1.   Introduction

SUDAAN 11.0.4 contains the following changes from SUDAAN 11.0.3:
- New output keywords in WTADJUST and WTADJX
- Formatted MODELRHS and CONTRAST columns in SAS output datasets
- Bug Fixes

SUDAAN 11.0.4 has been tested on the following platforms:

- Windows 10, 64-bit, SAS-callable SUDAAN with SAS 9.4 M5
- Windows 10, 64-bit, SAS-callable SUDAAN with SAS 9.4 M7
- Red Hat Enterprise Linux 7.9, 64-bit, SAS-callable SUDAAN with SAS 9.4 M7

2. New output keywords in WTADJUST and WTADJX

Usage

Output keywords WT_JACKWGT and WT_REPWGT are now available in PROC WTADJUST and PROC WTADJX in the output group PREDICTED. Exhibit 1 below supplements the PREDICTED Group sections of Exhibit 24-8 and Exhibit 25-11 in the SUDAAN Release 11 Language Manual.

If one of these keywords or PREDICTED=All are specified in the output statement, then the output dataset will include variables WT_REPWGT1-WT_REPWGTn or WT_JACKWGTS1_WT_JACKWGTSn, where n corresponds to the number of replicate weights specified on the REPWGT or JACKWGTS statement. These variables contain the calibrated jackknife or BRR weights. See example code in Exhibit 2.

These keywords are only available when a REPWGTS or JACKWGTS statements are used and thus are not available for the delete-1 jackknife specified using a NEST statement.

Exhibit 1. New Output Keywords

Keyword	Default Label	Default Output Format	DRN	Options that change availability	Description
WT_JACKWGTS	Calibrated Jackknife Weight	F12.4	N	DESIGN = JACKKNIFE; JACKWGTS statement	WTFINAL computed using the corresponding weight in the JACKWGTS statement.
WT_REPWGT	Calibrated BRR Weight	F12.4	N	DESIGN = BRR; REPWGT statement	WTFINAL computed using the corresponding weight in the REPWGT statement.

Exhibit 2. Sample statements that produce new output

```
output idvar adjfactor wtfinal wt_repwgt/ filename=calibrated1 replace;
output / predicted=ALL filename=calibrated2 replace;
```

Impacted Procedures
WTADJUST, WTADJX

Impacted Statistics
None

3. MODELRHS and CONTRAST columns in output datasets

MODELRHS and CONTRAST columns in output datasets now contain formatted values similar to PRINT output. These are descriptive columns that accompany the output keywords in output groups BETAS and TESTS. Instead of a numeric index, MODELRHS and CONTRAST columns contain informative labels based on variable and value labels. For example:

Exhibit 3. Sample statements for which outputs have changed:

```
output / tests = default filename = tests replace;
output beta/ filename = beta replace;
```

Exhibit 4. Sample outputs:

Obs	PROCNUM	MODELNO	CONTRAST	DF	WALDF	WALDP
1	4	1	OVERALL MODEL	2	4267.39	0.0000
2	4	1	MODEL MINUS INTERCEPT	1	17.84	0.0001
3	4	1	INTERCEPT	.	.	.
4	4	1	HSSEX	1	17.84	0.0001

Obs	PROCNUM	MODELNO	MODELRHS	BETA
1	4	1	Intercept	2.42
2	4	1	Sex:Male	-0.08
3	4	1	Sex:Female	0.00

Exhibit 5. Sample outputs prior to 11.0.4:

Obs	PROCNUM	MODELNO	CONTRAST	DF	WALDF	WALDP
1	4	1	1	2	4267.39	0.0000
2	4	1	2	1	17.84	0.0001

3	4	1	3	.	.	.
4	4	1	4	1	17.84	0.0001

Obs	PROCNUM	MODELNO	MODELRHS	BETA
1	4	1	1	2.42
2	4	1	2	-0.08
3	4	1	3	0.00

To revert to unformatted output as in 11.0.3, remove formats from variables or specify an RBY statement. Formatted output is not available when RBY statements are used.

Impacted Procedures
REGRESS, LOGISTIC, MULTILOG, LOGLINK

Impacted Statistics
None

4. Bug Fixes

The following bugs have been fixed:

1. When an XU statement was specified in VARGEN, SUBPOPX and SUBPOPN statements were being ignored. SUBPOPX and SUBPOPN are now applied appropriately. Note that XU statements produce SEESTIM values of zero. Unweighted standard error estimates can be obtained from VARGEN using X Statements and specifying a weight of 1.
2. VARGEN calculated DEFFESTIM incorrectly when DESIGN=BRR. This is now calculated correctly.
3. An uninformative error was returned if TDDF was specified when multiple imputation was not used. An informative error is now returned.

Summary of Impacts

Bug	Impacted Procedures	Condition	Impacted Statistics
1	VARGEN	XUSUM, XUMEAN, XUPER, XURATIO, XUVAR, XUSQRTVAR, or XUCORR combined with SUBPOPN or SUBPOPX	ESTIM, NSUM, WSUM
2	VARGEN	DEFT/DEFF/DEFT4 with DESIGN=BRR	DEFFESTIM
3	DESCRIPT	TDDF when not using multiple imputation	none