CSPro Census Data Capture Tracking System

Overview

This is a control and management system for census data capture. It can be used for either keyed and scanned data capture. The system keeps track of each enumeration area (EA) during each phase of the data capture operation. It provides reports on

CENTRACK is an interactive census management and control system that helps census managers monitor the processing phases of a census. During census processing, CENTRACK assists in avoiding the duplication or omission of census enumeration areas (EA's). It also allows for the production of the census preliminary counts and management reports. Once the census data are keyed, CENTRACK provides the mechanism to validate the geographic identification of the keyed data. Additionally, it identifies EA's for which the manual and computer counts are not within an acceptable tolerance level (duplicates and omissions).

Finally, CENTRACK allows for census files containing data for lower geographic levels to be combined into files containing higher geographic levels. The design of CENTRACK takes into consideration the needs expressed throughout the years by statistical offices to monitor the data collection and processing stages of their censuses. It also incorporates the design ideas of several customized systems used in specific countries, as well as some of the ideas used in mainframe generalized management and reporting systems, such as CONTROL. More importantly, CENTRACK takes advantage of the user-friendly environment provided by microcomputers.

CENTRACK requires a good cartographic system that accurately defines all the geographic and administrative boundaries for the census. This geographic base serves to develop a geographic coding scheme that identifies each geographic, administrative, and statistical area down to the EA. CENTRACK requires this hierarchical coding scheme in order to generate a database with the EA (or any other geographic level) as the unit of control. This system monitors every phase at the EA level. The first phase is usually the reception of the questionnaires from the field by the central office. The last phase is usually the keying of the census data.

It should be noted that CENTRACK can monitor any set of phases at the EA level. For example, you may want to monitor each of the phases or steps involved with the computer edits, sorts, and tabulations of data files. This manual will describe the use of CENTRACK in monitoring the phases of data entry, even though it can be used to track any given set of activities or phases.

CENTRACK can print a master transmittal form to keep track of the status of each EA. The census personnel use these transmittal forms to record each phase through which the EA has passed. Later, the census personnel enter this information into the CENTRACK database which serves as a basis for its operational control functions.

CENTRACK's functions are the following:

1. Avoiding the duplication of enumeration areas (or whatever level the unit of control is defined as; ie. households).

2. Avoiding the omission of enumeration areas.

3. Obtaining more accurate and timely preliminary counts.

4. Obtaining management reports such as productivity and phase completion reports. The user may request at any time a status or productivity report that contains information about the status of each processing phase.

5. Providing a mechanism to validate the geographic identification of the keyed data. CENTRACK also identifies enumeration areas for which the manual counts and computer counts are not within an acceptable tolerance level. CENTRACK adds the computer counts directly from the census data file.

6. Combining portions of census data files into higher geographic levels. CENTRACK analyses the combined census data files for completeness (incorrect or missing EA's.)

Entered Data File

CENTRACK has a few requirements on the census data entry files. They must be fixed format ASCII files and their access must be sequential. The geographic identification codes must be present on each record in the same position. CENTRACK assumes that there can be only one housing record and a variable number of population records per questionnaire. Any other record type would be ignored. Each record must contain a code for record type in the same position. All the census data records for an EA must be together, although they do not need to be in ascending order within an EA. CENTRACK only reads the data entry file; no rewrite takes place.

An accurate record layout will be necessary. CENTRACK will ask you to provide the length and starting position of the geographic fields, as well as the upper limits to the values of each geographic field. It will also ask you for the length, starting position, and valid codes for the record type and sex fields. You must also provide the record length of the longest type of record. CENTRACK will ignore all other fields on the record.

Functions

Posting phase completion, manual and computer counts

Producing reports

Manual Counts Reports

Phase Completion Reports

Productivity Reports

Missing EAs Reports

Use

Initialize

Production of Areanames files

Posting completion of phases

Generating reports

Modifying for Local Use

Changing Geography

Changing Phases

Changing Dates on Productivity Report

Files

Input File – Census Tracking.dcf

EA Status File – EAStatus.dcf

Geography File – GeoFile.dcf

Input Data Files --

Area Names File

The Database: the CENTRACK Summary File ( CSF) and the Processing Status File (PS F)

The CENTRACK database consists of two files: the CENTRACK Summary File (CSF) and the Processing Status File (PSF). In most cases, the handling of these files by the CENTRACK system is transparent to the user.

The CENTRACK Summary File (CSF) contains the geographic coding scheme and names for areas of the country, as well as the number of EA's in the lowest area level. The geographic coding scheme consists of the complete geographic division and subdivisions into which the country is divided. In addition to a name, the census personnel assign to each division and subdivision a unique numeric code which can be obtained from the census maps and coding manuals. The census personnel should thoroughly verify this information before and after it has been entered in the computer. CENTRACK can handle up to five geographic area levels, plus the lowest level, the Enumeration Area. CENTRACK assumes the coding scheme is hierarchical.

CSPro Applications

Census Tracking.ent

Manual Counts Province.xtb

Manual Counts District.xtb

Phase Completion Province.xtb

Phase Completion District.xtb

Productivity Daily.xtb

Productivity Weekly.xtb

Productivity Monthly.xtb

Missing EAs.bch

List EA Status File.bch

Make AreaNames File.bch

Make Days.bch