Figure 1.40c

```
REGRESSION ANALYSIS FOR WITHIN CELLS ERROR TERM

DEPENDENT VARIABLE ..SYNTH

COVARIATE              B          BETA      STD. ERR.      T-VALUE     SIG. OF T  LOWER .95 CL  UPPER .95 CL

INTEL          .0555153073   .4727752433        .05165      1.07475          .287      -.04814        .15917
CONOBV         .2008178054   .7838261472        .24128       .83231          .409      -.28334        .68498
CONRMT         .1410916362   .2648440705        .47795       .29520          .769      -.81799       1.10018
JOB           -.3208770046  -.9994055945        .33236     -.96544           .339      -.98781        .34606
CI1           -.0015680423  -.6955227162        .00234.    -.66986           .506      -.00627        .00313
CI2           -.0009030738  -.2073789045        .00443     -.20380           .839      -.00979        .00799
CI3            .0030798107  1.2548388165        .00314      .98169           .331      -.00322        .00938

DEPENDENT VARIABLE ..EVAL

COVARIATE              B          BETA      STD. ERR.      T-VALUE     SIG. OF T  LOWER .95 CL  UPPER .95 CL

INTEL         -.0094648415  -.0790004191        .05701     -.16602           .869      -.12386        .10493
CONOBV        -.1937798157  -.7413104806        .26629     -.72770           .470      -.72813        .34057
CONRMT         .4295086197   .7901962055        .52750      .81424           .419      -.62900       1.48801
JOB           -.2833034910  -.8648268789        .36682     -.77233           .443     -1.01937        .45277
CI1            .0023782808  1.0339290659        .00258      .92057           .362      -.00281        .00756
CI2           -.0032614042  -.7340404855        .00489     -.66690           .508      -.01307        .00655
CI3            .0025330022  1.0115178798        .00346      .73156           .468      -.00441        .00948

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ESTIMATES FOR SYNTH ADJUSTED FOR 7 COVARIATES

CONSTANT

 PARAMETER          COEFF.       STD. ERR.        T-VALUE       SIG. OF T    LOWER .95 CL    UPPER .95 CL
         1  -4.0520586339         5.21524         -.77696            .441      -14.51720         6.41309

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ESTIMATES FOR EVAL ADJUSTED FOR 7 COVARIATES

CONSTANT

 PARAMETER          COEFF.       STD. ERR.        T-VALUE       SIG. OF T    LOWER .95 CL    UPPER .95 CL
         1   1.3600318232         5.75585          .23629            .814      -10.18992        12.90999
```

All of the output related to multivariate significance tests that can be obtained by using the PRINT phrase as described in Section 1.33 is also available in the multivariate regression analysis.

1.41 Canonical Analysis

MANOVA can also be used to obtain the canonical correlation between the dependent and independent variables entered into the multivariate regression model. Canonical correlation analysis obtains the linear combinations $u_i=\mathbf{a}_i'\mathbf{Y}$ and $v_i=\mathbf{b}_i'\mathbf{X}$ (i=1,2,..min(p,q)) such that the sample correlation between u_1 and v_1, is maximized. The sample correlation between u_2 and v_2 is greatest among all linear combinations uncorrelated with u_1 and v_1, and so on. The $\mathbf{a}_i$ and $\mathbf{b}_i$ are the canonical coefficients for the dependent and independent variables, respectively, and the pairs of linear combinations u_i and v_i are called the canonical variates.

The format of the PRINT subcommand requesting canonical analysis is

```
PRINT=DISCRIM(output list)/
```

The output list may include requests for

1 The raw canonical coefficients. If

```
PRINT=DISCRIM(RAW)/
```

is specified, the raw canonical coefficients for the dependent variables and the independent variables are produced. For Figure 1.40a, the output in Figure 1.41a is obtained.

Figure 1.41a

```
RAW CANONICAL COEFFICIENTS FOR DEPENDENT VARIABLES

          FUNCTION NO.

VARIABLE                1

SYNTH                .40444
EVAL                 .22637

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