

**DIGITAL RECORDING:
CHANGING TIMES FOR
MAKING THE RECORD**

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DIGITAL RECORDING: CHANGING TIMES FOR MAKING THE RECORD

I. Introduction

State court administrators continually review and propose changes that strengthen the processes within court systems. A process that is ripe for review is making the verbatim record. Court administrators would have difficulty justifying courts' continued dependence on stenographic reporting if they were to describe the process by which the majority of state trial courts create, produce, and maintain the official record of the hundreds of thousands of court proceedings annually. If court administrators were to describe the current model for creating the verbatim court record to anyone unfamiliar with court operations, would their confidence in the court system's efficient use of staff and technological resources be lessened? What would they say if they learned that thousands of staff are assigned to individual courtrooms to make this manual record even though few cases are appealed? How might they react if they learned that the manual recording of those proceedings is made in a media that could be interpreted into written English only by the individual making the record? How would we explain that in most states the recording is the property of the employee and not the court? What reason would we provide for the fact many employees receive a fee beyond their government salary from litigants requiring transcription for appeal purposes and that the timely preparation of these records is not under a court's control? How would we explain that public access to the official court record can be obtained only by paying this fee to a public employee? If this process were complicated by the declining supply of reporters and by the current economic crisis, how would we respond to their questions on how we intend to improve and strengthen the business of creating, producing, and maintaining the court record? These questions demonstrate that change is necessary.

II. Challenges of Current Methods

The predominant method of making the verbatim record is stenographic reporting.¹ This method poses challenges to courts in creating, producing, accessing, and preserving the record including (1) the decline in court reporter resources; (2) efficient and timely transcript production; (3) access to justice; and (4) the transparency of court proceedings.

A. Decline in Court Reporter Resources

The clear and undeniable fact is that the number of qualified court reporters has and continues to decline significantly.² In addition, the number of court reporter programs and student enrollment is declining while competition for court reporting services is increasing. Studies commissioned by the National Court Reporters Association (NCRA) confirm this alarming situation. In 2003 the NCRA reported a decline in the number of court reporter programs and student enrollment. The report noted that an average of 8.9% of enrollees

¹ Unless otherwise noted in this paper, stenographic reporting includes voice writing.

² Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook, 2010-11 Edition*, Court Reporters, on the Internet at <http://www.bls.gov/oco/ocos152.htm> (last visited December 17, 2009) ("fewer people are entering this profession [court reporting], particularly as stenographic typists").

graduates from a court reporter program.³ The NCRA also conducted a survey of graduation rates and participation of educational institutions in the association's approval/certification program over an eleven-year period from 1996 through 2006. The data illustrated a downward trend in both number of students graduating and number of educational institutions participating. The number of educational institutions participating declined 41.5% over the eleven-year period.⁴ The number of individuals graduating dropped 61%.⁵

As the number of court reporting schools decreases and the drop out rates rise, the average age of the official court reporter is increasing. For example, the Iowa Supreme Court compiled demographic statistics in early 2009, finding the average age of the 191 court reporters employed by the judicial branch was 46 years and the average number of years of service was almost 18.⁶ In Wisconsin, a similar review conducted in 2009 illustrated that almost 50% of the state's official court reporters were age 50 or older. An additional 26% of the court reporters were between the ages of 45 and 49. In 2003 only 32% of the state's court reporter population was age 50 or older.⁷ Considering these statistics mirror work force demographics in general, Iowa and Wisconsin are likely indicative of the court reporter population in other states.

Certification requirements and training demands contribute to this decline in the court reporter workforce. The reporting profession is a challenging career choice that poses rigorous certification programs at the national level and licensing requirements at the state level and demands that a reporter attain the requisite speed and accuracy skills. A court reporter is, by the nature of technological progress, required to stay informed and skilled in the use and application of new technologies.

Typically a stenographic court reporter must graduate from a court reporting school approved by either the National Court Reporters Association or National Verbatim Reporters Association. Training for a career as a stenographic reporter depends on the type of reporting. The training for a voice writer is nine months.⁸ A voice writer will require at least two years to become proficient at real-time voice writing.⁹ A real-time stenographer will need to study almost three years.¹⁰ A real-time reporter must spend considerably more time in extensive training to achieve the skills and speed required to develop a dictionary and produce a record of the testimony on a computer screen during the court proceeding.

NCRA offers a range of certification programs that recognize competence and skills of stenographic court reporters. The entry-level designation for a stenographic court reporter is a Registered Professional Reporter (RPR). A candidate for an RPR certification must pass a written knowledge exam and a series of three skills tests. The candidate must demonstrate a typing rate of 225 wpm with 95% accuracy. The National Verbatim Reporters Association

³ National Court Reporters Association, *The Status of Reporter Education: Trends and Analysis*, at 6 (June 2002, revised September 2003), available at

<http://ncraonline.org/NR/rdonlyres/8CAC20BC-7438-4D6E-8E80-5BCDD4C9E103/0/SchoolRptStarRev.pdf>.

⁴ National Court Reporters Association, *Graduation Trends in NCRA-Certified Programs, 1996 to 2006*, available at http://ncraonline.org/NCRA/pressroom/reporting_school_graduation_trends.htm.

⁵ *Id.*

⁶ State Court Administrator's Office, Iowa Courts.

⁷ Director of State Courts Office's HRS Database, Wisconsin Courts (2003 data compiled as of Aug. 28, 2003 and 2009 data compiled as of Sept. 22, 2009).

⁸ National Verbatim Reporters Association, Fact Sheet, available at <http://www.nvra.org/displaycommon.cfm?an=1&subarticlenbr=12>

⁹ Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook, 2010-11 Edition*, Court Reporters, on the Internet at <http://www.bls.gov/oco/ocos152.htm> (last visited December 17, 2009).

¹⁰ *Id.*

offers three national certifications to voice writers: Certified Verbatim Reporter (CVR), Certificate of Merit (CM), and Real-time Verbatim Reporter (RVR). A candidate for the entry-level designation, CVR, must also pass a written exam and a series of three tests. A CVR candidate must achieve a speed of 250 wpm with 95% accuracy. Some states require a reporter to pass a state exam and to earn state licensure.¹¹

If courts continue trying to compete for court reporter services, they will fall victim to competitors and this fading resource. Career opportunities outside of the court system for court reporters are only increasing in number and popularity. The Bureau of Labor Statistics projects an increased demand for real time broadcast captioning and translating services for persons with hearing impairments.¹² “Court reporters continue to benefit from the flexibility to use their skills in a variety of venues. Many experienced court reporters are shifting from courtroom work to broadcast captioning, to providing interpretive services for the deaf, or to freelance deposition services.”¹³ A career as a broadcast captioner provides a reporter the opportunity for flexible work hours and to work from one’s own home. The need for broadcast reporters increased significantly following federal legislation that required new television programming to be captioned for the deaf and hearing impaired by 2006¹⁴ and all Spanish language programming must be captioned by 2010.¹⁵ Courts compete with Communication Access Real-time Translation (CART) reporting opportunities in which a reporter provides personal services for a hearing-impaired person. Skilled reporters who can write in real-time are in high demand in the captioning profession, which provides more opportunities for a reporter to apply this expertise. Reporters are turning away from jurisdictions that do not produce a sufficient number of transcript requests to make the employment economically competitive.

Even if a court is satisfied presently with the court reporter model for creating, preserving, and producing the court record, the rate of decline in the profession poses a serious threat to that way of conducting business in the coming years. Based on demographics alone, the question confronting courts is how the fundamental need to make the record will be fulfilled when the current method cannot be supported.

B. Efficient, Timely Transcript Production and Access to the Record

The courts’ struggle to produce transcripts in a timely manner has surpassed the critical stage. Courts can no longer ignore the increasing demand for greater public access and transparency of court proceedings. These aspects of the record-making process are in dire need of an overhaul because they affect every aspect of the court’s business and influence the progression of the case. Under current methods, a person gains access to the verbatim record captured by a stenographic court reporter or voice writer only after a transcript, in rough or final form, has been requested and produced. A judge’s decision may be delayed awaiting a transcript. A party’s decision on whether to seek review of a court’s decision often requires an attorney to review the trial transcript. Appellate briefing deadlines commence only upon the

¹¹ *Id.* (e.g., Michigan requires state certification, see <http://courts.michigan.gov/scao/services/crr/crr.htm>).

¹² *Id.*

¹³ Pete Wacht, *U.S. Legal/Medical Records Transcribed Offshore Pose Risks to Privacy and Information Security*, *NCRA Warns*, National Court Reporters Association (Jan. 22, 2008), available at www.redorbit.com/news/business/1225490/us_legalmedical_records_transcribed_offshore_pose_risks_to_privacy_and/index.html (citing 'State of Reporting' Remarks by NCRA Executive Director Mark Goldens).

¹⁴ Closed Captioning of Video Programming, 47 C.F.R. § 79.1(b)(1)(iv) (2009).

¹⁵ Closed Captioning of Video Programming, 47 C.F.R. § 79.1(b)(3)(iv) (2009).

filing of the trial court record. Any single paper copy is obviously not accessible to multiple users simultaneously, and copies are made available only upon payment to the reporter of an additional fee. A delayed transcript and inability to access the record readily can hold a case hostage and produce adverse consequences for the attorneys, parties, judges, and the public. The public's perception of fair and equal justice and an efficient court system is jeopardized when access to the verbatim record is not readily available and is available only at a cost.

The decline in the number of court reporter is a significant contributing factor to transcript delays, and with resources continuing to decline, improvements will be impossible without a change in court culture. The presence of a court reporter in a courtroom does not ensure the timely production of a transcript. The court reporter's ability to produce the transcript may be hampered by the number of other transcript requests and the volume of courtroom assignments. The reporter may frequently be required to be present in a number of proceedings for which an appeal or transcript will not be pursued. Backlogs will continue to increase. The level of service will decrease under current staffing models because court administrators often have no flexibility to assign court reporters to resolve these issues or to meet the needs of the courts as a whole.

The reporter's ownership of the notes and stenographic dictionaries may preclude efforts by the courts to reallocate the transcript workload in an effort to ensure a timely transcript. Courts and reporters have contested ownership of the notes and dictionaries for years. Under the current methods, in most states, ownership of the notes and dictionary belongs to the reporter, and the court lacks administrative control to manage this process. Even when the court has custody of the notes, they are difficult to use by other reporters. It is almost impossible for a reporter without access to the personal dictionary of the original reporter to completely and accurately transcribe the notes. This causes access and timeliness problems when court reporters are on vacation, or ill, move out of the jurisdiction, or are otherwise unavailable. Courts must gain custody and ownership of the notes and dictionary.

III. Opportunities of Digital Recording Method

More and more sources are recognizing the value of digital recording. Digital recording of court proceedings is the "judicial future."¹⁶ This method of making the record must be the rule rather than the exception.¹⁷ Courts and the reporting profession recognize that electronic recording in the courtroom "is not only here to stay but likely to continue to grow so long as budget constraints plague our legal system."¹⁸

The evolution of record-making technology has seen the creation of several alternate methods.¹⁹ The court reporting profession and the culture of the courts have supported evolution in technology. As the methods of making the record have evolved over the decades, the judiciary has continued to seek out the best and most economical means of conducting

¹⁶ Paul Gwaltney, *Technology in the Courthouse*, Journal for the Reporting and Captioning Prof. 44 (July-August 2008) (article on integrated courtrooms) (last visited Sept. 29, 2009).

¹⁷ *Id.*

¹⁸ David Ward, *The State of Electronic Recording in the Courts, A Background Paper*, National Court Reporters Association, at 2 (Dec. 2004), available at <http://technology.ncraonline.org/NR/rdonlyres/806906B5-0411-4971-86DF-A72B23A2CC25/0/ERBackgroundPaper.pdf>

¹⁹ National Association for Court Management, *Making the Verbatim Court Record*, at 3-9 (June 2007), available to order on <http://www.nacmnet.org/miniguide.html>.

business.²⁰ Stenographic reporters and voice writers introduced computer-aided transcription and real-time skills and capabilities into the court record-making process to provide almost instantaneous translation of the spoken word. Courts have adapted their business practices and adopted new technology solutions to ensure the verbatim record of judicial proceedings is made by the most accurate, efficient and reliable means reasonably available to courts on a statewide basis. The courts' long history of capitalizing on technology is illustrated by their implementation of automated case management systems with online access to filings, electronic filing, e-commerce applications, video conferencing, evidence presentation systems, audio feeds to oral arguments, and storage of paperless stenographic notes.

The current methods of making the record have served the courts well; however, increased scrutiny, budget constraints of the current economic climate, growing needs and expectations of broader access and improved efficiency, and political pressures require courts to take the next step in the evolution of making the verbatim record. Digital recording is one of the next steps in that evolution of making the verbatim record. This technology improves the efficiency of transcript production, broadens access to the verbatim record, drives more effective management of court reporting resources, and further utilizes new technology solutions.

A. Fundamentals of Making the Record: Effective, Reliable, Accurate, Timely

Considering the significant role that the verbatim record plays in the fair, prompt, and efficient judicial review of cases, it is critical that any alternate method of making the record embody the fundamentals for its creation, production, and preservation: effectiveness, reliability, accuracy and timeliness. Digital recording meets this goal.

The quality and performance of digital recording technology has proven to be an effective and reliable solution to challenges posed by current record-making methods. The number of courts using this technology and transitioning to digital audio and video recording only continues to increase.²¹ The technology provides additional functions that bring efficiencies to many aspects of the record-making process including recording, transcribing, distributing, reviewing, staffing, archiving, and storing. The recording system can be programmed to start at a set time and the proceeding automatically saved and backed up to multiple locations. Multi-channel recording capabilities accommodate for simultaneous recording in multiple courtrooms. The technology provides the ability to continue to record the proceeding while playing back a portion of the record that was previously recorded. Sound enhancing techniques produce a clear, detailed recording that enables a reporter or transcriptionist to isolate a speaker and reduce background sounds. Video technology adds the benefit of clear identification of the speaker. A video feed can also be broadcast into a courtroom for criminal pretrial hearings.

Digital recording further enhances accuracy and completeness of the record by preserving language translations. By capturing and recording the audio of the court proceedings, this technology allows for review of the accuracy of the translations. This method of making the record also accurately portrays the role and involvement of the interpreter. For greater efficiency, digital recording systems should be integrated with teleconferencing systems that

²⁰ *Id.* at 10.

²¹ David B. Rottman and Shauna M. Strickland, *State Court Organization, 2004, Table 37 - Making the Trial Record*, U.S. Department of Justice, Bureau of Justice Statistics, Washington, D.C. USGPO, 2006, available at <http://bjs.ojp.usdoj.gov/content/pub/pdf/sco04.pdf> (this table presents a 50-state overview of the different types of court-reporting methods used).

allow an interpreter to appear remotely. This advantage is increasingly important as more and more Limited English Proficiency persons use the courts.

A proceeding annotated and monitored by a trained person is a cost-effective means to obtain the record. A recorder's annotations of the recording provide for easy playback and review and improve access. The record is readily available to electronically transmit, to make copies at a minimal cost, and to access by multiple users on the Internet and network. An attorney, party, or judge may access the recording through a court's automated case management system. Alternatively, court staff can promptly respond to a request for a copy of the record by forwarding an electronic copy via CD, DVD, or email. The convenience flows into chambers, in that a judge may use digital recording technology to record conferences in chambers, including telephonic conferences and arraignments for incarcerated persons by integrating the technology into a remote appearance system. This method is most efficient if the recording is recognized as the official record on appeal; otherwise, a qualified transcriptionist or recorder may prepare a transcript.

Methods of archiving digital recordings of court proceedings include a decentralized method and centralized network method.²² A decentralized system saves an audio recording to a CD (video to a DVD), which is stored in a secure area, and on the hard drive of a personal computer. A centralized network system archives the proceeding on a network drive located on a central storage server. Digital records maintained by either of these methods require significantly less storage space in comparison to paper files and notes.

Digital recording is a reliable record-making method that incorporates safeguards that notify the recorder or judge that the system is functioning properly. Live channel indicators display information that informs the recorder that the proceeding is being recorded. The recorder is able to immediately identify a microphone that is not operating properly. The reliability of the technology also relies on redefined responsibilities in the courtroom. The responsibility for the making of an accurate record shifts to courtroom staff as well as the judge. The recorder or presiding judge may need to play an active role in ensuring attorneys and witnesses remain close to a microphone. The operational reliability of this technology is strengthened by the quality of the equipment and security policies governing use of that equipment.²³

Courts must respond to the declining reporter resources by implementing alternate methods of making the record and changing staffing models. Digital recording technology creates an environment conducive to revisiting staffing models and assigning courtroom responsibilities. Fewer court staff are needed in courtrooms as a single digital recorder can simultaneously monitor multiple hearings or trials from a single remote location.²⁴ Even standalone digital recording in individual courtrooms allows the court monitoring staff to perform additional courtroom clerking duties such as swearing in witnesses, taking minutes, and preparing notices and orders. Both staffing models reduce staff costs and workload pressures and open up the opportunity to develop the skills of existing staff to monitor, record, and transcribe the record. The staffing models must continue to provide courtroom support for the judges, parties, attorneys, and witnesses.

²² *Making the Verbatim Court Record*, *supra*, at 32-33.

²³ Implementation of digital recording will require security policies governing equipment, access, indexing, and backup issues. Standards for digital audio recordings issued by the Michigan State Court Administrator's Office provide that "Because digital audio recording systems are PC-based, security becomes an issue. Courts should rely on their existing computer security policies and apply them to digital audio recording systems." Standards for Digital Audio Recording Systems, Michigan State Court Administrator's Office (Rev. 3/07).

²⁴ For example, in Hennepin County, Minnesota the court system uses a digital recording system that allows one staff person to monitor proceedings in four courtrooms simultaneously.

The digital recording method of making the record is timely by its very nature. Even when factoring the time necessary to prepare a transcript into the overall timeliness of this method, digital recording surpasses current methods. For example, the Utah court system reduced the number of days from a transcript request to production from 138 to 16 by implementing digital recording and an automated transcription management system.²⁵

B. Access

Immediate access to an accurate and usable record has an indelible impact on the manner in which courts conduct their business and the public perceives the court system.²⁶ Easy and economical access to the record broadens a person's access to justice and maintains the transparency of court proceedings. It is critical that court information be made open, accessible, and convenient through the use of technology.²⁷ Immediate access to the record has the potential to improve decision-making from the bench, bar, and administration. For example, an attorney preparing post-hearing motions or briefs can access a digital recording, confirm testimony, and insert the information into the pleading. Judges can utilize the technology in much the same manner in preparing orders and opinions following a hearing or trial. In addition, improved access could reduce litigation costs by eliminating some or all transcript costs, improve case flow to enable faster disposition, reduce appellate backlogs and delays related to transcript production, and improve the public perception of the judiciary.²⁸

Access to digital recordings of court proceedings through a variety of venues mirrors the transparency of online automated case management systems. Courts are able to make the recordings available on a court's network, distribute on a CD or via email, upload to a web page, and integrate into an automated case management system. Online access allows multiple users to access the record simultaneously. The challenges faced by courts involving access change from one in which a user has no access in the absence of a transcript, with the exception of real-time reporting, to one of almost immediate access with only search capabilities limited by the quality and detail of the log notes created by the recorder.

Storage capabilities of digital recordings further broaden access to the record. Courts have an obligation to preserve the record by maintaining files in a manner that guarantees their accuracy and availability at a future date. Retrieval of a digital recording is made easy and quick with proper labeling of network files or by linking to docket entries in a case management system. Centrally archived digital recordings are easily accessible to court staff, allow simultaneous access by multiple users from different locations, and allow efficient transmission to offsite transcriptionists and attorneys. For example, trial attorneys can, at no cost, review witness' testimony from one day of trial to prepare for the next day. Electronic access to the court record also allows attorneys to make better-informed decisions on the merits of a possible appeal prior to incurring the cost of transcript production.

²⁵ Email from Lisa Collins, Clerk of Court, Utah Court of Appeals (Nov. 24, 2009, 02:56 CST). For information on the transcript management system, see Utah Judicial Council, Minutes of July 20, 2009 Meeting, at 9, "Transcript Management System," available at <http://www.utcourts.gov/admin/judcncl/minutes.htm>

²⁶ See John A. Carver with Barry Mahoney, *How to Conduct an Assessment of Your Court's Record-Making Operations, Executive Summary*, The Justice Management Institute for the National Court Reporters Association, at 4 (June 2002) (guide through the transition to new manner of managing the record).

²⁷ COSCA, *Position paper on The Emergence of E-Everything*, 4 (2005), available at <http://cosca.ncsc.dni.us/WhitePapers/E-EverythingPositionPaperApprovedDec05.pdf>.

²⁸ *Id.*

An essential aspect of automation is that courts use standardized technology to insure future access. Standards for archiving, storage, conversion, and retrieval of digital recordings of court proceedings will preserve the record, insure access, and improve security. In its 1999 report the Federal Judicial Center was critical that “there is no standard format for digital recording. Absent standardization, there is no assurance that the record produced by any of the systems currently available will be readable if the vendor were to leave the business or cease support of its system.”²⁹ In its 2003 report the Massachusetts Study Committee on Trial Transcripts recognized the need to address the longevity of the physical media and technological obsolescence of the digital recording systems in stating “it is important to recognize the potential for format obsolescence. . . . [I]t is necessary as system upgrades occur to ensure that files created on the earlier system are either compatible with the new system or capable of conversion to a format that is compatible.”³⁰ COSCA recommends that the National Center for State Courts develop national standards on the preservation of digital media. The development of such standards will facilitate conversion to newer technologies and preserve the integrity of the verbatim record.

C. Administrative control

Long overdue is court control of (1) transcript production, (2) assignment of limited court reporter resources, and (3) ownership of the record. Courts have a powerful tool in digital recording to accomplish this cultural change.

Digital recording technology provides an opportunity for courts to strengthen the manner in which transcripts are produced. Courts gain greater control of transcript production by managing the assignment of staff to record the proceedings digitally and to prepare any transcript. The traditional method of courtroom assignment frequently uses court reporters for all cases even though very few are appealed or have a transcript requested. The reporter who attends and takes notes of the proceeding is responsible for preparing the transcript. The utilization of digital recording technology creates a significantly greater number of staffing options for the court's disposal in making the record. Digital recording adds alternatives that allow courts (1) to determine whether to have the proceeding recorded and annotated, or simply monitored, and assign staff accordingly, and (2) to assign responsibility for the preparation of a transcript. Courts have the flexibility to rely on a staff member other than the recorder or monitor to prepare the transcript of a digitally recorded proceeding. Courts with control of these decisions could potentially reduce the transcript production time and ensure any transcript production is given priority because courts can readily consider the workload of staff and make efficient and effective use of available resources.

As courts transition to digital recording and gain greater control of transcript production, they may consider developing guidelines that identify the type of cases that will best utilize digital recording. These guidelines may assist with the transition by addressing concerns about

²⁹ Stienstra, Donna et al., *Digital Audio Recording Technology: A Report on a Pilot Project in Twelve Federal Courts*, Washington, DC: Federal Judicial Center, at 42 (1999), available on [http://www.fjc.gov/public/pdf.nsf/lookup/datrept.pdf/\\$file/datrept.pdf](http://www.fjc.gov/public/pdf.nsf/lookup/datrept.pdf/$file/datrept.pdf).

³⁰ *Report of the Study Committee on Trial Transcripts*, Massachusetts Study Committee on Trial Transcripts submitted to Justices on the Supreme Judicial Court, at 44 fn. 57 (June 30, 2003), at <http://www.mass.gov/courts/trialtransrep.pdf>. See Gregory S. Hunter, *Impact of Information Technology on Local Government Archival Records: A report to the Local Government Archivists Task Force of the Council of State Archivists*, at 7 (June 2007), available at <http://www.statearchivists.org/lga/documents/reports/Hunter-report.doc>.

roles and responsibilities and defining expectations for all courtroom staff. Initially, a court should consider recording, at least, uncontested domestic relations hearings, arraignments, some probate matters or other case types that are unlikely to be appealed. Stenographic court reporters using real-time technology, which provides additional support to the trial judge, could continue to be utilized in complex civil and capital criminal cases.

Court administrators need the latitude to allocate courtroom resources and realign staff, including personal appointee court reporters, to better fit the new technology, improve productivity, meet the needs of the courts as a whole, and provide an appropriate level of service. Some courts are transitioning from the traditional staffing model where a court reporter is employed as a personal appointee of a judge to a digital recording model that trains existing staff to manage the technology. The NCRA conducted an in-house survey in 2006 that indicated 71.5% of responding court reporters were personal appointees.³¹ A court reporter serving as a personal appointee is assigned reporting responsibilities for a specific judge on a permanent basis and is supervised solely by that judge. These reporters have long-established relationships with their judges. A reporter substituting for a personal appointee may have difficulty in meeting the expectations of the judge with regard to courtroom responsibilities. Judges are reluctant to allow their reporter to be reassigned to other courtrooms. The personal appointee staffing model limits the optimal use of staff, fails to utilize digital recording fully and constricts a court administrator's ability to manage resources.³² Court reporters are well equipped to manage digital technology and transition into a digital recording method as recorders, monitors, and transcriptionists.

Existing court staff members provide another pool of resources that require less specialized training than a stenographic reporter or voice writer. Internal staff can be trained in working with the equipment and creating detailed annotations to meet the monitoring or recording needs of the courts. Courts should develop standards for monitors and recorders to ensure full familiarity with the equipment and troubleshooting, proficient annotations, and understanding of courtroom procedures and vocabulary. A centralized monitoring system is very efficient for proceedings where there is little probability that a transcript will be requested. Alternatively, a recorder assigned to a courtroom annotates the proceeding by identifying speakers and noting transitions and is present in the courtroom to ensure the quality of the recording and to clarify inaudible statements. These options help alleviate the complications caused by lack of coverage and allow for the optimum placement of resources and utilization of skills. "The benefits of digital recording monitors are not principally based in cost savings, however, but lie in increased flexibility from the availability of alternative means to make the record of court proceedings, with consequent improvement in the timeliness of transcripts."³³ Courts must incorporate the responsibility for transcription production into their business functions.

In order to ensure the reliability, integrity, and accurate production of a timely transcript, courts must gain control of all aspects of the record including the notes and stenographic dictionary. The implementation of an alternative method of making the record creates an opportunity to establish, whether by statute or court rule, that all records of judicial proceedings

³¹ *Making the Verbatim Court Record*, *supra*, at 5.

³² *Id.* at 12.

³³ *Report of the Study Committee on Trial Transcripts*, *supra*, at 47.

belong to the courts.³⁴ For example, in July 2009 the Florida Supreme Court amended its rules of judicial administration to provide the chief judge of the circuit is the owner of all records and electronic records. New subdivision 2.535(d), "Ownership of Records," states "The chief judge of the circuit in which a proceeding is pending, in his or her official capacity, is the owner of all records and electronic records made by an official court reporter or quasi-judicial officer in proceedings required to be reported at public expense and proceedings reported for the court's own use." The Supreme Court of Colorado adopted a "Management Plan for Court Reporting and Recording Services" that addresses custody under the stenographic method. The plan requires a court reporter leaving the employment of the judicial branch shall provide the court with notes and dictionary for all cases the reporter has done while a state employee. The notes remain the property of the judicial branch but the reporter retains the right of first refusal regarding the preparation of a transcript.³⁵ In gaining management of all aspects of the record, courts assume the responsibility to maintain and update the technology. Again, the cost is worth the effort because by establishing control of the notes and dictionary, the courts can more effectively manage the record-making process.

D. Integration of digital recordings with case management systems

The needs and expectations of attorneys and the public, the increasing volume of the court's business, and limited budgets require that courts produce accessible and transparent multi-media records.³⁶ The implementation of automated case management systems has only increased expectations that case information should be consolidated and accessible at a single location. In a position paper COSCA explored the integration of electronic access technology into the court environment and recommended that court administrators provide "one-stop shopping" for court information.³⁷ Many courts have also integrated electronic filing of documents and payment of filing fees electronically into their business practices. Digital technology allows a court to integrate the recording system with other digital applications, including case management and calendaring systems, and provides for easy access and future exchange of information. The implementation of digital recording will complement these technological advances, improve access, and move courts closer toward "e-everything" -- a full electronic record available to judges, attorneys, parties, and the public.

E. Potential savings

In times of growing economic crisis, courts cannot afford to turn a deaf ear to the advantages supporting digital recording. The technology is an economic alternative to traditional court reporting that provides savings to both litigants and courts. The cost to litigants is reduced because the digital recording is available at less cost than a prepared transcript. Courts have the potential to gain substantial savings with digital technology because court reporters are a significant cost factor in court budgets. For example, in Iowa, court reporting resources will cost

³⁴ *Lipman v. Commonwealth of Massachusetts*, 475 F.2d 565, 568 (1st Cir. 1973) (Court held the court reporter had neither a property right nor common law copyright in the transcript of judicial proceedings.).

³⁵ Colorado Rule of Civil Procedure 80(d) provides that "[a]ll reporter's notes shall be the property of the state."

³⁶ See April C. Artegan, *The Technology-Augmented Court Record*, CTC5 Education Session Article (1997), available at www.ncsconline.org/D_Tech/ctc/showarticle.asp?id=87 (last accessed December 17, 2009).

³⁷ *The Emergence of E-Everything*, *supra*, at 7.

over \$15 million in fiscal year 2010 (July 2009-June 2010).³⁸ In Wisconsin, the annual costs of reporting resources will be \$21 million in fiscal year 2010. These costs consume 31% of the court's operating budget, which includes judges' salaries and equipment costs.³⁹

In comparing the expenses of digital recording equipment and installation with savings associated with assigning staff to monitor multiple courtrooms simultaneously and reducing storage requirements, courts have recognized the technology's capability to provide savings. In a case study conducted for a background paper on electronic recording in the courts, a court administrator explained that the recurring cost savings of an electronic recording system far surpassed the hardware and software costs.⁴⁰ Another court administrator stated that the county saved over a quarter of a million dollars in the first year following the installation of the system.⁴¹ As more courts implement digital recording, they continue to study and compare costs of their record-making methods. A state shorthand reporters association referenced recent efforts to study the costs associated with court-reporter based courtrooms and digital recording courtrooms. In a 2007 newsletter the association noted that the National Court Reporters Association commissioned the Opinion Dynamics Corporation to conduct an electronic recording/court reporter cost comparison study.⁴²

The benefits of digital recording go beyond cost savings because the technology provides an alternate method of making the record of court proceedings, enhances efficiency of the record-making process, and improves access to the record. Greater access and efficiency come at a cost, but it is a cost that outweighs the consequences of maintaining a record-making method dependent on stenographic court reporters or voice writers only. As noted earlier, courts are competing for declining court reporter resources. The investment in digital recording is inevitable because the technology provides solutions to the challenges of the current methods of making the record. The implementation of any new method of making the record requires a significant initial financial and time investment and a long-term commitment to maintain and upgrade the equipment and software.

For some courts the court reporters are funding current technologies.⁴³ The implementation of digital recording and responsibility for maintenance of a new technology shifts this financial burden to the courts. A court will need to dedicate resources to develop staff to monitor and troubleshoot equipment, provide playback, and transcribe electronically recorded proceedings. The opportunity for additional savings for both litigants and the courts could be greater if state courts of appeals accepted audio or video recordings as the official record on appeal.

A return-on-investment strategy and cost analysis is specific to each court and is based on the level of use and timing of the full implementation of this method of making the record. The

³⁸ State Court Administrator's Office, Iowa Courts.

³⁹ Director of State Courts Office, Wisconsin Courts.

⁴⁰ *The State of Electronic Recording in the Courts*, *supra*, at 5 (case study of Florida's 9th Judicial Circuit).

⁴¹ *How to Conduct an Assessment of Your Court's Record-Making Operations*, *supra*, Vol. II, p. 26 (citing Interview with Robert Wallace, Court Administrator for Anne Arundel County Circuit Court (December 14, 2000)).

⁴² *Leadership Conference*, Short Strokes Newsletter (Georgia Shorthand Reporters Association), Winter 2007, at 6, available at <http://www.gsra.org/SS/Winter2007.pdf>. The study is also referenced on the Democracy International, Inc. Web site, see http://www.democracyinternational.com/global_programs.html, as a research project in which Democracy International worked with Opinions Dynamics Corporation (<http://www.opiniondynamics.com>).

⁴³ See California Court Reporters Association, *Cost Implications of State "Ownership" of the Verbatim Record in California*, at 2 (Revised June 1, 2009), available at <http://www.cal-ccra.org/documents/Crawford-TranscriptOwnershipFinal2009.pdf>.

amount of savings will depend on many factors, including whether the court transitions to digital recording through attrition of court reporters, whether the court uses digital recording for most case types, how many case types the courts simply monitor, and whether the court centralizes the monitoring and transcribing of court proceedings.

IV. National Implementation Strategies and Transition to Digital Recording

The next logical and necessary step in the evolution of making the verbatim record is digital recording of court proceedings. Courts implementing digital recording will experience “new opportunities for effective management, reliable record keeping, efficient transcript production,” and integration with other automated systems in the courts.⁴⁴

The transition to digital recording as an alternate method of making the record by some courts has brought the advent of a significant cultural change in the manner in which those courts conduct their business. The decision to change the manner in which a court makes the record involves careful consideration of consequences, cost implications, and work product and process outcomes. A combination of factors is behind the change, including budget constraints, declining reporter resources, inability to recruit or retain court reporters, political pressures, increasing caseloads, growing expectation for access to court records, and improvements in technology. In light of these factors, the arguments that supported the current methods are no longer valid and fail to justify a court’s continued dependence on stenographic reporting to make the record.

The transition to digital recording will require a change from longstanding traditions. For example, the physical presence of a court reporter in a courtroom has been a mainstay of the traditional system.⁴⁵ Courts are assigning other courtroom and administrative responsibilities to traditional stenographic reporters or replacing or supplementing the reporters with digital recorders or monitors to resolve challenges with vacancies in court reporting personnel and increasing costs of stenographic reporters.⁴⁶ The designation of personal appointees must succumb to the courts’ broader need to manage transcript production and resources. Illinois courts have pooled court-reporting services, where possible, as the courts continue to install digital recording systems. Some courts have instituted a policy to reduce the number of stenographic court reporters employed by the court system by attrition, by adding recording responsibilities to the positions, or by layoffs. Reporters in Kentucky Circuit Courts were mainly phased out through attrition as the state constructed new facilities in which each circuit courtroom was equipped with video recording.⁴⁷ Other courts maintain a blended service delivery model consisting of reporters, recorders, and monitors, which includes an assignment

⁴⁴ Richard Ryan Lamb, *Using Video Recording as a Component in Managing Your Court*, CTC4 Education Session Article (1994), available at http://www.ncsconline.org/d_tech/ctc/showarticle.asp?id=109 (last accessed December 17, 2009).

⁴⁵ Justice Research Institute, *Court Reporting Technologies: A Cost-Benefit Analysis and Qualitative Assessment* at 9 (1992), available at http://www.cal-ccra.org/Court_Reporting-TeEA6FE.pdf.

⁴⁶ See Arizona Supreme Court Committee on Keeping the Record, Final Report, at 1 (Dec. 2005). Compare David B. Rottman, et al., *State Court Organization, 1993, Table 31 – Making the Trial Record: Electronic Recording of Trial Proceedings*, U.S. Department of Justice, Bureau of Justice Statistics, Washington, D.C., USGPO, 1995, with David B. Rottman and Shauna M. Strickland, *State Court Organization, 2004, Table 37 – Making the Trial Record*, U.S. Department of Justice, Bureau of Justice Statistics, Washington, D.C., USGPO, 2006.

⁴⁷ See Brian Miller, *Court Reporting: From Stenography to Technology*, Government Technology, at 2 (March 1, 1996), at www.govtech.com/gt/95570 (last accessed December 17, 2009).

process based on case types. The Utah court system discontinued use of all court reporters in 2009, with the exception of the option for contract reporters in capital criminal cases. The decision to move to an all digital recording operation was made by the Utah Judicial Council as one of a number of steps the courts took in response to budget reductions mandated by the legislature.⁴⁸

This change shifts responsibility for the record from the stenographic court reporter or voice writer to the judge and staff. This enhancement to a court's technical infrastructure brings with it a need for different skills and responsibilities among staff, including recording, transcribing, accessing and managing electronic records. Court staff maintain and troubleshoot the equipment, monitor its functioning, and educate attorneys about the technology. They annotate the record, transcribe the recording, retrieve and prepare copies upon request, and archive the records with appropriate indexing and labeling.

The appellate courts could also influence the degree of cultural change by adopting the digital audio or video recording as the official record on appeal. The Kentucky Supreme Court already recognizes official video recordings as the original record on appeal.⁴⁹ Ohio Rule of Appellate Procedure 9, Record on Appeal, provides that a videotape recording of the proceedings constitutes the transcript of proceedings and need not be transcribed into written form with the exception that counsel shall type or print those portions of such transcript necessary for the court to determine the questions presented, certify their accuracy, and append such copy of the portions of the transcripts to their briefs.⁵⁰

In many instances, significant change has been facilitated by strong leadership and study committees such as the Arizona Supreme Court's Committee on Keeping the Record and Florida's Commission on Trial Court Performance and Accountability that lay the foundation for the transition and address the difficult questions by analyzing the court's business. Such committees have issued reports following extensive reviews of the methods for making the record of judicial proceedings and detailed research of legal and operational issues arising from the use of digital recording technology.⁵¹ Such committees identify statutory or rule limitations on a court's record-making responsibility, analyze the degree to which business practices must be reworked, determine the feasibility of relying on one method of making the record or sustaining multiple methods, propose the appropriate staffing model, outline a strategy to roll out the policy and standards, advocate for the digital record to be the official record on appeal, and ultimately make comprehensive recommendations for changes to a court's infrastructure.

In evaluating their record-making function and procedures as part of this transition to digital recording, courts must develop standards governing the technology and define the qualifications, roles, and responsibilities of recorders, monitors, and transcriptionists to ensure its success. In addition, courts should establish ownership, transition personal appointee reporters into a pool of resources for court-wide use, and explain how courtroom assignments will be

⁴⁸ Utah Judicial Council, Minutes of October 27, 2008 Meeting, at 12, "Budget Planning," *available at* <http://www.utcourts.gov/admin/judcncl/minutes.htm>

⁴⁹ Ky. R. Civ. P. 98(3).

⁵⁰ Ohio R. App. P. 9. The rule further states that "[p]roceedings recorded by means other than videotape must be transcribed into written form."

⁵¹ Arizona Supreme Court Committee on Keeping the Record, Final Report (Dec. 2005); In re Amendments to the Florida Rules of Judicial Administration and the Florida Rules of Appellate Procedure – Implementation of Comm'n on Trial Court Performance and Accountability Recommendations, at 2, SC08-1658 (July 16, 2009). The commission created in 2002 to make recommendations concerning the improvement and accountability of Florida's trial courts. In re Comm'n on Trial Court Performance and Accountability, AOSC02-27, at 2 (Aug. 30, 2002).

made based on case types and court needs. In developing digital recording standards courts may consider whether to provide exceptions for the use of stenographic real time reporting in capital criminal cases, proceedings involving hearing impaired participants, and complex cases. Courts should develop standards for topics including equipment, operation, security, storage, backup, retrieval, transcription and certification, redaction, retention, custody, and public access. In 2006 the Arizona Supreme Court adopted technical and operational standards for digital recording used in courtrooms to create the official record of a court proceeding.⁵² The development of standards has helped courts better manage the cultural change.

Court rules or standards on digital reporting should define the persons who can transcribe from digitally recorded proceedings and require that any transcript filed for official use by a court must be produced by a person meeting the qualifications. The Arizona Supreme Court developed a manual of transcript procedures that governs official transcripts of court proceedings prepared from electronic recordings.⁵³ Courts can determine whether transcripts of electronically recorded proceedings should be produced by the recorder at his or her court location, by a transcriptionist at a centralized location, or by an independent contract transcription service. One court's standards on transcription provide that a certified reporter, court employee, or transcriber under contract with a court shall produce the official transcripts of electronically recorded proceedings.⁵⁴ Another court's rule mandates that only state-certified reporters and recorders may transcribe the proceedings.⁵⁵

The shift to digital recording in courtrooms can cause anxiety among judges, court reporters, staff, and attorneys. As with any significant cultural change, consideration should be given to meeting the needs of stakeholders, maintaining the integrity of the record, and communicating the difference between the current culture and the new culture, which means explaining how the court's record-making business will be different and sustaining the change.

Tools and guides developed by other courts that have implemented digital recording are valuable resources. These courts have already worked through the processes of shifting behaviors, relationships, responsibilities, and attitudes as well as the changing of technologies. In addition, NACM reported lessons learned from a 2002 survey of the methods employed by courts to make the verbatim record. The lessons set forth in Making the Verbatim Court Record serve as well-constructed guideposts for courts implementing digital recording. Lessons learned included (1) one size does not fit all -- one method of making the record will be a solution for all courts -- and (2) courts need to maintain operational flexibility.⁵⁶ The following national resources also provide guidance to courts managing this cultural change.

A. National Association for Court Management

The National Association for Court Management published a mini-guide on making and managing the verbatim record.⁵⁷ This resource, "Making the Verbatim Court Record," documents the methods of making the record and the evolution of different technologies, sets

⁵² Arizona Code of Jud. Admin. § 1-602, adopted by Administrative Order 2006-49 (June 26, 2006).

⁵³ See Arizona Manual of Transcript Procedures (Dec. 2006), at <http://www.supreme.state.az.us/ktr/TranscriptManual.pdf>.

⁵⁴ Ariz. Code of Jud. Admin. § 1-602(5)(a).

⁵⁵ Mich. Ct. R. 8.018.

⁵⁶ *Making the Verbatim Court Record*, *supra*, at 10-13; see Carver, *supra*, at vol. I, p. 18.

⁵⁷ *Making the Verbatim Court Record*, *supra*, at 5.

forth decision criteria to identify the most appropriate and cost-effective method, and makes recommendations on the management of court reporting resources.

B. Justice Management Institute

The Justice Management Institute developed a tool to assist courts in examining and assessing the efficiency and effectiveness of their record-making process and policies and to guide courts through a planning process if they determined changes were appropriate. The two-volume guide entitled “How to Conduct an Assessment of Your Court’s Record-Making Operations: A Systematic Approach”⁵⁸ is based on a study conducted on the process of making the record. The National Court Reporters Foundation funded the study.

C. National Center for State Courts

NCSC published a 1991 report discussing advantages and disadvantages of video court reporting and issues involved in this method of record making. In predicting the outlook for the future of video court reporting, the report stated that trial courts will “use the technology as a remedy for problems experienced with traditional reporting.”⁵⁹

D. Federal Judicial Center

Digital audio recording has been an authorized method of making the record in federal district courts since 1999, and the federal courts continue to build on this technology. The Federal Judicial Center (FJC) conducted a study of the use of digital audio recording in federal district court and bankruptcy court proceedings.⁶⁰ FJC initiated the study to assess the functions of digital audio recording technology and assist in determining whether the technology should be recognized as an approved method for taking the official record of federal court proceedings.

In 1999 the FJC issued a report, “Digital Audio Recording Technology: A Report on a Pilot Project in Twelve Federal Courts,” and found that digital audio recording technology provides an accurate, reliable method of making the record. The pilot courts concluded that digital recording was “the wave of the future” and “the direction the courts must go.”⁶¹ This report is another resource that can aid courts in their implementation of digital recording. The report provides guidance for the future use of digital recording technology and sets forth questions for courts to ask and issues to consider.

Based on the study, the Committee on Court Administration and Case Management recommended and the Judicial Conference approved digital audio recording technology as another method of making an official record of federal court proceedings. In 1999 the Judicial Conference approved digital audio recording technology as a method of making the court record in federal court under 28 U.S.C. § 753(b).⁶²

⁵⁸ Carver, *supra*.

⁵⁹ National Center for State Courts, *Video Court Reporting: A Primer for Trial and Appellate Court Judges*, at 12 (June 28, 1991).

⁶⁰ In 1997 the Judicial Conference authorized a study of the use of digital audio recording in court proceedings.

⁶¹ *Digital Audio Recording Technology supra*, at 36.

⁶² *Report of the Proceedings of the Judicial Conference of the United States*, at 56-57 (Sept. 15, 1999), available at <http://www.uscourts.gov/judconf/99-Sep.pdf>.

Federal courts have also taken advantage of the technology that allows a court to link an electronic recording to the case management system so the audio may be accessed and reviewed from the docket list of case events. In August 2007 the federal courts initiated a pilot project to make digital audio recordings of courtroom proceedings publicly available online. Participating district courts are docketing some digital audio recordings to Case Management/Electronic Case Files (CM/ECF) systems to make the audio files available on the Internet. The pilot project was expanded from five federal courts to nine through the end of 2009.⁶³

V. Recommendations

1. Digital Recording Implementation

State courts should move to digital recording as the method for making the verbatim record, with the possible exceptions for complex civil and capital criminal cases where real-time or stenographic reporting are specifically designated. State courts should establish ownership of the record and review the feasibility of the digital recording being the official record on appeal.

2. Digital Recording Planning

State courts should develop their own comprehensive, strategic plan for digital recording, implement the technology as a method of making the verbatim record, and adopt functional and technical standards to provide guidance, support, and service to judges, attorneys, reporters and recorders, transcriptionists, court staff, and the public.

3. Review of standards and procedures for transcript production

COSCA should request that NCSC conduct a survey of existing standards and procedures and compile a resource reference for use by courts. The relevant procedures would address questions of how the transcript is produced, who prepares the transcript, and criteria for certification.

4. Standards for the technology, archiving, storage, and retrieval of digital audio and video recordings of court proceedings

COSCA should request that NCSC develop comprehensive model standards that govern the technology (e.g., hardware, software, file and communication standards), archiving, storage, and retrieval of electronic recordings of court proceedings and safeguard the integrity of the record.

⁶³ Administrative Office of the U.S. Courts, *Project Expanded: More Courts Offering Digital Audio Recordings Online* (April 15, 2009), available at <http://www.uscourts.gov/newsroom/2009/digitalAudio.cfm>