

**REPORT OF THE
JUDICIAL COUNCIL OF VIRGINIA**

**STUDY ON THE VIDEO AND
AUDIO RECORDING OF
GENERAL DISTRICT AND
CIRCUIT COURT PROCEEDINGS**

**TO THE GOVERNOR AND
THE GENERAL ASSEMBLY OF VIRGINIA**



HOUSE DOCUMENT NO. 21

**COMMONWEALTH OF VIRGINIA
RICHMOND
1999**

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MEMORANDUM

December 17, 1998

TO: The Honorable James S. Gilmore III
Governor of Virginia

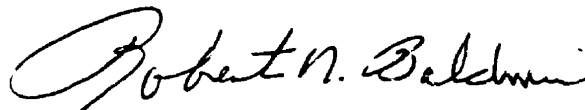
And

The General Assembly of Virginia

IN RE: House Joint Resolution No. 155

On behalf of the Judicial Council of Virginia, I am pleased to submit this report on "Video and Audio Recording of General District and Circuit Court Proceedings", pursuant to House Joint Resolution No. 155.

Respectfully submitted,



Robert N. Baldwin
Executive Secretary

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A Study of Video and Audio Recording of General District and Circuit Court Proceedings in Virginia

Executive Summary

Major Issues and Findings:

House Joint Resolution No. 155, adopted by the 1998 General Assembly, requests the Judicial Council of Virginia “to study video and audio recording of general district and circuit court proceedings.” The resolution cites the following factors as considerations for the investigation of recordmaking technologies:

- the current availability of technology which allows for the inconspicuous video and audio recording of court proceedings;
- the successful use of video and audio recording in the legal system and courts in presenting testimony and allowing public access to courts through the broadcast of court proceedings; and
- the potential uses of video and audio recordings including public education and record preservation.

Approach:

This study reviews the current policies governing the use of video and audio recording of court proceedings in Virginia. In addition, a nationwide review of statutes and a literature search were conducted to determine the extent to which other states use video and audio recordings specifically for the purposes of record preservation and public education. It provides both a description and comparative analysis of the three current means for making and preserving records of court proceedings: (1) traditional court reporting and computer-aided transcription techniques; (2) audio recording; and (3) video recording technology.

In brief, all three methods have been evaluated as readily capable of generating acceptable transcripts of the record for appellate review of trial court proceedings. Therefore, this report attempts to set forth some of the strengths and weaknesses of each method. It also reviews relevant recommendations made previously by study groups within the judiciary, specifically the *Commission on the Future of Virginia's Judicial System* and the Judicial Council, on the issue of video recording.

Recommendations:

As the research conducted for the study concludes, each of the three methods of record-making and preservation have been found to be capable of generating acceptable transcripts for appellate review of trial court proceedings. Therefore, the Council concludes that so long as court reporting services are provided mainly by independent contractors, it is appropriate to

allow courts to contract for services to be performed by any of the available court reporting options. Circuit court judges and clerks are encouraged to thoroughly review the strengths and weaknesses of each method of reporting. In addition, due regard should be given to advances in technology. When new court facilities are constructed or buildings renovated, consideration should be given to installing voice-activated video systems as recommended by the Futures Commission.

On the potential uses for video recording court proceedings for purposes of public education, all judges are encouraged to work with local media representatives, Bar groups and others involved in public education efforts to determine appropriate means for producing videotapes and other instructional materials on the judicial process and court proceedings. Videotapes and other materials may prove very useful in providing both school students and audiences of the general public a far more comprehensive and complete understanding of the operation of Virginia's court system and its role as society's primary forum for resolving disputes. Such tapes of actual proceedings from all levels of courts would most likely serve as a valuable supplement to the educational materials already developed by the judicial system and supplied to all primary and secondary schools in the state.

Introduction

House Joint Resolution No. 155, adopted by the 1998 General Assembly, requests that the Judicial Council of Virginia study the use of video and audio recording of general district and circuit court proceedings. The resolution cites the following factors as considerations for the investigation of record making technologies:

- the current availability of technology which allows for the inconspicuous video and audio recording of court proceedings;
- the successful use of video and audio recording in the legal system and courts in presenting testimony and allowing public access to courts through the broadcast of court proceedings; and
- the potential uses of video and audio recordings including public education and record preservation.

As the resolution acknowledges, the use of technology in general and video and audio recording in particular has significantly expanded within the legal system and the courts in the past decade. Video recording of depositions, the holding of video arraignments by district court judges, the use of conference calls for hearings and motions, both by the trial and appellate courts, no longer are uncommon practices.

In addition, magistrates in approximately one dozen Virginia localities are utilizing or are in the process of developing two-way audio and video communications systems to conduct interviews and hearings. The law also provides for the testimony of children under the age of 12 years which may, in certain circumstances, be taken by two-way closed-circuit television. Finally, in 1992, statutes permitting the use of cameras in the courts were adopted by the legislature. For each of these types of recording of proceedings, general provisions and standards governing their use are prescribed both by statutes and Rules of Court.

This study reviews the current policies governing the use of video and audio recording of court proceedings in Virginia. In addition, a nationwide review of statutes and a literature search were conducted to determine the extent to which other states use video and audio recordings specifically for the purposes of record preservation and public education.

On the use of video recordings for public education purposes, there is only scant written information. In states where camera coverage of court proceedings is permitted, including Virginia, television stations and public access channels of cable television, on occasion, feature gavel to gavel coverage of certain trials where public interest is high. However, some judges, court officials, and Bar members are concerned that only "notorious trials" receive such coverage and that these trials are insufficient in and of themselves to provide citizens with a comprehensive understanding of the role of courts and court procedures. Through commercial and cable television, many citizens do have access to

nationally syndicated “court” programs and/or to *Court TV*. However, only rarely does the latter channel feature Virginia courts or cases.

It appears that in at least one jurisdiction, Tampa, Florida, court officials are working with local cable television company officials to determine the feasibility of providing gavel-to-gavel coverage of court proceedings. However, at this point in time, funding for such coverage is still at issue.

More information is available on the use of audio and video recording technologies for record preservation purposes. Thus, this report provides both a description and comparative analysis of the three current means for making and preserving records of court proceedings: (1) traditional court reporting and computer-aided transcription techniques; (2) audio recording; and (3) video recording technology. In brief, all three methods have been evaluated as readily capable of generating acceptable transcripts of the record for appellate review of trial court proceedings. Therefore, this report attempts to set forth some of the strengths and weaknesses of each method.

In addition, this report reviews relevant recommendations made previously by study groups within the judiciary, specifically the *Commission on the Future of Virginia’s Judicial System* and the Judicial Council, on the issue of video recording. Recommendations also are offered with regard to the use of such recordings for purposes of public education.

Current Policies Regarding the Preservation of Records of Court Proceedings in Virginia

The Trial Courts

The process of making a complete and accurate historical account of trial court proceedings for appellate review constitutes a fundamental concept of American jurisprudence. No matter the vehicle, courts of record must be assured of obtaining accurate, timely and economical records of proceedings.

Virginia statutes and Rules of Court on recordmaking, transcription and preservation apply primarily to the circuit courts, the only trial court of general jurisdiction in the Commonwealth. Virginia’s district courts are not designated as courts of record. Appeals to the circuit court from either the general district or the juvenile and domestic relations district (J&DR) courts are heard de novo (completely new).

However, in certain cases, particularly in the juvenile and domestic relations district court, court reporters obtained by the parties, are permitted under Rule 8:11 of the Rules of the Supreme Court of Virginia. This Rule prescribes the circumstances in which court reporters may be present and the means for transcripts to be obtained both for open and closed proceedings in J&DR courts. Similar to the statutory language for recordmaking in the circuit

courts, the Rule further permits the proceedings to be taken down by means of any recording device approved by the court.

Part 7 of the Rules of Court applies to the general district courts. There, Rule 7A:4 provides that court reporters, when present, must first be sworn to take down and transcribe the proceedings faithfully and also shall be subject to the control of and discipline of the judge. The Rule also provides for the use of any recording device approved by the judge.

Applicable statutes governing the recording of civil and criminal cases in circuit courts specify that the record may be taken either by a court reporter or by *mechanical* or *electronic* devices approved by the Court. Generally, circuit courts contract with independent court reporters to provide such services. In some instances, court personnel provide the services. In civil cases, litigants pay for the expense of the court reporter and transcripts. In certain instances, the appellate courts may require that the costs be reimbursed to the prevailing party.

In all felony cases, the expense of reporting or recording the case is borne by the Commonwealth and paid for by the criminal fund. However, if the defendant is convicted at the trial court and the conviction, if appealed, is upheld by the appellate court, the charges may be assessed against the defendant.

A review of circuit court procedures indicates that many courts utilize audio equipment to record proceedings. The equipment is run either by a court reporter who is an independent contractor, the court clerk or a deputy clerk. If a transcript is required, a variety of options are then exercised. The court reporter, the deputy clerk or at times a judge's secretary may be responsible for transcribing the audiotape. A large number of courts report continued reliance on the traditional stenographic method of court reporting and on the use of reporters who are independent contractors.

Virginia Code § 17.1-275 10(c) and 11(c) allow for the clerk of court to assess and to tax as costs, among other things, amounts incurred incident to making a record of proceedings. A statutorily-specified portion of the monies collected pursuant to this section may be allocated for the payment of the purchase price of electronic devices used for the purpose of recording testimony, in whole or in part, including maintenance or service contracts and the upgrade of equipment.

The Appellate Courts

With regard to the record on appeal from the trial court to either the Court of Appeals or the Supreme Court, the applicable Rules provide for either a written transcript or the official videotape recordings of any proceedings "in those circuit courts authorized to use videotape recordings." The phrase in the Rule refers to a pilot program authorized in the late 1980's to experiment with the use of videotaped trial records in the Roanoke County Circuit Court. The appellate court also may require that any videotaped trial court proceedings be wholly or partly

transcribed for inclusion in the record on appeal. In practice, virtually all records on appeal are submitted in the form of written transcripts.

Other States

A review of statutory provisions in other states reveals that most states permit “electronic or mechanical” recording in some form at the discretion of the presiding judge. A small number of states do or soon will require electronic recording of proceedings. In states moving toward electronic recordmaking as a requirement, generally court reporters are state employees, and a decision to move to the use of video recording involved a simultaneous phasing out through attrition of permanent court reporter positions (such was the case in New Jersey). In some states, such as Alaska, there simply are not enough court reporters to handle the demand. In the Rules of Court reviewed, most of the states’ appellate courts do allow the option for requiring the transcription of an electronic record prior to review.

Overview of Recordmaking Technologies

Stenographic Court Reporting

Traditional stenographic reporting employs a stenotype machine consisting of several keys. The machine translates the court reporter’s keystrokes of the words spoken in court into shorthand symbols, capturing the sound of words in a phonetic code (each line of characters usually represents one sound or syllable) which are then imprinted onto a paper tape. If requested, a transcript is then produced either directly from the symbols on this tape or from an audiotape onto which the court reporter has dictated the English translation of the symbols. Because stenographers use many keystrokes and symbols that are unique to the individual person, they must either type their own transcripts, dictate their notes (“stenomasking”) for another person to type or train another person (a “notereader”) to read their symbols. It is the court reporter’s responsibility to certify that the official transcript is complete and correct.

Once the reporter has heard the testimony correctly and recorded it correctly and completely in shorthand, there are five critical elements for ensuring an accurate transcript of court proceedings based on the reporter’s shorthand notes: the reporter will *read* the notes correctly; the reporter will *say* it correctly when dictating; the typist will *hear* it correctly; the typist will *type* it correctly; and the reporter will *proofread* it correctly.

In Virginia, most court reporter training programs are two to four years in length and require a high school diploma. The length of training varies according to the type of reporting. Reporters must possess good English skills and take various courses including computer-aided transcription, law and specialized terminology used in medical, engineering, chemical, insurance, environmental and other technical fields. While all court reporting schools require the same speed levels for graduation, testing practices vary.

In 1997, pursuant to House Joint Resolution No. 445, the Board for Professional and Occupational Regulation evaluated the need for state regulation of court reporters. The Board determined that the practice of court reporting does not meet the criteria for regulation as established by Code of Virginia § 54.1-100. While acknowledging that the occupation requires specialized skill and training, the Board found that the unregulated practice of the occupation poses no threat to public health, safety and welfare. The Board further found that if the General Assembly were to find a need for the regulation of court reporters, it would be appropriate for the Supreme Court of Virginia to administer such regulation. Finally, if the General Assembly were to approve regulation of court reporters, the Board recommended the establishment of a voluntary certification program, not a mandatory licensure program.

According to the National Court Reporters Association (NCRA), some 28 states employ some manner of court reporter regulation. Generally, requirements for certification and/or regulation are promulgated in those states whose primary number of court reporters are not "freelance," but rather state or local employees.

Computer-aided Transcription

Today, many court reporters utilize modern technology (the computer) in the form of computer-aided transcription (CAT) in preparing a record. CAT enables court reporters to work more efficiently by facilitating the process of translating shorthand notes into English through computer applications. In principle, CAT endeavors to replace human intelligence in the note reading and translation process; however, although CAT speeds the process, the accuracy and completeness of the final product depend entirely on the skill of the reporter to accurately and to logically capture stenographically the words spoken in the courtroom.

Generally, three modes of CAT technology are available for utilization in courtrooms: "basic" CAT reporting, "real-time" reporting and real-time reporting practiced in a "computer-integrated" courtroom (CIC). Each of the three forms dictate an increasingly sophisticated blend of computer hardware, software, procedure and reporting skill. Additionally, the three forms still ultimately require proofreading and correction by the court reporter in order to secure the level of accuracy and completeness required of an *official* record of a court proceeding.

"Basic" CAT Reporting

Basic CAT enhances but does not fundamentally alter the principles of traditional machine stenography. Similar in looks and in manner of use to the traditional stenotype machine, CAT technology translates the court reporter's keystrokes on a computerized stenotype into electronic codes stored on a magnetic tape or computer disk (in addition to a paper tape with printed symbols which is also produced). Upon request, a computer translates the electronic codes back into English text in the form of a "rough draft" of a transcript. Because a computer translates the court reporter's keystrokes into text, the court reporter must

confirm his keystrokes to the computer's dictionary. The computer's dictionary, however, can be altered or expanded to conform to a particular court reporter's needs.

Once a rough transcript has been produced, the court reporter (or another qualified reader) must proofread, check citations and employ any other verification procedures necessary to check clarity and accuracy. The official court reporter finalizes and ultimately certifies the finished transcript as the record. Evidence from a 1994 study suggests that, nationwide, approximately 75 percent of official court reporters utilize CAT. With the continuing reductions in the cost of computer hardware and software, the increased availability and adequacy of CAT reporter training programs and continuing education and the promulgation of standards to govern the process, that figure should grow to the point that the use of "traditional" stenographic court reporting will become rare.

"Real-time" Reporting

Typically, CAT systems of reporting can be set up to instantaneously produce a translation from stenotype notes. This new generation of court reporting is sometimes referred to as CART, computer-aided real-time transcription. As the reporter keys, the symbols are automatically matched with the dictionary and translated into English text immediately. This real-time translation capability allows specialized reporters (sometimes referred to as "stenocaptioners") to produce captions of proceedings for deaf and hard-of-hearing individuals in an unedited format displayable on computer monitors or projection screens. Theoretically, a second desired objective of real-time reporting would be production of complete and accurate output without additional editing. Therefore, the practical application of real-time reporting is not solely contingent upon technology, but upon a level of a reporter's knowledge, skills and abilities generally not required for the basic CAT described above.

The Computer-Integrated Courtroom

CART technology can be readily used as a component of a computer-integrated courtroom (CIC) or "courtroom of the future." This technology links CART to a computer workstation(s) located in the courtroom so that the court reporter's keystrokes of testimony (or real-time output) are instantaneously translated to on-line readable, markable and searchable text available to judges and lawyers. Both current and past testimony can be displayed. In addition, a CIC offers additional benefits to judges and to attorneys by performing such functions as immediate availability of the text of daily transcripts, in-court legal research, document and testimony searching and tracking, the immediate docketing of judgments and orders and any other computerized applications courts see fit to incorporate into a CIC. A 1994 study found a CIC to be available in only approximately 30 of about 10,000 general jurisdiction state and federal courtrooms in the United States.

Audio Court Reporting Systems

Audio (sound) recordings of trial proceedings typically require courtrooms equipped with at least four microphones (one each at the judge's bench, witness box, plaintiff's table and defendant's table), with up to eight microphones advisable. These additional microphones can be placed at a variety of other strategic places: at the jury rail, in judges' chambers, hooked to the telephone or at other locations. Technology which permits the recording of multiple tracks may be utilized to make the audiotape, so that upon playback, the listener can isolate (if necessary) an individual speaker's microphone. This feature aids in transcribing simultaneous or garbled speech. Additionally, other technological solutions have been developed to handle documented issues of making continuous recordings (thus having to use multiple tapes) without halting the proceedings to change tapes; making automatic back-up tapes when malfunctions or other mechanical problems occur; simultaneous production of copies of tapes; and preventing the inadvertent taping over of previously-recorded material.

Jurisdictions utilizing audio recording technology typically employ an individual whose responsibility is the operation, maintenance, trouble-shooting and monitoring of the sound recording system. In addition to monitoring the recording process, this person also maintains a log of the proceedings, noting each significant event that occurs during the proceedings and coordinating it to the tape counter. Sound recording tapes can be transcribed by any qualified typist with the appropriate playback equipment.

Video Court Reporting Systems

Video recording captures the sights and sounds in a courtroom on videotape, without a camera operator. Typically five to seven each of both cameras and microphones are mounted unobtrusively within the courtroom on walls or ceilings. Generally, no extensive remodeling or appreciable facility changes are said to be required to install video court reporting equipment. Technologically, the cameras are "sound-activated" and computer-controlled. The system adjusts the sound level of audio output, determines which microphone and camera position takes precedence at any one time and allows cameras to switch among speakers.

Video court reporting systems include a "date/time generator" to display the date and time on both the monitor(s) and the tape. This display of the date and time of day replace the transcript page and line number references in traditional text records to locate and to refer to positions within the record. Additionally, video court reporting equipment may be installed in judges' chambers to record certain proceedings at the judge's option. The equipment used to record and to play back videotapes generally constitute the same variety with which most people are familiar, the "VCR." The greatest distinction with the normal "VCR" is the requirement for markedly superior audio quality ("hi-fidelity") so that all portions of proceedings (e.g., bench conferences conducted in whispered tones) are audible on the record.

Assessment of the Strengths and Weaknesses of Audio and Video Technology and Court Reporting for Recordmaking and Preservation

The use of video to record court proceedings was first employed on a large scale in Kentucky's courts in the 1980's. Since then, video recording has joined audio recording and court reporting as an option for consideration when designating the manner in which trial court courts generate the record of proceedings. In 1990, the National Center for State Courts assessed the available experience in using video as a means for recordmaking. The assessment study developed and utilized ten evaluation criteria relevant to court reporting to organize the research on record making technologies which are also relevant to this study. These ten evaluation criteria also will be employed in this section of the report which provides a comparative review of the available record making options.

Ten Evaluation Criteria

The first criteria, *faithfulness (accuracy) of the record* includes two related concepts. Accuracy refers to the legal concept of a verbatim record, and it presupposes that a court reporter records what was said in court in a word-for-word manner. 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." Depending upon the type of reporting method utilized, accuracy in taking the record and accuracy in transcribing the record should be considered. The *ease of review* category comprises consideration of which form of recordmaking is most conducive to appellate review. The *expense* component considers the initial and regular operating costs of (1) audio and/or video technology and (2) court reporters. Any comprehensive analysis of costs must consider those incurred at both the trial and appellate court levels.

Record availability appraises the necessity for and desirability of an immediately available record of proceedings. *System reliability* examines the potential for any technical reporting problems. The degree to which electronic recording affects courtroom decorum, alters courtroom proceedings substantially or influences the behavior of courtroom participants is addressed under the section on *obtrusiveness*. *Preservation of the record* requires the physical condition of the official trial court record remain usable for the retention periods specified by statute. *Policy flexibility and integration of other technology* also incorporates two related concepts. Policy flexibility relates to courts' ability to change among recordmaking systems so as to take advantage of the strengths of multiple approaches when deemed necessary. Mechanisms for recordmaking may be evaluated on their ability to integrate with other technology. Specific characteristics of each approach to recording trial court proceedings will yield an *effect on the court system and legal environment*. Finally, as with many new ideas or endeavors, there should be some accounting for *resistance to alternative means of making a recording*.

It is important to note that, in many instances, the strengths and weaknesses listed within any one of the ten criteria may arguably also apply to additional categories. However, for the sake of succinctness, issues indicated in the discussion which follows are organized within the criteria for which the literature demonstrates the impact may be most substantial, without the repetition of an issue among all the categories to which it may apply. Additionally, the traditional method of court reporting provides the methodologically-necessary standards against which other recordmaking methods are measured. Lastly, for purposes of this study, unless noted otherwise, discussion of court reporting will generally refer to basic CAT reporting.

I. Faithfulness (Accuracy) of the Record

Video Recording

According to the research reviewed, the strengths of video recording include the fact that no human judgment is applied to the making of the record, thereby objectively capturing events of which a narrative record is inherently incapable. When free of technical defects, the videotaped record is considered superior in “literal” faithfulness because of its breadth and actual portrayal of courtroom events. The videotape produced also contains all the information about the court event. In other words, there is a complete recreation of sounds and images (vocal tones and inflections, facial expressions, body language) that comprise the meaning of “what happened in court”. Further, the faithfulness of the transcription of a videotaped record may be objectively verified by reference to the videotape of the proceeding. Videotape enables the monitoring of the accuracy of foreign language and sign language interpretation and translation services, an advantage that this means has even over audiotapes. The National Center’s report further notes that videotaping the record obviates the need for cameras in the courtroom, as the media may use portions of the court’s unobtrusive taping system for their use. Another reported advantage with regard to jury-requested read backs (or, in this case, playbacks) is that the exact “scene” is conveyed during playback for the jury.

Weaknesses of video recording include the fact that the information on the videotape is rendered useless and inaccessible without a “decoder” - the video playback equipment. In instances where a transcript is requested, the first usable form of the record - the tape playback - would require one additional stage of work, reduction to a second-generation narrative. Further, argument may be offered also for the notion that the video record may be flawed in providing *too* much information or information that may be irrelevant. Faithfulness may be compromised by various technical issues: equipment operator error, equipment failure or problems with audibility due to limitations on microphone and/or camera placement. The above-referenced advantage with regard to juries simultaneously poses a concern in the minds of some lawyers and judges. That is, jury-requested playbacks may become problematic due to the potential for delays in locating the desired portion of the tape. Playback of testimony stricken from the record may inadvertently be repeated with videotaping and high quality recording systems could result in the amplification of sidebars not originally within jurors’ earshot.

Audio Recording

Audio recording strengths essentially are similar to those listed above for video recording with the obvious exception that the audio record conveys only sounds, not images. Correspondingly, the weaknesses of audio recording include those listed above for video recording with several supplementary observations. When audiotapes are utilized by court reporters for dictation of their shorthand notes so that a typist may transcribe directly from the audiotape, the resulting transcript is now considered “twice-removed” from the original testimony. Also, although technological advancements minimize this situation, the potential for misidentification of the person(s) speaking exists since there are no visual aids (either video or live) for reference.

Court Reporting

Clearly, a strength of court reporting is that a person and human intelligence (not a machine) is present to ensure the accuracy of the record. Skilled court reporters easily distinguish contextual differences in spoken language. When court reporters utilize CAT, high levels of transcript accuracy are likely as opportunities for error(s) are minimized. Evidence of this accuracy exists in that CAT reporters do not read notes or dictate notes, nor then does a typist have to hear the dictation and then type the dictation. The process of record making moves directly from the reporter writing the testimony correctly in shorthand to proofreading the transcript correctly. When the written transcript is prepared, the process of record making is completed.

The weaknesses of CAT court reporting primarily stem from the element that, apart from the potentially erroneous reporter’s notes, no objective reference for verification is available other than participants’ memory. Furthermore, notes are prepared by an individual who has applied judgment and discretion in making the record and who has filtered narrative into shorthand notes. The record is useless and inaccessible without a “decoder” - the dictionary of the person who made the record and the ultimate verification of that record by the court reporter.

The record may be flawed if it conveys misinformation in the form of a genuine mistake or a deliberate “clean-up” of language. Documented issues include mishearing information, miskeying information, deliberate alteration of language to conform to a judges’ or lawyer’s expectations and over-elimination of poor grammar. Considered standard operating procedure to eliminate obviously poor grammar, the court reporter determines how bad grammar must be to warrant departure from a verbatim recounting and whose utterances merit the privilege of editing. However, sophisticated readers of transcripts are well aware of the options of editing. Finally, a written record by nature cannot capture all the behavioral facts (e.g., gestures, expressions, pauses, speech tics) that also comprise the meaning of what is said in court.

II. Ease of Review

Video Recording

If the videotape itself is the appellate record, the strengths of video recording with regard to ease of review include the advantages of immediate availability and elimination of transcript preparation costs. On appeals, the use of the tape itself may also increase the standards for and the expectations of attorney preparedness and review. Referring to the weaknesses of video recording, this method is generally not favored by judges and attorneys. The general consensus is that it is much more time-consuming to work with a videotape than with a written transcript. Necessitating additional time for the real-time review of appeals on video impacts workload, staffing and case scheduling for appellate judges, staff attorneys, commonwealth's attorneys and public defenders. Review of video is not as convenient or as flexible as working with a transcript since equipment is required.

Because judges and lawyers generally prefer a transcript for most routine review purposes, videotaped records are therefore often transcribed for appellate review. This policy option effectively eliminates much of the cost and time savings recognized at the trial level. It may also potentially yield an increase in the number of requests for extensions of time to file briefs in cases on appeal.

Audio Recording

With regard to ease of review, both the strengths and weaknesses of audio recording when it is used to make the record mirror those listed for video recording.

Court Reporting

The research indicates widespread agreement regarding the preference for the use of written transcripts for the review of cases by judges and lawyers. In addition to time-savings, support for the continued use of the written transcript for cases on appeal is strengthened by concerns expressed that appellate judges may be distracted or "tempted" to be inappropriately influenced by the appearance or demeanor of a party or by other visual elements that would not be seen on the "cold" [text] record.

III. Expenses/Costs

The expense component considers the initial and regular operating costs of electronic recording systems or having court reporters. Any comprehensive analysis of costs must examine those incurred at both the trial and appellate court levels. The following table summarizes the major expenses that must be considered when evaluating costs.

Trial Court Expenses	Appellate Court Expenses
Court reporter fees/salary-benefits	Transcripts
Video or audio clerk salary/benefits (this person(s) may: log court proceedings for easy reference to the tape; label, retrieve and copy tapes; assist others with equipment operation; and track "loaned-out" tapes)	Equipment for appellate judges, staff attorneys, clerks
Records staff salary/benefits	Equipment for public defenders
Equipment (amortized over five years), including regular maintenance and occasional repair	Equipment for use by the public and Bar
Videotape or audiotape and text record storage	Additional staff attorneys
Office supplies	Additional lawyers in public defender and commonwealth's attorney offices
Office space	Equipment maintenance and repair

In states where courts employ full-time state employees as court reporters, a strength identified with moving to video and/or audio recordmaking mechanisms is the savings of the salaries, benefits and other associated personnel costs and considerations (e.g., coordination of leave time). However, there remain associated staff needs with electronic recordmaking. A video or audio clerk generally is necessary to coordinate and to ensure the proper usage and documenting of the equipment and tapes. Ideally, in computer-integrated courtrooms, one clerk will run a multitude of courtrooms from a center "control or command" center. An identified weakness of electronic recording is the substantial initial investment as well as the regular maintenance costs of the equipment.

Similar savings could be realized in trial courts that contract with court reporters, as is generally the case in Virginia. That is, the annual cost of the contract to provide court reporters is saved when operating with electronic recordmaking equipment (provided that a court employee is available to serve as the video or audio clerk). However, the costs for equipment procurement, operation and maintenance must be considered. For trial courts staffed to permit court employees to perform the duties of video or audio clerk, additional cost savings to the system only would be incurred if the appellate courts do not require written transcription of records.

In fact, the cost savings argument advanced with electronic recordmaking must be calculated based on the impact of its use on the appellate courts' practices and procedures. If appellate courts, either directly or by tradition, require the written transcription of records on appeal, a substantial portion of the monies saved at the trial level would in turn be spent on the personnel required to provide those transcriptions of tapes. Again, ideally, technology will progress to the point of highly accurate, computerized voice-to-text transcription, and this process of recordmaking will require much less direct human attention. If appellate courts regularly accepted tapes as the record for review, funds allocated for the provision of transcription are saved. However, those involved in the appellate court process will require appropriate and adequate equipment to review tapes. Additionally, since taped records simply take more time to review than text records, it could be argued that additional staff attorneys may be required. In addition, the impacts on the workload of prosecutors and defense counsel must be studied.

In sum, the strengths and weaknesses reviewed on the different means for recordmaking vis a vis costs indicate that cost savings can be achieved at the trial court level when records are made using video recording rather than using court reporters. However, these savings generally have been reported in states where court reporters were salaried employees of the court. Trial court cost savings must also be evaluated in light of the consequences of using the videotape or audiotape as the official record on appeal. If the appellate court requires written transcripts, a portion of the monies potentially to be saved at the trial court level is negated.

As reported by the National Center for State Courts in 1992, the initial cost of a video reporting system for a trial court was approximately \$50,000 to \$60,000 per courtroom. According to the tracking of expenditures within the Criminal Fund administered by the Supreme Court, for fiscal year 1998 (July 1, 1997 - June 30, 1998), court reporters (felony cases) were utilized for 78,123 individuals, costing a total of \$4,271,321.20. This was 3,728 (5.0 percent) more individuals served and \$130,083 (3.1 percent) more than during the previous fiscal year.

IV. Record Availability

Video and Audio Recording

One of the other strengths noted with regard to electronic recording is that a key time interval in appellate case processing - notice of appeal to transcript/record production - is significantly reduced since the tape is immediately available upon the conclusion of the trial. This immediate availability is particularly cost-effective and advantageous in instances where daily transcripts are required. A quickly accessible record may also be utilized to verify findings, orders, agreements, confirm facts during decision writing, repeat witness testimony in court and serve as a memory refresher during long trials.

Weaknesses of electronic recording in this category include the aforementioned length of time required by judges and law clerks in reviewing taped records of cases on appeal.

However, it is anticipated that technological advances will make it possible to produce narrative records faster than stenographic court reporters. With electronic recording, there should be a person logging the tape so that appropriate portions may be easily located for playback.

Court Reporting

Some of the strengths noted with court reporting relate to record availability. Although unedited, CAT provides an instant, intelligible, searchable record of proceedings. Because reporters can more quickly search and retrieve excerpts of their notes, judges report feeling comfortable asking for assistance in verifying information. Attorneys can obtain transcripts or copies of unedited notes on computer disk (in addition to hard copy) readable by word processing and litigation support software. When official record transcription is required, review by the court reporter of a computer-aided transcription generally appears timely.

Potential weaknesses of court reporting relate primarily to the stenographic method. Because stenographic notes produced by a reporter are highly individual, the timeliness of filing an official transcript and the retrieval of shorthand notes after a lengthy period of time may be problematic. Physical deterioration of paper notes is likely with age.

V. System Reliability

Video and Audio Recording

For both means of electronic recording, the research indicates that system reliability is highly rated as long as there has been adequate operator training. Built-in, fail-safe technical features are available to reduce to a negligible threat of lost court time or of an incomplete record.

One of the weaknesses noted here is that system reliability tends to most often be compromised during the first days or weeks of operation. Of primary concern could be the physical structure limitations of certain courthouses, that is if they contain audio "dead spots", and inaudibility if one wanders around the room. Both of these limitations may affect the uniformity (volume, clarity) of recorded speech. Finally, with regard to system reliability, there always exists the potential for operator error.

Court Reporting

Computer-aided transcription system reliability is reported to be high. Again, with adequate and continuing training and the proper technological resources and equipment, court reporters should be able to effectively manage the necessary equipment so as to reduce the threat of lost court time and to minimize the likelihood of any loss of recorded information.

VI. Obtrusiveness

Video and Audio Recording

Cameras and microphones are generally small in size and positioned out-of-the-way. Experience to date reveals that the use or presence of equipment does not seem to interfere with court proceedings nor does it seem to distract anyone in the courtroom. Some evidence suggests that the equipment may actually improve the courtroom decorum and demeanor of all players. Additionally, video is said to provide a learning tool for attorneys and judges to alert them to possible problem areas related to their work performance (e.g., an attorney turning his/her back to jury when speaking, poor speaking style, courtroom appearance). Finally, the use of the court's own video equipment may reduce the need for cameras in the courtroom as the media may use the court's unobtrusively-made recordings for broadcast, rather than request that the court allow more potentially disruptive media equipment into the courtroom.

Primarily technical in nature, several weaknesses identified with regard to obtrusiveness warrant consideration. Electronic recording equipment *may* require installation of additional lighting in the courtroom. This means that participants with a tendency to wander about the courtroom when speaking may be required to stay within a certain camera or microphone zone, and "high-tech" microphones may record confidential, private conversations that should not be part of the record. However, with the proper equipment and set-up, the ability of lawyers to move around court room should not be hampered.

Court Reporting

Court reporters occupy a traditionally accepted and respected position within the courtroom. The additional equipment requirements necessary to utilize computer-aided transcription have generally been easily adapted for courtrooms. No party is restricted from movement about the courtroom because of an issue related to the court reporter's position.

VII. Preservation of the Record

Video and Audio Recording

With video, an exact record of the proceedings is preserved. With audio, an exact record of everything said in the courtroom is preserved. If a proper log of proceedings is kept, read backs (playbacks) are easily done and, with proper equipment, are generally superior to that of a court reporter reading text since it is an actual recreation, although care must be taken to avoid replay of stricken testimony. Like the traditional paper narrative, taped records of court proceedings must be preserved for as long as statutes or court rules require. Today, manufacturers estimate tape life at an average of approximately 25 years. Compared to paper notes and narrative transcript, tapes are more susceptible to damage or deterioration from problems such as magnetic fields, sun and temperature. As future technology antiquates "today's" equipment, it may be difficult to use "today's" tapes at some point in the future (e.g., the "8-track" tape).

Court Reporting

As previously noted, a person, not a computer, ensures the preservation of the record. Few, if any, problems have been documented concerning difficulty in locating testimony for readback by the court reporter. In Virginia, the court reporter generally is responsible for storage of the record for the statutorily-required period of time.

VIII. Policy Flexibility and Integration with Other Technology

Video Recording

Video recording systems are considered self-contained and appear compatible with other uses of video: video depositions, presentation of video evidence and closed circuit television for arraignment or remote appearance of parties. However, the systems are not portable and would most likely require regular upgrading as technology improves.

Audio Recording

In this category, audio recording does not offer the same level of advantage with regard to flexibility as does the use of video recording or of a court reporter's services for making the record. Incorporating video evidence, testimony or deposition on an audio record would necessitate special care to ensure proper recording. The system is considered self-contained, but not portable.

Court Reporting

CAT technology offers several advantages to the courtroom and bar. It links the process of making the record of trial proceedings with automated data processing, and CAT's real-time translation capability assists persons with hearing or speech disabilities. The system is considered portable, and the use of CAT in tandem with video recording appears highly desirable. As reported, by its very nature, a computer-integrated courtroom (CIC) is designed to be compatible with and enhanced by developing technologies.

IX. Effect on Court System and Legal Practice

Video and Audio Recording

In addition to the strengths and weaknesses listed in the categories above, four properties of electronic recording constitute the *primary* effects of electronic recording on the court system and legal practice. The trial judge is afforded flexibility in scheduling and conducting hearings by not having to depend on a court reporter to make the record. Judges are able to be "on the record" immediately and therefore can more easily resolve disagreements among parties about what was ordered or agreed to in a proceeding. Of course, some video and audio systems also may permit the judge to more easily be "off the record".

The record is instantly available, allowing for such conveniences as quick access to confirm oral findings and judges' orders. Occasions may arise when appellate judges ruling on specific issues not able to be preserved effectively in a narrative record are assisted by the

ability to actually see and hear the proceeding. The exact recreation of courtroom events is available in the appellate record. Since this is the grounds for making a record, an opportunity to improve the quality of justice is inherent in the electronic method. Finally, there are an abundance of valuable educational uses of tapes.

The use of a tape record raises the concern that the potential would exist for appellate courts to usurp the prerogatives of the trial judge and jury. Appellate judges may be distracted or "tempted" to be inappropriately influenced by the appearance or demeanor of a witness. At the trial level, certain uses may prove improperly influential, e.g., a replay of one portion of a trial may attach additional psychological weight when the replay is not balanced by seeing and hearing related testimony. If a lawyer's movements about the courtroom are minimized, the argument may be raised that effective advocacy is compromised. Administratively, additional clerical responsibilities, such as starting and stopping the tape, *may* become the judges' responsibility. Finally, judges decry the length of time that reviews of videotaped records take in comparison to transcripts.

Court Reporting

Much of the "flavor" of a proceeding (body language, vocal inflections) cannot be captured in a narrative record. However, some judges and lawyers report that the multisensory dimensions of videotape records are only valuable in limited, special circumstances. Another aspect of effect on legal practice pertains to that fact that, if a court reporter is not available, a judge *may* conduct some business off the record. Further, judges have the ability to instruct reporters to cease reporting at various points in the conduct of the trial. When reviewing court proceedings, studies overwhelmingly indicate that judges and lawyers prefer written transcripts to untranscribed audio or video tapes.

X. Resistance to Video and Audio Recording

The court and legal community and traditional court reporters may resist the use of electronic means for making the record. The initial training and start-up costs, maintenance, upgrade and regulation costs may serve as deterrents for attempting to utilize the available electronic recording technology. It is noted that, with training, because of their vast court knowledge and extensive experience, traditional court reporters constitute strong good candidates for the positions of tape log operators, CIC transcribers and a variety of other positions created by the use of electronic means for making the record of trial court proceedings.

Previous Judicial System Investigations on the Use of Video Technology for Record Preservation

In 1989, the Commission on the Future of Virginia's Judicial System studied the myriad effects and potential impact technology has and will continue to have upon Virginia's courts. In investigating the use of video technologies, the Commission concluded that

videotape recordings of courtroom proceedings should become the official trial record and advanced such a recommendation to the Judicial Council. The Commission's report, entitled *Courts in Transition*, contained the following rationale for their recommendation:

By installing voice-activated video systems with multiple sound tracks in Virginia's courtrooms, a complete and accurate record of the trial can be produced. This video record would be superior to an audio record or the traditional written transcript. Cameras used to record the trial could also provide live or delayed television coverage. Where a party needs a hard copy or paper transcript, it could be prepared from the video. Voice recognition systems should in time advance to the level where they can transcribe the audio portion of the video automatically [which, as reported, they have]. With lengthy trials, the courts should use computer-aided transcription, with its search capabilities and its ability to do immediate or quick indexing. Eventually, digital technology will integrate video, voice, text and images in one record.

The Commission further recommended that the video record should be the record on appeal. The videotape of the trial, edited down to the portions that relate to the issues under appeal, should be the record forwarded to the appellate court. Judges, trial or appellate, should be able to obtain a [written] transcript upon request, the Commission said.

Following the issuance of the Commission's report, the recommendation was endorsed by the Judicial Council. A pilot project on video reporting was established in the Roanoke County Circuit Court in the late 1980's. Videotape records, as permitted by the Rules, were forwarded both to the Court of Appeals and the Supreme Court of Virginia. The project still is in existence and while videotaped records continue to be received, staff in the Court of Appeals' Clerk's Office note that in many cases a written transcript is forwarded following the sending of a videotape of the proceedings. A formal evaluation of this pilot project has not been undertaken.

However, anecdotally, judges and clerk's office staff indicate the key advantage of a videotape record is the speed with which the appeal may be filed. The major drawback is the time it takes to review the record, even with indexes. Also, at this point in time, appellate court staff in Virginia do not have available to them state-of-the-art equipment designed to facilitate the review of electronically preserved records.

The Use of Audio and Video Recordings of Court Proceedings for Public Education

A limited amount of information on the use of audio and video taping of court proceedings for public education purposes is available. The various media offer ways to reach a wider audience with proportionately less time and energy spent than in face-to-face communication between judges and the public. In the 47 states where camera coverage of court proceedings is permitted to at least some degree (including Virginia), some or all of court proceedings are often televised, featuring gavel to gavel coverage of certain trials where public

interest is high. However, some judges, court officials, and Bar members are concerned that only “notorious trials” receive such coverage and that these trials are insufficient in and of themselves to provide citizens with a comprehensive understanding of the role of courts and court procedures. Through commercial and cable television, many citizens do have access to nationally syndicated “court” programs and/or to *Court TV*. However, only rarely does the latter channel feature Virginia courts or cases.

In 1994, the American Bar Association’s Division for Public Education published the Guide to Educating the Public About the Courts. Apart from televised courtroom proceedings which are featured on television news programs, video coverage of court proceedings, be it by public, local or cable channels, can be a strong educational and promotional tool for the courts. Significant strides in public education programming have been taken with cable TV, especially. For regular programming, the ABA’s Guide suggests formats such as interviews with guest speakers by program hosts, followed by on-air calls from the audience or regular segments on current affairs or news magazine programs. Also, if local community colleges possess broadcasting capabilities, students or interns of the college may be available to assist courts in developing studio-based programs. Examples of such programs are described below.

The Rhode Island Office of Public Information produced a nationally award-winning educational television series about the state’s judicial system. Broadcast on the local PBS outlet, the programs are also used by community organizations and schools. Titles include “Domestic Violence,” “Drugs,” “Victim Restitution,” “Court-Annexed Arbitration/Speeding Civil Justice,” and “The Rhode Island Victim’s Bill of Rights.”

In the state of Colorado, a six-night series on sentencing entitled “You Be the Judge” was produced by the local NBC-affiliate in Denver. Beginning on the Sunday evening news with a judge participating in a short “Q & A” on sentencing, a portion of the news for the following five nights was devoted to a dramatic reenactment of an actual crime followed by a videotape of the defendant’s sentencing hearing in court. The tape was halted before the judge imposed sentence; his or her decision was aired at the end of the newscast, allowing viewers time to consider their own sentencing decision. The series engendered a great deal of public interest and discussion. A segment of this series is used by Colorado judges and court personnel in presentations explaining the sentencing process.

The Court Information Office of the Minnesota State Judiciary, in collaboration with a pre-existing, law-related, public-affairs cable television show entitled “Almanac,” has developed a program entitled “Law in Action” to provide public education about the court system. The court provides guests and topics and prepares the hosts’ background information. Topics are all consumer-oriented and intended to answer basic questions that citizens may have about: traffic court, DUIs, conciliation court, housing court, family court, juvenile matters, dissolutions, domestic violence, probate, mental commitments, victim services, alternative dispute resolution and criminal and civil courts.

It appears that in at least one jurisdiction, Tampa, Florida, court officials are working with local cable television company officials to determine the feasibility of providing gavel-to-gavel coverage of court proceedings. However, at this point in time, funding for such coverage is still at issue.

Another promising mechanism for providing public education about the court system is the use of educational videotapes. Individual videotapes are being used to explain an array of subjects from child custody mediation in California to the effect of DUI on victims and families in Delaware. Rhode Island court information and education staff, using specialized on-site camera and production equipment, scripted, filmed and edited their own educational videotapes. These tapes included training programs for judges as well as educational programs about the law and Rhode Island courts for schools. In addition, a library of informative videos has been established for use by community organizations, service agencies, schools and the general public. Several programs received national awards and are now being used as models by other states.

Clearly, videotapes are effective tools for educating the public about the courts. Today, such tapes have been developed and are used within the Virginia court system for educating jurors, for instructing litigants about the court process and even for special initiatives like divorce education programs. Videotapes of court proceedings also have been used effectively by judges and court personnel as well as Bar members to inform the public about the court system and court procedures. Tapes of actual proceedings from all levels of courts would most likely serve as a valuable supplement to printed educational materials already developed by the judicial system ("Journey to Justice") and supplied to schools across the Commonwealth.

Within the court system, the utility of video recording for the purposes of judicial education is well established. For many years, the Department of Educational Services of the Office of the Executive Secretary has utilized the videotaping of mock trial proceedings during annual pre-bench orientation training to educate newly-elected judges on the impact and effect of a judge's nonverbal communication upon individuals participating in court proceedings.

Radio is both an effective and an inexpensive way to educate the public. According to the ABA's Guide, it reaches 95 percent of Americans each week, more than either television or print. The average adult listens to the radio about three hours each day. Today's popular "talk radio" is a good avenue for public education media programs on courts. Additionally, shorter and more regular than talk show appearances are radio "spots." Public service announcements are used to educate radio listeners about court operations in several states; for example, they inform listeners in California about that state's Traffic Amnesty Program.

Each of the programs described above may prove to be useful and valuable resources as a part the judiciary's on-going public information efforts. The key to success in any such endeavor would be collaborative work on the part of both the courts and the media to ensure

that any such programs produce accurate and comprehensive information about the law and the courts.

Conclusion

Advances in technology of video and audio recording systems have stimulated interest by state legislatures, judicial system officials and Bar groups in evaluating the efficacy of such systems for the preservation of records of court proceedings. This report has reviewed the strengths and weaknesses of each of these methods. The literature concludes that transcripts produced by electronic means, whether by audio, video or other available computer-related technology, are at least as accurate as the traditional stenographic method of creating the record of trial court proceedings. The local legal culture, the physical courthouse structure (either its suitability or limitations for electronic recording), the availability of qualified staff and/or court reporters and the availability of funding for both positions and equipment all play significant roles in determining the method in which recordmaking is accomplished in Virginia's courts. Thus, the best means for further determining the feasibility and advisability of using video court reporting technology in Virginia's courts may be through additional experimentation.

Recommendations

1. The research conducted for this study concludes that each of the three methods of record-making and preservation have been found to be capable of generating acceptable transcripts for appellate review of trial court proceedings. So long as court reporting services are provided mainly by independent contractors, it is appropriate to allow courts to contract for services to be performed by any of the available court reporting options. Circuit court judges and clerks are encouraged to thoroughly review the strengths and weaknesses of each method of reporting. In addition, due regard should be given to advances in technology. When new court facilities are constructed or buildings renovated, consideration should be given to installing voice-activated video systems as recommended by the Futures Commission and outlined in the *Virginia Courthouse Facility Guidelines*.
2. As part of the judiciary's on-going education efforts, all judges are urged to work with local media representatives, Bar groups and others to determine the most appropriate means for videotaping court proceedings, subject to applicable law and Rules of Court, to be used to enhance the understanding of citizens on the legal system and the mechanics and processes of each level of court in Virginia.

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House Joint Resolution No. 155, 1998

1998 SESSION

981915112

HOUSE JOINT RESOLUTION NO. 155

Offered January 26, 1998

Requesting Judicial Council to study video and audio recording of general district and circuit court proceedings.

Patron—Almand

Referred to Committee for Courts of Justice

WHEREAS, technology is currently available which allows for the video and audio recording of court proceedings in an inconspicuous manner; and

WHEREAS, such recordings have been used in the legal system for presenting testimony, preserving - deposition testimony and the like, and allowing the public access to the courts through the broadcast of court proceedings, but most proceedings in court are conducted with paper transcripts - only, or without the preservation of a record at all; and

WHEREAS, the use of audio and video recordings could serve a number of purposes including preserving a record, and educating the public; now, therefore, be it

RESOLVED by the House of Delegates, the Senate concurring, That Judicial Council be requested to study video and audio recording of general district and circuit court proceedings.

All agencies of the Commonwealth shall provide assistance to Council for this study, upon request.

Judicial Council shall complete its work in time to submit its findings and recommendations to the Governor and the 1999 Session of the General Assembly as provided in the procedures of the Division of Legislative Automated Systems for the processing of legislative documents.

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