

for Housewife Group

TABLE 4.17 Syntax and Selected Multicollinearity Output From SAS REG

```

data SASUSER.SCREENF;
  set SASUSER.SCREENF;
  if subno=45 or subno=265 or subno=119 or subno=262 or
    subno=584 then delete;
run;
proc reg data=SASUSER.SCREENF;
  model SUBNO= ATTDUG ATTHOUSE MSTATUS RACE LTIMEDRS/COLLIN;
run;

```

## Collinearity Diagnostics

Number	Eigenvalue	Condition Index
1	5.66743	1.00000
2	0.20446	5.26483
3	0.05466	10.18261
4	0.04223	11.58407
5	0.02453	15.19939
6	0.00668	29.13622

The REG Procedure

Model: MODEL1

Dependent Variable: SUBNO

## Collinearity Diagnostics

## Proportion of Variation

Number	Intercept	ATTDUG	ATTHOUSE	MSTATUS	RACE	LTIMEDRS
1	0.00026439	0.00066304	0.00090957	0.00148	0.00169	0.00581
2	0.00093585	0.00162	0.00193	0.01207	0.01614	0.92916
3	0.00033355	0.00118	0.00259	0.35672	0.62656	0.00305
4	0.00401	0.04221	0.28153	0.40511	0.20211	0.05695
5	0.00391	0.53054	0.43329	0.04863	0.03159	0.00408
6	0.99055	0.42378	0.27975	0.17598	0.12191	.00094416

## Results

Prior to analysis, number of visits to health professionals, attitude toward drug use, attitude toward housework, income, marital status, and race were examined through various SAS programs for accuracy of data entry, missing values, and fit between their distributions and the assumptions of multivariate analysis. The variables were examined separately for the 246 employed women and the 219 housewives.

A case with a single missing value on attitude toward housework was deleted from the group of employed women, leaving 245 cases in that group. Income, with missing values on more than 5% of the cases, was deleted. Pairwise linearity was checked using within-group scatterplots and found to be satisfactory.

Two cases in the employed group were univariate outliers due to their extremely low  $z$  scores on attitude toward housework; these cases were deleted. By using Mahalanobis distance with  $p < .001$ , derived from leverage scores, 15 cases (about 3%) were identified as multivariate outliers in their own groups. Because several of these cases had extreme  $z$  scores on visits to health professionals and because that variable was severely skewed, a logarithmic transformation was applied. With the transformed variable in the variable set, only five cases were identified as multivariate outliers, all from the employed group.<sup>25</sup> With all seven outliers and the case with missing values deleted, 238 cases remained in the employed group and 214 in the group of housewives.

<sup>25</sup>All the outliers were non-Caucasian housewives. Thus, 36% (5/14) of the non-Caucasian housewives were outliers. One of them also had an unusually large number of visits to health professionals, one was unmarried, and one had exceptionally unfavorable attitudes regarding use of drugs. Thus, results may not generalize to non-Caucasian housewives, particularly those who are unmarried, make frequent visits to physicians, and have very unfavorable attitudes toward the use of drugs.