STAT 480: Homework 12

Name: Kyle Salitrik | ***ID#:*** *997543474* | ***PSU ID:*** *kps168*

December 2, 2018

PROBLEM 1

Below is the report for problem 1:

The SAS System

The FREQ Procedure

ed_level	Frequency	Percent
1	11	1.72
2	29	4.55
3	232	36.36
4	249	39.03
5	117	18.34

PROBLEM 2

Below is the report for problem 2:

The SAS System

The FREQ Procedure

Table of sex by ed_level

sex ed_level

Frequency Row Pct	1	2	3	4	5	Total
1	4 7.14	7 12.50	12 21.43	20 35.71	13 23.21	56
2	7 1.20	22 3.78	220 37.80	229 39.35	104 17.87	582
Total	11	29	232	249	117	638

PROBLEM 3

Below is the report for problem 3:

The SAS System

Obs	sex	mar_st	COUNT	PERCENT
1	Male	Married	41	6.4263
2	Male	Partner	1	0.1567
3	Male	Separated	0	0.0000
4	Male	Divorced	5	0.7837
5	Male	Widowed	1	0.1567
6	Male	Never	8	1.2539
7	Female	Married	376	58.9342
8	Female	Partner	32	5.0157
9	Female	Separated	14	2.1944
10	Female	Divorced	59	9.2476
11	Female	Widowed	18	2.8213
12	Female	Never	83	13.0094

SAS Code

```
/*******************************************************
Kyle Salitrik
kps168
PSU ID: 997543474
December 2, 2018

This program covers Homework 12 for STAT 480.
*******************************************************/

LIBNAME STAT480 'C:\STAT480\';

* Create formats for data;
PROC FORMAT;
    * Create value format for country;
    VALUE sexFmt 1 = 'Male'
                 2 = 'Female';

    * Create a value format for marital status;
    VALUE marStFmt   1 = 'Married'
                     2 = 'Partner'
                     3 = 'Separated'
                     4 = 'Divorced'
                     5 = 'Widowed'
                     6 = 'Never';
RUN;

DATA icdbTemp;
    * Load in background dataset to a temporary data set;
    SET STAT480.back;
RUN;

* Problem 1;
PROC FREQ data=icdbTemp;
    OPTIONS LS = 80 NODATE NONUMBER;
    tables ed_level/nocum;
RUN;

* Problem 2;
PROC FREQ data=icdbTemp;
    OPTIONS LS = 80 NODATE NONUMBER;
    tables sex*ed_level/nocum nocol nopercent;
RUN;

* Problem 3;
PROC FREQ data=icdbTemp;
    OPTIONS LS = 80 NODATE NONUMBER;
    tables sex*mar_st/out=summary nocum nocol nopercent noprint sparse;
RUN;

PROC PRINT;
    FORMAT
        sex sexFmt.
        mar_st marStFmt.;
RUN;
```

SAS Log File

```
1     /*****************************************************
2     Kyle Salitrik
3     kps168
4     PSU ID: 997543474
5     December 2, 2018
6
7     This program covers Homework 12 for STAT 480.
8     *****************************************************/
9
10    LIBNAME STAT480 'C:\STAT480\';
NOTE: Libref STAT480 was successfully assigned as follows:
      Engine:        V9
      Physical Name: C:\STAT480
11
12    * Create formats for data;
13    PROC FORMAT;
14        * Create value format for country;
15        VALUE sexFmt 1 = 'Male'
16                     2 = 'Female';
NOTE: Format SEXFMT has been output.
17
18        * Create a value format for marital status;
19        VALUE marStFmt   1 = 'Married'
20                         2 = 'Partner'
21                         3 = 'Separated'
22                         4 = 'Divorced'
23                         5 = 'Widowed'
24                         6 = 'Never';
NOTE: Format MARSTFMT has been output.
25    RUN;

NOTE: PROCEDURE FORMAT used (Total process time):
      real time           0.04 seconds
      cpu time            0.03 seconds


26
27    DATA icdbTemp;
28        * Load in background dataset to a temporary data set;
29        SET STAT480.back;
30    RUN;

NOTE: There were 638 observations read from the data set STAT480.BACK.
NOTE: The data set WORK.ICDBTEMP has 638 observations and 16 variables.
NOTE: DATA statement used (Total process time):
      real time           0.02 seconds
      cpu time            0.01 seconds


31
32    * Problem 1;
33    PROC FREQ data=icdbTemp;
34        OPTIONS LS = 80 NODATE NONUMBER;
35        tables ed_level/nocum;
36    RUN;

NOTE: There were 638 observations read from the data set WORK.ICDBTEMP.
NOTE: PROCEDURE FREQ used (Total process time):
      real time           0.04 seconds
      cpu time            0.01 seconds


37
38    * Problem 2;
```

```
39   PROC FREQ data=icdbTemp;
40       OPTIONS LS = 80 NODATE NONUMBER;
41       tables sex*ed_level/nocum nocol nopercent;
42   RUN;

NOTE: There were 638 observations read from the data set WORK.ICDBTEMP.
NOTE: PROCEDURE FREQ used (Total process time):
      real time           0.04 seconds
      cpu time            0.03 seconds



43
44   * Problem 3;
45   PROC FREQ data=icdbTemp;
46       OPTIONS LS = 80 NODATE NONUMBER;
47       tables sex*mar_st/out=summary nocum nocol nopercent noprint sparse;
48   RUN;

NOTE: There were 638 observations read from the data set WORK.ICDBTEMP.
NOTE: The data set WORK.SUMMARY has 12 observations and 4 variables.
NOTE: PROCEDURE FREQ used (Total process time):
      real time           0.04 seconds
      cpu time            0.00 seconds



49
50   PROC PRINT;
51       FORMAT
52           sex sexFmt.
53           mar_st marStFmt.;
54   RUN;

NOTE: There were 12 observations read from the data set WORK.SUMMARY.
NOTE: PROCEDURE PRINT used (Total process time):
      real time           0.01 seconds
      cpu time            0.03 seconds
```