

Baltimore's Candler Building housed the agency's records division from 1936 until 1960

## Fifty Years of Operations in the Social Security Administration

by Michael A. Cronin\*

This special anniversary feature traces 50 years of developments in two of the Social Security Administration's (SSA's) most significant operations—social security number issuance and wage recording—and in the agency's network of field offices, with special emphasis on the years immediately following passage of the Social Security Act of 1935. The initial registration of the Nation's workers for social security purposes was a massive undertaking. Before it could begin, agency planners had to determine the configuration of the social security number, what kind of identifying material would be issued to workers, and how the actual mechanics of the registration would proceed. The article describes the thinking that went into these issues, the substantial role played by the Post Office Department, and how the decisions and

processes have been affected by the passage of time. With regard to the wage recording operations, the article discusses some of the options facing the agency planners in setting up the new process, and describes the process as it has evolved through the years, especially as it has been altered to take advantage of increasingly sophisticated machinery. While it is true that the computer age has changed a great deal about the operation, today's process is a direct, recognizable descendent of the original one. Furthermore, the tabulating and posting machines used in the agency's infancy were every bit as revolutionary in their own day as computers were when SSA first began to use them nearly 30 years ago. Finally, the article looks at the agency's field office network—its configuration and evolution, what the criteria were for locating the earliest offices, and the many ways in which field office employees serve the American public.

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A subsequent article in the 50th Anniversary series will trace the legislative development of the social security program from its inception to the present. This article examines program development from the viewpoint of the administrators who have had to make the program work. To these persons, the significant developments in the past 50 years have related to providing prompt, courteous, and efficient service to the public, which has been the fundamental operational goal of the Social Security Administration (SSA) since the program began.

The various operating processes that SSA employs are not described in detail here. Rather, the article broadly traces developments in two of SSA's oldest and most significant workloads (social security number (SSN) issuance, and wage reporting and recording) with special emphasis on these operations in their early stages. Also discussed is SSA's field office network, which has put agency personnel in face-to-face contact with millions of workers and beneficiaries over the years.

### SSN Issuance

The Social Security Act of 1935 was not very specific with regard to how the new program of old-age benefits was to be administered. Thus, it was generally left to the creativity of the earliest administrators to devise a system for recording wages reported for individual employees beginning in 1937. The absolute necessity for preserving this individuality in the records of each of the millions of workers covered by the Social Security Act presented one of the first great administrative problems for the Social Security Board. The complexity of the problem, the myriad of possible solutions, and the ramifications of various solutions are indicative of the difficulties the early administrators faced in getting the program off the ground.

Today, most Americans take for granted the familiar nine-digit number to which they refer when they apply for a job, pay taxes, open bank accounts, register cars, and use for various other reasons, including those directly related to the social security program. But the familiar three-two-four configuration of numeric digits was only one of a number of options available to early program planners. It was obvious from the beginning that no temporary expedient would suffice. Not only was it essential to permanently identify each individual who was to be covered, but it was also essential that any system of identification be sufficiently elastic to function indefinitely as millions of additional workers became covered.

One possibility that received passing consideration was not to issue identifiers at all, but rather to record wages by name, and to identify like-named individuals by their dates of birth, mothers' maiden names, and other information. But practical considerations pre-

### SSA's Organizational History

The organizational history of the agency that administers the social security program is complex. The Social Security Act of 1935 established a three-member Social Security Board to administer the programs established by the Act (that is, social security, unemployment compensation, and the various public assistance programs). The Board established the Bureau of Federal Old-Age Insurance (later the Bureau of Old-Age and Survivors Insurance) as the agency responsible for administering social security. In 1946 the Social Security Board was abolished and the Social Security Administration established. In 1963 a Welfare Administration was established to administer the public assistance programs, leaving social security to the Social Security Administration and marking the end of the Bureau of Old-Age and Survivors Insurance.

The Social Security Board, and later the Social Security Administration, were under the jurisdiction of the Federal Security Agency from 1939 to 1953, when the Department of Health, Education, and Welfare (which later became the Department of Health and Human Services) was established and designated as SSA's parent organization.

vailed after a quick study of a phone book from Washington, D.C. revealed some 33 individuals named John Smith and 18 named Mary Jones. The planners realized how difficult, time-consuming, and inexact it would be to differentiate among so many individuals without some type of numeric or alpha-numeric identifier.

In November 1935, the newly appointed Social Security Board tentatively decided, for reasons that are not known to us today, that the identifier should have eight characters, three alpha and five numeric. We do know that this decision sparked a storm of controversy that would rage unabated for months and would ultimately involve many agencies of the Federal Government.

The first agency to balk at the proposed alpha-numeric identifier was the United States Employment Service, which to that time had assigned identification numbers to some 12 million persons, the bulk of whom were unemployed individuals seeking work. The Employment Service's identifier was a nine-digit numeric system in which the first two digits represented the State of registration, the next two the county, and the last five a serial number. When the members of the Social Security Board contacted other Federal agencies, they found that similar identification schemes were employed by the Bureau of the Census, the Central Statistical Board, and the Bureau of Labor Statistics.

Further, they learned that these agencies had rejected the use of alpha-numeric systems largely because only two companies produced tabulating machines that could work with such a system, and the government had filed suit against these companies under the Sherman Anti-Trust Act. So not only was the Social Security Board's plan for an alpha-numeric indicator inconsistent with the use of identifiers government-wide, it also clashed with Justice Department strategy. It could also be said that this was the first inkling that the embryonic agency was given of the tremendous impact machines would have on the way it would do business.

The Board soon realized that only an all-numeric identifier would be feasible and began the process of deciding how many characters would be in each SSN and what they would represent. All parties agreed that some of the characters should have some geographical significance, such as that found in the first four digits of the Employment Service identifiers. But there was disagreement over the question of whether or not two of the digits should indicate the applicant's date of birth. This controversy was significant for a number of reasons, but particularly as viewed from the standpoint of the agency's operations: It forced the Board to consider how the huge number of paper files the agency would soon have should be maintained and accessed.

One of the most telling arguments employed by those who favored inclusion of the birth year (or, alternatively, the year in which the individual would reach age 65) in the identifier was that it would facilitate the handling of files and would thus be more economical. This was because the SSN's of persons of retirement age would all be in one group and those established for younger persons would also be grouped together. As the Board's staff analyzed this approach, however, it began to realize that such was not necessarily the case. It concluded that, given the tightness of the job market generally and the well-documented reluctance of employers to hire "older" workers, a significant number of workers were likely to give incorrect dates of birth. (It has only been in recent years that SSA has required applicants for SSN's to provide birth certificates or other evidence of age.) Later, when these individuals claimed benefits, discrepancies would arise requiring the expensive manual sorting of files, at a cost that would cancel any savings at the front end of the process. So it was that the Board dropped the idea of including the year of birth among the characters in the identifier. When the Board agreed, shortly after that, upon a nine-digit number, it was a three-two-four configuration with the first three digits (the area number) having geographical significance. This is the basic system still in use today, except that numbers in the 700-728 series were assigned to railroad workers and, until recently, when SSA began issuing numbers in the 600 series, all other area numbers above 599 were reserved for future use.

The second set of numbers (two) have no real significance. It is interesting to note, however, that there was a method to the sequence in which they were issued. These numbers were issued in an unusual sequence (01, 03, 05, 07, 09, 10, 12 . . . 98, and 02, 04, 06, 08, 11, 13 . . . 99) because the early planners envisioned a day when whole groups of account numbers would no longer be active. When this happened, they planned to purge all of the numbers within a group, 01 for example, then begin issuing the 02 group and use the newly vacated file drawer. In fact, there has been no purging of numbers and none is planned, but numbers are still generally issued according to that original sequence.

The first operational problem faced by the new agency was the monumental task of registering all of the Nation's workers. Because the Social Security Board had not yet established a network of field offices, it was clearly not feasible for the agency to attempt to do the job on its own. Consequently, it turned to another Federal agency, the Post Office Department, for assistance. (The Board continued to rely on the Post Office Department until July 1937, by which time 173 Social Security field offices were in operation and were able to take over the functions formerly handled by the Post Office Department.) That Department had some 45,000 offices throughout the country, and its employees came into contact with virtually every citizen. The Board and the Post Office Department reached agreement on a series of procedures.

Since the sole reason for the SSN's existence was its use as a mechanism for recording wages reported for workers covered by social security, the primary criterion guiding the establishment of a process for registering the Nation's employees was simplicity. It was believed that simplicity would encourage cooperation and there were no compelling reasons to validate the information being provided by the applicants or to verify their identities.

As the first step in the process, beginning in mid-November 1936, each local post office identified every employer in its area and provided each of them with an application for an employer identification number. The applications, which included a question concerning the number of employees each employer had, were to be returned within a week. Although there was no legal compulsion for the employers to cooperate, nearly all did, indicating a high degree of public acceptance of the social security program. (The Board members had laid the groundwork for this acceptance 8 months earlier when they met with representatives of employers of about 1 million workers to discuss the registration operation.)

Next, the post offices provided employers with enough SSN applications, instruction leaflets, and informational leaflets about social security old-age pensions for each of their employees. For employers of a large number of workers, and for labor organizations

that requested assistance, post office employees made on-site visits to assist in filling out the applications. However, the application forms were basically self-explanatory, asking each employee to divulge only that information needed to distinguish him or her from other employees with the same name. Today's applications elicit essentially the same information.

Completed applications were then returned to the local post offices, where they were bundled and sent to some 1,000 post offices across the country that had been designated as "typing centers." At these centers, the initial social security record was established and a social security card prepared for each worker bearing the same SSN as the one on his or her record. The record was then forwarded to Baltimore, where numerical files were set up to await the first reporting of wages in 1937. The cards were sent to the post offices from which the applications had been sent and were then forwarded to the individuals.

To understand the system of wage posting that the Board instituted (discussed below), it is important to picture exactly how the "typing centers" set up each record. The information on the SSN application was transcribed to an office record form. This was a continuous form preprinted with the SSN, consisting of two parts and prepared in duplicate. The right-hand part was the SSN card that was returned to the worker; the left-hand part was the office record, which was forwarded to the Board's Records Division in Baltimore together with the original application. The carbon copies of both the office record and SSN card portions of the form were retained by the Post Office (and, when the Social Security field offices were established, by those offices) so that duplicate cards could be issued in the event of loss.

The Board originally anticipated an initial registration of some 26 million employees, and expected an increase of about 5 million during the first year of operation and 2 1/2 million each year thereafter, until an average load of 35-40 million active numbers was established. (The large first-year increase was projected because it was believed that many persons would come into covered employment only during certain seasons and might not, therefore, be covered during the original registration.) The projection turned out to be low. In less than a month after the application forms had been distributed, the Post Office Department received more than 22 million completed applications. By June 30, 1937, when the Board assumed responsibility from the Post Office Department for the entire SSN issuance operations, some 30 million numbers had been assigned. As of September 30, 1984, we have issued some 292 million SSN's of the approximately 1 billion available for issuance. At the present rate of issuance, we project that we have enough numbers available for another 100 years. An accounting of numbers issued from 1936

through 1983 can be found displayed below in table 1.

The initial registration, confined as it was to individuals working in covered employment, was of adults. Over the years, as the social security program has reached high levels of public acceptance and the SSN has become widely used for purposes not associated with the program, the average age of SSN applicants has dropped considerably. Currently, about 94 percent of all applicants are under age 22, 74 percent are under age 15, and 41 percent are under age 5. The bulk of this latter group are, in fact, under age 2.

A review of the early stages of enumeration for social security purposes would not be complete without an investigation of the thinking that resulted in adoption of the social security card that has been in existence for most of the past 50 years, instead of some more durable document or some type of record that would be more accurate as an identifier. In fact, the Board considered a number of options before settling on the paper card.

Perhaps the most noteworthy of the unused options was the proposal to issue each worker a small metal plate upon which his or her name and number would be embossed. These plates would have been similar to the charge cards that were starting at that time to become popular with customers of department stores. Furthermore, a similar plan had been adopted by the Agricultural Adjustment Administration for one of its programs in 1934. This plan had a number of obvious advantages, the most telling of which were that the token would be durable and could be attached to a key ring to prevent loss. Employers could also use it to prepare a record upon hiring a new employee, thus ensuring an accurate recording of the worker's SSN.

**Table 1.**—Social security numbers issued, by year, 1936-83

[In thousands]			
Year	Number	Year	Number
1936-37	37,139	1961	3,370
1938	6,304	1962	4,519
1939	5,555	1963	8,617
1940	5,227	1964	5,623
1941	6,678	1965	6,131
1942	7,637	1966	6,506
1943	7,426	1967	5,920
1944	4,537	1968	5,862
1945	3,321	1969	6,289
1946	3,022	1970	6,132
1947	2,728	1971	6,401
1948	2,720	1972	9,564
1949	2,340	1973	10,038
1950	2,891	1974	7,998
1951	4,927	1975	8,164
1952	4,363	1976	9,043
1953	3,464	1977	7,724
1954	2,743	1978	5,260
1955	4,323	1979	5,213
1956	4,376	1980	5,980
1957	3,639	1981	5,581
1958	2,920	1982	5,362
1959	3,388	1983	6,699
1960	3,415		

Early in 1936, it appeared that the Board would adopt this plan, but in their final recommendations, the Board rejected it. Ostensibly, the reason for the rejection was that the tokens could not be prepared in time to ensure completion of the initial enumeration by January 1, 1937. Another reason undoubtedly was related to the hue and cry that greeted front page stories in New York and Chicago newspapers featuring pictures of metal discs on light chains that were to be, according to the stories, issued for wear by each worker. The projected use of "dog tags" by the new program was considered by many to be excessive regimentation.

For similar reasons, the use of fingerprints to identify individuals for social security purposes was also rejected, although the idea was fully explored. But there was such a strong association in the public mind between fingerprinting and criminals that the idea had to be abandoned.

The Board also considered the possibility of attaching a small photograph of the worker to each SSN card. This plan was discarded because it would be too costly for the Government to photograph all workers, and many workers would find it burdensome to provide their own picture. The Board also concluded that photographs would have minimal value as identifiers because they would become outdated over time.

Of course, in recent years Congress has shown a great deal of interest in SSN's and social security cards, primarily because the increasing use of the SSN for non-social security related purposes has increased the likelihood of the system being manipulated fraudulently. For example, the Internal Revenue Service began using the SSN as the taxpayer identification number in 1962, the Defense Department adopted the SSN as its identification number for military personnel in 1967, and the States were authorized to use the number for a variety of official reasons in 1976. As a result, SSA began, in the 1970's, to make the first substantive changes in its SSN issuance procedures. In 1971, for the first time we began to require proof of identity from certain applicants for SSN's, and in 1978 we began to make the same requirement of all applicants for new or replacement cards. Also in 1971, we began to issue SSN's centrally, rather than through the field offices, as had been the case since the Post Office Department relinquished its role in the process in 1937.

Most recently, the Social Security Amendments of 1983 (Public Law 98-21) required that the social security card be made of banknote paper and, to the extent practicable, be counterfeit-proof. Beginning with cards issued on October 31, 1983, all new and replacement cards have met these criteria, marking the first substantial physical change in the card's appearance in 47 years.

Today the issuance of SSN's is essentially a fully automated process. The field offices receive the applications, verify the identity proofs, and electronically

transmit the information from the application to the Central Office for assignment of a number. In the Central Office the information is checked by computer against information already on file to determine whether the application duplicates an earlier application. In such a case a duplicate card is issued. Otherwise, unless there are discrepancies, a new SSN is assigned and a new card is issued. The original application, which is retained for a short period of time in the field office, is later sent to a records center in Pennsylvania for microfilming and filing. The original document is destroyed once the microfilm has been made. If the original document is needed for a signature verification or fraud investigation, a microprint is produced from the film.

The process is known as the Automated Enumeration Screening Process. With it, some 97 percent of all SSN applications are processed electronically from start to finish and issuance time for the 12 million new or duplicate social security cards requested annually has been reduced, on the average, from 6 weeks to 11 days. In some instances, we have the capacity to process an SSN request and issue the number in a single day (an important capability because new workers generally cannot get jobs without an SSN).

## Wage Recording

The second major issue that the agency's earliest planners had to resolve was the question of how to keep track of each employee's wages. Needless to say, since wage reports were going to start arriving near the middle of 1937, most of the decisions surrounding this issue were being made at the same time as those concerning employee registration.

In April 1936 the Board considered a proposal developed by one of the agency's first employees outlining the problems involved in recording employee wages. As originally conceived, the proposal would have allowed the companies to choose between two basic methods for obtaining information on individual employee earnings: the payroll report method or the stamp passbook method (the Social Security Act had mentioned the latter method as a possibility, largely because it was used in the French system, but had not prescribed it). Following are the proposed specifications for the two methods:

1. Payroll Report Method
  - (a) The Board will receive from employers, either directly or through the Bureau of Internal Revenue, statements of quarterly, or semi-annual earnings of each individual;
  - (b) The vast majority of such reports will reach the Board over a period of thirty days beginning on the 15th of the month following the close of the quarter;



Clerks record employee wages in the agency's early days

- (c) The remainder will be traced by personal contact with employers through one of probably 3,000 established contact points. Consideration would be given to the possibility of permitting employers to submit copies of their payrolls in lieu of quarterly reports.
2. Stamp Passbook Method
- (a) The Board will receive from employers, either directly or through the Bureau of Internal Revenue, stamp passbooks indicating the earnings of individual employees;
  - (b) Such stamp passbooks will cover either 26 weeks or 52 weeks;
  - (c) The major majority of stamp passbooks will reach the Board over a period of 30 days beginning on the 15th of the month following the close of the period;
  - (d) The remainder will be traced by personal contact with employers through one of the 3,000 established contact points;
  - (e) The individual employee's earnings will be posted to employee ledger accounts semi-annually or annually.<sup>1</sup>

However, before sending the proposal to equipment companies asking them to submit bids or proposals covering the kind of equipment that would be necessary for the job at hand, the Board eliminated the stamp book option. The Board was concerned about the possi-

bility of fraud (counterfeiting), among other things, and the Bureau of Internal Revenue disliked the idea of semiannual reporting. (In fact, wages for 1937 were reported semiannually, but, beginning in 1938, employers were required to make quarterly reports.)

The Board then sent the proposal to 90 equipment companies, of which eight submitted proposals that were comprehensive enough to warrant consideration. Five of these were soon eliminated, leaving only those of the Burroughs Adding Machine Company, the International Business Machines Corporation, and the Monroe Calculating Machine Company. These proposals were comprehensive and explicit enough, with regard to both plans of operation and breakdown of operating costs, to make detailed comparisons possible. The operating cost differences were so small, however, that cost was quickly eliminated as a determining factor.

The choice quickly became one of methods, rather than companies. The Burroughs and Monroe proposals were based on the use of regular manual bookkeeping methods; the International Business Machines proposal was based on the electric accounting method. The committee that the Board had convened to study the proposals came to the conclusion that the application of a completely mechanized system was the best approach at the outset and that such a system was superior in terms of adaptability to future change, both in procedures and in workload volume. The committee recommended acceptance of the International Business Machines proposal. The Board concurred.

<sup>1</sup> Social Security Board, "General Statement of the Problems Confronting the Records Division of the Bureau of Old-Age Insurance," memorandum, June 15, 1936.

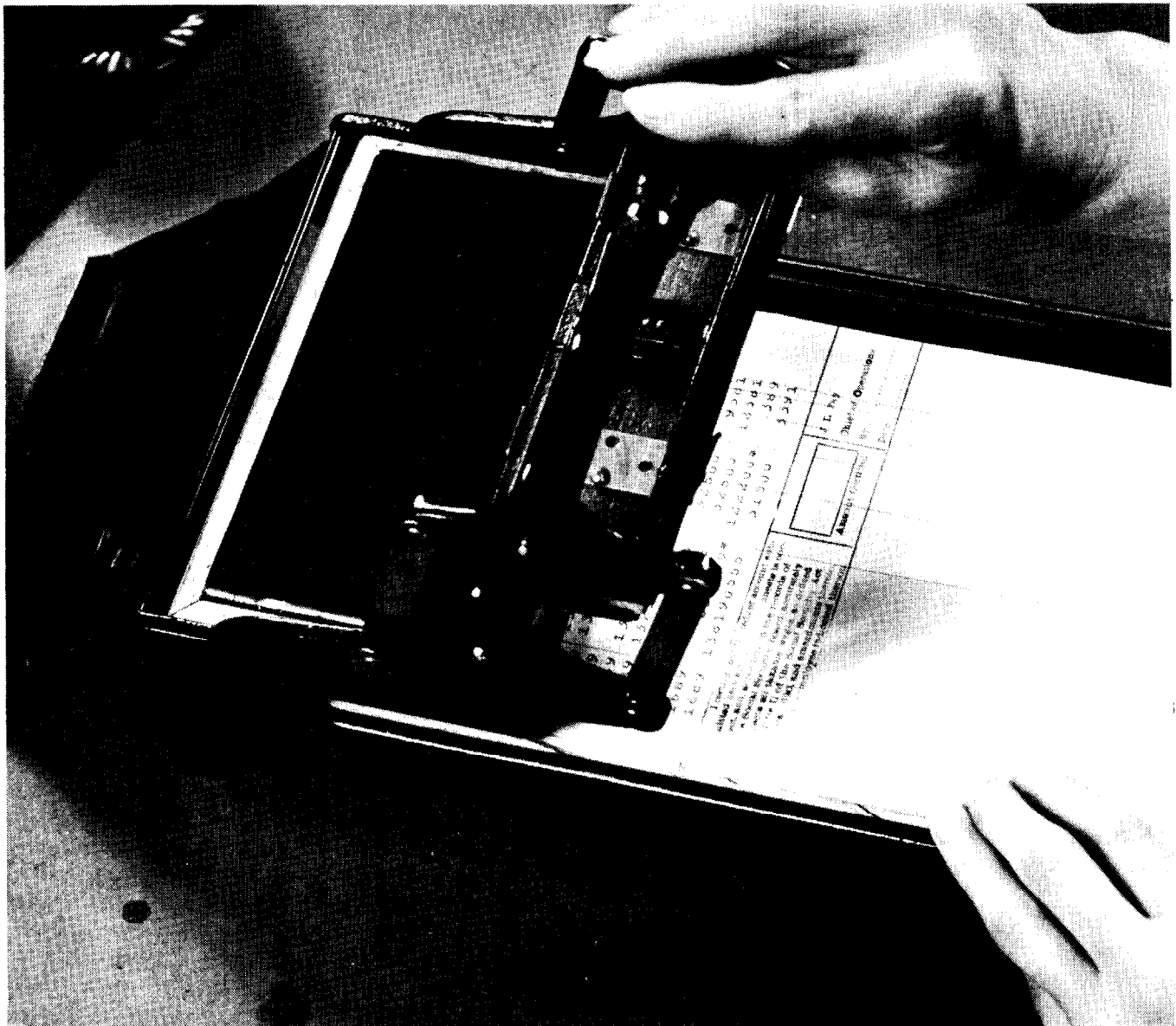
The Board then set about the task of finding acceptable space for its records division. The space necessary for establishing wage records from account number applications was unavailable in Washington, D.C., and it was not until October 1936 that the Board finally approved space in Baltimore. (This step was intended as a temporary expedient until a new building could be built in Washington, D.C.; in fact, the "temporary" arrangement lasted until 1960, when the Social Security Administration complex was opened in suburban Baltimore. In 1977 a new building was completed in downtown Baltimore to house the bulk of the clerical records operations.)

Having procured the necessary space, decided upon a basic system for recording wages, and selected a process (and the machinery) for implementing the system, the agency was prepared to begin the operation that remains

at the heart of its mission. A complete description of the process that the early administrators agreed upon can be found in the June 1938 issue of the **Social Security Bulletin**.<sup>2</sup> What follows are some highlights of that early process and some background material that did not appear in that earlier article.

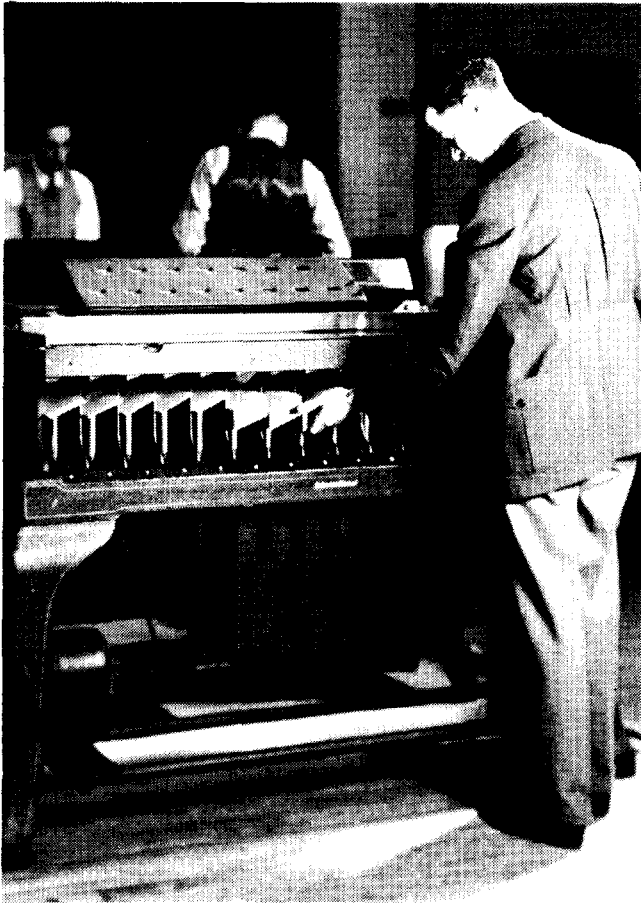
The establishment and maintenance of wage records were, in fact, two separate processes. The establishment operation began with the receipt of the office record form (referred to above) and the original SSN application. Punch cards (for use in tabulating machines) were prepared from the information on those forms, registers and ledgers were established, and the applications were microfilmed. At the end of this process, there were eight

<sup>2</sup> See Joseph L. Fay and Max J. Wasserman, "Accounting Operations of the Bureau of Old-Age Insurance," **Social Security Bulletin**, June 1938, pages 24-28.



This device was used for the posting of employee ledger accounts

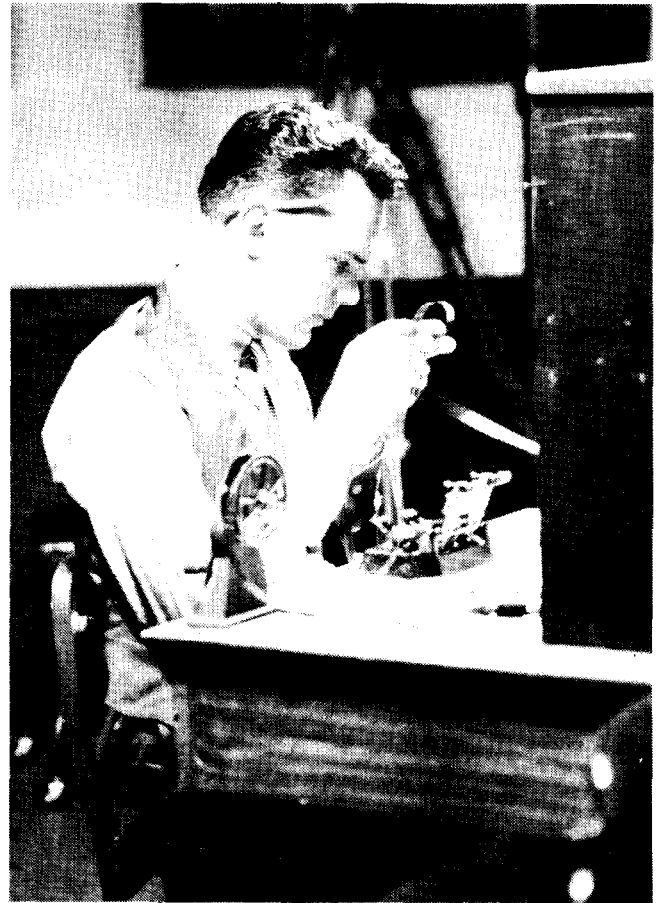




An employee inspects punch cards for use in tabulating machines

separate files containing information on all number holders—five in numerical order, one in alphabetical order based on the worker's name, and two in alphabetical order based on a phonetic code employed to eliminate errors that could occur because of variations in spelling of a worker's name (on wage reports filed by different employers, for instance).

One of these phonetic code indexes was called the visible index and it consisted of large metal panels upon which small "flex-o-line" strips containing identifying information were placed. The strips were actually prepared by tabulating machines (from a set of punch cards prepared as the first step in the process). This file was the result of another proposal for which the Board had solicited bids. The final choice was between similar proposals from the Remington Rand and Postindex Corporations. The latter proposal was chosen largely because of its compatibility with the International Business Machines tabulators and the quality of the strips, which were made of bamboo covered with laminated paper. The facing of the strips was guaranteed for 50 years; was impervious to moisture, grease, and dust; and could even be washed, if necessary. Also, the Postindex system was more flexible in terms of future expansion. (Many of the decisions made by the early administrators were made with an eye to the future. It



A strip of microfilm containing SSN applications undergoes review

could be that they would have decided differently in some instances if they had been able to foresee the sophistication of machines 50 years in the future.) This visible index of the original registration was completed in mid-1937 when some 27,318,000 strips had been prepared and inserted. It remained as one of the most popular attractions for visitors to the agency until its conversion to microfilm more than 20 years later.

In all, the establishment of a worker's earnings record involved nine separate operations for each office record received. To properly post the wages, when wage reports were received, some 18 different operations were performed. As with the establishment operations, the first step was to prepare punch cards showing the worker's name, number, and wages and certain information about the employer. The cards were then used for a number of balancing and summarizing operations before being used with tabulator machines to actually post the wages to the ledger that had been set up during the establishment operation.

The method of posting was another process that was arrived at by comparing various options. The overall proposal of the International Business Machines Corporation provided for two possible posting methods: direct posting and strip posting.

Two companies, known as Seal, Inc., and Better



Packages, Inc., had provided an adhesive-type of strip that came in roll form. This material had been included in the International Business Machines Corporation's proposal for strip posting. Under this plan the continuous strip would pass through the tabulating machine, the information to be posted would be listed on it, and later, after the balancing work was completed, clerks would affix the strips to the proper ledger sheets. The strips would be laminated onto the ledger sheets through a process of applying heat to the strip and the ledger by means of an iron. To provide direct posting to the ledger sheets, on the other hand, it would be necessary for the International Business Machines Corporation to equip its regular electric accounting machines with a special posting table.

At first, it seemed as if the strip method of posting would be the better method in that it would be far less costly from a clerical standpoint. Further consideration revealed the fact that there was no means of judging the life of such strips, or just how long they would adhere firmly to the ledger sheets. The International Business Machines Corporation was able to satisfactorily demonstrate that it could supply the proper posting mechanisms attached to its regular accounting machines. Consequently, after careful consideration, the Board decided on the direct posting method.

The summarized master earnings record of each individual was contained on a single 80-column punched card. These cards, filed in numerical sequence, contained sufficient detailed earnings data to permit mechanical updating each year for all records, as well as mechanical computation of benefits for a large percentage of the records on which claims were filed. The annual updating, or posting, was accomplished by first punching a card for each one of the millions of quarterly earnings reports, then mechanically collating and merging them with the summary cards by number and surname. Once each year the merged file of summary cards and quarterly earnings cards was updated, or posted, by running the file through tabulating machines with summary punches attached. The tabulators produced a detailed listing of each.

So the recordkeeping operations of 50 years ago were not marked by rows of clerks in eyeshades manually recording wages to individual workers' records. There were sorting machines, card punch machines, accounting machines, posting machines, and "the wonder machine of 1937," the collator; all were direct descendants of the electromechanical tabulator invented by Herman Hollerith for use in counting data from the 1890 Census. Though the credit for developing these machines must go to American industry, it was the agency's planners who recognized their potential and boldly decided to employ them.

Except for the adjustments that were necessary to accommodate coverage of self-employment income

(which was reported annually) beginning in 1951, the basic method of establishing and maintaining wage records remained substantially unchanged for nearly 20 years. The agency purchased more and improved machinery (as early as 1941 a total of 578 electric accounting machines were in use; by 1956, over 800), and greatly expanded its use of microfilm through the late 1940's and 1950's. But these were embellishments of the original process, not substantive changes. However, almost from the beginning the program's administrators sensed the need for improved processes. By a happy coincidence, when the program's wage recording operations were in their infancy, computer technology was also in its embryonic stages and the agency tracked developments in this area very closely.

As early as 1945 (1 year after the first electronic computer, a 5-ton device that could multiply two 23-digit numbers in 6 seconds, went into operation at Harvard University) the Board began studying the possibility of using electronic data processing (EDP) for processing earnings information. The earliest studies indicated that the equipment then available was not appropriate for the job at hand. It was designed, rather, to handle king-sized mathematical and scientific problems with a relatively small volume of input and output. Like the electronic machines already used by the agency, the first computers were "fed" by punched cards.

SSA continued to follow developments in the field and in 1950 asked the National Bureau of Standards to conduct a study of the possible adaptation of EDP equipment to the requirements of the social security program. That study also concluded that it was not feasible to use the equipment then on the market for the agency's recordkeeping operations. But the study encouraged SSA to continue to track developments in computer technology because it appeared inevitable that the technology the agency needed would soon be developed.

In 1951, the agency acquired two electronic calculators for use in the computation of benefit amounts. These machines were very limited in their application, but they were essentially computers, and they represented a testing of the waters of new technology.

Amendments to the Social Security Act in the early 1950's changed the benefit calculation in a way that put greater reliance on the use of individual yearly earnings totals. This change would have necessitated the preparation, a few years later, of an additional earnings summary card for each of the more than 100 million active earnings records, and the preparation of other new cards for each record in the future. Not only would this have required a significant expansion of storage space, it would also have entailed a high error potential, as subsequent summary cards could have become separated from each other.

The agency's hand was forced. In 1954, SSA initiated

a full-scale study of the requirements of its wage posting processes and developed specifications for a computer system. Coincidentally, by this time an important step in the evolution of computers had taken place: Magnetic tape was now being used for input and output. The information on 60,000 summary cards could be stored on a single reel of magnetic tape 10 1/2 inches in diameter. Also, during the period 1945-55, the internal speeds of the computer had increased 100,000 times, and storage capacity and reliability had improved 100-fold. The technology the agency needed was in place.

SSA submitted detailed specifications to 11 manufacturers of computers; only two, Univac and the International Business Machines Corporation (by then known simply as IBM), were able to submit acceptable proposals and confirm delivery of the necessary equipment. After a detailed evaluation of the proposals, the agency awarded the contract to IBM in June 1955. In March 1956 the first computer was installed, and posting by means of magnetic tape began in July of that year. The Department of Health, Education, and Welfare issued a press release with the heading, "Electronic Brain to Keep Social Security Records."

In February 1959, SSA purchased a microfilm printer that allowed for the transfer of information directly from magnetic tape to microfilm without going through the steps of printing on paper and taking a picture. This innovation spelled the end of the visible index (by then containing 163 million strips); the conversion to microfilm took place soon thereafter. In October 1961, the agency purchased its first solid-state (transistors instead of vacuum tubes) computers.

It was one thing to decide to begin using computers; it was far more difficult to convert from the old method to the new. There were two major obstacles to be overcome by July 1956: The preparation of personnel for the computer operation and the physical conversion of the summary cards to magnetic tape records.

The personnel problem was difficult because, of all the agency's employees, only six (all members of the committee that had written the specifications for the computer system) had any knowledge of EDP programming, and they had no "hands-on" experience. Also, SSA could not simply go out and hire a sufficient number of programmers and systems analysts from the outside because such knowledgeable persons were in short supply generally. This fact, along with the belief that a comprehensive knowledge of the agency's operations would be essential, led SSA to decide to recruit and train its own employees for the jobs. The agency began by arranging EDP training for its trainers. Then all interested employees were given a battery of aptitude tests. Those determined to be the most likely to succeed in the new world of computers were selected for training and became the agency's first "systems" employees.

The physical conversion presented different types of

problems. First, space had to be adapted to the peculiar needs of the new equipment. Unlike the old electronic tabulators, the computers needed air conditioning, acoustic paneling, and special lighting. Also, specially constructed panelized overflooring had to be installed to provide flexibility in the running of cables so that the equipment could be moved within the allotted space with a minimum of difficulty. When these modifications were accomplished, IBM provided equipment (as promised in their proposal) for recording on magnetic tape the information contained on the more than 100 million summary cards. This process was completed in time for the computerized posting operation to begin in July 1956.

The conversion was successful, and it did not take long for SSA to realize that the new machinery was saving time and money and was improving the process of posting wages. A second computer arrived in 1957 and a third in 1960. As computer technology resulted in better computers, the agency replaced its "old" units. The model in use by 1964 was the fourth model to be used. (Soon after that, small scale, second generation computers became available and began to become part of the agency's operating processes.)

As computers came into use in private industry, SSA was able to realize an economy in the wage reporting process by encouraging large employers to report employee earnings directly on magnetic tape. (General Electric was the first employer to use this method.) These reports could be introduced directly into the system, saving the time and money involved in converting paper reports into magnetic tape through a card punching operation. The process is economical for employers as well, since employers with computerized payrolls do not have to convert the information from tape to paper. SSA completed a pilot study of the system in 1957 and began direct magnetic tape processing in 1958. The tabulation that follows shows the increase in the number of wage reports received on magnetic tape since then.

Period and reporting method	Number of wage items received on magnetic media <sup>1</sup> (in millions)
Fiscal years (quarterly reporting):	
1958-62 .....	23.1
1963-67 .....	117.5
1968-72 .....	237.3
1973-78 .....	382.0
Tax years (annual reporting <sup>2</sup> ):	
1978 .....	33.7
1979 .....	42.4
1980 .....	43.5
1981 .....	45.0
1982 .....	46.3
1983 .....	47.9

<sup>1</sup> Other items reported by magnetic media, but not included in the figures below, include W-2P (pension reports) and self-employment income (received from the Internal Revenue Service). In addition, each year some records are processed from previous years.

<sup>2</sup> Wages for employees of the State and local governments continued to be reported quarterly until tax year 1981. There were 18.0 million such items in 1978, 16.2 million in 1979, and 12.8 million in 1980.

In 1966, an optical scanner was installed to assist in the wage posting process. (As early as 1950, when it commissioned the National Bureau of Standards study, the agency had recognized the potential that the optical scanner had for simplifying its processes.) This machine could read and automatically transfer to magnetic tape a significant percentage of the paper (typewritten) wage reports received from employers. It was, in effect, built onsite to meet SSA's specific requirements. This proved to be a valuable learning field and contributed significantly to improvements in optical scanning.

In 1945, the recordkeeping operation underwent a geographical expansion when the Board opened its first Data Operations Center in Wilkes-Barre, Pennsylvania. Additional centers were opened in Albuquerque, New Mexico, in 1973, and in Salinas, California, in 1975. These centers house keying operations in which wage reports (and, before the introduction of the new Automatic Enumeration Screening Process, SSN applications) are received, reviewed, verified, and reconciled and then keyed for entry onto magnetic tape. (Another geographical expansion occurred in 1960, when SSA leased space on an 80-acre former limestone mine for storage of irreplaceable records. The "cave," as it is known, is still in operation.)

For nearly 40 years, SSA processed virtually all wage reports from employers on a quarterly basis. In 1976, Congress passed legislation requiring most employers to file only a single annual report of earnings. Since the entire earnings report workload is now received in the first 3 months of each year, SSA has had to make personnel adjustments (including the hiring of seasonal workers). Notwithstanding the introduction of computers and their increasing sophistication, however, the wage recording process is essentially a sequential operation today, as it was 50 years ago.

Today in the Data Operations Centers, wage reports are received, examined, sorted, and microfilmed. Those reports that can be read by optical scanners are processed that way, and the data are transferred to magnetic tape. Nonscannable items are keyed directly to magnetic tape. Tape data are then transmitted to Baltimore for posting to the earnings records, which are now filed on tape rather than in a ledger. A number of balancing and reconciliation operations are also performed to minimize errors. One thing that has changed, of course, is the volume of wage items reported on paper, as is shown in the tabulation at the top of the next column.

A new annual wage reporting system is currently being developed to reduce the earnings reports processing cycle, from receipt to posting, to just 6-7 months. The redesign will also improve accuracy and workload control and will result in significant savings.

From 1938 through 1944, SSA processed a total of some 800 million wage items (reported quarterly and

Period and reporting method	Approximate number of paper wage items received <sup>1</sup> (in millions)
Fiscal years (quarterly reporting):	
1938-42 <sup>2</sup> .....	602.7
1943-47 .....	734.4
1948-52 .....	953.3
1953-57 .....	1,136.9
1958-62 .....	1,268.7
1963-67 .....	1,386.5
1968-72 .....	1,476.2
1973-78 .....	1,910.6
Tax years (annual reporting <sup>3</sup> ):	
1978 .....	135.1
1979 .....	136.1
1980 .....	136.1
1981 .....	144.4
1982 .....	126.5
1983 .....	128.5

<sup>1</sup> Represents wage items reported on paper as distinguished from those reported on tape.

<sup>2</sup> Includes 76.5 million items reported semiannually in fiscal year 1938 for 1937.

<sup>3</sup> Wages for employees of State and local governments continued to be reported quarterly until tax year 1981. There were 41.2 million such items in 1978, 26.7 million in 1979, and 30.3 million in 1980.

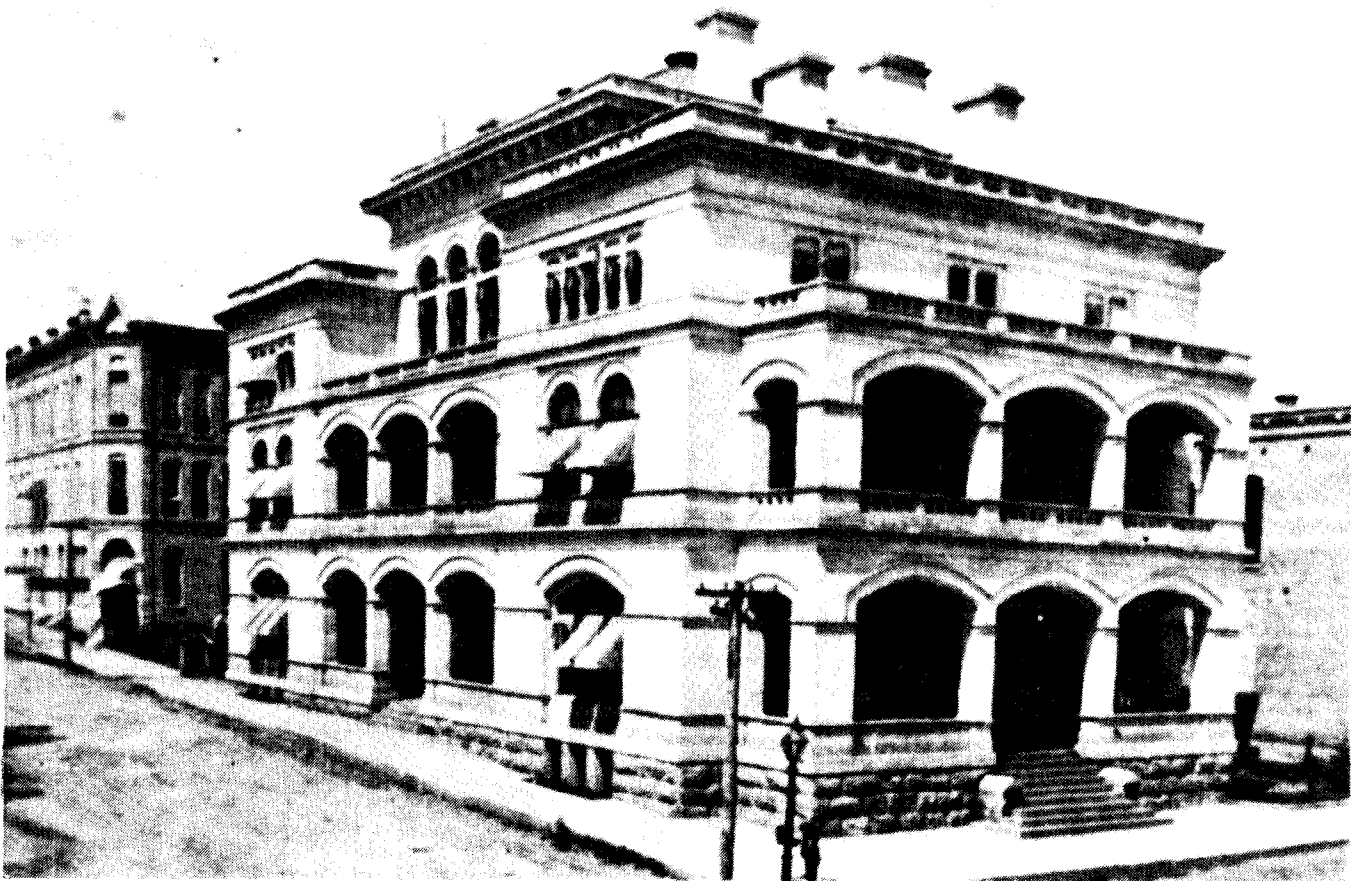
semiannually) representing taxable wages of some \$200 billion. By comparison, for tax year 1983 alone, the nearly 200 million annually reported wage items amounted to more than \$1.7 trillion.

## Field Offices

Along with determining how to register the Nation's workers and how to post their wages, the program's early administrators had to decide on the kind of field organization they wanted that would provide a high level of service to the public.

Late in 1935 the Social Security Board appointed a Field Office Committee to determine the best locations for offices to provide direct public service. The Committee used 14 factors to make this determination, and they gave the heaviest weight to the number of covered workers in an area. Other factors included communication and transportation facilities, industrial concentration, location of State capitals, population trends, racial and ethnic homogeneity of population, and the availability of office space. In January 1936 the Committee presented a plan calling for the establishment of 89 district offices and 517 branch (small subsidiary) offices. Because of budget constraints, however, the total number was reduced from 606 to 397. The first district office was opened in Austin, Texas, on October 14, 1936, and some 70 additional offices were opened by the end of that year. By the time that the Post Office Department disengaged itself from the registration process in June 1937, 173 social security offices had opened.

In April 1937, however, the Board reconsidered the branch office concept and decided instead that all offices would be "field offices," though they would vary in size and staff depending on the number of covered workers in their areas. By 1940, 477 field offices were in operation.



The agency's first district office—Austin, Texas

This basic field office configuration remained unchanged (except for the number of offices) until World War II when, to make better use of available resources, the Board converted many field offices to resident offices. These offices were composed of one or two employees and contained a minimum of records; they were not the fully functioning small offices envisioned in the district/branch configuration in the original field proposal.

Soon after the war, the agency began to maintain itinerant stations (later known as contact stations) at locations that produced a predictable workload but not enough volume to justify establishment of a permanent office. These stations were generally maintained in post offices, employment offices, or other public places. In later years, contact stations were established at institutions such as Veterans Administration hospitals, large county hospitals, and nursing homes.

In the wake of the 1965 Amendments to the Social Security Act (which established the Medicare program and expanded the definition of disability), the agency realized that there would be an increased need for personal contacts with individuals beyond that which could be provided by resident or contact stations. In most such locations, however, projected workloads would not justify the establishment of district offices. The answer was

to establish smaller, permanent facilities providing the entire range of services of district offices, under the administrative jurisdiction of district offices; in other words, the same branch offices that had been planned some 30 years earlier. The criteria for establishment of these branch offices were generally related to population and number of beneficiaries in the service area, projected workload, and distance from a district office. However, certain offices, designated as metropolitan branch offices, were established in metropolitan areas where, studies indicated, the socially and economically disadvantaged residents were not making full use of existing services. (With the advent of the SSI program in 1974, the need for branch offices became even more pronounced.)

In 1968, the first teleservice center (originally called a metropolitan answering service unit) was opened in Washington, D.C. Teleservice centers are offices where employees use special telephone answering equipment to handle calls from the general public in specific geographical areas. This procedure relieves the district and branch offices of responsibility for answering general inquiries—that is, those not related to specific claims.

The agency is instituting a long-range review of all of its field facilities to determine whether the organizational structure that has been in place for decades makes

sense in today's environment. This review is to determine if changes are necessary as a result of population shifts, demographic changes, and technological improvements. As of April 30, 1985, SSA had 640 district offices, 677 branch offices, 75 resident stations, 34 tele-service centers, and numerous contact stations.

The functions of the field offices were set forth in a series of instructions issued in 1937. The following were the major substantive areas of responsibility:

- **Assignment of account numbers.** In the early days of the field office, the assignment of account numbers remained essentially unchanged from the procedure, described earlier, followed by the Post Office Department. In later years, the actual issuance of numbers became centralized, largely for security reasons.
- **Records service.** Although recordkeeping was a centralized process, field office personnel were expected to be able to respond to inquiries about the process.
- **Claims service.** Though monthly benefits were not payable until 1940, lump-sum payments were available to eligible workers, their survivors, and their estates beginning in January 1937. The responsibilities of field office employees with regard to claims were similar to those of today's field staff: assisting the public in filing for benefits and securing evidence, ascertaining the pertinent facts in every claim, and evaluating evidence and earnings data.
- **Informational service.** This was a particularly vital responsibility 50 years ago (and remains important today) because the program was new and the public was uninformed about it.
- **Governmental relations service.** Contact had to be maintained with the Bureau of Internal Revenue, local post offices, State employment offices, and various other State, county, and municipal agencies. The object was the establishment of good working relationships so that matters of mutual interest could be handled smoothly.

The duties of the field office personnel have not changed substantially through the years, but the growth of the original program and the addition of new programs to SSA's responsibilities have broadened those duties, and technological improvements such as those discussed above have changed the methods involved.

The extension of the program to groups such as the self-employed and agricultural workers forced field offices to develop new areas of expertise, particularly with regard to income taxes and determinations of when individuals actually retired. The addition of the disability insurance program required field personnel to expand their interviewing skills to include the eliciting of medical histories, and it necessitated the establishment of relationships with the State agencies making the disability determinations, as well as with doctors and hospitals (in the program's infancy the field offices obtained the

medical evidence; now State agencies do it), vocational experts, and the like. With the introduction of Medicare, field personnel began to handle doctor and hospital bills and to establish relations with providers such as Blue Cross and Blue Shield. SSA's assumption of responsibility for the SSI program meant that field personnel were required, for the first time, to make determinations based on need; it also required the enhancement of relations with State welfare personnel, housing authorities, and advocates for the poor.

The SSI program also brought the field office personnel face to face with computer technology for the first time. True, technological advances had impacted on the field earlier, particularly in the area of claims processing, but the effects had generally been second-hand. But the unique demands of the SSI program, whose claimants are in immediate need of benefits for basic living expenses, necessitated, among other things, on-line fast time query capability. This was accomplished by way of the Social Security Administration Data Acquisition and Response System (SSADARS) telecommunication system.

Development of SSA's national communications system began in 1960, when both Western Union and AT&T established pilot systems. Both companies submitted detailed proposals based on their pilot systems. AT&T was selected in February 1961, and that system remained in operation until 1966, when the Advanced Records System was installed. This system allowed for the transmission of data to a central message center (at the rate of 10 words per minute) where they were batched on magnetic tape and then periodically transmitted to the central computer center. The SSADARS allows for improved and faster data entry and immediate access by field employees to central data files.

The field offices have recently begun a pilot project that will revolutionize the way that SSA serves the public. Known as the Claims Modernization Project, the new system will eventually enable field office staff to make instantaneous eligibility and entitlement determinations and perform more automated computations. A model district office was established in the Central Office in December 1983 to test and evaluate the new procedures. In late May, two district offices (in York, Pennsylvania, and Baltimore) began to use the new system on a test basis. Current plans call for 18 additional offices to begin to pilot the system in late 1985.

As the agency approaches the twenty-first century and the "office of tomorrow" becomes a reality, SSA's employees can be proud of the roles they have played in making social security the most successful domestic program in the history of the United States. Much of the credit for this success should go to those individuals who established the agency's recordkeeping and public service operations, and to those who, through the years, have improved the processes and kept them running.