Summary

In 1982, the Social Security Administration (SSA) announced a 5-year plan to modernize its information systems. The Systems Modernization Plan (SMP) was a multimillion dollar response to serious problems that had developed during the 1970s, and that repeatedly threatened to disrupt SSA's services delivery operations. Congressional oversight had identified many of these problems, but had not fully revealed their persistent, deep-seated, and cumulative effect on the agency's ability to respond efficiently to congressional mandates and priorities.

This special report explores the factors that led to SSA's information systems problems. It concludes that other Federal agencies are vulnerable to similar problems as they automate and modernize data-handling operations. It also concludes that effective oversight and monitoring of agencies dependent on advanced information systems is becoming more difficult, as technological decisionmaking and management increasingly requires specialized knowledge.

Issues for Congress

The basic strategy of SSA's SMP as set out in 1982 is reasonable and defendable in the sense that it is consistent with accepted systems engineering practices. Some experts argue that alternative strategies should have been adopted, such as regional decentralization of data processing. However, whether or not the original decisions were the best ones, the alternative strategies also have disadvantages and risks; they cannot be shown to offer stronger guarantees of success than does SMP. Achieving SMP's objectives now depends on SSA's technical competence, on the quality of its management as it implements the SMP, and on certain factors outside of the agency's control, including Administration policy and directives.

SSA has made significant progress toward achieving the goals of the plan in many areas, especially hardware acquisition. In other areas, SSA has fallen behind. The report identifies a series of serious unresolved problems in software engineering, database architecture, and database integration. Even though the strategy is sound, these problems cast doubt on SSA's understanding of the nature of some technical questions, and its commitment to the quality of management that is essential to success of SMP.

This report also raises strong questions about the reliability and completeness of the information that SSA has provided to Congress and to the public about its progress in SMP implementation. Congress may therefore want to intensify its monitoring and oversight of all aspects of implementation, to make sure that the goals of systems modernization, efficient management, and improved services delivery that Congress accepted in funding the SMP, are achieved. Alternatively, Congress may want to accept the judgment of SSA and its executive branch monitoring agencies as to whether current progress toward solving major implementation problems is acceptable, and implementation should proceed through the planned steps and scheduled milestones. This choice has a bearing on two immediate issues: a large SMP procurement in fiscal year 1987, and the proposal to make SSA an independent agency.

The SMP schedule calls for procurements to automate claims filing in field offices in early 1987. If implementation of SMP were proceeding satisfactorily, the timing of these acquisitions probably would not be controversial. The benefits of a modernized claims process, with improved service for the growing population of beneficiaries and greater productivity for SSA, would outweigh the cost of temporarily underused computer capacity while other procedures are automated. Unfortunately, there is conflicting evidence about the reality and pace of this progress, and whether SSA fully understands the nature of the technical hurdles that must still be surmounted. SSA has not convincingly demonstrated that it is on the way to solving its software and database problems, and some experts have questioned the advisability of proceeding with this or other procurements until such demonstration is made.

The decision about the procurement should be made in the overall context of the SMP and the desirable long-term goal, adopted in 1982, to modernize the SSA system. Analysis of costs and benefits of any procurement should include the effects of its timing on all aspects of SMP implementation. Proceeding with the procurement risks incurring the costs of unused communication and computer capacity while software is developed for automating additional field office services. On the other hand, procurement delay risks losing possible productivity gains in claims processing, as well as possible degradation in service, should staff reductions take place. It appears that the claims process could be automated, with considerable benefit to clients and the agency, while the software work continues. The database problems must be solved, regardless of the procurement decision. The immediate procurement issue should not deflect attention from, nor should it determine the course of actions related to the larger systems management problems in SSA.

Congress may wish to consider giving SSA a cautious "go-ahead" in conjunction with increased monitoring and close oversight, and insisting that broad corrective actions be taken over the next year to strengthen SSA's management control and its systems development capability. A second option is to stop SMP procurement and contracting, and to take advantage of this interval for congressional re-evaluation of the goal of providing SSA with state-of-the-art technological systems, and its feasibility, in the light of current priorities.[1] In this situation, however, some potential productivity gains may be foreclosed for the near future, and the commitment to and impetus of systems modernization may fall into disarray, and be difficult to recapture. A third option is to require each step in implementation to be justified in isolation; however, this involves Congress in a difficult process of micromanagement that may lose sight of the overall objectives of the SMP effort.

Some potential risks to the timely success of systems modernization are outside of SSA's control. The current pressure to realize productivity benefits by severe work force reductions before the modernized systems are ready, could lead to a return of the problems of 1978 to 1982, and thus discredit SMP and whatever progress has been made. Renewed instability of leadership and organizational restructuring could also delay progress and disrupt SSA's still fragile attempts to institutionalize advanced planning and to improve labor-management relations, both of which are essential to the success of systems modernization. These factors are as important to SMP success as is the immediate procurement issue.

The House of Representatives has voted for independent status for SSA; in part to reduce some of these risks. While this might buffer the systems modernization effort against some external pressures, it would not necessarily resolve the difficult questions about the most effective modes of congressional oversight and monitoring.

The Long-Range Implications of SSA Systems Modernization

SSA's ability to respond to congressionally mandated changes in benefits programs has already been improved, and will be strengthened further when it succeeds with software development and improvement. However, continuing automation of both operations and management functions-both in SSA and other Federal agencies-is likely to make effective congressional oversight more demanding and difficult. Information technologies can make it easier to select, manipulate, or obscure critical performance data, and the costs of failures in implementing and managing advanced systems may make it more tempting to do so. Evaluating management decisions and performance related to advanced technological systems increasingly requires specialized knowledge.

As the automation of SSA's operations proceeds, labor-management relations will inevitably be stressed. Displacement of some workers will occur, and there will be increasing need for retraining and relocation of other workers, and for reconsideration of personnel recruitment, retention, advancement, and compensation policies.

State-of-the-art information technology, by facilitating increased use of computer-matching techniques and the sharing of data about individuals with other organizations, and broadening access to data, will exacerbate present concerns about the privacy and security of social security information.

The findings of the report about the source of SSA's problems, why they were not resolved, and why their seriousness was not fully revealed by oversight and monitoring mechanisms before they became critical, have significant implications for other Federal agencies and for Congress. Many of the problems were found to stem from factors and forces that may affect all Federal agencies that become dependent on advanced information systems.

The report describes some mechanisms or actions that have been suggested for facilitating congressional oversight of SSA's systems modernization. They include independent agency status, broader and more frequent studies by congressional support organizations, integration of SSA oversight in one committee of each House, a stronger mandate for subcommittees overseeing government information technology decisions, and an external blue-ribbon advisory panel on government information technology decisions. The most promising of these options are those that could be generalized to apply to other Federal agencies with similar problems now or in the future.

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*This option was recommended by the General Accounting Office in its recent report on SSA automated data processing acquisitions dated August 1986.