

**AN EVALUATION OF THE
COURT RECORD PROJECT
IN THE FOURTH JUDICIAL DISTRICT**

Institute for Court Management
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Pamela J. Kilpela, Court Operations Manager
Fourth Judicial District
Minneapolis, Minnesota

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ABSTRACT

The Fourth Judicial District in Minnesota has experienced increased challenges in providing a record of court proceedings. The challenges are driven by the reduced number of court reporters in our state. The demographics in Minnesota mirror the national trends for limited court reporter availability. The judicial districts in Minnesota are courts of general jurisdiction. In Minnesota, the Fourth Judicial District is the state's largest judicial district handling over 800,000 case filings each year. To address the challenges presented in providing a court record, a Court Record Project Team was formed in 2004. The Court Record Project Team was given the task of examining options for implementing a long-term strategy to ensure available resources for creating a record of all required court proceedings. The team agreed that implementation of a digital recording system was the best available strategy. In April 2006, a digital recording program was implemented in the Fourth Judicial District. Now that the system has been operating for several months, the time has come to evaluate its effectiveness.

This paper will review its reliability, efficiency, accuracy, accessibility and stakeholder satisfaction. The stakeholders include judges, attorneys, court reporters, court administration and staff.

The research design for gathering data for this report is as follows: 1) Surveys of Fourth Judicial District judges, court reporters, courtroom clerks and attorneys; 2) Collection and analysis of the transcripts and; 3) Review and analysis of scheduling statistics that applied to court reporter availability.

The survey questionnaires followed models that have been used in other jurisdictions, but added feedback on specific issues articulated by the stakeholders. The

questionnaires were pre-tested by the court's Research Division and the administrative team of the Court Record Project. Modifications were made based on suggestions from the pre-test team. Surveys were distributed electronically to all stakeholders who were able to complete the survey on-line. Responses were automatically tabulated into a specialized survey program and the results were quickly assembled. Random samples of transcripts were also collected. The sampling represented transcripts that were produced from analog tapes as well as transcripts produced from digital records. Comparisons of the transcripts were measured by the frequency of "indiscernible" and "unknowns" within the transcripts.

As with any project, some aspects of the Court Record Project have been handled very well, while others are in need of change. Our system was found to be reliable, however, the process procedures need to be reviewed to protect the record. The court reporter and staff training has been successful, but follow up is needed with additional training for the judicial officers and attorneys. Judges and court reporters who have listened to the digital recordings report that they are clear and accurate, yet the transcripts produced from the digital system reflect a level of "indiscernible" and "unknowns" that is similar to the analog tape transcripts. After several months of operation, the level of skepticism for the digital record system has decreased.

In order to address the areas that need change, several things should occur. Focus groups should be set up with all partners to identify specific issues and difficulties in working with the digital recording system. A "how to" education program should be designed for judicial officers and attorneys who work with the digital recording system. Court staff should be invited to an open house in the Central Monitoring Room. This will

help them gain a stronger sense of the system capabilities and the manner in which their efforts contribute to its success. A workgroup of court reporters should be established to review courtroom situations that create “indiscernible” and “unknowns” in transcripts. A support process should also be established that provides assistance in listening to difficult audio records. All analog tapes that are now stored at divisional locations should be cataloged and sent to a centralized storage location. Tracking and access to those tapes should be coordinated by the Central Monitoring Room staff. An electronic copy of transcripts produced from the digital records should be filed with the Central Monitoring Room staff.

I. Introduction

For over a decade the Fourth Judicial District in Minnesota has struggled with increasing challenges in providing sufficient means for producing daily records of court proceedings. The State of Minnesota has long been experiencing a shortage of court reporters. The Court Record Project Team was formed in 2004 to examine options for implementing a long-term strategy to ensure the continued availability of resources to create records of all required court proceedings. The team agreed that implementation of a digital recording system was the best available strategy, and in April 2006, a digital recording program was implemented in the Fourth Judicial District. Now that the system has been operating for several months, the time has come to evaluate its effectiveness. This paper will review its reliability, efficiency, accuracy, accessibility and how it meets the needs and consideration of the stakeholders, which include judges, attorneys, court reporters, court administration and staff.

The judicial districts in Minnesota are courts of general jurisdiction. The Fourth Judicial District is Minnesota's largest judicial district. It serves Hennepin County, which includes Minneapolis, the state's largest metropolitan city. With 62 judges, 16 referees and a staff of 550, it handles over 800,000 case filings each year. Court hearings are held in eight court locations across Hennepin County.

It is the consensus of the Fourth Judicial District bench that providing each judicial officer with an official court reporter is the preferred method for making records of daily court proceedings. Official court reporters in Minnesota are either stenographic or electronic court reporters. Electronic court reporters must pass a certification test administered by the Minnesota Supreme Court. Stenographers must have graduated from

a post-secondary court reporting program approved by the National Court Reporters Association and the Minnesota Supreme Court. Many judges prefer to work with stenographic court reporters who are also proficient with specialized software called Computer-aided Transcription (CAT). This software enables court reporters to instantaneously produce a readable record.

The demographics in Minnesota mirror the national trends regarding limited court reporter availability. In the mid 1990s all Minnesota court reporting schools closed, but there has been a recent initiative to revive training programs for court reporters. In 2004, a local technical college established a new court reporter program. The program's director, Jennifer Sati, is a former court reporter. The new program has been operating for almost three years. Approximately 60 students are currently enrolled and Ms. Sati believes that at least 15 will graduate this year, with the program on track to consistently graduate 10-15 students every year. It is believed that 70% of the 15 anticipated graduates will be interested in a state court system career. An influx of these new graduates will help the court system stabilize the difficulties that exist today. This program should be monitored to determine whether the number of graduating students is sufficient to provide long term relief for the courts.

In Minnesota, court reporters are hired and serve at the pleasure of individual judicial officers who may hire a stenographic or electronic court reporter. The court reporter shortage has presented recruiting difficulties for our Human Resources Department. Recently representatives of the department attended the National Court Reporters Association Conference in Chicago, Illinois and attempted to recruit available stenographic court reporters. The Fourth Judicial District was the only court represented

at this conference. We followed-up with the conference's 1,600+ attendees, but only one individual requested an interview with our judicial officers.

Salary statistics, from the U.S. Department of Labor, Bureau of Labor Statistics¹, indicate that court reporters in Minnesota are paid in the top 10% range of all national courts organizations. The current salary and benefit package range for court reporters is \$48,722 to \$77,088 per year. This does not include income earned from producing transcripts.

The Human Resources Department reports that the average vacancy factor for the last three years has been nine court reporter positions per year. Due to the unavailability of court reporters, some of these positions have remained unfilled for extended periods of time.

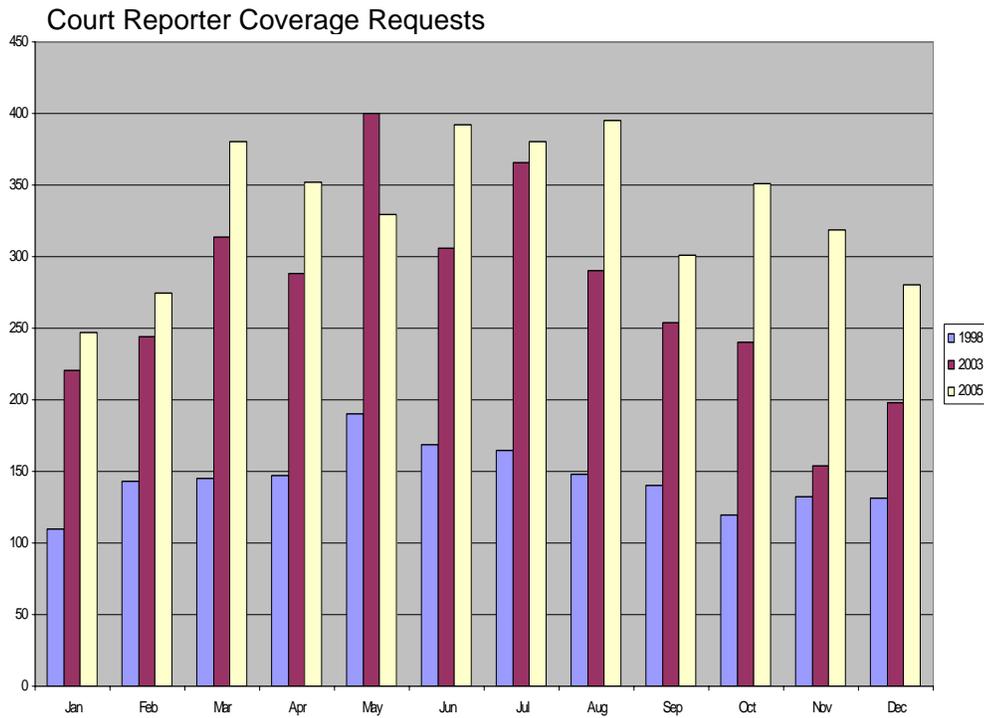
Court reporters report daily to the judicial officers who hire them. Sometimes they are not available due to medical reasons or vacation. In addition, some judicial officers may have vacant positions because they have been unable to hire a court reporter. To address those vacancies, the Fourth Judicial District has a centralized Scheduling Unit that handles requests to provide court reporter coverage. For example, if a court reporter calls in sick, the Scheduling Unit assigns an available reporter to cover for the day.

The Scheduling Unit monitors court reporter availability. It is the Fourth District policy that court reporters must be available for reassignment by the Scheduling Unit when their judicial officers are scheduled to be out of the office. In almost every instance when court reporters are available, they are reassigned to other judicial officers, but the increasing shortage of available court reporters has made it difficult to provide sufficient daily coverage.

¹ U.S. Department of Labor; Bureau of Labor Statistics. BLS Career Information (2006)

The Scheduling Unit has continued to experience an increase in coverage requests. In 1998, 1,740 coverage requests were received, while in 2003, that figure increased to 3,275. In 2005, 4001 requests were received.

Figure 1.1



In addition to utilizing other judicial officers' court reporters to meet coverage needs, local per diem court reporters are also used, but the availability of local per diem court reporters has also decreased. In 1998, the Scheduling Unit was assisted by approximately 38 per diem reporters. In 2003, that figure dropped to approximately 17, and it dropped further to 5 in 2004. The Scheduling Unit staff annually distributes recruitment mailings to all local court reporting agencies, but this initiative has had very

limited success. Every year an increased number of mailings are returned as “no longer in business.”

The strain of stretching available court reporters to cover daily assignments has been felt throughout the organization. It is not unusual to reassign a court reporter to a court facility located over 20 miles away. In some situations, calendars and trials have been delayed until an available court reporter could be located.

In 2002, a focus group met to discuss this strain on the courts and consider options to more effectively provide coverage. Members included court reporters, judges and administrative members of the Scheduling Unit. The group determined that the installation of analog tape recorders in several court locations was the best solution. The most appropriate locations were those that traditionally generated few transcript requests. Those locations recorded their hearings with the analog tapes when court reporters were unavailable.

Fourteen calendars were identified for analog tape installations. Those calendars included: Harassments, Housing, Out of Custody Misdemeanor Arraignments, Juvenile Detention Calendar, In-Custody Misdemeanor Arraignments, Suburban Misdemeanor Arraignments (5 courtrooms), Family Paternity Calendar, Domestic Abuse Calendar, Felony Arraignments and Minneapolis Court Trials.

Court staff assigned to those calendars were provided with system operations certification training. Each location for the calendars took ownership in maintaining the analog tapes. Whenever a transcript request was received from a recorded courtroom, the Scheduling Unit retrieved the tape from the appropriate location and found a court reporter to produce the transcript from the tape.

The plan for utilizing the analog tape system was approved by the Fourth Judicial District Executive Committee in January of 2003 (see appendix A). The plan allowed court staff to run the tape system when there were not enough court reporters to provide sufficient daily coverage. Within one year analog tapes were consistently used in a majority of the 14 court calendars. The determination to use analog tapes was often deferred until each morning when a list could be prepared of those areas impacted by court reporter absences.

While having the ability to run analog tapes in a number of courtrooms provided some relief from our coverage concerns, reassigning court reporters each morning continued to prove stressful for our organization. We also experienced problems with the taped records due to the difficulty in locating the tapes for transcript requests. When the tape was located, the log notes that indicated where on a tape a particular hearing occurred were not always accurate. In most courtrooms, the tape recorder was operated by personnel who also covered other courtroom duties and thus they were not able to devote an appropriate amount of time to monitor the analog system. Determining where the hearing was recorded on the tape proved to be difficult and time consuming.

It soon became apparent that it would be necessary to undertake another review of our ability to provide coverage. In 2004, a team called the Court Record Project was assembled. Members included judges, court reporters, IT specialists, a facilities manager, a human resources representative, court administrators and a TEAMSTER representative for the court reporters. The team was charged with researching all available methodologies for providing a court record and then choosing and implementing a long-term strategy to ensure the continued availability of sufficient resources to create records

of all required court proceedings. Initial research efforts revealed national shortages in court reporter resources and thus the team began to focus more on available technologies. After several months of research, the group determined that computerized, digital court reporting would provide our district with the greatest capacity to provide coverage relief.

A digital recording system was installed in each of the fourteen locations previously identified for daily recording. Several other courtrooms were equipped at the request of judges who wanted the digital recording access when court reporters were unavailable to cover their courtrooms. In total, thirty-one courtrooms were installed with a digital system. A centralized monitoring room was built to receive the recordings from each location. Court reporters who had traditionally reported to the fourteen identified daily calendar assignments were now available for reassignment. Each court reporter who was assigned to the Central Monitor Room had responsibility for monitoring up to four courtrooms simultaneously. The signal received from each courtroom has a video and audio feed.

The wiring scheme provides for a “homerun” installation, which means that the wiring is directly connected between the courtroom hardware and the recording server. Because the wiring is not tied to the court’s network system, it is not subject to a network failure. Network failure events occur several times a year and a homerun installation enables us to still record in courtrooms during those failures.

The video is provided to assist court reporters in the Central Monitor Room with log note identifications and is not recorded. The audio is captured and stored on our computer network. The court reporter is responsible for creating an event log of events for those courtrooms as distinct from the reporter’s previous task of writing each spoken

word in a single courtroom. Each court reporter assigned to the central monitor room should be able to handle four courtrooms. Taking into account that the daily minimum, calendar coverage need is fourteen calendars, the central monitor room is able to handle those calendars with just four court reporters. Ten other reporters are now freed up for reassignment to cover reporters on vacation or absent.

Further explorations yielded an appropriate vendor. In 2005 the Court Record Team asked the Executive Committee to approve funding for a new digital recording system. The Court Record Team advised the Executive Committee that they had identified a system that provides a protected and accurate court record. As part of this recommendation, it also took into consideration the needs of court stakeholders. The Team also advised that this new digital system would prove to be reliable and demonstrate fiscal responsibility for the appropriated funding. The Executive Committee approved the funding request, the system was installed, and after several months of operation, this paper evaluates the results achieved using the digital system.

II. Literature Review

The National Center for State Courts Library provided a majority of the relevant information regarding alternative technologies for court recording. The majority of the articles that reviewed such alternative technologies described their experience as driven by the need to supplement a dwindling supply of court reporters.

William Hewitt wrote,

“The special strength of video court reporting is that it makes the proceedings come to life. Though not perfect and not identical to “being there,” video court reporting offers the most complete form of the record that is available. However, that advantage may not be mentioned at all by judges when they explain why they sought alternatives to traditional reporting and why video court reporting began in their courts. One or more of the following reasons more likely will be mentioned: 1) there was a shortage of qualified court reporters and finding alternatives became a necessity; 2) there was a problem with timeliness of transcripts, quality of transcripts, or both; 3) there was a financial crisis and the court had to save money. In short, trial judges adopt video court reporting because of problems with the status quo, not because they have determined that videotape is inherently a better form of the record.”²

Evidence of the decline in court reporters numbers has also been documented by the National Court Reporters Association,

“In 1975, there were 42 NCRA-approved court reporting programs as noted in Celebrating Our Heritage, a history of the Association and its programs published in honor of NCRA’s 75th anniversary. (No data is available on the number of non-approved programs in existence then.) In 1995, there were 114 approved programs (and 267 non-approved). Today there are 70 approved programs (and approximately 70 non-approved).

In percentage terms, non-approved programs have closed at a substantially higher rate than NCRA-approved programs. Specifically, since 1995, 28% of approved programs have closed, as compared to 73% of non-approved.

² Hewitt, William E. *Video Court Reporting: A Primer for Trial and Appellate Court Judges*. (1991) National Center for State Courts. p.3.

At first, it appeared that mostly private schools were shutting their doors. Today, this is no longer the case. Declining enrollments have resulted in the closure of programs of all sizes and institution type. And it is not simply marginal or weak programs that are closing. Many fine schools are “teaching out” their current reporting students and then will be discontinuing their court reporting programs altogether.”³

As far back as 1998, the Fourth Judicial District started pursuing alternate methods for recording proceedings as a solution to our diminishing pool of available court reporters. A 1994 report, *Computer Aided Transcription*, by William Hewitt and Jill Levy, indicates the Fourth Judicial District is following national trends:

“While alternative methods of court reporting are used primarily in specialized circumstances, they are used to some degree in over 60 percent of general jurisdiction courts.”⁴

A large number of the relevant articles describe processes used to measure the need for alternative court recording methods. Several articles also provide insight on how best to implement new recording systems. My project will go beyond identification and implementation: it will review the impact of the new digital recording system on the Fourth Judicial District.

Many of the aforementioned articles are several years old and reference either tape recording or video recording. I found very little information measuring the specific impact of digital recording. While the recording technologies varied, the types of measurements utilized have been similar and appear to be applicable to digital recording.

A 1983 report entitled, *A Comparative Evaluation of Stenographic and Audiotape Methods For United States District Court Reporting*, outlined its evaluation criteria as

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

⁴ Hewitt, William E, et al., *CAT: Current Technology and Court Applications*, (1994) National Center for State Courts, p.92.

follows: “The evaluation applied four criteria to the performance of audiotape recording of district court proceedings: transcript quality, timeliness of transcript delivery, system operating costs, and ease of use.”⁵

Ten years later, the 1993 report, *Proposed Criteria and Methodology For Evaluation Of Court Reporting Alternatives In The Province Of Ontario*, utilized somewhat different criteria: accuracy of the record, timely completion and filing of transcribed record, system reliability, timely read back or replay of record during trial-court proceedings, mobility and cost.⁶

The 1990 report, *Videotaped Trial Records: Evaluation and Guide*, expanded the evaluation criteria to ten and noted that, “These criteria reflect what previous research and writings on the subject have established as important for evaluating alternative approaches to making the record of trial court proceedings.”⁷

Ten Evaluation Criteria

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

⁵ J. M. Greenwood, et al., *A Comparative Evaluation of Stenographic and Audiotape Methods for United States District Court Reporting*. (1983) Federal Judicial Center.

⁶ David C. Steelman et al., *Proposed Criteria and Methodology for Evaluation of Court Reporting Alternatives in the Province of Ontario*. (1993) National Center for State Courts and Justice Research Institute.

⁷ Hewitt, William E. *Videotaped Trial Records: Evaluation and Guide*. (1990) National Center for State Courts, Publication Number R-117. p 15.

These ten criteria were the most comprehensive. In addition to providing criteria guidance, the *Videotaped Trial Records* report provides structured surveys, pieces of which I have used in my survey tools.

Based on the criteria applications from all of these articles, I have chosen the following criteria to evaluate the Court Record Project: reliability, efficiency, accuracy, accessibility and consideration of the stakeholders.

Several other articles that take a different approach in reviewing alternative record making technologies, have provided further insight that help with this analysis. For example, Lisbeth L. Patterson's report on *Transition from Audiotapes to Digital Technology in the Federal Immigration Courts*, anticipates the benefits of digital recording while examining record storage issues, one of the areas I have included in my analysis. Ms. Patterson also affirmed my research that very few articles have been written specifically about digital record: "My greatest obstacle in this endeavor was the limited information available due to this being such a new technology."⁸

⁸ Patterson, Lizbeth L. *Transition from Audiotapes to Digital Technology in the Federal Immigration Courts*. (2000) National Center for State Courts Publication. P.11

III. Methodology

The research design used to gather data for this report is as follows:

1. Surveys of Fourth Judicial District Judges, Court Reporters, Courtroom Clerks and Attorneys;
2. Collection and analysis of the transcripts.

SURVEYS OF FOURTH JUDICIAL DISTRICT JUDGES, COURT REPORTERS, COURTROOM CLERKS AND ATTORNEYS

I primarily relied on *Videotaped Trial Records, Evaluation and Guide* by William E. Hewitt to determine the types of data and information that should be collected in order to effectively evaluate the Court Record Project. *Videotaped Trial Records* identified appropriate survey questions, which were supplemented by additional questions formulated in response to oral feedback received throughout the year from Fourth Judicial District judges and court reporters. For example, several court reporters reported positive experiences with their central monitor room training. The following specific question was added to the survey in order to determine whether this represented a majority consensus, “I am comfortable handling the responsibilities required of me in the Central Monitoring Room,”

Questions were formulated to garner experience-driven opinions regarding reliability, efficiency, accuracy, accessibility and consideration of the stakeholders. Surveys were distributed to individual email addresses by one of the project’s sponsors, Judge Gary Larson. He invited participants to complete the survey and explained that their feedback would be used to help evaluate and improve the Court Record Project. The email provided a link to the survey. Participants were instructed to open the link and

select the appropriate responses to a list of questions that offered multiple choice answers (See appendix B). The survey was designed to take no more than five minutes to complete and participants were given nine business days to complete the survey. Completed survey answers were automatically collected into a data collection program. After the survey deadline passed, the Research Division sent an electronic summary of the collected responses. These summaries were distributed just two days after the survey deadline (See appendix C).

Surveys were sent to attorneys and courtroom staff who worked in the courtrooms monitored by the Court Record Project. In order to identify the appropriate survey recipient, a request was sent to the supervisors in the affected divisions. They were asked to supply the names and contact information of court staff members and attorneys who frequently worked in the digital courtrooms. Thirty-four courtroom staff members and forty-eight attorneys were identified by those supervisors.

Nineteen of the thirty-four court room staff who received the survey responded, for a 56% return rate (See Table 1.0).

Surveys were sent to forty-eight attorneys, including 9 public defenders, 13 county attorneys, 17 city attorneys and 9 in private practice. Twenty-seven of the forty-eight attorneys responded for another 56% return rate.

Digital recording has impacted all of our judges and court reporters, either directly or through the related experience of those who work close to them. Therefore, surveys were sent to all judges and court reporters in our district. Feedback was sought regarding their experiences and opinions. If the respondents had not had direct work experience, the survey automatically forwarded them to the opinion questions.

We currently have 73.5 staff court reporters and 38 responded to the survey, for a 52% response rate. It should be noted that upon receiving the surveys, TEAMSTER representatives for the Court Reporters expressed some concern about the intent behind the survey. We have not been able to determine whether such concerns discouraged certain individuals from responding to the survey.

We currently have 79 judicial officers, which includes 62 judges and 17 referees. Twenty-two responded to the survey, for a 28% response rate.

Table 1.0

Survey Response Rates

PARTICIPANTS	NUMBER OF SURVEYS SENT	NUMBER OF SURVEY RESPONSES RECEIVED	PERCENTAGE OF RESPONSES RECEIVED
Judicial Officers	79	22	28%
Attorneys	48	27	56%
Court Reporters	73.5	38	52%
Courtroom Clerks	34	19	56%

SURVEY PRETEST

The initial lists of questions were given to the District Court Research Division for review by the Division Director, Dr. Marcy Podkopacz. She offered several proposed language changes to ensure a more balanced approach for comparing the stenographic record with the digital record.

After certain language modifications, the assembled survey was given an initial pretest by members of the Research Division, including: Dr. Marcy Podkopacz, Dr. Deborah Eckberg and Research Assistant Gina Kubits. After securing their satisfaction

with the language and programming configurations, the electronic surveys were distributed to the Court Record Project's administrative team for a second pretest. Those individuals included: James Wehri, IT Administrator; James Anderson, IT Manager and former Court Reporter; Marsha Unthank, Deputy District Administrator; Dawn Currier, Finance Director; Tamara Halonen, Court Record Coordinator and former Court Reporter; Richard Resch, IT Network Specialist; Sandy Shults IT Specialist; Toni Anderson, Court Reporter Scheduling Coordinator and Leah Wermerskirchen, Scheduling Division Supervisor . All of these individuals were closely involved with the Court Record Project planning and implementation. A few additional suggestions for language modification were received and modifications were made.

COLLECTION AND ANALYSIS OF TRANSCRIPTS

Determining the accuracy of the Court Record Project records through careful review of the end product, the transcripts, is vital, thus a group of transcripts were assembled for comparison purposes.

For the past several years the Fourth Judicial District has used analog tapes to provide the record when no stenographers were available. A group of these analog driven transcripts was located, along with a group of transcripts produced from the digital record. The transcripts were scrutinized and the "indiscernible" and "unknowns" were counted. Whenever a court reporter could not understand what was being said on the recorded hearing, the word "indiscernible" was written on the transcript. Whenever a court reporter could not identify who was speaking, the party was identified on the transcript as "unknown."

The search for a representative sample of transcripts began in the Central Monitoring Room. Since the project began in April of 2006, all transcript requests from a recorded courtroom were referred to this location. The Court Record Coordinator maintains a spreadsheet of transcript requests. The spreadsheet indicates the recording method, analog or digital, and identifies the court reporter who was assigned to produce the transcript. In total, the Central Monitor Room has received 255 requests since April. A list identified the ten reporters who had produced transcripts from analog tapes. A second list was made, sorting digital transcripts among the same ten court reporters. Comparisons were intended to be conducted between these two transcript groupings.

Unfortunately, one of the reporters who was very amenable to submitting copies of the transcripts had to leave town for a family emergency. A second reporter did not participate. This left a remaining pool of eight court reporters. All eight court reporters submitted copies of their transcripts within two days after the assistance request.

The analog sampling yielded 535 pages of transcripts. A random digital sampling, which were identifiable on the spreadsheets as similar in size, yielded 536 pages.

IV. Findings

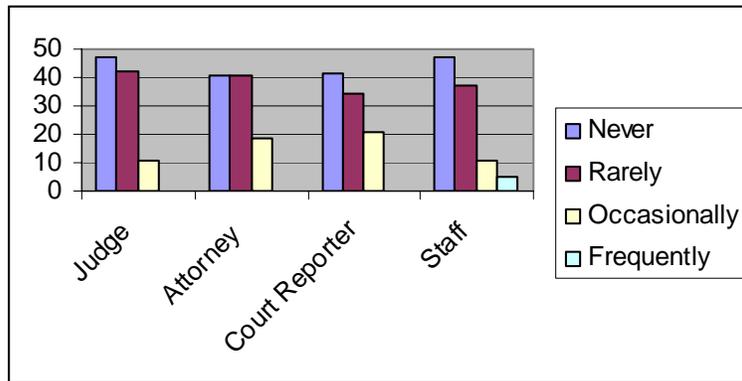
The findings of this report have been cataloged based on the five evaluation criteria: reliability, accuracy, efficiency, accessibility and consideration of stakeholders.

RELIABILITY

The Court Record Project team exhibited strong respect for the importance of providing accurate court records. Because digital recording presented a new mode of operation for us and many individuals expressed apprehension and skepticism, the team made an early decision to scrutinize the newly installed digital system through rehearsal recordings. It became apparent during the first rehearsals that the video was choppy and hard to watch and thus it was determined to increase the bandwidth. The project was put on hold until the upgraded bandwidth could be implemented. These careful planning and rehearsal sessions helped to minimize the risk of equipment failures once the system went operational. Since digital recording began in April, only one instance of equipment failure surfaced: one of our suburban locations had an overnight electrical problem which caused the local servers to short circuit. The vendor provided express delivery for a new server and that location was able to resume recording operations the next day. These planning and rehearsal efforts are recognized in the responses to the question about the equipment functioning properly. 89.5% of the judicial responses indicated they had never or rarely experienced equipment problems that delayed or interrupted proceedings (see Figure 2.1). Similar high marks came from attorneys (81.4%), court reporters (75.9%), and staff, (84.2%).

Figure 2.1

How Often Has a Proceeding Recorded With Digital Equipment Been Delayed, or Interrupted (Digital Equipment Did Not Function Properly)?

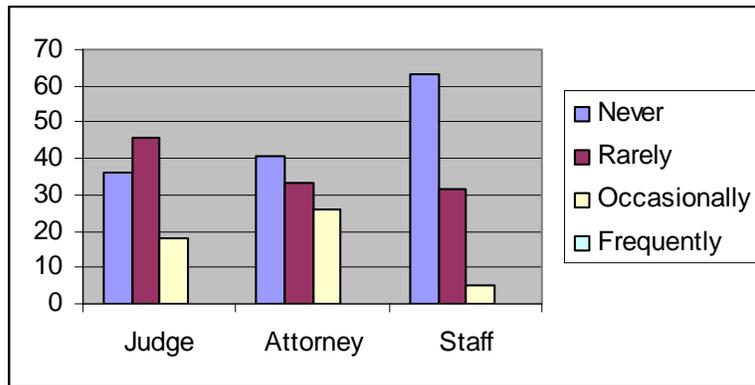


Judge (N=19); Attorney (N=27); Court Reporter (N=29); Staff (N=19)

Fourth Judicial District court reporters have routinely equated professionalism and diligence with reporting to court on time. For several years, court reporters have expressed concern that receiving last minute assignments for reporters who call in sick causes them to be late for court proceedings, especially the suburban locations. They have expressed trepidations regarding the hostility engendered by those waiting for their arrival at the reassignment location. While respecting the reporters' concern for appearing unreliable, survey results from judicial officers, attorneys and staff all give the court reporters high ratings for reliability (see Figure 2.2). Additionally, as shown in Figure 2.3, 65.5% of court reporters indicate they have been able to arrive on time and only 27.6% indicate this is an occasional problem.

Figure 2.2

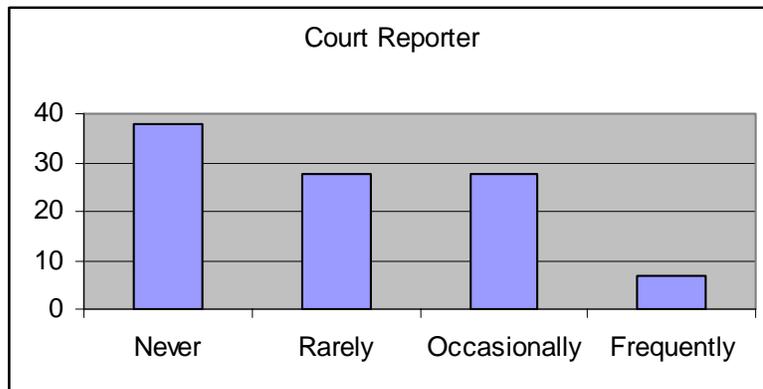
How Often Has a Proceeding With a Court Reporter Been Delayed or Been Interrupted (Court Reporter Was Assigned Late, Unavailable, or Other Situation)?



Judge (N=22); Attorney (N=27); Courtroom Staff (N=19)

Figure 2.3

When You Have Been Contacted for Reassignment, How Often Did the Reassignment Request Cause You To Be Late For the Proceeding?



Court Reporter (N=29)

Since the operational launch of the digital system, there has been only one system failure.

The next question was designed to solicit feedback regarding other situations outside of a system failure, but nevertheless ones that may interfere with court proceedings. Other occurrence reports from staff concerned the courtroom scanners. The

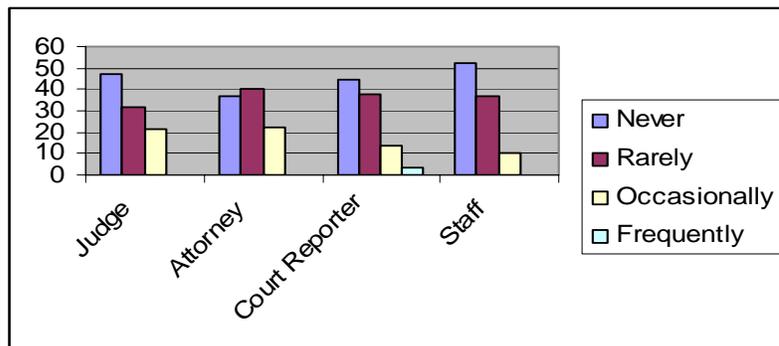
scanners were installed to allow courtroom staff to electronically log court case numbers. More often than not, experience has shown that scanner difficulties are caused by novice users, with the problem usually resolved by further education. Staff was asked to make further comments and one suggested, “Making the cord for the bar sensor a lot longer so it can fit on the desk and it can be moved around.”

Attorneys have acknowledged the need to be more conscious of where they stand in the courtroom. One attorney explained, “It is hard to train oneself to always being in front of a Mic when talking to a witness or the Court. Attorneys talk to witnesses in mid step while we are introducing documents and that will not be caught on the recorder.”

Judicial officers have noted the extra effort they need to provide to keep the court record clear. As one judicial officer commented, “A judicial officer has to make sure parties speak into microphones and do not talk at the same time as others and that other noise in the courtroom cannot be allowed during a hearing.” Even considering these comments, the survey responses in Figure 2.4 show that the digital recording efforts rarely or never interferes with or disrupts court proceedings (79% of judges, 77.7% of attorneys, 82.7% of court reporters and 89.4% of staff agreed).

Figure 2.4

How Often Has the Presence of the Digital Recording Equipment Interfered With or Disrupted Court Proceedings?

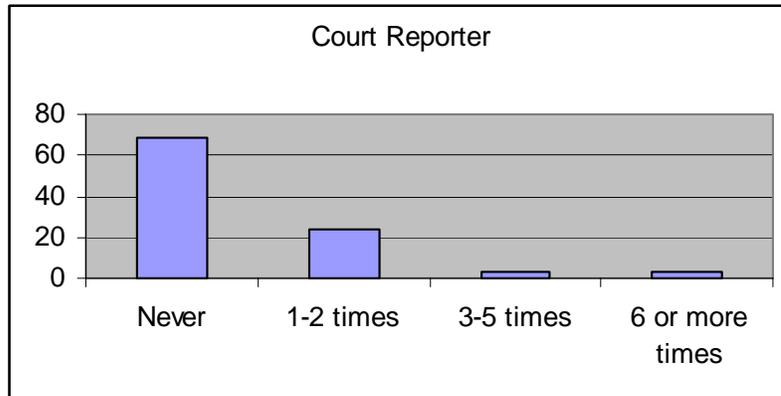


Judge (N=19); Attorney (N=27); Court Reporter (N=29); Staff (N=19)

The responses shown in Figure 2.5, reveal that machine malfunctions rarely cause the digital system to miss portions of the proceedings.

Figure 2.5

Did Some Portion of the Proceeding Not Get Recorded Because of a Machine Malfunction?



Court Reporter (N=29)

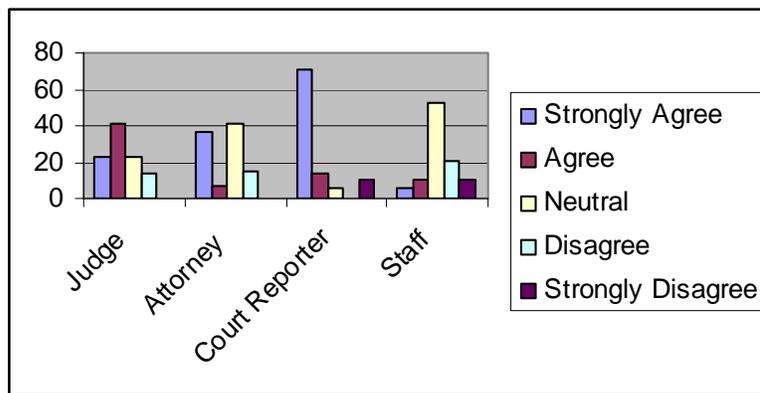
All research initiatives show that digital recording offers the best long term solution for providing records of court proceedings. However, any system needs to develop a reputation that invokes public trust and confidence. Historically, the stenographic record has enjoyed that reputation. With regard to the question addressed in Figure 2.6, high ratings in the neutral category would be desirable because such results would indicate that the digital system has developed a similar reputation.

Several comments from attorneys suggest some confusion between the digital system and the old analog tape system. For example, one comment said, "If parties talk over one another, transcripts become garbled and there is not an accurate digital recording." Educational steps need to be taken to correct these misperceptions. The digital system has sound enhancing techniques, including speaker-isolation, that allow the operator to screen out unnecessary sounds and thus listen just to the person speaking.

Some court reporters also reported concern over the language used in this question. Some thought the question was intended to measure the relative competency of a stenographic court reporter versus that of an electronic court reporter. Instead, the question was intended to gauge reliability perceptions regarding the digital record as compared to the stenographic record. It is not known whether this concern decreased the number of court reporters who responded to the survey.

Figure 2.6

A Court Reporter is More Dependable Than a Digital Record.



Judge (N=22); Attorney (N=27); Court Reporter (N=38); Courtroom Staff (N=19)

EFFICIENCY

Efficiency needs to be considered in two contexts: 1) scheduling resources to make the record during court hearings, and 2) the timeliness of transcript production after the record is made.

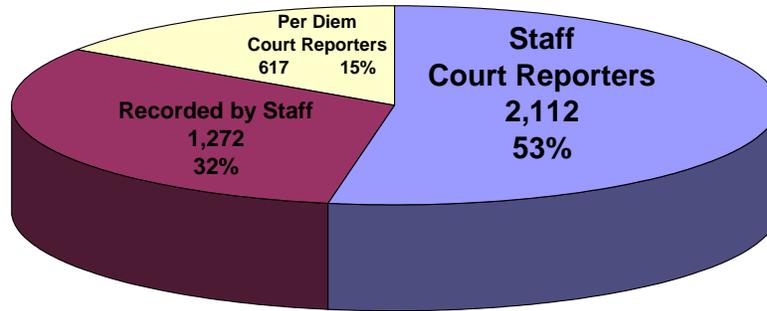
Efficiency can be a facet of the scheduling structure. In the Fourth Judicial District, court reporters are hired and serve at the pleasure of individual judicial officers. They report daily to the judicial officers who hired them, but there are circumstances when court reporters are not available to cover their judicial officers. They may be absent for medical reasons or vacation, or there may be no reporter because the judicial

officer has a vacant position. In such situations, the Fourth Judicial District uses a centralized Scheduling Unit to handle requests to provide substitute court reporter coverage.

The 2005 Scheduling Unit data reveals 4001 requests to provide substitute court reporter coverage (See Figure 3.1). Thirty-two % of the time (1,272 separate incidents), a staff or per diem court reporter was not available to cover the request and thus a court staff member was instructed to run the analog tape system in the courtroom. It was quite common for such instruction to come as a last minute request. During 2005, two calendars consistently used analog recording and it became a planned recording event. The planned analog sessions accounted for 500 recording events, leaving 772 unscheduled recording sessions during 2005. Planned analog recordings brought some relief from last minute requests to court staff to record calendar sessions.

Scheduling Unit records indicate that since April 2006, when the digital system became operational there were 48 unscheduled recording sessions where additional calendars had to be covered by the Court Record Project because there were insufficient court reporters available.

Figure 3.1



**2005 Coverage Requests:
4,001 Total Requests**

Despite the digital recordings, typed transcripts continue to be the official record in the Fourth Judicial District. Court reporters produce these transcripts after business hours and charge per page for transcript production. Whenever a party wishes to obtain a transcript from a court proceeding that was handled by an in-court court reporter, the specific reporter is contacted. Requests for transcripts from the old analog tapes were handled by the Scheduling Unit. Once a request was received, the Scheduling Unit located the tape and a court reporter who was willing to produce the transcript. Only a few staff court reporters were willing to produce transcripts from analog tapes. Many court reporters considered the condition of the analog record to be poor, and the amount of time necessary to produce a transcript from those records was not worth the compensation. The new Central Monitoring Room staff now handles all transcript requests for both analog and digital recordings.

Many of the case types handled by court reporters in the courtroom are similar to digitally recorded sessions. The pronounced difference is that staff court reporters also handle criminal trials, while the digital record handles first appearances for criminal,

housing and juvenile cases. The digital record also records child support magistrate hearings.

The transcript processing chart below (See Table 2.0) sheds light on the efficiency achieved in producing transcripts. Efficiency is maximized by immediate access to the Central Monitoring Room for transcript requests. The Court Record Project is open to receive requests Monday through Friday, from 7:30a.m. to 5:00pm. When a request is received, staff accessed the hearing electronically on the digital database. The audio from the hearing is then burned onto a CD and the CD is then sent to the court reporter to produce a transcript.

Once the appropriate court reporter is selected to produce the transcript, the production process is the same for both stenographic and digital transcript requests.

As a group, the Fourth Judicial District Court Reporters agreed upon an arrangement for selecting the appropriate reporter to produce the transcript. The court reporter noted on the record as the monitoring reporter for the particular hearing is given the first call to produce the transcript. When the monitoring reporter is unavailable, the transcript request is distributed to the next available court reporter who is interested in producing transcripts.

If the hearing was held in the presence of a court reporter, the requesting party first contacts the judicial officer's chamber to make the transcript request. The request could become problematic if the reporter is on vacation or unavailable.

Table 2.0

Transcript Process Chart

Record Management:

1) All methods except digital.

Court Reporters keep personal files of all proceedings reported. Stenotype and stenotype CAT reporters keep recent paper notes or computer disks stored in their office and other notes are stored off site in storage facilities. Electronic reporters keep recent analog tape recordings in their office and other tapes are stored off site in storage facilities. Analog tapes that are produced by court staff are retained at the court locations where the hearings were held. Court reporters carry the responsibility for managing their records. For analog tapes that are produced by court staff, the managers at those locations are responsible for the custody of those records.

2) Digital

Digital sound recordings are stored on the court's network. The network will store approximately one year of audio files. Audio files older than one year are stored off site and are accessible within 24 hours.

Types of hearings/cases

1) All methods except digital

- Misdemeanor and Gross Misdemeanor Pretrials
- Trials
- Felony Pretrials
- Criminal Pleas and Sentencing.
- Civil trials
- Probate,
- Mental Health,
- Family
- Juvenile Trials and Motions.

2) Digital

In addition to the types of events listed above, the following events are recorded digitally. (These events were identified by the 2002 court reporter focus group as being optimal for recording since they received the fewest amount of transcript requests.)

- First appearances: Misdemeanor/
Gross Misdemeanor and Felony
- Civil motions
- Child Support Magistrate hearings,
- Housing,
- Implied Consents,
- Traffic Court Trials,
- Juvenile Detentions, [juvenile detention hearings]
- Family Settlement Program,

Transcript Requests:

1) Stenotype/electronic court reporters

Requesting parties contact the chambers of the judge who heard the proceeding. They are referred to the court reporter currently assigned to that specific judge. If the court reporter is not on vacation or away from the office, they are able to receive the request. The court reporter will first determine if they served as the reporter of record for the requested hearing. If they did not, they refer the requesting parties to the reporter of record.

Once they determine they served as the official reporter, they take steps to locate their records. Recent records are typically stored in the reporter's office and others are stored off site in storage facilities. The size of the record will give them a general idea on the length of the transcript and they will be able to assess an upfront deposit from the party. If they do not have the time to produce the transcript they will subcontract the request to another C.R. or scopist.

2) Digital

The requesting parties fill out a transcript request form and mail or fax it to the Court Record Office. This office is staffed daily from 7:30am to 5pm and requests are processed immediately. Spreadsheets are maintained documenting court room sessions as well as names of court reporters operating system on a daily basis. It is the practice of the Court Record Office to give the court reporter that monitored the proceeding the opportunity to make the transcript. If that specific reporter is out of the office the request is sent to an alternative court reporter. Requests for transcripts are kept on a spread sheet so the Court Record staff is aware of existing transcripts and the ability to provide copies of previously completed work.

As soon as the request is received, the Court Record staff is able to burn a record to a CD. When downloading the digital file it will reflect how many minutes the proceeding required. Transcripts are estimated at approximately 1 page per minute of recording. This provides information for cost estimations. The request is then sent out to the appropriate court reporter for production of a transcript.

Transcript Production:

1) Manual Stenotype records

Paper notes require direct typing or dictation. The C.R. reads their notes into a dictation machine. A transcript is made from that dictation or they type them while reading their paper notes.

2) CAT stenotype records

A CAT C.R. is able to retrieve their records from a disk. The records stored on CAT are formatted in a basic transcript context. A transcript is prepared from a CAT system by editing the contents on a computer.

3) Electronic C.R. records

The C.R. will type the transcript while listening to the audio recording.

4) Digital records

The C.R. will either type the transcript from the audio record, or they will steno the audio file into their CAT system and prepare the transcript via the CAT system.

Transcript Delivery:

1) All methods except digital.

Once the transcript is prepared it is delivered to the party.

2) Digital transcripts

Once the transcript is prepared it is delivered to the party. The C.R. returns the CD and transcript request information to the Court Record office.

Transcript procurement continues to be arranged between the court reporters and the requesting parties. To date, we have not tracked the amount of time court reporters spend producing transcripts. The situation at the Fourth Judicial District today appears to be very similar to what was occurred back in 1994, more than ten years ago: “no more than one-fifth of the trial courts maintain data that are necessary to establish management control over transcript timeliness and cost....When trial judges or court managers are asked about this directly they usually observe that transcript arrangements are matters of private business between lawyer and reporter and, perhaps the courts of appeal.”⁹

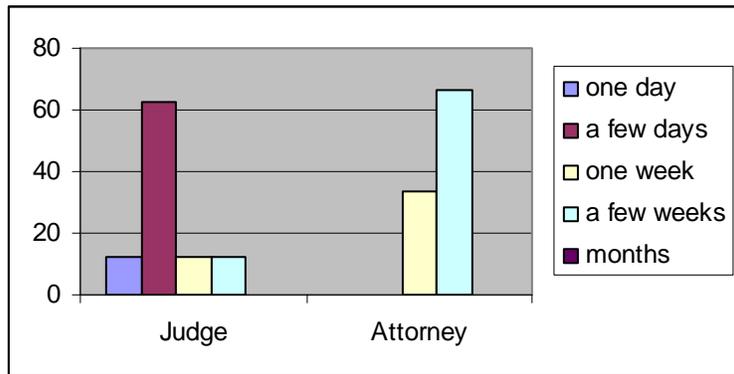
Because we have not tracked actual transcript production time, it is important to note that survey questions in this category are limited to opinions rather than actual measurements. The Court Record Monitoring staff has added a tracking category to their transcript production forms and have asked all court reporters who produce transcripts from digital records to record when the transcripts are delivered to the parties.

Transcripts from court reporters’ stenographic notes are perceived to be faster than transcripts from digital records (See Figure 3.3). 88.9% of the judges polled, indicated they can receive transcript from court reporters within a few days. 31.6% of attorneys also report that they can receive transcripts within a few days. In contrast, when using the Court Record Project, 75% of the judges indicate they receive transcripts within a few days, while 100% of the attorneys suggested that they must wait from one to a few weeks to obtain transcripts through the Court Record Project (See Chart 3.2). It should be noted here that the limited number of responses to this question makes it difficult to report a statistically supportable finding for judges and attorneys.

⁹ Hewitt, William E. et al., *Computer-Aided Transcription*, (1994) National Center for State Courts, p.100-101

Figure 3.2

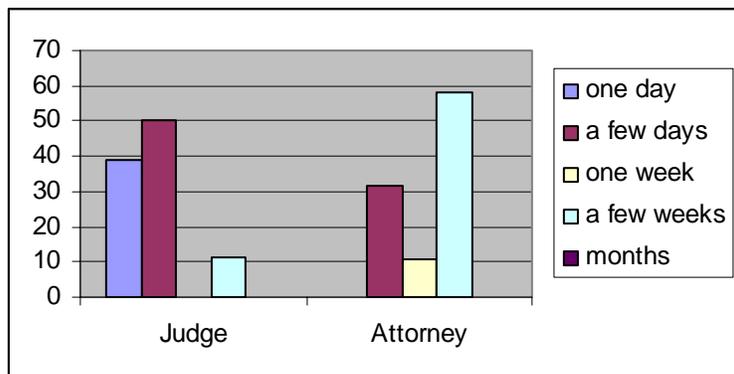
On Average, How Long Does it Take to Get a Transcript From a Digital Record?



Judge (N=8); Attorney (N=6)

Figure 3.3

On Average, How Long Does it Take to Get a Transcript From a Court Reporter?



Judge (N=18); Attorney (N=19)

ACCURACY

Two methods were used to evaluate accuracy in providing a court record. First, transcripts produced from recorded sessions, analog as well as digital were evaluated and compared. Second, survey questions addressed accuracy.

The search for transcripts to conduct reviews of analog vs. digital, begins with the Court Record Project transcript database. All requests for transcripts are registered in the database, which includes such information as the date the request was made, which court

reporter received the request, whether the record came from an analog or digital source and comments received from court reporters regarding difficulties they experienced producing the transcript. The database currently has 255 requests. Of those, 29 requests sought transcripts from analog tapes, while the remainder sought transcripts from digital records. Three of the 29 analog requests could not be honored because the tapes could not be found at the location where the proceeding occurred. The remaining analog entries generated several comments regarding the poor condition of the analog recording. Similar entries could not be found with the digital record requests.

Despite this disparity in the comments, Table 3.0 illustrates that the number of “indiscernible” and “unknown” indicators from both analog and digital transcripts were fairly consistent. In fact, the transcripts produced from digital records showed slightly higher counts for “indiscernible” and “unknown” occurrences.

Table 3.0

Transcript Comparison Chart

Analog Tape				Digital Recording			
	Pages	Indiscernible	Unknown		Pages	Indiscernible	Unknown
1A	9	0	0	50F	4	0	0
2B	9	0	0	51G	18	0	0
3C	6	0	0	52G	13	0	0
4D	22	1*	0	53G	21	0	0
5D	17	0	0	54G	68	1	0
6D	13	1	0	55G	20	0	0
7D	15	1	0	56G	26	0	0
8D	7	0	0	57G	51	3	0
9D	8	2	0	58G	12	0	0
10E	4	0	0	59G	6	0	0
11F	44	3	0	60G	22	0	0
12G	24	0	0	61G	63	0	0
13G	240	3	0	62G	3	0	0
14G	21	1	0	63G	4	0	0
15H	5	0	0	64H	29	1	0
16H	18	0	0	65H	25	2	0
17H	4	3	0	66H	7	3	0
18H	21	0	0	67H	34	5	1
19H	19	1	0	68H	9	0	1
20H	7	0	0	69H	23	0	0
21H	13	2	0	70H	50	3	0
22H	31	1	0	71H	28	0	0
Total:	535 pgs	18 Ind	0 Unk		536 pgs	18 Ind	2 Unks

Analog Tapes numbered 1-22

Digital Records numbered 50-71

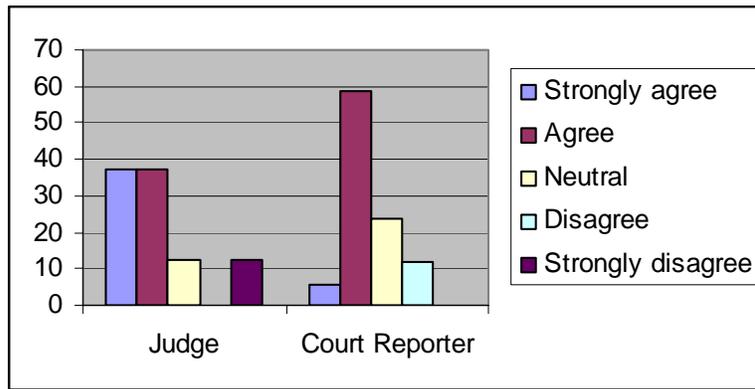
Court Reporter identified by letters A-H

*Transcript indicates one indiscernible, tape was turned off for a portion of the hearing and it is not possible to determine how much of the record was lost. Due to the inability to calculate actual loss, this transcript is not included in total figures.

In Figures 4.1 and 4.2, the majority of judges and court reporters who had experience listening to digital recordings said they “agree” or “strongly agree” that the recordings were clear and accurate, but the relatively small number of responses limits the ability to make a conclusive finding.

Figure 4.1

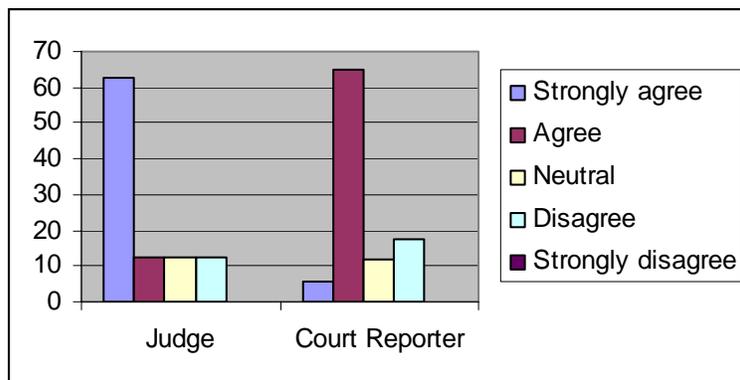
The Audio From the Digital Record Provided a Clear Record of the Proceeding.



Judge (N=8); Court Reporter (N=17)

Figure 4.2

The Digital Record Made an Accurate Record of the Proceeding.



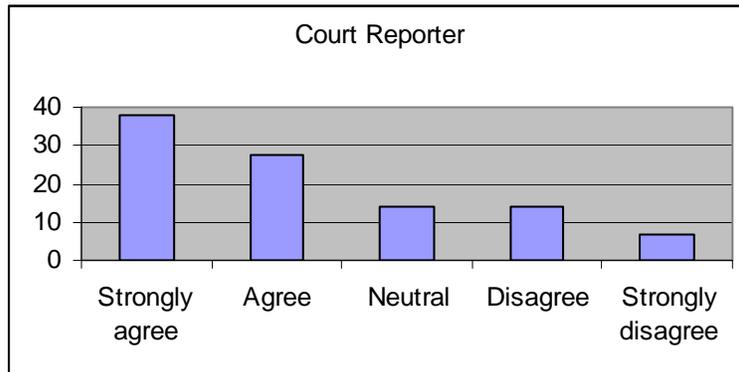
Judge (N=8); Court Reporter (N=17)

Survey results from court reporters show that 64.7% agreed or strongly agreed that the digital recording provided a clear record and 70.6% agreed or strongly agreed that the digital recording made an accurate record of the proceeding. It is interesting to

note that 65.5% of court reporters felt that inaudibility is frequently a problem in the courtroom (See Figure 4.3).

Figure 4.3

Inaudibility if Often a Problem in the Courtroom

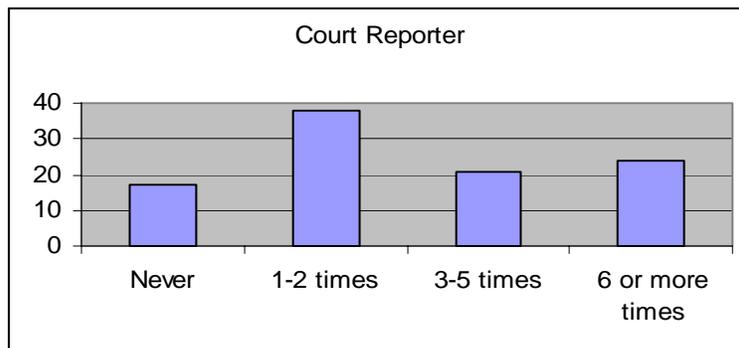


Court Reporter (N=29)

Due to the contradictory nature of those responses, further analysis should explore whether the “inaudible” problem is the result of courtroom procedure or the digital system itself. A few negative experiences regarding the process were also expressed in responses to the question regarding whether the court clerks ever failed to notify the Central Monitoring Room when sessions began, resumed or were recessed (See Figure 4.4).

Figure 4.4

When Working in the Central Monitoring Room, Has the Court Clerk Ever Forgotten to Notify You (Session Began, Resumed, Recessed, etc.)?

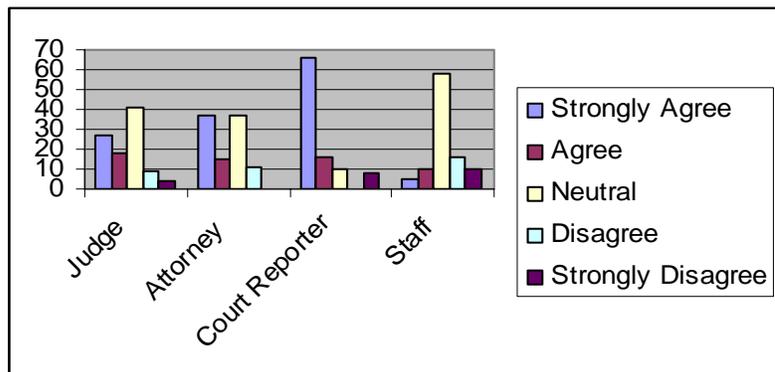


Court Reporter (N=29)

The final survey question regarding accuracy compares the record prepared from court reporters versus digital recordings. In Figure 4.5, a majority of judges, attorneys and court reporters opined that records from court reporter notes were more accurate than records from digital recordings, while staff appeared to be neutral. While judges and court reporters with experience listening to digital records believe they are clear and accurate, additional comments suggest this view is tied to the court reporter’s ability to assist with the courtroom process. An attorney noted that, “If testimony is garbled or inaudible, a court reporter can ask that it be clarified; digital recording can’t do that.” While a court reporter explained that, “I think there are still some training issues with regard to judges/clerks. For example, making sure speakers identify themselves, un-un and uh-huh’s, overlapping speakers, quiet speakers.” A judge comments that, “I think I developed some bad habits with the recorder that my reporter is going to have to fix (allowing people to talk over each other).” All of these scenarios need to be addressed with further education for judges, attorneys and court staff.

Figure 4.5

A Court Reporter Makes a More Accurate Original Record Than a Digital Record.



Judge (N=22); Attorney (N=27); Court Reporter (N=38); Courtroom Staff (N=19)

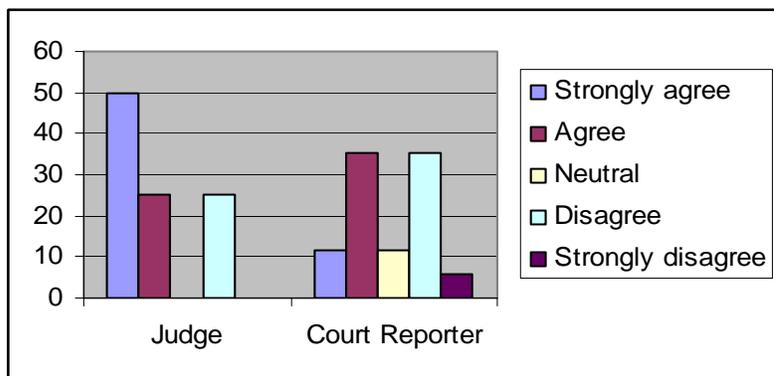
ACCESSIBILITY

Several accessibility issues have already been addressed in the “efficiency” section.

In addition to examining timeliness in obtaining a court record, the survey also asked experienced judges and court reporters about the ease in using CD records (See Figure 5.1). Once the court proceeding is burned onto a CD, the Court Record Project staff sends it to the requesting judge or court reporter, along with an instructional listening guide. The CD can be listened to on any computer with Microsoft software, as well as any typical CD player, such as those installed in most motor vehicles. 75% of the Judges and not quite half of the court reporters agreed or strongly agreed that it was not difficult to review the audio record.

Figure 5.1

It Was Not Difficult for me to Review the Auditory Records of the Proceedings.

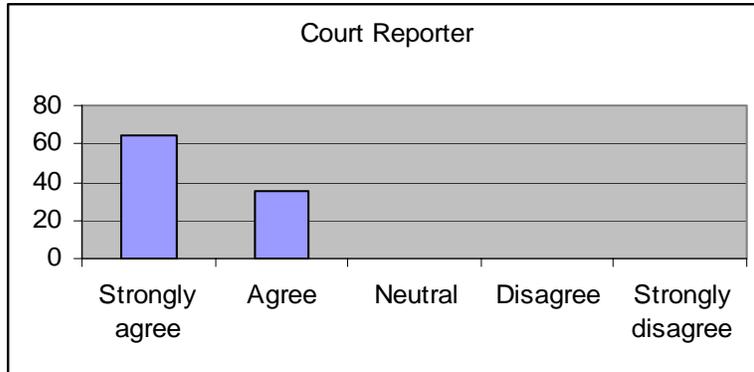


Judge (N=8); Court Reporter (N=17)

The limited number of judges and court reporters responding to this question did not have problems obtaining CD’s or relevant materials from the Court Record Project in a timely manner.

Figure 5.2

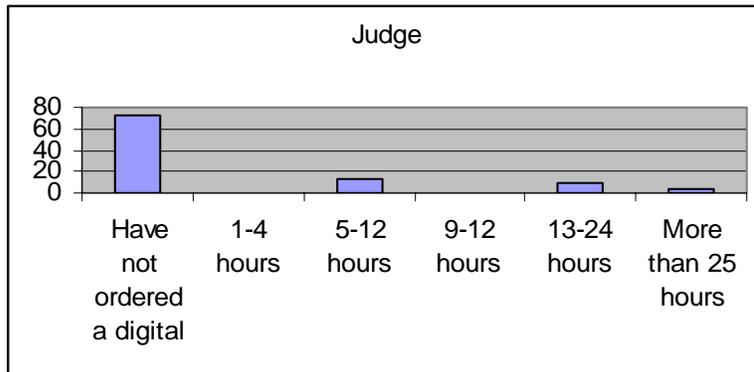
When Preparing a Transcript from a Digital Record CD, I Have Been Provided With the CD and all Relevant Information on a Timely Basis.



Court Reporter (N=17)

Figure 5.3

In My Experience With Requesting an Audio Recording on a CD, I Have Generally Received the CD Within:



Judge (N=22)

CONSIDERATION OF STAKEHOLDERS

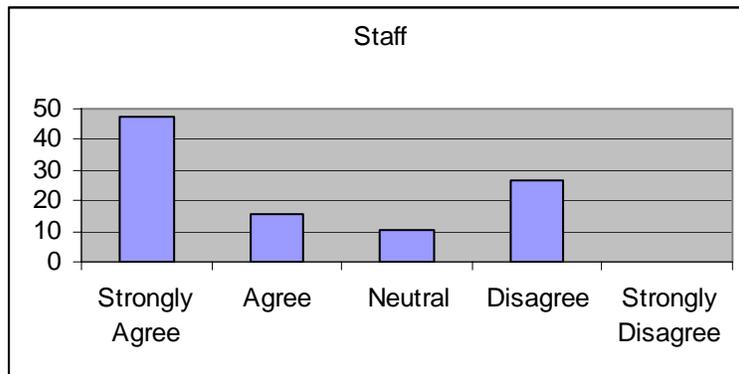
In order to provide a system that generates trust and confidence, the needs and considerations of the stakeholders must be considered.

Review of the responses from court room staff, as illustrated in Figures 6.1 and 6.2, indicates that a majority feel comfortable handling the digital system and feel that

their responsibilities are less than those required of them when operating an analog tape system.

Figure 6.1

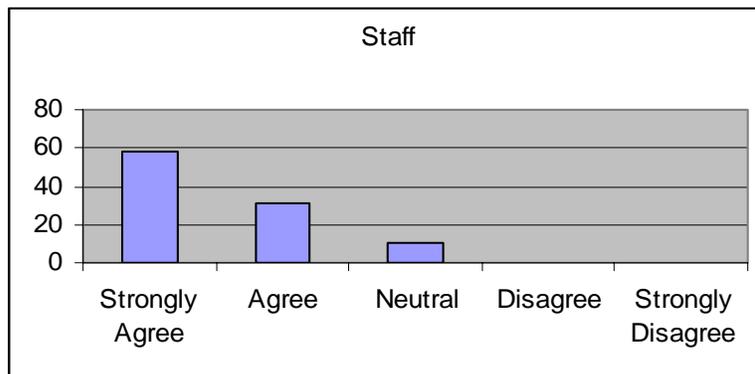
My Responsibility in Using the Digital Recording System is Less Than the Responsibilities Operating a Tape Recorder.



Courtroom Staff (N=19)

Figure 6.2

I am Comfortable Handling the Responsibilities Required of Me in Using the Digital Recording System.

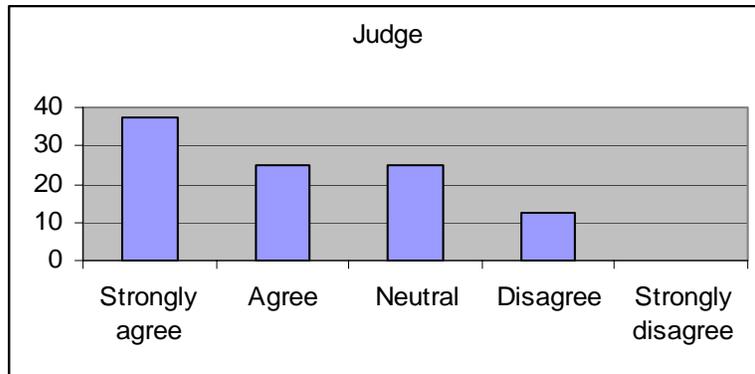


Courtroom Staff (N=19)

A majority of judges (62%) appreciate the court record system's ability to provide audio recordings for review purposes, but only eight judges responded to this question. The limited number of responses is insufficient to make a definitive determination (See Figure 6.3).

Figure 6.3

I Like the Court Record System's Ability to Provide Me With an Audio Recording for My Own Review Purposes.

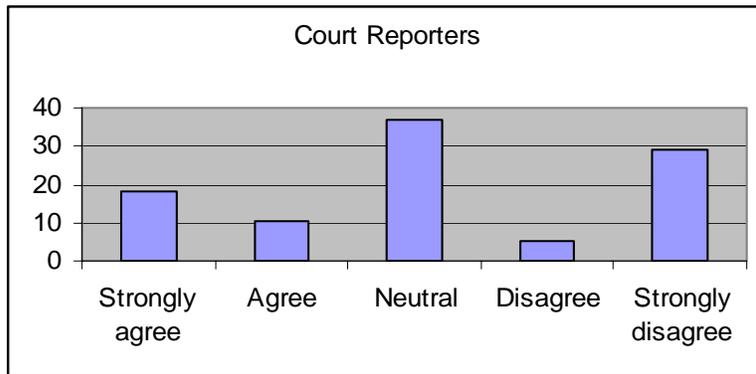


Judge (N=8)

The new digital system has impacted the court reporters most with respect to the new scheduling practices. Feedback from many reporters suggests that they appreciate not having to travel to the suburbs after they arrived downtown for work and thus can plan to ride the bus to work. Figure 6.4 shows that only 28.9% appreciate not having to travel to the suburban locations, but this apparent discrepancy may be related to the difference between commuting directly to the suburbs from home, versus commuting downtown and then having to make a last minute switch to the suburbs. The suburban court locations are pleasant facilities and it is understandable that reporters enjoy working at those locations. The difficulties experienced by the Scheduling Unit occur with last minute requests for coverage. If a court reporter that is scheduled to work at a suburban location calls in sick, the Scheduling Unit needs to make at least ten contacts to various reporters before one can be found who will travel the 20 mile distance to the suburbs.

Figure 6.4

I Appreciate Not Having to Travel to the Suburban Court Locations.

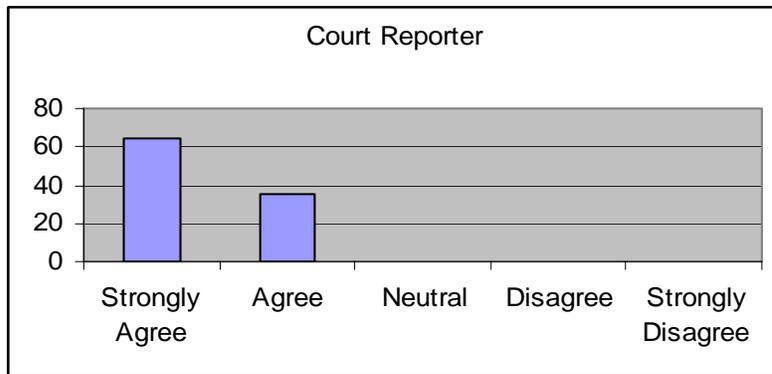


Court Reporter (N=38)

Court reporter responses indicate they have received adequate training for the digital system, and 100% felt comfortable handling the responsibilities required of them in the Central Monitoring Room.

Figure 6.5

I am Comfortable Handling the Responsibilities Required of me In the Central Monitoring Room.

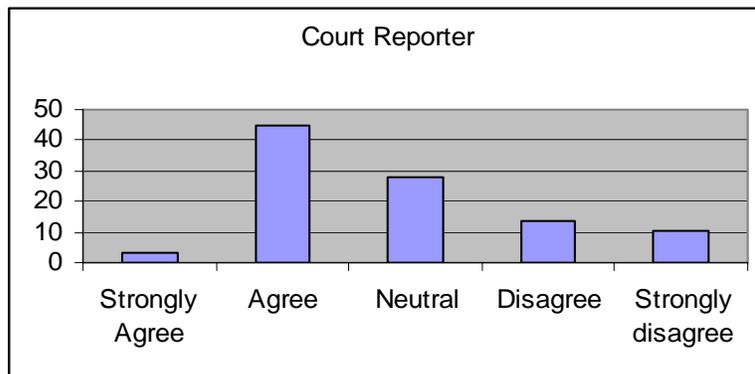


Court Reporter (N=17)

In examining the physical impact on court reporters, almost half, or 48.2%, feel that the physical demands of the Central Monitoring Room are less strenuous than spending a day in the courtroom (See Figure 6.6).

Figure 6.6

The Physical Demands of Spending a Day in the Central Monitoring Room Are Less Strenuous Than Spending a Day in the Courtroom.

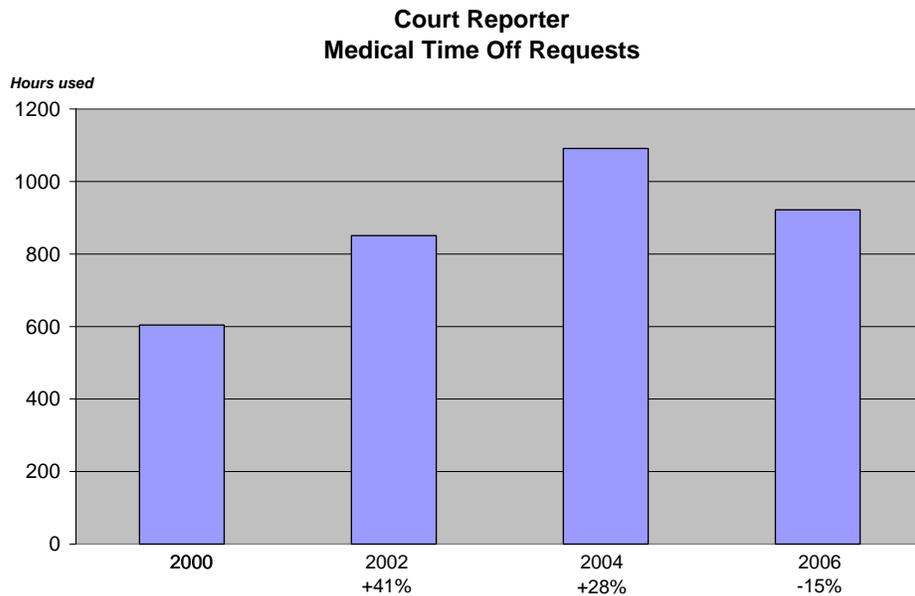


Court Reporter (N=29)

In order to determine whether the less strenuous physical demands translated into better health, numbers of medical time-off requests received by the Scheduling Unit were tallied (see Figure 6.7). Records were reviewed starting in 2000, and since then, there has been a steady increase in the number of medical related time-off requests. There was a 41% increase between 2001 and 2002, and a 28% increase between 2003 and 2004. After the Court Record Project was implemented in 2006, there has been a 15% decrease in the number of medical related time-off requests from court reporters. This study did not have access to personal medical records in order to take an in-depth look and to determine whether other reasons exist that might explain the decline. Human Resources managers concluded that individual medical records could not be accessed for

confidentiality reasons. It may well be that equating the decrease in medical related time off requests to the Court Record Project is a halo assumption.

Figure 6.7



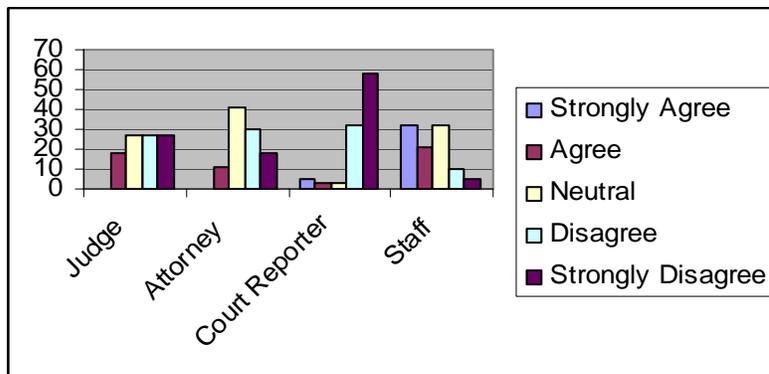
The general questions posed about digital records and whether they improve the quality of litigation, are more orderly and have more advantages than disadvantages, produced findings that comport with those already noted regarding accuracy. A majority of judges, attorneys and court reporters do not agree that digitally recorded proceedings are more orderly and improve the quality of litigation. Staff does not concur (See Figure 6.8 and 6.9).

The general questions that showed the greatest amount of change were those that asked individuals' about their attitude toward the digital system. In response to the following question "When digital recording was first announced in the court, how would you describe your reaction?" (See Figure 6.10 and 6.11), a majority of the judges, attorneys and court reporters expressed skepticism or a high degree of skepticism. In response to the follow-up question, "Now that the system has been in place for several

months, what is your overall attitude?”, negative views regarding digital recording were substantially reduced. Negative responses by the judges, which began at 54.5%, dropped to 13.6% after several months. Negative responses by attorneys, 51.8%, dropped off to 25.9%. 81.5% of court reporters who were skeptical initially eventually found favor and only 28% had negative attitudes after several months of operation (See Figure 6.12).

Figure 6.8

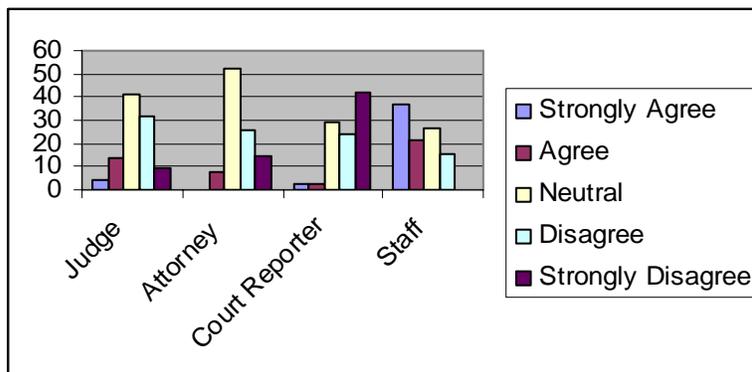
Proceedings Where Digital Recording is Used are More Orderly.



Judge (N=22); Attorney (N=27); Court Reporter (N=38); Courtroom Staff (N=19)

Figure 6.9

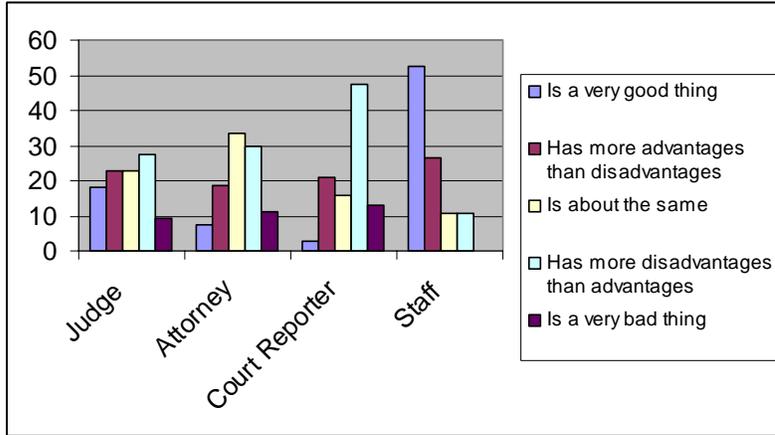
Having Digital Records of Proceedings Improves the Quality of Litigation.



Judge (N=22); Attorney (N=27); Court Reporter (N=38); Courtroom Staff (N=19)

Figure 6.10

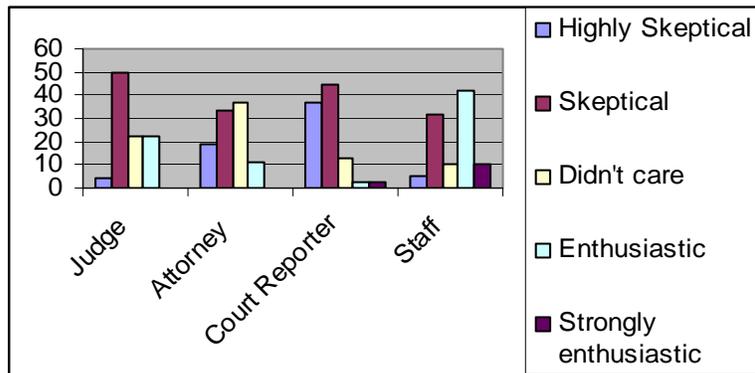
Considering Everything, I Think Making a Digital Record of Court Proceedings:



Judge (N=22); Attorney (N=27); Court Reporter (N=38); Courtroom Staff (N=19)

Figure 6.11

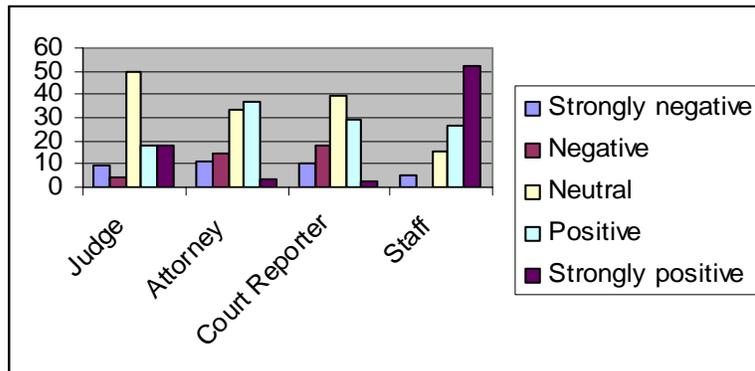
When Digital Recording was First Announced in the Court, How Would You Describe Your Reaction?



Judge (N=22); Attorney (N=27); Court Reporter (N=38); Courtroom Staff (N=19)

Figure 6.12

Now That the System Has Been in Place for Several Months, What is Your Overall Attitude?



Judge (N=22); Attorney (N=27); Court Reporter (N=38); Courtroom Staff (N=19)

V. Conclusions and Recommendations

CONCLUSIONS

Minnesota continues to follow the national trend of chronic court reporter shortages. Digital recording offers the best option for supplementing traditional stenographic records.

Installation of a digital recording system in the Fourth Judicial District has provided daily coverage relief. Last minute reassignment requests directed at stenographic recorders have been reduced from 772 in 2005 to 48 in 2006.

The new digital system has proven to be operationally reliable. 89.5% of judges responding to the surveys indicate that they have never or rarely experienced equipment problems that delayed or interrupted a proceeding. Similar high marks were received from attorneys (81.4%), court reporters (75.9%), and staff (84.2%).

Those monitoring the system have reported one system failure in the last eight months and it was attributed to an equipment problem outside of the court's control and the equipment was quickly replaced.

Judges and court reporters who have listened to the digital recordings report that they are clear and accurate. They also report receiving the record of materials from the Court Monitor Project in a timely manner.

Training for staff and court reporters has been successful. A strong majority of staff (89.5%) and court reporters (100%), indicate comfort in handling the responsibilities required of them by the digital system.

A majority of court reporters indicate that spending a day in the Central Monitoring Room is less strenuous than spending a day in the courtroom. Consistent

therewith, the Scheduling Unit reports a 15% decrease in the amount of medical requests received from court reporters in 2006.

After several months of operation, the digital system has seen a marked reduction in skepticism from judges, court reporters and attorneys. Initial negative reactions have substantially abated. Negative responses from judges, which began at 54.5%, dropped to 13.6% after several months. Negative responses from attorneys dropped from 51.8% to 25.9%. 81.5% of court reporters were skeptical at first, but that dropped to 28% after several months of operation.

The efforts of those who put in substantial effort implementing the digital system must not go unrecognized.

Nevertheless, survey results and research show that more work is needed to improve the system.

A majority of judges (63.6%), attorneys (44.4%) and court reporters (84.3%) still believe that a stenographic record is more reliable than a digital record.

While the process for requesting a transcript from digital records has been streamlined, the timeframe remains less fast than receiving transcripts from stenographic records. This is impart attributable to the fact that access to transcripts can be delayed due to court reporter unavailability

Judges and court reporters given high marks to the clarity of the digital audio recordings yet just as many “indiscernible” and “unknowns” are produced as is the case with analog tapes.

Judges, attorney and court reporters have expressed concerns with regard to “inaudibility” problems, but these concerns have been tied to courtroom processes rather than the equipment itself. Nevertheless these concerns should be addressed.

At this stage of the Court Record Project implementation, court reporters and staff have received training, but the judicial officers and attorneys have not.

The general survey questions asked of judges, court reporters and attorneys regarding whether digital recording improves the quality of litigation, are more orderly and has more advantages than disadvantages, have not produced positive responses. Staff disagree and finds improvement in these areas.

RECOMMENDATIONS

1. Focus groups should be set up with all partners to identify specific issues and struggles incurred in working with the digital recording system.
2. An education program should be designed for judicial officers and attorneys to help them better work with the digital recording system.
3. Court staff should be invited to an open house at the Central Monitoring Room to help them gain a stronger sense of the system’s capabilities and learn how their efforts contribute to its success.
4. A court reporter workgroup should be established to review courtroom situations that generate “indiscernible” and “unknowns” in transcripts. A support process should also be established to provide assistance in listening to difficult audio records.

5. All analog tapes that are now stored at divisional locations should be cataloged and sent to a centralized storage location. Tracking and access to those tapes should be conducted by the Central Monitor staff.

6. An electronic copy of transcripts produced from the digital records should be filed with the Central Monitor staff.

Fourth Judicial District

Policy Source: Executive Committee
Category: Human Resources
Title: Court Reporter Policy
Effective Date: February 26, 2003
Revision Date(s):
Supercedes:

Court Reporter Policy

Official Court Reporters Will:

1. Be available to substitute in other courtrooms during the time his or her judge is absent unless the Reporter has submitted a timely vacation/medical request. Transcripts or other duties do not exempt a reporter from reassignment.
2. Be reassigned as equitably as possible. When possible Court Reporters will be reassigned in the building in which they normally work. Court Reporters may not decline an assignment, nor can they utilize untimely time-off requests to avoid an assignment. Timely time-off requests must be received in the Scheduling Unit seven days prior to the requested date.
3. Report to their office, dressed appropriately and responding immediately to telephone calls from the Scheduling Unit for reassignment by 8:30 A.M., unless they are on approved leave. Normal work hours are considered to be 8:30 A.M. to 5:00 P.M.
4. Make and leave instructional guidelines as to what is expected of their replacements when the official is gone. These guidelines should cover the following:
 - Check-in with the judicial officer regarding daily schedule (also see #9).
 - Protocol for requesting a break.
 - Protocol for interrupting if speakers are not intelligible.

- Expectations with respect to the role of the Court Reporter in courtroom (swearing-in witnesses, marking exhibits, saying, “all rise”, etc.).
 - Office tasks that replacement reporter is expected to perform.
 - Protocol to be followed when answering the phone.
 - Expectations regarding the reporting of civil motions and phone conferences.
 - Protocol if the calendar allows, may a reporter stay in his/her office until the reporter’s services are needed? If so, may the reporter also return to his/her office upon completion of the calendar?
 - Protocol in the event the calendar settles or is resolved early and the replacement reporter is not needed, the replacement reporter should be directed to contact the Scheduling Unit immediately.
5. Court Reporter vacation and sick leave will be in conformity with Bench Policy, State of Minnesota Personnel Rules, and the Union Contract.

Per Diem Reporters:

6. Judges will not expect Per Diem reporters to work outside normal working hours.
7. Per-Diem reporters will be given instructions to leave their name, address, phone number and reporter notes at the office of the reporter they replaced for after-service contact.

Bench Policies & Procedures:

8. Any substitute or per diem reporter released by the judicial officer shall contact the Scheduling Unit for possible reassignment.
9. In complying with Judicial Branch and State Personnel Policy, Judges should advise all Substitute or Per Diem reporters of start time, approximate break times, length of break and end time of work day. A Judge should not plan on working beyond normal hours unless it has been jointly agreed to with the Court Reporter.
10. The Signing Judge, and Judges assigned to designated calendars as defined by Bench Policy, shall make their reporter available for reassignment.**
11. In the event a Judge’s calendar is resolved, the Judge shall share their reporter.

12. For emergency replacement situations contact the Scheduling Unit for assistance.
13. Any Judge or Court Reporter requesting deviation from these guidelines is directed to contact the Court Administrator.

** The Bench Policy for reassignment, if no other reporter is available, is:

Consistent reassignment sites: Harassment, Arbitration, Housing

Frequently reassigned reporters: Signing, OCM, Juvenile Detentions, ICM, Suburbs.

Potential additional reassignment sites: DA (criminal), FEL, Civil Motions, Juvenile Status, Family Paternity (reduce to 1 reporter for Referees), Mpls Court Trials (will need to identify permanent location for equipment).

A certified electronic equipment operator will be assigned to these calendars.

Judicial Officer Questions

1. Approximately how many years have you been a Judge? _____ years.

2. During the past year, approximately how many times have you presided in a digital courtroom in Hennepin County District Court?

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

3. How often has a proceeding recorded with digital equipment been delayed, or interrupted? (Digital equipment did not function properly)

Never	Rarely	Occasionally	Frequently
1	2	3	4

4. How often has the presence of the digital recording equipment interfered with or disrupted court proceedings?

Never	Rarely	Occasionally	Frequently
1	2	3	4

5. How often has a proceeding with a court reporter been delayed or been interrupted? (Court reporter was assigned late, unavailable or other situation)

Never	Rarely	Occasionally	Frequently
1	2	3	4

6. How often have you listened to a digital recording?

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

If you have listened to a digital record for review purposes, please tell us the extent to which you agree or disagree with the following statement:

7. The digital record made an accurate record of the proceeding.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
----------------	-------	---------	----------	-------------------

8. The audio from the digital record provided a clear record of the proceeding.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
----------------	-------	---------	----------	-------------------

9. It was not difficult for me to review the auditory record of the proceeding.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
----------------	-------	---------	----------	-------------------

10. I like the court record systems ability to provide me with an audio recording for my own review purposes.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
----------------	-------	---------	----------	-------------------

11. During the past year, how many times have you ordered a transcript from a digital record?

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

12. On average, how long does it take to get a transcript from a digital record?

_____one day _____a few days _____one week _____weeks
_____months

13. What is the average length of the transcripts? _____pages.

14. In my experience with requesting an audio recording on a CD, I have generally received the CD within:

1-4 hours 5-8 hours 9-12 hours 13-24 hours More than 25 hours
Have not ordered a digital record CD

15. During the past year, how many times have you ordered a transcript from a court reporter?

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

16. On average, how long does it take to get a transcript from a court reporter?

_____one day _____a few days _____one week _____weeks _____months

17. What is the average length of the transcripts? _____pages.

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

18. A court reporter is more dependable than a digital record.

Strongly Agree Agree Neutral Disagree Strongly Disagree

19. A court reporter makes a more accurate original record than a digital record.

Strongly Agree Agree Neutral Disagree Strongly Disagree

20. Having digital records of proceeding improves the quality of litigation.

Strongly Agree Agree Neutral Disagree Strongly Disagree

21. Proceedings where digital is used are more orderly.

Strongly Agree Agree Neutral Disagree Strongly Disagree

22. Considering everything, I think making a digital record of court proceedings:

Is a very good thing Has more advantages than disadvantages
Is about the same Has more disadvantage than advantages
Is a very bad thing

23. When digital recording was first announced in the court, how would you describe your reaction?

Highly skeptical Skeptical Didn't care Enthusiastic Strongly enthusiastic

24. Now that the system has been in place for several months, what is your overall attitude?

Strongly negative Negative Neutral Positive Strongly Positive

25. What have we NOT asked? Please give us any comments you have about the pros and/or cons of using digital recording that you think we are overlooking or that you think are especially important.

Attorney Questionnaire:

Please fill in the blanks or circle your response accordingly.

1. Approximately how many years have you practiced law? _____years.

2. Which of the following best describes your practice?

- General practice
- Mostly criminal defense
- Mostly juvenile
- Mostly civil
- Mostly family

3. Regarding most of your court appearances, do you mostly represent the:
Plaintiff; Defendant; Both Equally

4. What type of practice most closely represents your work:

- Private
- Public (public defender, county, or city attorney, etc.)
- Non-profit or Other

IN YOUR EXPERIENCE WITH THE NEW DIGITAL RECORDING SYSTEM:
New digital recording systems have been installed in thirty-one of our courtrooms. Those installations can be found at each of suburban courts, Brookdale, Southdale, Ridgedale, and the Public Safety Facility. Additionally digital recording systems have been installed in several courtrooms at the Family Justice Center, in Juvenile Court and the Hennepin County Government Center.

5. During the past year, approximately how many times have you appeared in a *digital courtroom* in the Fourth Judicial District?

- 1-4
- 5-12
- 13-24
- 25-52
- 53+

6. How often has a proceeding recorded with digital equipment been delayed, or interrupted? (Digital equipment did not function properly)

- Never
- Rarely
- Occasionally
- Frequently
- 1
- 2
- 3
- 4

7. How often has a proceeding with a court reporter been delayed or been interrupted? (Court reporter was assigned late, unavailable or other situation)

- Never
- Rarely
- Occasionally
- Frequently
- 1
- 2
- 3
- 4

8. How often has the presence of the digital recording equipment interfered with or disrupted court proceedings?

- Never
- Rarely
- Occasionally
- Frequently
- 1
- 2
- 3
- 4

9. Proceedings where digital recording is used are more orderly.
Strongly Agree Agree Neutral Disagree Strongly Disagree

10. During the past year, how many times have you ordered a transcript from a court reporter?

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

11. On average, how long does it take to get a transcript from a court reporter?
_____one day _____a few days _____one week _____weeks _____months

12. What is the average length of the transcripts? _____pages.

13. During the past year, how many times have you ordered a transcript from the digital record?

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

14. On average, how long does it take to get a transcript from a digital record?
_____one day _____a few days _____one week _____weeks
_____months

15. What is the average length of the transcripts? _____pages.

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

16. A court reporter is more dependable than a digital record.
Strongly Agree Agree Neutral Disagree Strongly Disagree

17. A court reporter makes a more accurate original record than a digital record
Strongly Agree Agree Neutral Disagree Strongly Disagree

18. Having digital records of proceeding improves the quality of litigation.
Strongly Agree Agree Neutral Disagree Strongly Disagree

19. Considering everything, I think making a digital record of court proceedings:
Is a very good thing
Has more advantages than disadvantages
Is about the same
Has more disadvantage than advantages
Is a very bad thing

20. When digital recording was first announced in the court, how would you describe your reaction?

Highly skeptical Skeptical Didn't care Enthusiastic Strongly enthusiastic

21. Now that the system has been in place for several months, what is your overall attitude?

Strongly negative Negative Neutral Positive Strongly Positive

22. What have we NOT asked? Please give us any comments you have about the pros and/or cons of using digital recording that you think we are overlooking or that you think are especially important.

Court Reporter Questions

1. Approximately how many years have you been a court reporter? _____years.

2. Please circle the response that best describes your qualifications in your current position.

Stenographic Court Reporter Stenographic Court Reporter-CAT trained
Electronic Court Reporter

3. During the past year, approximately how many times have you worked in the digital central monitoring room in the Fourth Judicial District?

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

4. How often has a proceeding recorded with digital equipment been delayed, or interrupted? (Digital equipment did not function properly)

Never	Rarely	Occasionally	Frequently
1	2	3	4

5. How often has the presence of the digital recording equipment interfered with or disrupted court proceedings?

Never	Rarely	Occasionally	Frequently
1	2	3	4

6. When working in the central monitoring room, how often has the court clerk ever forgotten to notify you (session began, resumed, recessed, etc.)?

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

7. Did some portion of the proceeding not get recorded because of a machine malfunction?

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

8. Inaudibility is often a problem in the courtroom.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
----------------	-------	---------	----------	-------------------

9. The physical demands of spending a day in the Central Monitoring Room are less strenuous than spending a day in the courtroom.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
----------------	-------	---------	----------	-------------------

10. When you have been contacted for reassignment, how often did the reassignment request cause you to be late for the proceeding?

Never	Rarely	Occasionally	Frequently
1	2	3	4

11. During the past year, approximately how many times have you produced a transcript from a digital record?

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

If you have listened to a digital record for transcript purposes, please tell us the extent to which you agree or disagree with the following statement:

12. The digital record made an accurate record of the proceeding.

Strongly Agree Agree Neutral Disagree Strongly Disagree

13 The audio from the digital record provided a clear record of the proceeding.

Strongly Agree Agree Neutral Disagree Strongly Disagree

14. It was not difficult for me to review the auditory record of the proceeding.

Strongly Agree Agree Neutral Disagree Strongly Disagree

15. When preparing a transcript from a digital record CD, I have been provided with the CD and all relevant information on a timely basis.

Strongly Agree Agree Neutral Disagree Strongly Disagree

16. I am comfortable handling the responsibilities required of me in the Central Monitoring Room.

Strongly Agree Agree Neutral Disagree Strongly Disagree

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

17. I appreciate not having to travel to the suburban court locations.

Strongly Agree Agree Neutral Disagree Strongly Disagree

18. A court reporter is more dependable than a digital record.

Strongly Agree Agree Neutral Disagree Strongly Disagree

19. A court reporter makes a more accurate original record than a digital record.

Strongly Agree Agree Neutral Disagree Strongly Disagree

20. Having digital records of proceeding improves the quality of litigation.

Strongly Agree Agree Neutral Disagree Strongly Disagree

21. Proceedings where digital recording is used are more orderly.

Strongly Agree Agree Neutral Disagree Strongly Disagree

22. Considering everything, I think making a digital record of court proceedings:

Is a very good thing Has more advantages than disadvantages

Is about the same Has more disadvantage than advantages

Is a very bad thing

23. When digital recording was first announced in the court, how would you describe your reaction?

Highly skeptical Skeptical Didn't care Enthusiastic Strongly enthusiastic

24. Now that the system has been in place for several months, what is your overall attitude?

Strongly negative Negative Neutral Positive Strongly Positive

25. What have we NOT asked? Please give us any comments you have about the pros and/or cons of using digital recording that you think we are overlooking or that you think are especially important.

Courtroom Staff

1. Approximately how many years have you worked in the courtroom? _____years.

2. In the past, approximately how many times were you asked to operate a tape recorder as a method for making an official record?

None <25 26-50 50-100 100>

3. During the past year, approximately how many times have you worked in a digitally recorded courtroom?

1-4 5-12 13-24 25-52 53+

4. How often has a proceeding recorded with digital equipment been delayed, or interrupted? (Digital equipment did not function properly)

Never Rarely Occasionally Frequently
1 2 3 4

5. How often has the presence of the digital recording equipment interfered with or disrupted a court proceeding?

Never Rarely Occasionally Frequently
1 2 3 4

6. How often has a proceeding with a court reporter been delayed or been interrupted? (Court reporter was assigned late, unavailable or other situation)

Never Rarely Occasionally Frequently
1 2 3 4

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

7. Proceedings where digital is used are more orderly.

Strongly Agree Agree Neutral Disagree Strongly Disagree

8. My responsibilities in using the digital recording system are less than the responsibilities operating a tape recorder.

Strongly Agree Agree Neutral Disagree Strongly Disagree

9. I am comfortable handling the responsibilities required of me in using the digital recording system.

Strongly Agree Agree Neutral Disagree Strongly Disagree

10. Having digital records of proceeding improves the quality of litigation.
Strongly Agree Agree Neutral Disagree Strongly Disagree

11. A court reporter is more dependable than a digital record.
Strongly Agree Agree Neutral Disagree Strongly Disagree

12. A court reporter makes a more accurate original record than a digital record.
Strongly Agree Agree Neutral Disagree Strongly Disagree

13. Considering everything, I think making a digital record of court proceedings:
Is a very good thing Has more advantages than disadvantages
Is about the same Has more disadvantage than advantages
Is a very bad thing

14. When digital recording was first announced in the court, how would you describe your reaction?
Highly skeptical Skeptical Didn't care Enthusiastic Strongly enthusiastic

15. Now that the system has been in place for several months, what is your overall attitude?
Strongly negative Negative Neutral Positive Strongly Positive

16. What have we NOT asked? Please give us any comments you have about the pros and/or cons of using digital recording that you think we are overlooking or that you think are especially important.

Judicial Officer Court Record Project Survey Results

1. Approximately how many years have you been a Judicial Officer?

		Frequency	Valid Percent
Valid	.25	1	4.5
	1	2	9.1
	10	1	4.5
	14	1	4.5
	16	3	13.6
	19	1	4.5
	23	1	4.5
	27	1	4.5
	30	1	4.5
	4	3	13.6
	6	3	13.6
	7	1	4.5
	8	2	9.1
	less than 1	1	4.5
	Total	22	100.0

2. During the past year, approximately how many times have you presided in a digital courtroom in Hennepin County District Court?

		Frequency	Valid Percent
Valid	None	3	13.6
	5-12	5	22.7
	13-24	2	9.1
	25-52	6	27.3
	53+	6	27.3
	Total	22	100.0

3. How often has a proceeding recorded with digital equipment been delayed, or interrupted? (Digital equipment did not function properly)

		Frequency	Valid Percent
Valid	Never	9	47.4
	Rarely	8	42.1
	Occasionally	2	10.5
	Total	19	100.0
	Missing	3	
Total		22	

4. How often has the presence of the digital recording equipment interfered with or disrupted court proceedings?

		Frequency	Valid Percent
Valid	Never	9	47.4
	Rarely	6	31.6
	Occasionally	4	21.1
	Total	19	100.0
	Missing	3	
Total		22	

5. How often has a proceeding with a court reporter been delayed or been interrupted? (Court reporter was assigned late, unavailable or other situation)

		Frequency	Valid Percent
Valid	Never	8	36.4
	Rarely	10	45.5
	Occasionally	4	18.2
	Total	22	100.0

6. About how many times have you listened to a digital recording?

		Frequency	Valid Percent
Valid	None	14	63.6
	1-4	6	27.3
	5-12	2	9.1
	Total	22	100.0

7. The digital record made an accurate record of the proceeding.

		Frequency	Valid Percent
Valid	Strongly Agree	5	62.5
	Agree	1	12.5
	Neutral	1	12.5
	Disagree	1	12.5
	Total	8	100.0
	Missing	14	
Total		22	

8. The audio from the digital record provided a clear record of the proceeding.

		Frequency	Valid Percent
Valid	Strongly Agree	3	37.5
	Agree	3	37.5
	Neutral	1	12.5
	Strongly Disagree	1	12.5
	Total	8	100.0
	Missing	14	
Total		22	

9. It was not difficult for me to review the auditory record of the proceeding.

		Frequency	Valid Percent
Valid	Strongly Agree	4	50.0
	Agree	2	25.0
	Disagree	2	25.0
	Total	8	100.0
	Missing	14	
Total		22	

10. I like the court record systems ability to provide me with an audio recording for my own review purposes.

		Frequency	Valid Percent
Valid	Strongly Agree	3	37.5
	Agree	2	25.0
	Neutral	2	25.0
	Disagree	1	12.5
	Total	8	100.0
	Missing	14	
Total		22	

11. During the past year, how many times have you ordered a transcript from a digital record?

		Frequency	Valid Percent
Valid	None	14	63.6
	1-4	7	31.8
	5-12	1	4.5
	Total	22	100.0

12. On average, how long does it take to get a transcript from a digital record?

		Frequency	Valid Percent
Valid	One day	1	12.5
	A few days	5	62.5
	One week	1	12.5
	A few weeks	1	12.5
	Total	8	100.0
	Missing	14	
Total		22	

13. What is the average length of the transcripts? (In pages)

		Frequency	Valid Percent
Valid		14	63.6
	1-5 pp.	1	4.5
	10-20	1	4.5
	3-5	1	4.5
	3	1	4.5
	4	1	4.5
	5	1	4.5
	8	1	4.5
	I was told I could not get a transcript	1	4.5
	Total	22	100.0

14. In my experience with requesting an audio recording on a CD, I have generally received the CD within:

		Frequency	Valid Percent
Valid	Have not ordered a digital record CD	16	72.7
	5-8 hours	3	13.6
	13-24 hours	2	9.1
	More than 25 hours	1	4.5
	Total	22	100.0

15. During the past year, how many times have you ordered a transcript from a court reporter?

		Frequency	Valid Percent
Valid	None	4	18.2
	1-4	12	54.5
	5-12	4	18.2
	13-24	2	9.1
	Total	22	100.0

16. On average, how long does it take to get a transcript from a court reporter?

		Frequency	Valid Percent
Valid	One day	7	38.9
	A few days	9	50.0
	A few weeks	2	11.1
	Total	18	100.0
	Missing	4	
Total		22	

17. What is the average length of the transcripts? (In pages)

		Frequency	Valid Percent
Valid		4	18.2
	?	2	9.1
	1 for 50	1	4.5
	10-20	1	4.5
	10	2	9.1
	10pp.	1	4.5
	12	1	4.5
	15	1	4.5
	2	1	4.5
	20	1	4.5
	5-10	1	4.5
	5	1	4.5
	50	1	4.5
	8	2	9.1
	9	1	4.5
	various	1	4.5
	Total	22	100.0

18. A court reporter is more dependable than a digital record.

		Frequency	Valid Percent
Valid	Strongly Agree	5	22.7
	Agree	9	40.9
	Neutral	5	22.7
	Disagree	3	13.6
	Total	22	100.0

19. A court reporter makes a more accurate original record than a digital record.

		Frequency	Valid Percent
Valid	Strongly Agree	6	27.3
	Agree	4	18.2
	Neutral	9	40.9
	Disagree	2	9.1
	Strongly Disagree	1	4.5
	Total	22	100.0

20. Having digital records of proceeding improves the quality of litigation.

		Frequency	Valid Percent
Valid	Strongly Agree	1	4.5
	Agree	3	13.6
	Neutral	9	40.9
	Disagree	7	31.8
	Strongly Disagree	2	9.1
	Total	22	100.0

21. Proceedings where digital recording is used are more orderly.

		Frequency	Valid Percent
Valid	Agree	4	18.2
	Neutral	6	27.3
	Disagree	6	27.3
	Strongly Disagree	6	27.3
	Total	22	100.0

22. Considering everything, I think making a digital record of court proceedings.

		Frequency	Valid Percent
Valid	Is a very good thing	4	18.2
	Has more advantages than disadvantages	5	22.7
	Is about the same	5	22.7
	Has more disadvantage than advantages	6	27.3
	Is a very bad thing	2	9.1
	Total	22	100.0

23. When digital recording was first announced in the court, how would you describe your reaction?

		Frequency	Valid Percent
Valid	Highly skeptical	1	4.5
	Skeptical	11	50.0
	Didn't care	5	22.7
	Enthusiastic	5	22.7
	Total	22	100.0

24. Now that the system has been in place for several months, what is your overall attitude?

		Frequency	Valid Percent
Valid	Strongly negative	2	9.1
	Negative	1	4.5
	Neutral	11	50.0
	Positive	4	18.2
	Strongly Positive	4	18.2
	Total	22	100.0

Attorney Court Record Project Survey Results

1. Approximately how many years have you practiced law?

		Frequency	Valid Percent
Valid	13	2	7.4
	15	3	11.1
	15 years	1	3.7
	17	1	3.7
	18	1	3.7
	19	2	7.4
	2	1	3.7
	20	3	11.1
	21	1	3.7
	22	1	3.7
	26	1	3.7
	27 years	1	3.7
	31	1	3.7
	32	1	3.7
	35	1	3.7
	5	1	3.7
	7	1	3.7
	8	1	3.7
	9	2	7.4
	9 yrs	1	3.7
Total	27	100.0	

2. Which of the following best describes your practice?

		Frequency	Valid Percent
Valid	General practice	2	7.4
	Mostly civil	1	3.7
	Mostly family	8	29.6
	Mostly criminal	14	51.9
	Mostly juvenile	2	7.4
	Total	27	100.0

3. Regarding most of your court appearances, do you mostly represent the.

		Frequency	Valid Percent
Valid	Plaintiff	14	51.9
	Defendant	10	37.0
	Both equally	3	11.1
	Total	27	100.0

4. What type of practice most closely represents your work.

		Frequency	Valid Percent
Valid	Private	5	18.5
	Public (public defender, county, or city attorney, etc.)	22	81.5
	Total	27	100.0

5. During the past year, approximately how many times have you appeared in a digital courtroom in the Fourth Judicial District?

		Frequency	Valid Percent
Valid	13-24 times	1	3.7
	25-52 times	6	22.2
	53+	20	74.1
	Total	27	100.0

6. How often has a proceeding recorded with digital equipment been delayed, or interrupted (Digital equipment did not function properly)?

		Frequency	Valid Percent
Valid	1- Never	11	40.7
	2- Rarely	11	40.7
	3- Occasionally	5	18.5
	Total	27	100.0

7. How often has a proceeding with a court reporter been delayed or been interrupted (Court reporter was late, unavailable or other situation)?

		Frequency	Valid Percent
Valid	1- Never	11	40.7
	2- Rarely	9	33.3
	3- Occasionally	7	25.9
	Total	27	100.0

8. How often has the presence of the digital recording equipment interfered with or disrupted court proceedings?

		Frequency	Valid Percent
Valid	1- Never	10	37.0
	2- Rarely	11	40.7
	3- Occasionally	6	22.2
	Total	27	100.0

9. During the past year, how many times have you ordered a transcript from a court reporter?

		Frequency	Valid Percent
Valid	None	8	29.6
	1-4	18	66.7
	5-12	1	3.7
	Total	27	100.0

10. On average, how long does it take to get a transcript from a court reporter?

		Frequency	Valid Percent
Valid	A few days	6	31.6
	One week	2	10.5
	A few weeks	11	57.9
	Total	19	100.0
	<i>Missing</i>	8	
Total		27	

11. What is the average length of the transcripts? (in pages)

		Frequency	Valid Percent
Valid		8	29.6
	10-15	1	3.7
	10	4	14.8
	100 pgs	1	3.7
	15	1	3.7
	2-35	1	3.7
	20	3	11.1
	30	2	7.4
	45	1	3.7
	5-10	1	3.7
	5	2	7.4
	50	2	7.4
	Total	27	100.0

12. During the past year, how many times have you ordered a transcript from the digital record?

		Frequency	Valid Percent
Valid	None	21	77.8
	1-4	5	18.5
	5-12	1	3.7
	Total	27	100.0

13. On average, how long does it take to get a transcript from a digital record?

		Frequency	Valid Percent
Valid	One week	2	33.3
	A few weeks	4	66.7
	Total	6	100.0
	Missing	21	
Total		27	

14. What is the average length of the transcripts? (In pages)

	Frequency	Valid Percent
Valid	21	77.8
10-15	1	3.7
100-150	1	3.7
20	2	7.4
5-10	1	3.7
6	1	3.7
Total	27	100.0

15. A court reporter is more dependable than a digital record. : By selecting the appropriate response, please tell us the extent to which you agree or disagree with the following statements:

	Frequency	Valid Percent
Valid 1- Strongly Agree	10	37.0
2- Agree	2	7.4
3- Neutral	11	40.7
4- Disagree	4	14.8
Total	27	100.0

16. A court reporter makes a more accurate original record than a digital record. : By selecting the appropriate response, please tell us the extent to which you agree or disagree with the following statements:

	Frequency	Valid Percent
Valid 1- Strongly Agree	10	37.0
2- Agree	4	14.8
3- Neutral	10	37.0
4- Disagree	3	11.1
Total	27	100.0

17. Having digital records of proceeding improves the quality of litigation. : By selecting the appropriate response, please tell us the extent to which you agree or disagree with the following statements:

	Frequency	Valid Percent
Valid 2- Agree	2	7.4
3- Neutral	14	51.9
4- Disagree	7	25.9
5- Strongly Disagree	4	14.8
Total	27	100.0

18. Proceedings where digital recording is used are more orderly. : By selecting the appropriate response, please tell us the extent to which you agree or disagree with the following statements:

	Frequency	Valid Percent
Valid 2- Agree	3	11.1
3- Neutral	11	40.7
4- Disagree	8	29.6
5- Strongly Disagree	5	18.5
Total	27	100.0

19. Considering everything, I think making a digital record of court proceedings:

	Frequency	Valid Percent
Valid Is a very good thing	2	7.4
Has more advantages than disadvantages	5	18.5
Is about the same	9	33.3
Has more disadvantage than advantages	8	29.6
Is a very bad thing	3	11.1
Total	27	100.0

20. When digital recording was first announced in the court, how would you describe your reaction?

	Frequency	Valid Percent
Valid Highly skeptical	5	18.5
Skeptical	9	33.3
Didn't care	10	37.0
Enthusiastic	3	11.1
Total	27	100.0

21. Now that the system has been in place for several months, what is your overall attitude?

	Frequency	Valid Percent
Valid Strongly negative	3	11.1
Negative	4	14.8
Neutral	9	33.3
Positive	10	37.0
Strongly Positive	1	3.7
Total	27	100.0

Court Reporter Court Record Project Survey Results

1. Approximately how many years have you been a court reporter?

	Frequency	Valid Percent
Valid 0	1	2.6
1	1	2.6
10	1	2.6
12	2	5.3
13	1	2.6
15	2	5.3
16	1	2.6
16 1/2 yrs.	1	2.6
17	1	2.6
18	1	2.6
18+	1	2.6
19	1	2.6
20	1	2.6
20 +	1	2.6
21	1	2.6
25	2	5.3
26	1	2.6
27	3	7.9
29	1	2.6
3	1	2.6
30	3	7.9
300	1	2.6
35	1	2.6
36	1	2.6
44+Years	1	2.6
5	2	5.3
8	1	2.6
9	1	2.6
approximately two years; less than one as an Official Reporter	1	2.6
Four	1	2.6
Total	38	100.0

2. Please select the response that best describes your qualifications in your current position.

		Frequency	Valid Percent
Valid	Stenographic Court Reporter	14	36.8
	Stenographic Court Reporter-CAT trained	21	55.3
	Electronic Court Reporter	3	7.9
	Total	38	100.0

3. During the past year, approximately how many times have you worked in the digital central monitoring room in the Fourth Judicial District?

		Frequency	Valid Percent
Valid	None	9	23.7
	1-4	6	15.8
	5-12	13	34.2
	13-24	5	13.2
	25-52	2	5.3
	53+	3	7.9
	Total	38	100.0

4. How often has a proceeding recorded with digital equipment been delayed, or interrupted? (Digital equipment did not function properly)

		Frequency	Valid Percent
Valid	Never	12	41.4
	Rarely	10	34.5
	Occasionally	6	20.7
	Frequently	1	3.4
	Total	29	100.0
	Missing	9	
Total		38	

5. How often has the presence of the digital recording equipment interfered with or disrupted court proceedings?

		Frequency	Valid Percent
Valid	Never	13	44.8
	Rarely	11	37.9
	Occasionally	4	13.8
	Frequently	1	3.4
	Total	29	100.0
	Missing	9	
Total		38	

6. When working in the central monitoring room, has the court clerk ever forgotten to notify you (session began, resumed, recessed, etc.)?

		Frequency	Valid Percent
Valid	Never	5	17.2
	1-2 times	11	37.9
	3-5 times	6	20.7
	6 or more times	7	24.1
	Total	29	100.0
	Missing	9	
Total		38	

7. Did some portion of the proceeding not get recorded because of a machine malfunction?

		Frequency	Valid Percent
Valid	Never	20	69.0
	1-2 times	7	24.1
	3-5 times	1	3.4
	6 or more times	1	3.4
	Total	29	100.0
	Missing	9	
Total		38	

8. Inaudibility is often a problem in the courtroom.

		Frequency	Valid Percent
Valid	Strongly Agree	11	37.9
	Agree	8	27.6
	Neutral	4	13.8
	Disagree	4	13.8
	Strongly Disagree	2	6.9
	Total	29	100.0
	Missing	9	
Total		38	

9. The physical demands of spending a day in the Central Monitoring Room are less strenuous than spending a day in the courtroom.

		Frequency	Valid Percent
Valid	Strongly Agree	1	3.4
	Agree	13	44.8
	Neutral	8	27.6
	Disagree	4	13.8
	Strongly Disagree	3	10.3
	Total	29	100.0
	Missing	9	
Total		38	

10. When you have been contacted for reassignment, how often did the reassignment request cause you to be late for the proceeding?

		Frequency	Valid Percent
Valid	Never	11	37.9
	Rarely	8	27.6
	Occasionally	8	27.6
	Frequently	2	6.9
	Total	29	100.0
	Missing	9	
Total		38	

11. During the past year, approximately how many times have you produced a transcript from a digital record?

		Frequency	Valid Percent
Valid	None	12	41.4
	1-4	14	48.3
	5-12	1	3.4
	13-24	1	3.4
	25-52	1	3.4
	Total	29	100.0
	Missing	9	
Total		38	

**12. If you have listened to a digital record for transcript purposes, please tell us the extent to which you agree or disagree with the following statements:
The digital record made an accurate record of the proceeding:**

		Frequency	Valid Percent
Valid	Strongly Agree	1	5.9
	Agree	11	64.7
	Neutral	2	11.8
	Disagree	3	17.6
	Total	17	100.0
	Missing	21	
Total		38	

13. The audio from the digital record provided a clear record of the proceeding.

		Frequency	Valid Percent
Valid	Strongly Agree	1	5.9
	Agree	10	58.8
	Neutral	4	23.5
	Disagree	2	11.8
	Total	17	100.0
	Missing	21	
Total		38	

14. It was not difficult for me to review the auditory record of the proceeding.

		Frequency	Valid Percent
Valid	Strongly Agree	2	11.8
	Agree	6	35.3
	Neutral	2	11.8
	Disagree	6	35.3
	Strongly Disagree	1	5.9
	Total	17	100.0
	Missing	21	
Total		38	

15. When preparing a transcript from a digital record CD, I have been provided with the CD and all relevant information on a timely basis.

		Frequency	Valid Percent
Valid	Strongly Agree	11	64.7
	Agree	6	35.3
	Total	17	100.0
	Missing	21	
Total		38	

16. I am comfortable handling the responsibilities required of me in the Central Monitoring Room.

		Frequency	Valid Percent
Valid	Strongly Agree	11	64.7
	Agree	6	35.3
	Total	17	100.0
	Missing	21	
Total		38	

17. I appreciate not having to travel to the suburban court locations.

		Frequency	Valid Percent
Valid	Strongly Agree	7	18.4
	Agree	4	10.5
	Neutral	14	36.8
	Disagree	2	5.3
	Strongly Disagree	11	28.9
	Total	38	100.0

18. A court reporter is more dependable than a digital record.

		Frequency	Valid Percent
Valid	Strongly Agree	27	71.1
	Agree	5	13.2
	Neutral	2	5.3
	Strongly Disagree	4	10.5
	Total	38	100.0

19. A court reporter makes a more accurate original record than a digital record.

		Frequency	Valid Percent
Valid	Strongly Agree	25	65.8
	Agree	6	15.8
	Neutral	4	10.5
	Strongly Disagree	3	7.9
	Total	38	100.0

20. Having digital records of proceeding improves the quality of litigation.

		Frequency	Valid Percent
Valid	Strongly Agree	1	2.6
	Agree	1	2.6
	Neutral	11	28.9
	Disagree	9	23.7
	Strongly Disagree	16	42.1
	Total	38	100.0

21. Proceedings where digital recording is used are more orderly.

		Frequency	Valid Percent
Valid	Strongly Agree	2	5.3
	Agree	1	2.6
	Neutral	1	2.6
	Disagree	12	31.6
	Strongly Disagree	22	57.9
	Total	38	100.0

22. Considering everything, I think making a digital record of court proceedings:

		Frequency	Valid Percent
Valid	Is a very good thing	1	2.6
	Has more advantages than disadvantages	8	21.1
	Is about the same	6	15.8
	Has more disadvantage than advantages	18	47.4
	Is a very bad thing	5	13.2
	Total	38	100.0

23. When digital recording was first announced in the court, how would you describe your reaction?

		Frequency	Valid Percent
Valid	Highly skeptical	14	36.8
	Skeptical	17	44.7
	Didn't care	5	13.2
	Enthusiastic	1	2.6
	Strongly enthusiastic	1	2.6
	Total	38	100.0

24. Now that the system has been in place for several months, what is your overall attitude?

		Frequency	Valid Percent
Valid	Strongly negative	4	10.5
	Negative	7	18.4
	Neutral	15	39.5
	Positive	11	28.9
	Strongly Positive	1	2.6
	Total	38	100.0

Staff Court Record Project Survey Results

1. What location do you work in?

		Frequency	Valid Percent
Valid	Government Center	6	31.6
	Juvenile Justice Center	2	10.5
	Family Justice Center	2	10.5
	Brookdale	4	21.1
	Ridgedale	3	15.8
	Southdale	1	5.3
	Public Safety Facility	1	5.3
	Total	19	100.0

2. Approximately how many years have you worked in the courtroom?

		Frequency	Valid Percent
Valid	1	2	10.5
	10	2	10.5
	13	1	5.3
	14	1	5.3
	2	3	15.8
	2 years	1	5.3
	20	1	5.3
	3 months	1	5.3
	4	1	5.3
	5 years	1	5.3
	5, but only one year at Ridgedale. Prev at FJC	1	5.3
	6 yrs	1	5.3
	7	1	5.3
	8	1	5.3
	In this courtroom 1yr 1/2 otherwise 8yrs total	1	5.3
	Total	19	100.0

3. In the past, approximately how many times were you asked to operate a tape recorder as a method for making an official record?

		Frequency	Valid Percent
Valid	<25	4	21.1
	26-50	3	15.8
	50-100	4	21.1
	100>	8	42.1
	Total	19	100.0

4. During the past year, approximately how many times have you worked in a digitally recorded courtroom?

		Frequency	Valid Percent
Valid	1-4	1	5.3
	13-24	1	5.3
	25-52	5	26.3
	53+	12	63.2
	Total	19	100.0

5. How often has a proceeding recorded with digital equipment been delayed, or interrupted (Digital equipment did not function properly)?

		Frequency	Valid Percent
Valid	Never	9	47.4
	Rarely	7	36.8
	Occasionally	2	10.5
	Frequently	1	5.3
	Total	19	100.0

6. How often has the presence of the digital recording equipment interfered with or disrupted a court proceeding?

		Frequency	Valid Percent
Valid	Never	10	52.6
	Rarely	7	36.8
	Occasionally	2	10.5
	Total	19	100.0

7. How often has a proceeding with a court reporter been delayed or been interrupted (Court reporter was late, unavailable or other situation)?

		Frequency	Valid Percent
Valid	Never	12	63.2
	Rarely	6	31.6
	Occasionally	1	5.3
	Total	19	100.0

8. Proceedings where digital recording is used are more orderly.

		Frequency	Valid Percent
Valid	Strongly Agree	6	31.6
	Agree	4	21.1
	Neutral	6	31.6
	Disagree	2	10.5
	Strongly Disagree	1	5.3
	Total	19	100.0

9. My responsibilities in using the digital recording system are less than the responsibilities operating a tape recorder.

		Frequency	Valid Percent
Valid	Strongly Agree	9	47.4
	Agree	3	15.8
	Neutral	2	10.5
	Disagree	5	26.3
	Total	19	100.0

10. I am comfortable handling the responsibilities required of me in using the digital recording system.

		Frequency	Valid Percent
Valid	Strongly Agree	11	57.9
	Agree	6	31.6
	Neutral	2	10.5
	Total	19	100.0

11. Having digital records of proceeding improves the quality of litigation.

		Frequency	Valid Percent
Valid	Strongly Agree	7	36.8
	Agree	4	21.1
	Neutral	5	26.3
	Disagree	3	15.8
	Total	19	100.0

12. A court reporter is more dependable than a digital record.

		Frequency	Valid Percent
Valid	Strongly Agree	1	5.3
	Agree	2	10.5
	Neutral	10	52.6
	Disagree	4	21.1
	Strongly Disagree	2	10.5
	Total	19	100.0

13. A court reporter makes a more accurate original record than a digital record.

		Frequency	Valid Percent
Valid	Strongly Agree	1	5.3
	Agree	2	10.5
	Neutral	11	57.9
	Disagree	3	15.8
	Strongly Disagree	2	10.5
	Total	19	100.0

14. Considering everything, I think making a digital record of court proceedings:

		Frequency	Valid Percent
Valid	Is a very good thing	10	52.6
	Has more advantages than disadvantages	5	26.3
	Is about the same	2	10.5
	Has more disadvantage than advantages	2	10.5
	Total	19	100.0

15. When digital recording was first announced in the court, how would you describe your reaction?

		Frequency	Valid Percent
Valid	Highly skeptical	1	5.3
	Skeptical	6	31.6
	Didn't care	2	10.5
	Enthusiastic	8	42.1
	Strongly enthusiastic	2	10.5
	Total	19	100.0

16. Now that the system has been in place for several months, what is your overall attitude?

		Frequency	Valid Percent
Valid	Negative	1	5.3
	Neutral	3	15.8
	Positive	5	26.3
	Strongly Positive	10	52.6
	Total	19	100.0

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