Description:

The macro is designed to perform frequency counts and percentages, typically by treatment group, from an input dataset and stated variables. The end product is a SAS dataset.

Capabilities are:

* Will count a character or numeric variable
* If a numeric treatment group is selected, the macro will count by treatment group and will transpose the treatments in the final dataset, per typical table displays. A total treatment column is also possible within the macro
* By variables can be stated, as well as subsets (e.g. where clauses)
* Denominators for percentages can be either the population count, or the non-missings of the variable being counted
* Displays can be either the count alone, the count with a percentage to the right, or the numerator, denominator and percentage altogether, e.g. 36 / 70 (51.4%)
* All possible values of the counting variable can be included, with 0 counts being displayed for forced in values
* Numeric and character ordering and decode variables can be included

| **Parameter Name** | **Description** | **Required?** | **Controlled Terms** | **Comment** |
| --- | --- | --- | --- | --- |
| INDS | Input dataset | Req |  |  |
| OUTDS | Output dataset | Req |  |  |
| COUNTVAR | Variable to count | Req |  | Can be character or numeric |
| BYVARS | By variables | Perm |  | Separate with a space |
| WHERE | Where clause to subset the input dataset on | Perm |  |  |
| TRTVARN | Numeric treatment variable | Perm |  | e.g. TRT01PN |
| TOTVAL | Value of additional “Total” treatment column | Perm |  | e.g. 9, 99. If specified this will be transposed, and will appear as an additional variable in the output dataset, e.g. TRT9 |
| TOTCOND | Condition of the total column | Perm |  | If TOTVAL is specified and TOTCOND is left blank, the condition applied to create the total treatment group will be &TRTVARN ne . |
| DISPLAY | How the count and percent should be displayed | Req | COUNT  COUNTPERC  COUNTDENOM | **COUNT**: Display will be count only, e.g. 36  **COUNTPERC**: Display will be count and percent side by side. The format of the percent will be defined by the format in PERCFMT, but e.g. 36 (29.3%)  **COUNTDENOM:** Display will be count and denominator side by side separated by a slash, followed by the percent in the format in PERCFMT, e.g. 36 / 123 (29.3%) |
| DENOM | Definition of how the denominator will be derived | Req | POP NONMISS | **POP:** The population of each treatment group will be used as the denominator for percentages. If this is specified, the MPOP macro must be called prior to the MFREQ call  **NONMISS:** Denominator will be calculated as the non-missing values specified in the NONMISSV parameter |
| NONMISSV | Value of missing if non-missing denominators are required | Cond |  | Definition of non-missings. Required if DENOM=NONMISS |
| PERCFMT | Name of the picture format for percentage displays | Cond |  | Required if DISPLAY iS COUNTPERC or CONTDENOM |
| TOTROWTXT | Text for the optional total row | Perm |  | If specified, an additional row will be created as a count of the non-missing values of COUNTVAR |
| TOTROWPOS | Position for the optional total row | Cond | TOP  BOTTOM | TOP: the text will appear above the COUNTVAR displays, and will have a value of COUNTTYPE=0 in the output dataset.  BOTTOM: the text will appear below the COUNTVAR displays, and will have a value of COUNTTYPE=2 in the output dataset. Required if TOTROWTXT is populated |
| FORCEFMT | Format name if all possible values are required in the output dataset | Perm |  | Apply to the variable in the COUNTVAR parameter |
| ORDER | Value of the optional ORDER variable in the output dataset | Perm |  | e.g. 1, 2, 3 etc |
| SORDERFMT | Informat to create the numeric SORDER variable from, if COUNTVAR is character | Perm |  | Apply to the variable in the COUNTVAR parameter |
| PAIRVAR | Name of paired variable for COUNTVAR | Perm |  |  |
| TEXTFMT | Format to create the character TEXT variable, if COUNTVAR is character |  |  | Apply to the variable in the COUNTVAR parameter |

Output dataset specifications:

|  |  |  |  |
| --- | --- | --- | --- |
| Variable Name | Type | Length | Description |
| &COUNTVAR | See comment | See comment | The variable specified in the COUNTVAR parameter will be copied unchanged into the output dataset |
| &BYVARS | See comment | See comment | The variables specified in the BYVARS parameter will be copied unchanged into the output dataset |
| ORDER | Num | 8 | Numeric order. Will be the same value as specified in the NORDER parameter. The variable will not be created if the NORDER parameter is null |
| SORDER | Num | 8 | Numeric sub-order. If the variable in the COUNTVAR parameter is character, this will be the result of mapping the &COUNTVAR variable to the informat specified in the NSORDERFMT parameter. If the variable in the COUNTVAR parameter is numeric, this will be the same as &COUNTVAR. |
| COUNTTYPE | Num | 8 | =1 for values representing the frequency counts of &COUNTVAR. =0 for the record when TOTROWTXT is specified and TOTROWPOS=TOP. =2 for the record when TOTROWTXT is specified and TOTROWPOS=BOTTOM. |
| TEXT | Char | 200 | If the &COUNTVAR variable is numeric, TEXT will be the result of the format specified in the CTEXTFMT being applied to &COUNTVAR. If the &COUNTVAR variable is character, TEXT will be the same as &COUNTVAR |
| TRTx | Char | 100 | The display of each treatment level within the variable in the TRTVARN parameter, with x being the number of the treatment group level |