Using Videotape Equipment to Record Court Proceedings.

MICHIGAN

Michigan Supreme Court Administrative Order 1989-2, Videotaped Record of Court Proceedings. Entered February 27, 1989.

MINNESOTA

Minnesota Supreme Court Order C4-89-2099. Videotaped Records of Court Proceedings in the Third, Fifth, and Seventh Judicial Districts. Filed November 17, 1989.

NORTH CAROLINA

North Carolina Supreme Court Order, Rules to Govern the Use of Video Court Reporting System During Test/Evaluation Period. Signed February 3, 1988.

WASHINGTON

Washington Supreme Court Order No. 25700-A-443, Establishment of Temporary Procedures for Experimental Use of Videotape Equipment to Record Court Proceedings. Dated November 2, 1989.

Appendix F

List of Individuals Interviewed for the Study

KENTUCKY

Trial Judges

Honorable James S. Chenault
Honorable Ellen Ewing
Honorable William Jennings
Honorable Earl O'Bannon
Honorable Michael O'Connell
Honorable John Potter
Honorable Edwin Schroering
Honorable Rebecca Westerfield

Attorneys

Mr. Gregory Bubalo
Ms. Elizabeth Bruderman, Communications Specialist, Louisville Bar Association
Ms. Lynda Campbell, Public Advocates Office, Richmond, KY
Mr. Hiram Ely III
Mr. Michael Eubanks
Mr. Paul Fagan
Mr. Jerry Gilbert
Mr. Daniel T. Goyette
Mr. Robert Y. Gwin
Mr. Frank W. Heft
Ms. Barbara Hortung
Mr. David A. Lambertus
Mr. Ernie Lewis, Public Advocates Office, Richmond, KY
Ms. Peggy B. Lyndrup, President, Louisville Bar Association
Ms. Barry Queenan, Executive Director, Louisville Bar Association
Mr. Timothy Riddell, Chief Appellate Divison, Public Advocates Office
Mr. Thomas Smith, Commonwealth Attorney, Madison County
Mr. William P. Swain
Ms. Virginia H. Snell
Mr. John L. Tate
Mr. Randy Wheeler, Public Advocates Office

Appellate Judges

Honorable R. W. Dyche III, Judge, Court of Appeals, London, KY
Honorable Thomas D. Emberton, Judge, Court of Appeals, Edmonton, KY
Honorable Paul D. Gudgel, Judge, Court of Appeals, Lexington, KY
Honorable John P. Hayes, Judge, Court of Appeals, Louisville, KY
Honorable Harris S. Howard, Judge, Court of Appeals, Prestonsburg, KY
Honorable J. William Howerton, Chief Judge, Court of Appeals, Paducah, KY
Honorable John D. Miller, Judge, Court of Appeals, Owensboro, KY
Honorable Judy M. West, Judge, Court of Appeals, Crestview Hills, KY
Honorable Anthony M. Wilhoit, Judge, Court of Appeals, Versailles, KY

Court Administrative Personnel

Mr. Don Cetrulo, Administrative Director of the Courts
Mr. John Scott, Clerk, Supreme Court and Court of Appeals
Ms. Laura Stammel
Mr. R. I. Vize, Trial Court Administrator, Louisville, KY

MICHIGAN

Trial Judges

Honorable Jessica R. Cooper, Sixth Circuit Court, Pontiac
Honorable Richard R. Lamb, Chief Judge, Ninth Circuit Court, Kalamazoo

Honorable Norman L. Lippitt, Judge, Sixth Circuit Court, Pontiac

Attorneys

Mr. John Allen, Private Attorney, Kalamazoo
Mr. Mark V. Courtade, Chief, Special Prosecutions, Kalamazoo
Mr. Derek Hurt
Mr. Laurence Imerman
Mr. Ronald Kapocitz
Mr. Robert Levine
Mr. Richard Lustig
Mr. Ross Stancati
Mr. James Vlasic
Mr. Daniel Van Norman
Mr. David York
Mr. Brian Zubel, Prosecuting Attorney

Court Administrative Personnel

Ms. Carla Bebault, Court Reporter, Kalamazoo
Ms. Judy K. Cunningham, Court Administrator, Oakland County
Ms. Lynn E. Erickson, Court Reporter, Oakland County
Ms. Sue King, Judicial Aide, Kalamazoo
Ms. Devona Jones, Court Administrator, Kalamazoo
Ms. Donna Smigelski, Judicial Aide, Oakland County
Ms. Dianne Sponseller, *The Legal Record*
Ms. Corenn Wright, Law Clerk, Kalamazoo

NORTH CAROLINA

Trial Judges

Honorable J. B. Allen, Jr., Trial Judge
Honorable Henry W. Heidt, Jr., Trial Judge

Attorneys

Mr. Burton Craige
Mr. John Fountain, President, Wake County Bar Association
Mr. Garry Parsons
Mr. Robert E. Smith
Ms. Jean Tucker

Court Administrative Personnel

Ms. Pam Adams, Video Courtroom Clerk
Ms. Sallie Dunn, Trial Court Administrator
Mr. Michael J. Unruh, Administrative Office of the Courts

WASHINGTON

Trial Judge

Honorable John N. Skimas, Vancouver

Attorneys

Mr. Art Bennett, General Practice
Mr. Michael Dodds, Deputy Prosecuting Attorney
Mr. Jim Hamilton, General Practice
Mr. Richard Melnick, Deputy Prosecuting Attorney
Mr. Tom Phelan, General Practice
Mr. Steven Thayer, Criminal Practice

Appellate Judges

Honorable Jerry Alexander, Chief Judge, Division II, Court of Appeals
Honorable Keith Callow, Chief Justice, Supreme Court
Mr. Donald G. Meath, Commissioner, Court of Appeals, Division II

Court Administrative Personnel

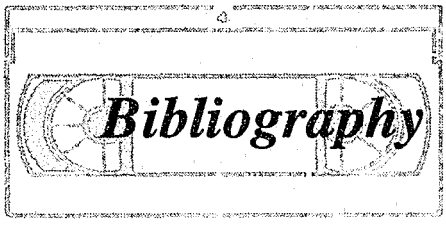
Mr. Robert Carlberg, Trial Court Administrator, Spokane County
Ms. Kathy Dempsey, Judges Secretary, Clark County
Mr. Mark Oldenberg, Trial Court Administrator, Clark County
Ms. Bobbi Olsen, Court Services Specialist, OAC
Ms. Jan Michels, Clerk of Court, King County

Other States

Ms. Leslie Dana-Frigault, Staff Member, Administrative Office of the Courts, Oregon
Ms. Pat Hill, Orange County Superior Court, California
Ms. Diana Herbert, Chief Deputy Clerk, Court of Appeals, San Francisco
Ms. Suzanne James, Court Administrator, Circuit Court, Prince Georges County, Maryland
Mr. Clyde Namuo, Clerk of Court, Honolulu, Hawaii
Mr. William Moran, Administrative Office of the U.S Courts
Mr. Alan Slater, Executive Officer, Orange County Superior Court, California

Vendors

Mr. David Green, President, Jefferson Audio Video, Inc., Louisville, KY
Mr. Donald Mettert, Court Visions
Mr. Deno Kannes, Docu-Vision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