

ACCOUNTING OPERATIONS OF THE BUREAU OF OLD-AGE INSURANCE

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To set up and maintain wage records for millions of workers who are acquiring rights to benefits under the old-age insurance program of the Social Security Act has been called "the largest bookkeeping operation in history." Because of the wide interest expressed in the system of maintaining wage records, the Bureau of Old-Age Insurance presents this brief account.

Old-age insurance benefits under title II of the Social Security Act are based on the total wages received by eligible workers in covered employment. To obtain a complete record of each worker's total wages, it was decided that a separate account must be established and maintained for each individual in covered employment. These records will serve as a basis for computing monthly or lump-sum benefits. In addition, the records will supply vital statistics as well as wage, payroll, and employment data which will provide a basis for statistical and actuarial analyses essential to the operation of a sound insurance program.

The system adopted provides for: first, registration, or the assignment of an individual account number to each applicant; second, establishment of a separate account for each of the assigned numbers, together with identifying records and files; and third, posting to the account of each registrant periodic reports of wages received. These three broad divisions of the general plan are referred to as enumeration, establishment of wage records, and maintenance of wage records.

Enumeration

Meaning of the Account Number

Each registrant is identified in the records of the Social Security Board by an individual account number which is composed of nine digits, divided into three sections. The first three digits specify the geographical area, the next two the group, and the remaining four the individual serial number.

The United States, Alaska, and Hawaii are divided into approximately 380 different administrative areas, each with a different number. The area number which an individual's account bears is determined by the area in which he worked at

the time he registered. The group number, indicated by the fourth and fifth digits, was determined by the procedure of issuing numbers in groups of 10,000 to post offices for assignment at the beginning of the enumeration. The group number no longer has any significance. The serial number is determined by the order, within area and group, in which numbers are assigned.

Enumeration by Post Offices

The initial task of enumeration was performed by post offices throughout the country. The applications for employee account numbers (Forms SS-5) were distributed by postmen to employers for distribution to their employees or obtained by individuals at the post offices. When completed, the SS-5's were returned to nearby post offices and then forwarded to post office typing centers where the information on each application was typed on a prenumbered office record form (OA-702), which thus determined the number to be assigned. The account number cards were then issued to applicants, and both SS-5's and OA-702's were forwarded to the Social Security Board office in Baltimore in blocks of 500. Substantially the same procedure is now being followed by the field offices of the Social Security Board which took over the assignment of account numbers in July 1937.

Establishment of Wage Records

When the blocks of applications were received, the numbers contained in each block were checked off on prenumbered block record sheets. All forms were carefully reviewed for proper area, group, and serial. Every number had to be accounted for and any missing serial fully explained.

Forms were filed by area and held until 40 percent of all numbers scheduled for the particular area were received. They were then released in blocks of 1,000 consecutive serial numbers for the establishment of an account for each number.

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Since the initial registration has been completed, the applications are now being received in much smaller volume. Consequently, some of the blocking operations formerly necessary for control purposes are now dispensed with. The rest of the procedure followed in setting up social security accounts is, however, the same.

The SS-5's and the OA-702's are coded by different clerks working independently. The information on these two forms must be reduced to numerical codes, so that it can be transferred to punch cards. To eliminate confusion and error arising from variations in the spelling of a registrant's name on different records associated with his account—on wage reports filed by different employers, for example—the surnames on the applications and on the office record forms are coded according to a phonetic system. In applying this code, the first letter of the surname, the consonants w, h, and y, and all vowels are disregarded. The remaining consonants are divided into six numbered groups, and all names translated by code into a 3-digit number. The use of this system gives the same code number for names which are phonetically similar but are not spelled alike.

Master punch cards for each employee, used in maintaining the wage records, are prepared from the coded office-record forms. Each master card contains the employee's account number, the first 10 letters of first name, first 3 letters or initial of middle name, first 12 letters of last name, the 3-digit phonetic code, date of birth, sex, color, and date of issuance of the account number. Account number and name are printed on the top of the card by a mechanical interpreter—a machine which "reads" the punches on the cards and translates them into print. The master cards are then checked against the SS-5's, which were independently coded simultaneously with the OA-702 forms from which the cards were punched.

A green "actuarial" card, to be used for actuarial and statistical purposes, is mechanically duplicated from the master card. These are put to immediate use in the preparation of the visible index of registrants. This index is made up of flexible strips which come in large perforated sheets. Each strip provides for one line of print and is used for a single account number. The actuarial cards are sorted to the order in which the strips will be filed in the visible index; that is, by first letter of surname, within each letter by pho-

netic code, and in each code group by first seven letters of first name, middle initial, and by year and month of birth. After this information has been mechanically transferred to the flexible strips and the first 12 letters of the surname have been similarly printed immediately after the phonetic code to facilitate reference and identification, the strips are torn from the sheets and placed in the panels of the visible index.

Since the strips appear primarily in order of the phonetic code, all names which are phonetically similar but unlike in spelling are brought together in the visible index. Examination of this index therefore reveals a surprising number of variations in the spelling of many common names. In spite of the complications caused by having literally hundreds of thousands of individuals with the same surname and a total of nearly 40 million names in the file, it is possible for the clerks familiar with the visible index to find in less than 60 seconds any name and its corresponding account number.

From the master cards a tabulating machine sets up the numerical register of accounts by listing the name and date of birth of each registrant in numerical order. This register is kept in huge loose-leaf books. The master cards are finally used to head up the ledger sheets to which wage records are posted. The master cards and ledger sheets are then filed separately in numerical order by regions.

In addition to the punch card and other files derived from the SS-5's and OA-702's, files of these original forms are also set up. The OA-702's are hand-sorted into alphabetical order for each of the 12 regions. The SS-5's are filed in numerical order and subsequently photographed on 16 mm. noninflammable film strips. This film is so compact that the entire file of 40 million photographed SS-5's is stored in 10 ordinary letter-size file cabinets. The film provides a permanent file of original applications which can be referred to at any time by projecting the films on a screen.

In all, there are eight separate files containing information on all registrants:

1. Applications (SS-5's)—numerical order.
2. Recordak photographs of SS-5's—numerical order.
3. Office records (OA-702's)—alphabetical order.
4. Master cards—numerical order.
5. Actuarial cards—order of phonetic code.

6. Numerical register.
7. Visible index—order of phonetic code.
8. Ledger sheets—numerical order.

Maintenance of Wage-Records Program

The maintenance of wage records is the major bookkeeping operation to which the establishment program is preliminary. The establishment program involved the setting up of identifying files and ledger accounts for an initial group of applications somewhat in excess of 26 million. The same procedure is followed for the additional applications received day by day. The maintenance program involves receiving wage reports, preparing punch cards so that wage reports may be recorded by mechanical processes, balancing the cards punched with such reports, verifying the identity of each registrant for whom wages are reported, and posting the amounts so reported to the correct ledger sheets in order that records of individual earnings may be available for the determination of amounts of benefits due.

Organization

Inasmuch as wage reports were received for two semiannual periods in 1937 and will be received for four quarterly periods in 1938, it is clear that a great number of items must be handled during the year. To perform the bookkeeping task expeditiously and economically and to maintain necessary production and accounting controls, the work is divided into 18 separate operations for reports received during each reporting period, plus certain additional operations which must be performed once each year in order to obtain an annual balance for each account.

These operations are carried on in several regional accounting centers located in the Candler Building in Baltimore.¹ To each of these is attached an accounting and production control unit which, by means of operations cards punched for every operation through which each block or unit of work passes, prepares daily production reports for each shift of workers, giving the number of earnings cards processed and the total amount of wages recorded thereon. In the process of tabulating the shift report, summary cards for each operation and each shift are automatically

¹ There was originally one accounting center for each region, but five regions have been consolidated into two centers for accounting purposes, leaving nine separate accounting centers now functioning.

prepared. These cards are sent by the several regional accounting and production control units to the central accounting and production control unit, which prepares from them daily production reports summarized in weekly and monthly production reports. These reports give information necessary for coordinating and planning the flow of work.

Preliminary Processing of Reports

Each employer sends information returns² to the office of the collector of internal revenue in the internal revenue district in which his principal place of business is situated. The collector's office forwards all returns to the Accounting Operations Section in blocks containing about 1,000 individual wage reports. If an employer's report lists the names of more than 1,200 employees the report is divided, and those in excess of 1,000 are incorporated in another block. These reports are sent to the accounting center for the region in which the internal revenue district is located. Each block receives an identification number and is treated as a unit in passing through the following operations: checking of information in the report against accompanying notice from the internal revenue office; checking of number of employees in the employer's information return with the number of wage returns in the report; punching of an employer report card with information from the report and from the employer's application for identification number; and punching and verification of employee earnings cards.

Preparing Employee Earnings Punch Cards and Balancing Reports

For each wage return an employee earnings punch card is prepared, showing account number, surname, taxable wages, and State in which the wage earner was last employed by the employer reporting. The earnings cards are then punched by a gang punch with the following information common to all earnings cards prepared from one employer's report: employer identification number, reporting period, city from which report was filed, industrial code, and block number. All punching operations are verified, and every block of work is thoroughly checked. The punch cards are then mechanically balanced against the cor-

² Each employer filed a summary information return (Form 99-2) and individual reports of wages paid to each employee (Form 99-2a), for each of the two reporting periods in 1937, and will file a combination return (Form 99-1a) for each quarter in 1938.

responding employee reports for both number of employees and total wages reported.

Segregating Earnings Cards by Area

After the blocks and reports are balanced, blocks are combined in larger units for further operations. The blocks are held in file until approximately 10,000 earnings cards from the same internal revenue district are accumulated. These larger groups are then released as "master blocks" for the succeeding steps. As was the case for the field blocks, the master blocks are numbered for identification in subsequent operations.

As the ledger sheets of the registrants are filed in account-number order, employee earnings cards also must be sorted in the same order before mechanical posting of wages can be carried on expeditiously. The first step in this direction is to group the earnings cards in each master block by area—that is, by the first three digits of the account number. The several area groups contained in each region are combined. For each region all "local" cards are segregated from the "foreign" cards, which are earnings cards representing reports sent in from one region for accounts which have area numbers belonging to other regions. Most of the wage reports received thus far are for accounts with area numbers for the region in which the reports are filed. However, because of migration on the part of employees and because a concern which has branches scattered throughout the country files all its reports through one office, a considerable number of foreign accounts are received.

The cards of the master block are then listed and totals taken for each local area and for each foreign region represented. A summary card is automatically punched for each total. The summary cards, representing the total number of employees and the total amount of earnings for each foreign region in the block, are sent to the central accounting and production control unit, which, on the basis of the accumulation of such cards, determines when transfers of earnings cards to their respective regions are feasible. The foreign cards are then transferred to their respective regional accounting centers and there merged with the other earnings cards.

Since the posting from the earnings cards to the ledger sheets is done mechanically in account-number sequence, it is important for efficiency and economy that the cards go through this

operation in groups of substantial size. Therefore, before being released for posting, the earnings cards belonging to a particular region are accumulated by area in "holding files" until a sufficiently large number is accumulated to compose a ledger section. A ledger section is a group of earnings cards with a common area number, comprising at least 65 percent of the account numbers which have been issued in that area. Each ledger section is processed as a unit.

At this stage accounting controls must be set up. Consequently, in each regional accounting and production control unit the area summary cards are used as the basis for a weekly ledger-control statement. This statement provides the information for determining when it is practicable to release a ledger section for posting. The statement also shows for each ledger section the total amount of earnings with which the postings must balance.

Posting

The earnings cards which have been released in ledger sections are sorted within each area by group and serial into complete numerical sequence. This process brings together all the earnings cards for an individual's account in instances in which more than one employer has reported payment of taxable wages to him during the period. The earnings cards are then mechanically compared, by a collator machine, with the corresponding employee master cards (prepared in the establishment process). This step is taken in order to verify the identity of the individual for whom wages are reported and to segregate those accounts which have no earnings cards in the ledger section.

If the name on an earnings card does not agree with the name on the master card bearing the same account number, the account is removed from the ledger section, the various files are searched to establish identity, and the account is posted at a later time. Spot checks indicate that fewer than 0.02 of 1 percent of the wage cards will require correspondence with employers in order to be identified. This is a remarkably low figure considering all the complications involved in matching the master cards with wage cards based on earnings reports received all over the country.

The earnings cards in the ledger section are listed mechanically and the total number of cards and amount of earnings recorded. This list of accounts indicates which individual ledger sheets

are to be taken from the file for posting and the total with which the postings must balance. This total, in turn, must balance with the ledger-control statement mentioned above. The earnings are then mechanically posted to the individual ledger sheets by accounting machines which "read" the amounts punched on the cards. All records are then returned to the files.

Subsequently, all employee earnings cards applying to each account for the different reporting periods of one year are brought together for an annual summary. The cards are mechanically tabulated and wage totals derived for each account. The account number, total earnings for the year, and cumulative earnings of each employee are automatically punched on an annual employee summary card. This information is automatically reproduced on another card to be used for statistical purposes, which also contains name, sex, color, and date of birth, reproduced from the actuarial card. The summary cards are then interfiled with wage cards of the first reporting period of the following year, and, at the time

of posting the new wage cards, the totals recorded on the summary cards are entered on the ledger sheets. These totals, then, together with earnings reported since the last summary, provide the records of total wages which are used in determining the amounts of benefits.

From this description, which has been confined to an outline of the major operations performed by the Accounting Operations Section, with much of the technical detail omitted, one can realize the complexity of the wage-record machinery, the care with which every step of the procedure had to be planned, and the constant vigilance required to ensure smooth and rapid functioning of each operation.

All this is being accomplished at a cost of something less than 25 cents a year for each account. For this comparatively small cost the Bureau of Old-Age Insurance is fulfilling its obligation of maintaining complete and accurate wage records so that the principle of individual equity provided for in title II of the Social Security Act may be realized.