

**NAME OF SYSTEM:****Census Age Search****ORIGINATOR:****Public Information Center****Bureau of Census****Pittsburg, Kansas 66762**

**OBJECTIVE.** To accelerate the conversion of the geographically-oriented census records to an alphabetic name file to improve search efficiency in order to process increased volumes of inquiries received from the public.

**BACKGROUND.** The Public Information Center provides the public with legal proof of age, citizenship status, and family relationships through searches of microfilm files. The Center has a major problem in searching the microfilm records of these original census of population documents, since the listings are geographically oriented, while the searches are name oriented. A search under such conditions has always been time consuming, frustrating, and occasionally fruitless. To correct this situation, the Census Bureau, over a period of years and within its limited budget outlay, has been cross-referencing the geographically oriented State files to a surname-coded reference system. Because of the enormity of each State's file of census participants, the soundex code system of surname identification was adopted. This system uses a combination of four alpha-numeric characters to represent the last name; that is, the first letter of the surname followed by three numerical codes representing the three or less consonant sounds contained in the remaining letters of the name. With literally millions of names to be processed, progress in converting the file was relatively slow.

With the passage of the Medicare Act by the Congress in 1965, the resultant deluge from the public for confirmation of age caused a greatly accelerated emphasis on conversion of the State files.

**THE NEW METHOD.** The conversion of the 1910 census records to soundex-coded

surnames is being done on a State-by-State basis. The input for this accelerated conversion effort initially covers the keypunching of the name, age, references, and other identifying data on punched cards. These punched cards are then converted to magnetic tape, and through use of a special computer program each surname is assigned the proper soundex code. An additional computer program provides for a complete sequential sort by soundex code of all names within a given State. The sequence following the surname includes the first name, middle initial, and lastly the county of residence.

When all listings have been sequentially placed on the magnetic tape, the file is ready for conversion to microfilm. This action is made possible through use of COM (computer output microfilm) equipment that is capable of automatically entering photo-optical binary codes on microfilm. Each 16-mm. microfilm frame consists of the entries for five families, with identifying photo-optical binary-coded data covering only the fifth or last family shown in the frame.

A typical State's soundex-arranged population file contains about 150 100-foot cartridges. Within the cartridge the data on each listing is arranged first by the first letter and three digits of the soundex code, then by the first four letters of the given name, and finally by the county of residence. A typical search station consists of three interrelated components. In sequence of use they are the film cartridge rack, which can hold over 200 film cartridges within easy reach of the search station operator; the electrically-operated microfilm reader, a standard Lodestar Recordak model with a capability of moving film at the rate of 10 feet a second; and the key device for this photo-optical, binary-coded microfilm system, the automated retrieval keyboard.

To conduct a search, the operator selects the appropriate microfilm cartridge, places it in the reader, and "keys in" the appropriate soundex code representing the name being looked up, followed by the given name and county code. With all information placed in the microfilm reader, the operator turns on

the start button. When all the keyed-in data matches the binary coding on a particular film frame, the reader will display the next image, which should be the film frame containing the requested information. If the individual's residence location was not known initially, a slightly wider search of the film might be necessary, especially if the surname were fairly common.

**REMARKS.** This roll microfilm system with optical binary code and computer-like image-finding capability lends itself to precise selection of desired documents. For example, this updated system has enabled searchers to find the desired name 50 percent of the time in the first viewing of the microfilm. In contrast, the older manual reader search through geographically arranged files was successful in only 15 percent of the first searching attempts.

## CENSUS AGE SEARCH

