S. P. C. C.
ST. PAUL CAMPUS COMPUTING CENTER

NEWS LETTER

KEY PUNCH WORK NEEDED

At the present time we are looking for additional key punch work. Individuals who have card punching to be done in the near future might submit their jobs now to avoid possible layoffs in this section. Please see or call Agnes Miron, Key Punch Supervisor (647-3668).

WORK AREA

The Computing Center has set aside a small cubical in the southeast corner of Room 14 (card storage room) for individuals utilizing our facilities. Available in this area is a desk, a data storage rack, and a key punch machine.

The key punch machine has been placed in this area on an experimental basis for outside use alone. Users of this machine are responsible for recording their SPCCC account number and the start and finish time on the attached 'Machine Record Log'. Please keep this area neat and clean.

FORTRAN IV E LEVEL PROGRAMMING CONSIDERATIONS

1. If a 'DO' statement is encountered with the upper index limit having a value smaller than the lower index limit, its corresponding 'loop' is still executed once. The following example demonstrates the above:

```
        N = 0
        DØ 20 J = 1, N
        - - - - -
    20  CØNTINUE
```

2. Once the 'P' conversion code (scale factor) is used in a format statement, a subsequent scale factor of zero (0P) must be used to offset the multiplying effect on the following format conversion codes.

DELIVERY SERVICE TO NAC

Effective February 23, 1968, we are discontinuing our program delivery service
between our Center and the University Computing Center located at the
Experimental Engineering Building and NSP sites.

MULTIPLE LINEAR REGRESSION COMPUTER PROGRAM   SP22

The Center now has a Multiple Linear Regression program available having a
wide range of options and facilities.   This program performs a correlation
analysis followed by multiple linear regression.   Once the data has been
computed and stored any number of regression equations (any chosen set of
independent variables with any dependent variable) may be run.   The program
outputs the following:

1.   Print out of the input data (optional).
2.   Means and standard deviations (optional).
3.   Correlation coefficient matrix (optional).
4.   Variance-covariance matrix (optional).
5.   Cross-product matrix about the means (optional).
6.   Ordinary regression coefficients and their standard errors.
7.   Normalized (standardized) regression coefficients (optional).
8.   t statistics for testing significance of regression coefficients.
9.   Partial correlation coefficients of the dependent variable with the
         independent variables.
10.   Multiple correlation coefficient (R) and R^2.
11.   R and R^2 adjusted for degrees of freedom.
12.   The intercept and its standard error.
13.   The standard error of estimate.
14   ANOVA table with F test.
15.   The inverse of the cross-product matrix (about means) without
         the dependent variable (optional).   On regression through the
         origin the matrix inverted is the uncorrected cross-product
         matrix.
16.   Regression through the origin (optional).
17.   Table of residuals: observed dependent variable minus predicted
         dependent variable for all observations (optional).
18.   Durbin-Watson statistic for serial correlation (optional).
19.   The program can also perform 24 different types of transformations.

A more detailed writeup on this program may be obtained from the secretary,
located in 26 North Hall.

ANALYSIS OF VARIANCE COMPUTER PROGRAM — SP33

The Computing Center has recently released for use, a modified version of 'UMSTAT 51' obtained from the University Computing Center (formerly NAC). This program computes analysis of variance for a complete factorial design (that is, sums of squares, mean squares, and degrees of freedom which appear in an analysis of variance table) and optionally outputs designated means. The program is designed to handle a great variety of analysis of variance designs; however, this requires that a particular design be specified by means of a sequence of code words. To do this the user must be able to specify the analysis of variance table he desires in detail. A more detailed writeup on this program may be obtained from the secretary, located in 26 North Hall.

SPCCC COMPUTER PROGRAMS ORIENTATION SESSION

The Computing Center is offering a short (1 hour) computer program orientation session the week of February 26th.

PLACE: 100 North Hall (Punchinello Theatre)
DAYS: February 26 through March 1 (Monday through Friday)
TIME: 3:00 to 4:00 PM

Individuals who are interested need attend only one session. The hour will be spent primarily in demonstrating the use of the SP22 program recently announced (Multiple Regression).

STATISTICAL CONSULTANTS

The offices of Dr. Margaret Martin and Dr. May Wright have been changed to 201 and 203 North Hall, respectively. Phone extensions 3397 and 3717 may still be used for making appointments.