Version 2.9 (Released December 31, 2005)

Modified function relrisk so that estimates are calculated correctly when cell counts or margin totals equal zero.

Modified function cont.analysis to remove the total estimate from the output data frame named Tot.

Version 2.8 (Released September 30, 2005)

Modified all functions in the library that generate warning messages so that the messages are stored in a data frame named warn.df rather than being written to the console. Also, created a function named warnprnt that prints warning messages stored in the warn.df data frame.

Modified functions psurvey.analysis, cat.analysis, cont.analysis, category.est, cdf.est, cdf.decon, and total.est to support the addition of variables for support values and size-weights in the design data frame, which is an argument used by the psurvey.analysis, cat.analysis, and cont.analysis functions.

Modified functions psurvey.analysis, cat.analysis, cont.analysis, category.est, cdf.est, cdf.decon, and total.est to ensure that a two-stage sampling design has a sufficient number of sites in each stage one sampling unit to allow variance calculation.

Version 2.7 (Released June 30, 2005)

Modified functions psurvey.analysis, cat.analysis, and cont.analysis to check for repeat occurrences of site IDs after subsetting input data frames by the logical variable in the sites data frame. Previously, checking for repeat occurrences of site IDs was conducted prior to subsetting by the logical variable in the sites data frame. Also, modified the dframe.check function to remove checking for repeat occurrences of site IDs.

Modified function total.est to eliminate the possibility of a negative value for the estimated population variance.

Modified documentation for function relrisk to clarify the relationship between arguments to the function that specify levels of the response and stressor categorical variables and calculation of the relative risk estimate.

Modified function input.check so that, when the survey design is stratified, arguments popsize and unitsize are only checked to ensure that values are provided for the stratum codes that actually are used by a population or by a subpopulation of a population. Also, modified functions cat.analysis and cont.analysis to reflect the changes to function input.check.

Version 2.6 (Released March 31, 2005)

Created a function (relrisk) that computes the relative risk estimate for a 2x2 table of cell counts defined by a categorical response variable and a categorical explanatory (stressor) variable for an unequal probability design.

Modified functions cat.analysis and cont.analysis so that no analysis is attempted when a subpopulation of a population type contains either no data or only a single value for an indicator.

Version 2.5 (Released December 31, 2004)

Renamed functions in the library to remove the sufffix ".fcn" from function names.

Removed use of the argument named "type.cat" (the type of categorical response variable) from the psurvey.analysis, cat.analysis, category.est, and dframe.check functions.

Version 2.4 (Released September 30, 2004)

Modified functions psurvey.analysis.fcn, cat.analysis.fcn, cont.analysis.fcn, and input.check.fcn to allow known size of the resource and known sum of the size-weights for subpopulations.

Modified the function uniqueID.fcn so that site IDs that are stored as a factor are processed without error.

Modified functions cdf.test.fcn and cdfvar.test.fcn so that a warning message is printed whenever the combined number of values in any of the classes used to define the CDFs is less than five.

Version 2.3 (Released June 30, 2004)

Created a file named "UserGuide.pdf" that provides a narrative discussion regarding use of the library.

Modified functions category.est.fcn, cdf.est.fcn, and total.fcn so that requisite values are removed from the vector of values in popsize (the known size of the resource) and unitsize (the known sum of the size-weights of the resource) whenever removal of missing values from a stratified sample results in strata that no longer contain any values and, therefore, were removed from the analysis.

Version 2.2 (Released March 31, 2004)

In function dframe.check.fcn, changed stop messages to warning messages when repeat site IDs are encountered.

Created a function named uniqueID.fcn that creates unique site IDs by appending a unique number to each occurrence of a site ID.

Created a function named vecprint.fcn that takes an input vector and outputs a character string with line breaks inserted.

In functions cat.analysis.fcn and cont.analysis.fcn, corrected an error that resulted in loss of the input values for N.cluster, popsize, stage1size, and unitsize in unstratified samples.

In function cont.analysis.fcn, added a call to the CDF deconvolution function (cdf.decon.fcn) when values are provided for measurement error variance. For that case, two additional data frames named "CDF.D" and "Pct.D" containing the deconvoluted CDF estimates and deconvoluted percentile estimates, respectively, were added to the output list.

In function input.check.fcn, added error checking for measurement error variance and variance of measurement error variance.

Version 2.1 (Released December 31, 2003)

Modified the functions for deconvolution of CDFs to allow usage of finite and continuous population correction factors in variance estimation.

Version 2.0 (Released September 30, 2003)

Created a new top-level function named psurvey.analysis.fcn that creates an object of class psurvey.analysis. The object created by the function is a list that contains all of the information necessary to use the analysis functions in the psurvey.analysis library.

Modified functions cat.analysis.fcn and cont.analysis.fcn to allow input of an object of class psurvey.analysis.

Created a function named dframe.check.fcn that checks site IDs, the sites data frame, the subpop data frame, the data.cat data frame, the type.cat vector, and the data.cont data frame to assure valid contents. The fucntion is called by functions psurvey.analysis.fcn, cat.analysis.fcn, and cont.analysis.fcn.

Created a function named input.check.fcn that checks for compatibility of input values for functions psurvey.analysis.fcn, cat.analysis.fcn, cont.analysis.fcn,

caterory.est.fcn, cdf.est.fcn, cdf.decon.fcn, and total.est.fcn.

Modified the functions for estimation of categories, estimation of CDFs, and estimation of population totals to allow usage of finite and continuous population correction factors in variance estimation.

For all functions, replaced usage of R (the known size of the resource) and W (the known sum of the size-weights for the resource) with popsize and unitsize, respectively.

For all functions, replaced usage of T and F with TRUE and FALSE, respectively.

Version 1.6 (Released June 30, 2003)

Created a function named localmean.df.fcn that calculates the degrees of freedom of the local mean variance-covariance estimator and modified function cdfvar.test.fcn to utilize the degrees of freedom for the F distribution versions of the test statistics.

Since library mva is loaded by R version 1.7.0 at startup, specific loading of that library was removed from the functions for estimation of categories (category.est.fcn), estimation of CDFs (cdf.est.fcn), deconvolution of CDFs (cdf.decon.fcn), testing differences between CDFs (cdf.test.fcn), and estimation of population totals (total.est.fcn).

Version 1.5 (Released March 31, 2003)

Modified the variance estimation functions associated with estimation of categories (category.est.fcn), estimation of CDFs (cdf.est.fcn), deconvolution of CDFs (cdf.decon.fcn), and estimation of population totals, etc. (total.est.fcn) to correct an error that resulted in underestimation of variance for two-stage sampling designs.

Modified the function for testing differences between CDFs (cdf.test.fcn) to include F distribution versions of the test statistics.

The functions for estimation of categories (category.est.fcn), estimation of CDFs (cdf.est.fcn), deconvolution of CDFs (cdf.decon.fcn), and estimation of population totals, etc. (total.est.fcn) were modified to allow a stratified sample to be reduced to a single stratum following removal of strata that either contain only missing values of the response variable or contain only a single value of the response variable.

Version 1.4 (Released December 31, 2002)

Added a function (cdf.decon.fcn) and support functions for deconvolution of a

CDF.

Modified the top-level functions (cat.analysis.fcn and cont.analysis.fcn) to allow additional levels of a factor when creating the output data frame.

Version 1.3 (Released September 30, 2002)

Added top-level functions that allow input of more than one response variable at a time. One function(cat.analysis.fcn) performs categorical data analysis, and the other function (cont.analysis.fcn) performs continuous data analysis.

The functions for estimation of categories (category.est.fcn), estimation of CDFs (cdf.est.fcn), and estimation of population totals, etc. (total.est.fcn) and their support functions were modified to accomodate two-stage samples for both stratified and unstratified sampling designs.

Added a function (adjwgt.fcn) that adjusts initial survey design weights.

Added a function (marinus) that converts coordinates from latitude/longitude to the equidistant, cylindric map projection.

Modified the category estimation function(category.est.fcn) to ensure that, when the known size of the resource is provided, the size estimates for the categories sum to the known size of the resource.

Version 1.2 (Released June 30, 2002)

The functions for estimation of categories (category.est.fcn), estimation of CDFs (cdf.est.fcn), and estimation of population totals, etc. (total.est.fcn) and their support functions were modified to implement use of the known size of the resource (including know size of each stratum for a stratified sample) in the estimation algorithms.

Standardized output data frame format and naming conventions for all estimation functions and for both stratified and unstratified sampling designs within each estimation function.

Modified the CDF estimation function (cdf.est.fcn) so that both the CDF for the proportion (expressed as percent) and the CDF for the total are included in the output.

Combined the functions for category estimation and site status estimation into a single function named category.est.fcn.

Combined the functions for estimation of population total, population mean, and population variance into a single function named total.est.fcn.

Version 1.1 (Released March 31, 2002)

For a stratified sample, modified implementation of the stratum variable to allow the variable to be composed of character values in addition to numeric values (internally within the functions the stratum variable is converted to a factor).

For a stratified sample, implemented removal of strata containing a single value prior to conducting analysis.

For a stratified sample, eliminated output of estimates for each stratum.

Modified the missing value function to distinguish among numeric, factor, and character data and to remove an expanded set of values for each case.

Version 1.0 (Released January 31, 2002)

This is the original version of the library.