Office of the Inspector General

Kenneth S. Apfel
Commissioner of Social Security

Acting Inspector General

Pilot Project of Paperless Processing with Imaging of Title II Benefit Actions

Attached is a copy of our final report entitled, “Pilot Project of Paperless Processing with Imaging of Title II Benefit Actions” (A-05-96-11037). The first objective of our review was to determine whether the costs and benefits attributed to the proposed nationwide implementation of the pilot project were reasonable and achievable. Our second objective was to determine whether proposed security controls were adequate to prevent data loss or corruption, prohibit unauthorized access, and meet the requirements of the Privacy Act. Our third objective was to determine whether electronic documents are accepted as competent evidence by the Federal courts and the law enforcement community.

You may wish to comment on any further action taken or contemplated on our recommendations. If you choose to offer comments, please provide your comments within the next 60 days. If you wish to discuss the final report, please call me or have your staff contact Pamela J. Gardiner, Assistant Inspector General for Audit, at (410) 965-9700.

James G. Huse, Jr.

Attachment

cc:
OIG/ES
IO Reading file
OA Reading file
Subject file
B.SHULMAN/RLENZ:pjk:07-21-98
FNL96-11037.doc:Report file

EXECUTIVE SUMMARY

OBJECTIVES

The first objective of this audit was to determine whether the costs and benefits attributed to the proposed nationwide implementation of the pilot project for the paperless processing with imaging of Retirement, Survivors and Disability Insurance (RSDI) benefit actions were reasonable and achievable. Our second objective was to determine whether proposed security controls were adequate to prevent data loss or corruption, prohibit unauthorized access, and meet the requirements of the Privacy Act of 1974 (5 U.S.C. section 552a, as amended). The third objective was to determine whether electronic documents are accepted as competent evidence by the Federal courts and the law enforcement community.

BACKGROUND

The Social Security Administration (SSA) has tried for many years to expedite the processing of RSDI benefit actions by reducing its dependency on paper documents and forms. The most recent initiative was the paperless processing with imaging pilot project conducted at the Great Lakes Program Service Center (PSC). This project attempted to completely eliminate the use of paper documents in the pilot module. All documents received from the PSC mail room were converted to electronic files (imaged), stored on magnetic media, and routed via electronic work-flow software to module employees over the Intelligent Work Station/Local Area Network (IWS/LAN) system. All action items output from mainframe applications were maintained in electronic form and routed via the electronic work-flow system (paperless processing), instead of being printed out in the computer center and manually distributed and processed in paper form.

Four alternative courses of action were proposed to handle RSDI benefit actions by SSA's Office of Systems Design and Development (OSDD) in its "Analysis Of Cost, Benefits & Performance from the Paperless Processing Centers Project." OSDD proposed to: (1) continue to process actions using paper documents; (2) implement paperless processing with imaging, using commercial-off-the-shelf (COTS) software; (3) implement paperless processing with imaging using software developed in-house; or (4) implement paperless processing but not the imaging of paper documents. SSA determined that the second alternative will result in the greatest net benefit.

SSA decided to include the Office of Central Operations (OCO), formerly the Office of Disability and International Operations, in the nationwide implementation (roll-out) of paperless processing with imaging. We did not comment on this decision, since it was outside the scope of this review.

The roll-out plan originally called for initial installation of the paperless processing with imaging system only in the modules of the PSCs, starting with the Birmingham PSC. Recently, SSA has considered including other PSC components in the roll-out.

The roll-out plan differs in the following respects from the pilot project: the imaging function will be consolidated in the mail room of each PSC, rather than in each module; and imaged documents will be stored on optical disk drives, rather than the hard drive of the server. SSA plans to purchase COTS software to replace the work-flow software used in the pilot project, which SSA has determined is not suitable for nationwide implementation.

RESULTS OF REVIEW

We found that there are several advantages of the paperless processing with imaging system. For example: (1) savings are achieved by eliminating the need to file, retrieve, transport, and store paper documents; (2) there is no longer a need to manually make an entry to the case control system each time the action item is passed from one employee to another; (3) managers and their assistants receive instant feedback on caseload status; and (4) employees can view other pending actions and past actions before they process a current action.

There are also some disadvantages to paperless processing of actions: (1) if either the IWS/LAN system or local server ceases to function, so will the work-flow system; (2) employees working in the modules must be more computer literate; (3) employees may experience physical problems caused by spending most of their time at their workstations; and (4) some employees found it easier to print a copy of the electronic document to work on, rather than review it on their computer monitor.

SSA has decided to implement paperless processing with imaging nationwide, using COTS software for the electronic work-flow system. While we agree that the estimated $70 million of benefits and $30 million of costs related to this decision appear to be reasonable and achievable, SSA should consider the following issues prior to implementation:

- Costs can be reduced, by purchasing smaller than 21-inch monitors for the paperless processing workstations and fewer “casual scanners” in the PSCs, without an adverse effect on the paperless processing with imaging project.
- The Cost and Benefit Analysis (CBA) only includes estimated monetary outlays as costs. The CBA does not include estimates of other consequences of the

nationwide roll-out, such as reductions in the number of actions processed during the employee training and acclimatization phases of implementation.

- Actual benefits may fall short of the estimates in the CBA. While the benefits will exceed the costs for the entire project, the benefits that will be realized from the imaging of mail may not significantly outweigh the costs. Furthermore, delays in implementation of the IWS/LAN system in the modules at the PSCs will delay implementation of the Paperless Processing/Imaging Electronic Work-flow System and reduce the net present value of the benefits.

- SSA has not developed specific access controls for the distributed data bases where the imaged documents will reside.

- Maintaining all documents, in electronic form only, may hinder successful SSA fraud prosecutions.

RECOMMENDATIONS

We recommend that SSA:

- Select the necessary monitor size, either a 19-inch or 20-inch, for the multi-tasking workstations to be installed in the PSC modules. This action will result in cost savings equal to the difference in price between the selected monitor and the 21-inch monitor. We estimated that cost savings will be $2.9 million.

- Consider purchasing the monitors as a substitution under the IWS/LAN contract rather than making an additional purchase.

- Reconsider the decision to purchase “casual scanners” for every 80 employees in each PSC. Since imaging is to be consolidated in the mail room, casual scanners should only be purchased for those components that will be included in the nationwide installation of paperless processing with imaging and that must open their own mail. This action could result in cost savings of up to $782,000.

- Prepare future CBAs which present benefit estimates based upon statistically valid methodology.

- Develop controls that restrict access to imaged documents to employees with a "need to know."

- Review the controls over the IWS/LAN and paperless processing with imaging prior to implementation to determine whether they will adequately protect data from loss or corruption due to computer viruses.

- Maintain the documents listed in Appendix B in paper form after scanning them into the electronic work-flow system.

AGENCY COMMENTS

SSA agreed with most of our recommendations. However, SSA concluded that purchasing "casual scanners" at a ratio of 1 for every 80 employees is not excessive given the number of employees and anticipated workload that will be involved. Also, SSA disagreed with our recommendation to maintain the documents listed in Appendix B in paper form after scanning them into the electronic work-flow system. SSA stated that potential Office of the Inspector General (OIG) recoveries of $589,610 weighed against estimated savings of
$158 million does not make a persuasive case for change in implementation strategy that involves over six million reports submitted annually. In a discussion with U.S. Department of Justice (DOJ) officials, SSA was advised that electronic evidence would not in itself be a deterrent in prosecution or have a controlling impact on the decision to prosecute. (See Appendix F for the entire text of the Agency's comments.)

OIG RESPONSE

As stated in our report, we do not believe that scanners should be purchased for use by module personnel in the quantities originally called for by the CBA since the nationwide roll-out plan now calls for consolidation of all imaging in the mail room rather than in the modules as originally designed. Further, SSA has not performed any further studies to justify their need for a ratio of 1 scanner for every
80 employees.

SSA should reconsider its decision to image-and-destroy the subject representative payee (Rep Payee) forms. SSA's current position lacks support even on a straight financial analysis, in light of recent increases in Rep Payee prosecutions and the trivial reduction in storage costs due to form destruction. The Agency response properly notes that there were only 20 convictions in Fiscal Year (FY) 1996 attributable to Rep Payee misuse with scheduled recoveries, savings, fines, and restitution approaching $600,000. However, in FY 1997, this number rose to
32 Rep Payee convictions with scheduled recoveries, savings, fines, and restitution

of over $1.6 million dollars. In the first 8 months of FY 1998, there have already been 51 such Rep Payee convictions with scheduled recoveries, savings, fines, and restitution of almost $3.5 million dollars.

The savings cited by SSA for this project are attributable to the processing of action items in electronic form, rather than as paper documents. Once a paper document has been imaged, it will be processed through the electronic work-flow system. The estimated savings result from distribution, processing, logging and storing of action items as electronic documents. Thus, we feel that no substantial financial benefits will be sacrificed due to the retention of the subject forms after imaging. Rather, there would be some minimal costs involved with storing the requested paper documents for the full statute of limitations period. If the Agency images-and-destroys the subject forms, SSA should develop compensating controls to substitute for this important evidence.

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INTRODUCTION

OBJECTIVES

The first objective of this audit was to determine whether the costs and benefits attributed to the proposed nationwide implementation of the pilot project for the paperless processing with imaging of RSDI benefit actions were reasonable and achievable. Our second objective was to determine whether proposed security controls were adequate to prevent data loss or corruption, prohibit unauthorized access, and meet the requirements of the Privacy Act of 1974 (5 U.S.C. section 552a, as amended). The third objective was to determine whether electronic documents are accepted as competent evidence by the Federal courts and the law enforcement community.

BACKGROUND

SSA has tried for many years to expedite the processing of RSDI benefit actions by reducing its dependency on paper documents and forms. The first step in SSA's paperless processing initiative was to replace RSDI applications, which required the employee to prepare a paper form for entry by a data transcriber or key operator, with direct data entry applications. The next step was the concept of folderless processing which allows the SSA employee to process certain actions without associating the initiating document with the folder prior to processing. This allowed the majority of case folders to be moved out of the PSC and into the Federal Records Centers (FRC). The document that initiated each action was subsequently sent to the FRC for filing into the case folder.

The most recent step in the paperless processing initiative was the paperless processing with imaging pilot project conducted at the Great Lakes PSC. This project attempted to completely eliminate the use of paper documents in the modules. Actions that were generated by SSA application programs were transmitted electronically via the pilot IWS/LAN to the pilot module rather than printed in the computer room and distributed manually to the module. Documents received in the mail room were sent to the pilot module where they were scanned (imaged) into an electronic file format. These imaged documents were stored on magnetic media and routed to employees working in the module via the IWS/LAN system through the use of electronic work-flow software.

The “Analysis of Cost, Benefits & Performance from the Paperless Processing Centers Project,” prepared by SSA’s OSDD presented four alternatives for processing RSDI benefit actions:

Alternative 1 - Continue to process actions using paper documents. This was not considered a viable option because there are inefficiencies in current processing methods, such as the printing of computer-generated data for manual distribution to the processing modules, when the electronic data could be routed to the proper module and employee via the new IWS/LAN system.

Alternative 2 - Keep computer-generated data in electronic form (paperless processing), and scan paper documents into electronic form (imaging). As in the pilot project, the electronic work-flow system would use COTS software.

Alternative 3 - Implement paperless processing with imaging using more SSA developed work-flow and document management software integrated with COTS software. This alternative was not considered because of the time and cost that would be required to develop this software.

Alternative 4 - Implement paperless processing but not the imaging of paper documents. This alternative was considered since 75 percent of actions received for processing in the modules were originally in electronic form.

Based on the CBA, SSA determined that the second alternative will result in the greatest cost benefit. The consensus benefit estimate for the implementation of the second alternative was $70 million. The final cost estimate (including the purchase of 21-inch monitors for 85 percent of the PSC staff) was $30 million.

The roll-out plan originally called for initial installation of the paperless processing with imaging system only in the modules of the PSCs, starting with the Birmingham PSC. Recently, SSA has decided to include OCO in the nationwide implementation of paperless processing with imaging of RSDI actions. An amended CBA was prepared in December 1996 which addressed the costs and benefits for expanding the paperless project into OCO.

Additionally, SSA has considered including other PSC components in the roll-out. The roll-out plan differs in the following respects from the pilot project:

- The roll-out plan calls for consolidation of the imaging function in the mail room of each PSC, rather than in each module.

- The roll-out plan calls for the storage of the imaged documents on optical storage drives, rather than the hard drive of the servers.

- The work-flow software used in the pilot project is not suitable for nationwide implementation. SSA plans to purchase COTS software for this purpose.

SCOPE AND METHODOLOGY

The first objective of our review was to determine whether the costs and benefits attributed to the proposed nationwide implementation of the pilot project for the paperless processing with imaging of RSDI benefit actions were reasonable and achievable. Our second objective was to determine whether proposed security controls were adequate to prevent data loss or corruption, prohibit unauthorized access, and meet the requirements of the Privacy Act of 1974 (5 U.S.C. section 552a, as amended). The third objective was to determine whether electronic documents are accepted as competent evidence by the Federal courts and the law enforcement community.

We observed paperless processing with imaging in Module 12 of the Great Lakes PSC. This was the sole pilot module for the paperless processing with imaging, the IWS/LAN, and the ergonomic furniture projects. We interviewed the manager, supervisors, and several employees concerning their experiences with and opinions about paperless processing, imaging, and the electronic work-flow system. We also reviewed various reports (see Appendix A for detailed list) related to the national implementation of paperless processing and imaging.

SSA asked OIG to render an opinion regarding the proposed nationwide implementation of the paperless processing with imaging project. This request required our analysis of the CBA. However, we did not comment on the Office of Workforce Analysis (OWA) estimate of workyear savings regarding the decision to include OCO in the roll-out as this aspect was outside our scope of review.

We requested a legal opinion on legislative and regulatory requirements for maintaining certain documents in paper form and on the admissibility of imaged documents in Federal courts. Furthermore, OIG's Office of Investigations was asked to prepare a list of documents which should be maintained in paper form after imaging to ensure the successful prosecution of SSA fraud cases. The field work was performed at the Great Lakes PSC during the period July 13, 1996, through October 2, 1996. This audit was conducted in accordance with generally accepted government auditing standards.

RESULTS OF REVIEW

Based on our review, we determined that there are several advantages to the paperless processing with imaging system:

- There is no longer a need for the Record Analysis Clerks (RAC) to file, retrieve, transport, and store paper documents.

- There is no longer a need to manually make an entry to the case control system each time the action item is passed from one employee to another.

- Managers and their assistants receive instant feedback on caseload status.

- The employees can view other pending actions and past actions before they process a current action. This avoids errors caused by conflicting data in these actions.

- There is no need to send the paper documents to the FRC for storage.

- There is no need to request case folders from the FRC if the document an employee needs to review is stored as an electronic image.

We have also found some disadvantages to paperless processing of RSDI actions:

- If the IWS/LAN system or local server is inoperable, so is the electronic work-flow system. Similarly, if an individual workstation is not functioning, the employee must move to an available workstation or stop processing actions.

- The employees working in the modules must be computer literate to process the electronic documents using a multi-tasking environment.

- Currently, employees occasionally use a terminal or personal computer to enter data or do queries. The paperless processing system requires employees to remain constantly at their workstations. This may cause physical problems such as eyestrain, back pain, fatigue, headaches, and carpal tunnel syndrome.

- Some of the employees working in the pilot module found it easier to print a copy of the electronic document to work on, rather than review it on their screens. This was especially true of multi-page documents.

THE CBA

We presented our reservations concerning the benefit figures contained in the CBA and other issues related to nationwide implementation of the pilot project at our entrance conference. SSA revised its CBA estimates as a result of our discussions. For example, the original cost estimate allocated a total of $60,000 for training while the revised estimate allocates $2.7 million for training costs.

SSA has decided to implement paperless processing with imaging nationwide, using COTS software for the electronic work-flow system. While we agree that the estimated $70 million of benefits and $30 million of costs related to this decision appear to be reasonable and achievable, we believe that SSA should consider several issues prior to the implementation.

Office of Workforce Analysis Study

The OWA study of the pilot module concluded that 21-inch monitors were necessary for the paperless processing with imaging workstations. However, we found that the sampling and survey methods used by OWA to determine the optimum monitor size were not adequate for the following reasons:

- The entire sample universe consisted of only one module, which was too small for the survey to be statistically valid.

- The module was the pilot for both the ergonomic furniture and the IWS/LAN system, as well as the paperless processing project. The OWA study did not isolate the effects of monitor size on employee performance and satisfaction from the effects of ergonomics or constant use. No correlation was established between monitor size and employee productivity.

- Employees were not required to try each of the different sizes of monitors. Monitors were assigned on a random basis. Six employees were assigned 21-inch monitors, 23 employees were using 20-inch monitors, 13 employees used 19-inch monitors, and 6 employees used 17-inch monitors. Employees using 17-inch monitors told the auditor that they had not experienced any problems with multi-tasking.

- The following factors were not considered in determining the optimum monitor size:

  -- pitch, vertical and horizontal screen size, refresh rate, or pin-wheeling.

  -- video card specifications - for example, number of bits, amount of video random access memory (RAM), number of colors available at each resolution level, or resolution levels achievable.

  -- operating environment - for example, type and version of software, number of Winmarks[1] achieved running different applications, or caching[2] methods.

The CBA cost estimate included the purchase of 5,840 21-inch monitors for use in the PSC modules at a cost of $10,512,000 ($1,800 per monitor). These large monitors would have been purchased in addition to the 15-inch monitors already provided for the same workstations under the IWS/LAN contract. During the course of our review, we recommended that a study be conducted of the video standards for multi-tasking in private industry to determine the minimum monitor size and specifications for the paperless processing workstations. SSA's Headquarters staff agreed with our recommendation. Based on detailed analysis of ergonomic and operational requirements, SSA has contracted for 19-inch Hitachi monitors to support expansion of the paperless project. We estimate that SSA would save $2.9 million by purchasing the 19-inch monitors (see Appendix C).

The IWS/LAN contract provides for the purchase of 56,500 workstations for the IWS/LAN project. When the contract was awarded in June 1996, SSA had fully funded 30,000 workstations with the standard (15-inch) monitors. During the course of our review, we suggested substituting larger monitors at an incremental price under the IWS/LAN contract. SSA agreed to purchase 19-inch monitors under the existing IWS/LAN contract. We estimate that additional savings of $796,578 will be realized from the purchase of these monitors as a substitution for the 15-inch monitors provided under the IWS/LAN contract (see Appendix C).

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[1] Winmarks are a bench test measurement of the speed at which the monitor screen refreshes itself, while running different types of software, in a Windows environment.

[2] Caching refers to the practice of storing frequently used commands in Random Access Memory (RAM) rather than on magnetic media such as a hard drive. A byte of data stored on RAM is accessed in nanoseconds (billionths of a second) rather than in milliseconds (thousandths of a second), as is data stored on a hard drive.

Casual Scanners

The CBA calls for the purchase of 1 “casual scanner” for every 80 PSC employees at a total cost of $782,000. The SSA personnel involved in the project have stated that documents will not need to be re-imaged because the RAC will examine the document on-screen for legibility before saving it as an electronic document. We do not believe that scanners should be purchased for use by module personnel in the quantities called for by the CBA since the nationwide roll-out plan calls for consolidation of all imaging in the mail room. However, casual scanners may be needed for some PSC components, if the components are required to open their own mail.

Indirect Costs

The only costs presented in the CBA were direct costs plus overhead. OSDD included the cost of equipment purchases, software purchases, the cost of maintaining hardware and software, and programmer workyears. The effect of not addressing other costs is underestimation of the total cost of the roll-out. OSDD did not include estimates of other costs, such as:

- The drop in productivity while employees are on the lower end of the learning curve for use of the new software. No amount of training can completely eliminate the time needed to adapt to the new process and working environment.

- The potential for an increase in the amount of sick leave taken, due to medical problems caused or aggravated by constant use of a computer workstation.

- The potential employee legal and/or benefit claims due to repetitive motion injuries (e.g. Carpal Tunnel Syndrome).

- The disruption to mail room operations during the installation of the imaging equipment, and the additional space that may be needed to accommodate this equipment.

Benefit Projections

The OWA study presented some benefit (savings) projections that were based on an assumed causal relationship between the use of imaging, and the results obtained from the OWA analysis of the pilot project. For example, the study presented an apparent correlation between the use of imaging technology and the fact that the pilot imaging module made 7 to 10 percent fewer folder recalls during an 8-month period. OWA considered the folder recall data to be anecdotal, and there was no attempt to establish a causal relationship with respect to savings. The CBA accepted this as a causal relationship and projected a savings of
54.4 clerical work years related to fewer folder recalls, resulting from the use of imaging. However, no correlation analysis was performed to verify the assumed causal

relationship.

While the pilot module did make 7 percent fewer than average folder recalls during the period from May 19, 1995 through February 2, 1996, the control module (Module 13) had 20 percent fewer than average folder recalls during the same period. Since Module 13 did not use paperless processing with imaging, there is no statistical validity to the assumed causal relationship in the CBA.

SECURITY OF ELECTRONIC DATA

The paperless processing with imaging project calls for imaged documents to be maintained on optical storage devices, with copies of the (Compact Disc-Read Only Memory [CD-ROM]) stored off-site. This procedure seems adequate to ensure that archived data will not be lost or altered.

SSA has not developed specific access and virus detection controls for the paperless processing electronic work-flow system. Instead, SSA will use TOP SECRET, the access control software package used on the mainframe, and the INNOCULAN virus detection software used on the IWS/LAN.

In the past, processing was performed on the mainframe computer in Baltimore and access to the data base was through dumb terminals. This centralization of both data and access controls made it possible for SSA to safeguard its data and prevent unauthorized access. We do not feel that these controls are adequate to prevent unauthorized access to the distributed data bases, or to prevent the loss/corruption of data.

The IWS/LAN workstations were previously used for electronic mail, commercial software such as word processors, and terminal emulation to access the mainframe. Now, SSA will be using the IWS/LAN as a platform for distributed processing of RSDI actions. Moreover, some IWS/LAN workstations have the capability of downloading data and programs from floppy drives, CD-ROM drives, servers, and the Internet. This increases the risk of a virus infection. The OIG report entitled, “Review of Security Policies and Procedures for the Intelligent Workstation/Local Area Network at Social Security’s Field Offices”
(A-09-95-00058 issued August 7, 1996) recommended that SSA perform continuous virus scans of the IWS/LAN. SSA determined that this was not possible because continuous scans significantly slowed down the system.

The use of intelligent workstations, the IWS/LAN system to access data, and distributed processing/data bases make the data vulnerable to unauthorized access by hackers and corruption by a computer virus. A recent OIG audit report on the IWS/LAN project (see Appendix A) disclosed that over 500 workstations on the network used by the Office of Hearings and Appeals were infected by the "Dark Avenger" virus.

We believe that SSA must incorporate adequate access controls to meet the provisions of the Privacy Act.[3] The Privacy Act states, in part, that:

> "No agency shall disclose any record which is contained in a system of records by any means of communication . . . unless disclosure of the record would be to those officers and employees of the agency who have a need for the record in the performance of their duties."

Current SSA access controls do not restrict access to documents on a "need to know" basis.

SSA must also incorporate effective virus-detection controls to prevent corruption of the electronic work-flow and IWS/LAN systems and avoid disruption of processing in the modules. Since the controls were not available for our review, we cannot render an opinion on whether the controls will be adequate to accomplish these tasks.

EVIDENTIARY VALUE OF IMAGED DOCUMENTS

DOJ, SSA/OIG, and the Office of the Counsel to the Inspector General have studied the issue of destroying paper documents after imaging. Their conclusions are summarized in the following excerpts from the May 2, 1997, letter issued to SSA/OIG by DOJ's Criminal Division. (See Appendix D for the complete text of the letter)

> "This is in response to your letters of March 10 and April 7, 1997, regarding the plan by SSA to substitute electronic files for certain specified paper records, including four Social Security forms that often serve as evidence in criminal investigations and prosecutions. These forms are: (1) SSA Form 795, 'Statement of Claimant or Other Person;' (2) SSA Form 623, 'Representative Payee Report;' (3) SSA

[3] The Privacy Act, 5 U.S.C. 552a (e)(10), states that, "Each agency that maintains a system of records shall . . . establish appropriate administrative, technical, and physical safeguards to ensure the security and confidentiality of records and to protect against any anticipated threats or hazards to their security or integrity which could result in substantial harm, embarrassment, inconvenience, or unfairness to any individual on whom information is maintained."

Form 6230, ‘Representative Payee Report for Children;’ and (4) SSA Form 7161, ‘Report to SSA by Person Receiving Benefits for a Child or an Adult Unable to Handle Funds.’”

“On February 24, 1994, the Assistant Attorney General for the Criminal Division wrote the Commissioner of Social Security, urging SSA to retain all original signed benefit applications in paper record form, as well as other specified records that are frequently used as evidence in Social Security fraud cases, including two of the four forms that SSA proposes to scan and destroy.

“SSA’s reliance on the ‘Admissibility of Electronically Filed Federal Records as Evidence,’ published by the Justice Management Division, October 1990, is misplaced. That document merely explains how the Federal Rules of Evidence apply to electronic records, and does not address the authenticity of the electronically-stored record if it is challenged.

“In every case in which a scanned record was introduced as evidence, the authenticity of the record would be open to challenge.

“As the February 24, 1994, letter pointed out, establishing the authenticity of the electronically stored record would be extremely difficult. A defendant might claim that the signature on the form was not his signature, or that the form had changed in some respect from the time he signed it. These defenses would be more difficult to refute without the paper record.

“We consulted with the analysts in the Federal Bureau of Investigation (FBI), Laboratory Handwriting Analysis Unit regarding their ability to compare scanned signatures with a defendant’s handwriting exemplar. They indicated that they would not be able to testify with any degree of certainty that a scanned signature was the same as a known original signature. In addition to pictorial characteristics, the analysts look at pen pressure, shading, beginning and ending strokes, pen drags, and ink type, among other characteristics. Analysts also try to obtain fingerprints from a document if possible. The ability to examine most of these characteristics would be lost without the original paper form. Analysts would be limited to comparing the pictorial characteristics of the scanned record and the defendant’s known sample; under these circumstances, the FBI analysts do not believe that they can make a definitive comparison.

> "Without the original signature page of the imaged document, prosecutions will become more costly and time-consuming, and convictions less likely. This, in turn, may affect the Department's and the United States Attorney's prosecutorial discretion in determining whether to pursue such cases."

The importance of the handwriting analyst's opinion is also illustrated in the Department of Health and Human Services' Office of Inspector General 1988 survey regarding the retention of SS-5 application forms. The auditors asked officials at various law enforcement agencies whether a microfilmed copy of the SS-5 would be as useful to them as the original document. Their consensus statement was that an opinion from a handwriting expert is often crucial to obtaining a conviction. The local head of the FBI's White Collar Crime Division stated that nearly every white collar crime involves a chain of evidence linking the perpetrator to the illegal act. He said that there is usually one document that is the critical link in the chain. If you cannot prove that the perpetrator prepared or signed that document, such as a signature card for a bank account or an SS-5 application for a fraudulently-obtained Social Security number, then you cannot successfully prosecute the case. He also said that no handwriting expert would issue an opinion on a comparison of a handwriting exemplar with a microfilmed or photocopied document.

As indicated in the DOJ letter, no handwriting analyst has issued an unqualified opinion on the comparison of an imaged document with an exemplar. We should consider that, even if the defendant admitted preparing and signing the imaged document, the content of the document would be open to challenge on the grounds that it was altered after the preparation and signature. The only way to refute this challenge is by an examination of the original paper document.

CONCLUSION AND RECOMMENDATIONS

CONCLUSION

The paperless processing with imaging nationwide roll-out plan has the potential for cost savings through the reduction of workyears attributed to the handling of paper documents. This reduction comes at a time when SSA is forced to reduce staffing levels while processing an increasing workload. Therefore, we support the roll-out. We found, however, that some costs could be reduced without having an adverse effect on the overall paperless processing with imaging project, and other costs should have been included in the CBA estimates. We also found that actual benefits may fall short of the CBA estimates.

We found that SSA is currently developing specific access controls for the distributed data bases where the imaged documents will reside. We also found that maintaining all documents in electronic form only, will hinder successful SSA fraud prosecutions. We believe these issues should be addressed before full implementation.

RECOMMENDATIONS

We recommend that SSA:

1. Select the necessary monitor size, either a 19-inch or 20-inch, for the multi-tasking workstations to be installed in the PSC modules. This action will result in cost savings equal to the difference in price between the selected monitor and the 21-inch monitor. We estimated that cost savings will be $2.9 million. (See Appendix C.)

   Agency Comments: We agree. Based on detailed analysis of ergonomic and operational requirements, the Agency has contracted for 19-inch Hitachi monitors to support expansion of the paperless project. (See Appendix F for the entire text of the Agency's comments.)

2. Consider purchasing the monitors as a substitution under the IWS/LAN contract rather than making an additional purchase. (See Appendix C.)

   Agency Comments: We agree. The new 19-inch Hitachi monitors are being obtained under the existing IWS/LAN contract.

3. Reconsider the decision to purchase "casual scanners" for every 80 employees in each PSC. Since imaging is to be consolidated in the mail room, casual scanners

should be purchased only for those components that will be included in the nationwide installation of paperless processing with imaging and must open their own mail. This action could result in cost savings of up to $782,000. (See Appendix C.)

Agency Comments: Upon reconsidering the decision to purchase "casual scanners" at a ratio of 1 for every 80 employees (the equivalent of 2 modules), we concluded that this ratio is not excessive given the number of employees and anticipated workload that will be involved. Although much of the imaging will be performed in the mail rooms, there will be occasions when scanning will be needed within the module; e.g., when correspondence is directed to a specific SSA employee; or sensitive material is received marked "DO NOT OPEN IN MAIL ROOM." The availability of 1 "casual scanner" for every 80 employees will help maximize the overall benefits of electronic processing.

OIG Response: The nationwide roll-out plan calls for consolidation of all imaging in the mail room rather than in the modules as originally designed. As stated in our report, we do not believe that scanners should be purchased for use by module personnel in the quantities called for by the CBA. Further, SSA has not performed any further studies to justify its need for a ratio of one scanner for every employee.

4. Prepare future CBAs which present benefit estimates based upon statistically valid methodology.

   Agency Comments: We agree that there were not enough employees sampled to result in a statistically valid finding. SSA also provided comments on the OWA study. (See Appendix F for the entire text of the Agency's comments.)

   OIG Response: Where appropriate, we revised the report to reflect SSA's comments on the OWA study. However, SSA did not comment on our recommendation regarding future CBAs.

5. Develop controls that restrict access to imaged documents to employees with a "need to know."

   Agency Comments: We agree. SSA is developing security matrices that will limit access to only those who have a "need to know." The security matrices will be in place before the start of the nationwide roll-out of paperless processing with imaging. The tentatively scheduled start date for the roll-out is June 1998.

6. Review the controls over the IWS/LAN and paperless processing with imaging prior to implementation to determine whether they will adequately protect data from loss or corruption due to computer viruses.

Agency Comments: We agree. We are currently developing procedures to run virus scans on servers at the paperless sites the same as for the IWS/LAN. This will provide protection for data stored at the client server end. Procedures and tools are already in place to protect mainframe electronic files at the National Computer Center.

7. Maintain the documents listed in Appendix B in paper form after scanning them into the electronic work-flow system.

Agency Comments: We disagree. The current rate of misuse of benefits by Rep Payees is less than one-half of 1 percent of all Rep Payee cases. The rate of fraud is even less. According to OIG figures, only 21 criminal convictions for FY 1996 were attributed to Rep Payee misuse with recoveries totaling $589,610. (Note: This represents judgments that may be collected.) This potential recovery weighed against estimated savings of $158 million does not make a persuasive case for change in implementation strategy that involves over six million reports submitted annually. To recover a little over
$500,000, approximately $100 million in potential savings would be lost because full advantage could not be made of changes to the workload handling, job reengineering, folder recalls, and the eventual retirement of off-site storage facilities. Moreover, we have no data that would help inform us as to which of the 21 cases, if any, were dependent on any of the original payee forms in question.

Although the DOJ letter of May 2,1997, seemed to support the OIG concerns about impact of electronic evidence on the Agency's ability to successfully prosecute cases of fraud or misuse, in a discussion with DOJ officials, they advised that electronic evidence would not in itself be a deterrent in prosecution or have a controlling impact on the decision to prosecute. Rather, it was that evidence in concert with all other facts and evidence that would be the basis for a decision on moving forward to prosecute a case. Moreover, we believe that . . . decisions to move towards electronic records are in the main, business decisions that only Agency heads can make.

Despite the reassurance this interpretation and discussion may have afforded, we recognize the continued concerns held by OIG over a form of evidence which has not been widely tested or validated through actual prosecution and court judgments. In response to that concern, and consistent with the Agency's commitment to "zero tolerance for fraud," we will support OIG testing the impact of electronic evidence on the Agency's ability to successfully prosecute cases of fraud and abuse. The current roll-out schedule for this initiative will provide the opportunity for OIG to assess the utility/acceptability of electronic evidence in "real world cases." When sufficient actual case result data is available, we will assess it against actual/projected benefits and consider modifications to the scope of the initiative.

The concerns which seem to be the basis for the recommendation stem, at least in part, from what may be a lack of understanding of the actual chronology of review of these forms and the actions that would be taken in relation to any indications of irregularities . . . . It would be the rare case that was predicated solely on the Rep Payee forms in question, whether in original or electronic form.

In summary, we disagree with this recommendation for the forgoing reasons. However, we are planning to redesign the Rep Payee forms and reporting processes and we will ensure that OIG's evidentiary concerns are addressed. In addition, we recognize that the issue of imaging and its use in court proceedings is a very significant emerging area of law, and we agree that we need to factor these considerations into all of our future plans in the "paperless" initiative. (See Appendix F for the entire text of the Agency's comments.)

OIG Response: As the entity responsible for monitoring fraud, waste, and abuse at SSA, we cannot agree that decisions to image-and-destroy evidentiary documents should be based solely on financial impact. Rather, such decisions should take into account a number of factors, including whether such evidentiary documents: (1) comprise crucial evidence in Federal and State prosecutions; (2) are not easily replaced with other types of evidence;
(3) comprise an essential "control" in the administrative process; (4) provide deterrence against criminal conduct; and (5) do not have an excessive cost element. We hope that SSA will reconsider its decision to image-and-destroy the subject representative payee forms, in light of these important fraud-related factors. SSA's current position lacks support even on a straight financial analysis, in light of recent increases in Rep Payee prosecutions and the minimal reduction in storage costs due to form destruction.
OIG reviewed over 200 forms and identified only four forms whose destruction could compromise criminal or civil prosecutions.[4] These four forms frequently comprise crucial evidence in Federal and State Rep Payee prosecutions. These original signature forms are frequently used to demonstrate knowledge, intent, identity, and/or authenticity in Rep Payee prosecutions. It is standard operating procedure for Assistant United States Attorneys to request such forms prior to accepting a representative payee case for prosecution.

In May 1997, DOJ's Chief of the Computer Crime and Intellectual Property Section, Criminal Division, agreed that prosecutions of Rep Payee cases would become more difficult without these original signature forms. The relevant portion of DOJ's response states the following:

> "Although we are supportive of the Social Security Administration's efforts to reduce the amount of paper in its offices, we continue to believe that

[4] Thus, over 98 percent of the documents which the Agency wished to image-and-destroy were deemed nonessential to fraud-fighting efforts by our Office.

> this proposal would have a negative effect on the Department's ability to prosecute certain Social Security fraud cases, particularly representative payee fraud. In every case in which a scanned record was introduced as evidence, the authenticity of the record would be open to challenge.
>
> "SSA's reliance on the 'Admissibility of Electronically filed Federal Records as Evidence,' published by the Justice Management Division, October 1990, is misplaced. That document merely explains how the Federal Rules of Evidence apply to electronic records, and does not address the authenticity of the electronically-stored record if it is challenged."

The letter ultimately concludes that without the original signature page of the imaged documents, Rep Payee prosecutions will be "more costly and time-consuming, and convictions less likely." It further notes that these factors could affect the DOJ's "prosecutorial discretion in determining whether to pursue such cases." We agree, as the chance of an admission of guilt increases dramatically when an individual is confronted with a signed, original form. Similarly, such opportunities will likely be lost without the original signed forms.

The subject Rep Payee forms are also the sole control deterring Rep Payee misuse. Indeed, they are the only medium that accounts for how Rep Payees spend Social Security funds. Frequently, there is no evidentiary alternative to these Rep Payee forms. In many such cases, the defrauded beneficiary may suffer from a mental impairment or may have been otherwise deemed incompetent. As such, the possibility of live witness testimony to supplement or replace the lost evidence is simply not possible in many Rep Payee cases. While many other Federal agencies have decided to image-and-retain critical forms (e.g., Internal Revenue Service), the Agency has chosen not to do so. If the Agency images-and-destroys the subject forms, SSA should develop compensating controls to substitute for this important evidence.

These forms also provide an important deterrence factor in the Agency's fight against fraud. Major Rep Payee prosecutions, based in part on how such forms are completed, provide substantial media exposure. Such exposure may prevent other Representative Payee-related crimes from taking place. Any loss of publicity and/or deterrence may ultimately compromise, or even outstrip, the insignificant costs savings attributed to the destruction of such forms.

Finally, as noted above, we cannot agree that the principle factor in retention decisions should be estimated cost savings alone. That stated, we note that cost savings and conviction statistics have risen markedly for Rep Payee cases in FY 1997 and early FY 1998. These increases appear to be attributable to staff increases in OIG's Office of Investigations, in FY 97 and FY 98, and likely will continue to increase as newly-hired investigators take on full case loads.

The Agency response properly notes that there were only 21 convictions in FY 1996 attributable to Rep Payee misuse with scheduled recoveries, savings, fines, and restitution approaching $600,000. However, in FY 1997, this number rose to 32 Rep Payee convictions with scheduled recoveries, savings, fines, and restitution of over $1.6 million dollars. In the first 8 months of FY 1998, there have already been 54 such Rep Payee convictions with scheduled recoveries, savings, fines, and restitution of over $3.5 million dollars.

SSA's financial justification for not retaining the four Rep Payee forms after imaging is somewhat misleading as well. SSA and OIG agreed to a revised benefit estimate of $70 million in December 1996 attributable to the <u>entire</u> paperless processing with imaging project. Therefore, we do not understand how the retention of the four subject forms after imaging would, as SSA has claimed, nullify virtually all program savings.

The savings cited by SSA for this project are attributable to the processing of action items in electronic form, rather than as paper documents. Once a paper document has been imaged, it will be processed through the electronic work-flow system. The estimated savings result from distribution, processing, logging, and storing of action items as electronic documents. Thus, we feel that no substantial financial benefits will be sacrificed due to the retention of the subject forms after imaging. Rather, there

would be some minimal costs involved with storing the requested paper documents for the full statute of limitations period.

Perhaps another alternative would be for the Agency to image the subject forms, while retaining the hard copy forms for a 2-year pilot period. This would allow the Agency to test the efficacy of the imaging process, while preserving vital evidence for potential prosecutions. After completion of a pilot period, the Agency would have better information upon which to make a final decision.

APPENDICES

LISTING OF REPORTS REVIEWED

"Impact of Paperless Processing on the Operation of a Processing Center Module" prepared by the Social Security Administration's (SSA) Office of Workforce Analysis. [Issued May 1996]

"Intelligent Workstation Local Area Network Paperless Processing with Imaging Pilot Phase II" prepared by SSA's Office of Program and Integrity Reviews. [Issued March 4, 1996]

"Review of Security Policies and Procedures for the Intelligent Workstation/Local Area Network at Social Security's Field Offices" (A-09-95-00058) issued by SSA's Office of the Inspector General's (OIG), Office of Audit (OA). [Issued August 7, 1996]

"Review of the Social Security Administration's Software Development for the Distributed Processing Environment" (A-13-95-00605) issued by SSA/OIG/OA. [Issued June 18, 1996]

The final report of the "National Research Council's Committee on Review of Social Security Administration's System Modernization Plan and Agency Strategic Plan." [Issued June 30, 1992]

The draft report on the "Admissibility of Electronically Filed Federal Records as Evidence" prepared by the Department Of Justice Systems Policy Staff. [Issued October 1991]

Various sections of the SSA Program Operations Manual System, the Code of Federal Regulations, and Bulletins issued by various Federal agencies.

ORIGINAL PROGRAM SERVICE CENTER FORMS AND DOCUMENTS WHICH SHOULD BE MAINTAINED IN PAPER FORM

Forms that the Social Security Administration (SSA) has agreed to keep in paper form:

SSA has agreed to keep all signed original benefit applications in paper form, after imaging, for the full statute of limitations period. This includes initial applications for Old-Age, Survivors and Disability Insurance benefits under title II; and Supplemental Security Income benefits under title XVI.

Forms that the Office of the Inspector General (OIG) requests be kept in paper form:

There are four forms that SSA has not agreed to maintain in paper form after imaging, which frequently comprise key evidence in SSA/OIG's criminal and civil cases. SSA/OIG's Office of Investigations is concerned that failure to maintain these documents in paper form after imaging, could impede the U.S. Department of Justice (DOJ) prosecutions and certain civil cases. DOJ has concurred with the SSA/OIG's position.

- Form SSA-623 (Representative Payee Report)
- Form SSA-6230 (Representative Payee Report for Children)
- Form SSA-7161 (Report to SSA by Person Receiving Benefits for a Child or an Adult Unable to Handle Funds)
- Form SSA-795 (Statement of Claimant or Other Person)

Note: *The scope of this audit was limited to actionable documents that are received in the Program Service Center (PSC) and processed by the modules. If SSA decides to expand imaging beyond the PSC environment, there may be additional original documents which should be maintained in paper form after imaging.*

COMPUTATION OF COST SAVINGS AND AVOIDANCE

AUDIT ISSUE: Purchase of 21-inch monitors for the paperless processing with imaging work stations in the modules of the six Program Service Centers (PSC).

Cost Savings

The Intelligent Work Station/Local Area Network (IWS/LAN) roll-out calls for installation of 6,870 work stations in the 6 PSCs. The paperless processing with imaging roll-out plan called for installation of the electronic work-flow system on 5,840 of these work stations (those in PSC modules). The Cost and Benefit Analysis (CBA) prepared by the Office of Systems Design and Development (OSDD) states that the 21-inch monitors will be purchased for each paperless processing work station, rather than the 15-inch monitors provided for the IWS/LAN work stations. These large monitors were to be purchased in addition to, rather than in place of, the 15-inch monitors provided by the IWS/LAN procurement. The original cost estimate for monitor upgrades, based on the purchase of 21-inch monitors at a cost of $1,800 each was $10,512,000, as shown in the following table.

PSC Locations	IWS/LAN Work Stations	No. of Monitor Upgrades	Cost of Monitor Upgrades ($1,800 each)
North East (NEPSC)	1,143	972	$1,749,600
Mid Atlantic (MATPSC)	972	826	$1,486.800
South East (SEPSC)	1,228	1,044	$1,879,200
Great Lakes (GLPSC)	1,196	1,017	$1,830,600
Mid American (MAMPSC)	1,480	1,258	$2,264,400
Western (WNPSC)	851	723	$1,301,400
Totals	6,870	5,840	$10,512,000

NOTE: *The $1,800 unit cost per monitor was taken from the OSDD cost estimate in the CBA.*

We have recommended that the Social Security Administration (SSA) look to private industry to determine what the minimum monitor specifications are for a multi-tasking workstation. This study has been conducted and, based on detailed analysis of ergonomic and operational requirements, the Agency has contracted for 19-inch Hitachi monitors to support expansion of the paperless project. Modification #12 to the IWS/LAN contract authorizes the purchase of 4,014 of the 19-inch monitors, at a cost of $1,074.00 each. The per unit cost of the 21-inch monitors was $1,800.00. So the savings realized is $2,914,164 ([$1800-1074] x 4,014).

In addition to the savings realized above, SSA also realized savings of $796,578.30 by substituting the 19-inch monitors for the 15-inch monitors provided under the IWS/LAN contract. The IWS/LAN contract calls for the purchase of up to 56,500 workstations. SSA had only committed themselves to purchase 30,000 workstations with the standard 15-inch monitors. We recommended that SSA ask the IWS/LAN contractor to substitute larger monitors for the 5,840 paperless work stations, at an incremental cost per unit. The savings for SSA are equal to the cost of the standard 15-inch monitor ($198.45) times the 4,014 monitors that were substituted.

AUDIT ISSUE: The CBA includes the costs of “casual scanners” one of which is to be assigned to every 80 PSC employees.

Cost Savings:

The following chart presents the planned purchases of casual scanners by PSC:

Location	NEPSC	MATPSC	SEPSC	GLPSC	MAMPSC	WNPSC	Totals
Number*	14	12	15	15	19	11	86
Cost	$129,000	$109,000	$138,000	$135,000	$166,000	$96,000	$773,000

** These figures are rounded to the nearest whole unit.*

The cost figures are taken from the CBA. The CBA also allots an additional $9,000 for a casual scanner at the Central Office, bringing the total cost to $782,000.

We do not see a need for this equipment, since the current roll-out plan calls for consolidating the imaging function in the mail room of each PSC rather than in the modules. The Record Analysis Clerks could open and image mail in the mail room that was previously stamped “do not open.” We recommend that SSA not purchase this equipment, until there is a demonstrated need for it.

APPENDIX D

LETTER ISSUED BY THE DEPARTMENT OF JUSTICE'S CRIMINAL DIVISION

GLOSSARY

Term or Acronym	Definition
Casual Scanners	These are optical scanners for sporadic rather than regular use. They are intended to be a supplement to the scanners contained in the Central Scanning Area of the program service center, which are used to image action items received through the mail room.
COTS	This acronym stands for Commercial-Off-The-Shelf software. These software programs are readily available for sale to the general public. No modifications or customizing of these programs was done by the vendors prior to their purchase.
Electronic Work-flow System	This software program performs all the functions for electronic action items that are performed manually for paper action items. These include: (1) establishing an identification number for the item in the case control system; (2) determining which employee should be assigned the action based on the Social Security number (SSN); (3) placing the action in the employee's pending file; and (4) tracking the subsequent movements and location of the action.
Imaging	Is the process by which a paper document is fed into an optical scanner that perceives the paper sheet as a grid containing hundreds of thousands of cells called pixels. Each pixel is read by the scanner and special software programs assign a value to each cell based on the relative shade of black, white or other color found in that pixel. The value of each pixel, its location in the grid, and the dimensions of the grid are recorded as an electronic file known as an imaged document.

IWS	This acronym stands for Intelligent Work Station. This is a personal computer that is capable of running computer software using its built-in Central Processing Unit, but is connected to a more powerful computer called a server which controls access to other software programs, data bases, computers, and communications (e.g. electronic mail).
LAN	This acronym stands for Local Area Network. This system connects a number of personal computers (workstations) through another computer called the server. This allows the individual workstations to share software, data bases and other resources such as printers. It also allows the workstation users to communicate with each other and transfer files by electronic mail.
Paperless Processing	The process whereby: (1) an actionable item is assigned by SSN to the appropriate module employee and distributed, as an electronic file, by the electronic work-flow system; (2) the action item, along with other related actions (past and pending), is retrieved and reviewed by the module employee on-screen at the workstation; and (3) after necessary action has been taken, the processed action file is stored in the local data base until the specified retention period lapses.
Virus	The name for a set of executable computer commands designed to degrade, erase, or otherwise render unreliable or useless the data and software files contained on a computer. This set of commands is embedded into another program and activated when the program is executed.

APPENDIX F

SSA COMMENTS

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For additional copies of this report, please contact the Office of the Inspector General's Public Affairs Specialist at (410) 966-9135. Refer to Common Identification Number A-05-96-11037

APPENDIX H

SSA ORGANIZATIONAL CHART