2003 Annual Survey of Public Employee Retirement Systems Methodology

The U.S. Census Bureau sponsors and conducts this annual survey of state and local government employee retirement systems as authorized by Title 13, United States Code.

The survey measures revenues, expenditures, financial assets, and membership information for public employee retirement systems classified as defined benefit plans. Data are shown for individual retirement systems as well as at the national, state, and local government level. The survey yields a series of tables and files that provide users with comprehensive statistical information about the financial activity and membership of state and local government employee retirement systems.

Population of Interest

The population of interest for this survey includes public employee retirement systems administered by state and local governments throughout the nation. Retirement systems were only included if they met the following two criteria: (1) they were sponsored by a recognized unit of government as defined by the Census Bureau and (2) their membership was comprised of public employees compensated with public funds. These retirement systems consist of defined benefit plans – not defined contribution or post-employment healthcare plans. In years ending in '2' and '7' the entire universe is canvassed as part of the Census of Governments. In intervening years, a sample of the population of interest is surveyed.

Content of the Survey

A retirement system is a pension plan in which investments, contributions, and benefits are administered as a separate entity; independent of the parent government general fund. Assets are accumulated and benefits paid under a particular set of actuarial assumptions, including employee age, compensation, and service credits. They include single employer systems, in which one government is the sole sponsor of the pension plan, as well as multiple employer systems, where two or more governments maintain membership on behalf of their employees.

For both the Census of Governments and the annual sample survey, the detail of the data is equivalent, encompassing the entire range of financial activity for government employee retirement systems – benefits paid, government contributions, employee contributions, and total holdings and investments. Total holdings and investments data include securities and other assets, such as cash and short-term investments, corporate bonds and stocks, and mortgages held directly.

The forms listed below are used to collect the data. The variables collected on these forms are explained in detail in the 1992 Government Finance and Employment Classification Manual.

Form Number	Survey Name
F11 FY2003	Locally Administered Employee Retirement Systems
F12 FY2003	State Administered Employee Retirement Systems

Data Collection

Data collected for the annual sample survey of Public Employee Retirement Systems are a matter of public record and are not confidential, as authorized by Title 13, United States Code, Section 9. Data for this survey were collected using the F-11 and F-12 forms listed in the Content of the Survey section above.

Data in these files are based on information obtained in the Annual Survey of Public Employee Retirement Systems. Forms were mailed to the 218 state government employee retirement systems and 1,252 local government employee retirement systems sampled from the 2002 public employee retirement universe. Staff contacted nonrespondents through a follow-up mail-out and by way of follow-up telephone calls. When system respondents returned their Comprehensive Annual Financial Report (CAFR) instead of completing the form, Census Bureau staff compiled the data using these reports.

The data collection schedule used for the 2003 Annual Survey of Public Employee Retirement Systems follows:

Initial mail-out	10/2003
Follow-up mail-out	12/2003

Sample Design

The Fiscal Year (FY) 2003 sample was a non-probability sample selected from the 1997 Census of Governments: Finance component. As such, sampling errors could not be calculated. Estimates of the quality of the data are not available. The fiscal year 2001 survey universe and the 1997 Census universe served as the starting point for the Census of Public Employee Retirement Systems of state and local governments for Fiscal Year 2002. Census Bureau analysts refined the universe, researching information from a series of independent sources: usually state government insurance trust administrators, audit agencies, or financial oversight authorities. These research efforts resulted in the creation of a final universe file of 2,670 retirement systems for the 2002 Census of Public Employee Retirement Systems. The Census Bureau

canvassed these units using mail survey questionnaires and a Web-based data collection instrument.

Sample Size
The FY 2003 sample size is 1,470 units; of which 218 were state government employee retirement systems and 1,252 were local government employee retirement systems.

Data Processing

Editing
Editing is a process that ensures survey data are accurate, complete, and consistent. Efforts are made at all phases of collection, processing, and tabulation to minimize errors. Although some edits are built into the Internet data collection instrument and the data entry programs, the majority of the edits are performed post collection. Edits consist primarily of two types: consistency edits and historical ratio edits of the current year's reported value to the prior year's value.

The consistency edits check the logical relationships of data items reported on the form. For example, if a value exists for the number of retirees receiving benefits because of age or length of service then there must be a value reported for the amount of benefits paid.

The historical ratio edits compare by item code the data reported for the current year with data reported for the prior year. If data fall out of acceptable tolerance levels, the item is flagged for review.

For both types of edits, the edit results are reviewed by analysts and adjusted when needed. When analysts are unable to resolve or accept an edit failure, contact is made with the respondent to verify or correct the reported data.

Imputation
Not all respondents answer every item on the questionnaire. There are also questionnaires that are not returned despite efforts to gain a response. Imputation is the process of filling in missing or invalid data with reasonable values in order to have a complete data set for analytical purposes. For census years, the complete data set is also needed for sample design purposes.

For most of the units that were canvassed but did not respond to the 2003 survey, the missing data were imputed by applying average or median growth rates to the nonrespondent's 2002 Census of Public Employee Retirement Systems data. For some groups of variables we used median distributions. An attempt was made to get reported or administrative data for Total Holdings and Investments for every unit, but particularly for those units that did not report in

2002. After an extensive 2003 effort, we had either 2002 or 2003 Total Holdings and Investments data for 99.8 percent of the local units and 100 percent of the states. For the three units where we did not have recent data, we believed that those units were extremely small. They were imputed using the median value for Total Holdings and Investments from responding units in the smallest size grouping. For the detailed variables that added into Total Holdings and Investments, a median distribution was calculated using the reported data from 2003 survey respondents who were similar to the nonrespondents. For 1,184 noncanvassed units all variables except gains/losses on the sale of investments, 2002 Census of Public Employee Retirement Systems data were added with the 2003 imputed and respondent survey data to obtain the totals given in the tables. All but four missing variables (Z90, Z92, Z95, Z97) were imputed using one of the following methods: cell median or donor distribution of Z81, cell mean, or reported prior year or census year data that were multiplied by a growth factor. If the respondent did not write in anything in Z90, Z92, Z95, and Z97, we imputed those variables to be zero.

Note: Between years 2002 through 2007, individual government imputed data were not released to the public.

Sampling Variability

The FY 2003 sample was a nonprobability sample and as such, estimates of the sampling variability could not be calculated.

Nonsampling Error

Although every effort (as described in the Data Processing section) is made in all phases of collection, processing, and tabulation to minimize errors, the sample data are subject to nonsampling errors such as the inability to obtain data for every variable from all units in the sample, inaccuracies in classification, response errors, misinterpretation of questions, mistakes in keying and coding, and coverage errors. These same errors may be evident in census collections and may affect the Census of Governments data used to adjust the sample during the estimation phase and used in the imputation process.

Overall Response Rate

The overall response rate to the 2003 Annual Survey of Public Employee Retirement Systems was 70.4 percent. For 2003, we received useable data for 215 (or 98.6 percent) of the 218 state retirement systems. We received useable data from 820 (or 65.5 percent) of the 1,252 local retirement systems that we canvassed. The number of respondents included both systems that completed a survey questionnaire and systems that provided a Comprehensive Annual Financial Report (CAFR) containing statistics from which Census Bureau analysts compiled financial and membership data needed for the 2003 annual survey.