```
      name:  <unnamed>
       log:  /Users/carsoncrenshaw/Library/CloudStorage/OneDrive-Universityof
> Virginia/RMDA I/RMDA1_Homework2_log.smcl
  log type:  smcl
 opened on:  19 Sep 2023, 14:41:23

 1 .
 2 . *********
 3 . *       1: Open Data
 4 . *********
 5 .
 6 .         use "${classpath}peer_pressure.dta", clear

 7 .
 8 . *********
 9 . *       2: Homework Code
10 . *********
11 .
12 .         **1a**
13 .         describe

Contains data from /Users/carsoncrenshaw/Library/CloudStorage/OneDrive-Univer
> sityofVirginia/RMDA I/peer_pressure.dta
 Observations:           825
    Variables:            33                  9 Jun 2020 19:03
-------------------------------------------------------------------------------
Variable      Storage   Display    Value
    name         type    format    label      Variable label
-------------------------------------------------------------------------------
favorite_subj~t byte    %8.0g                 1: Math. 2: Eng. 3: Hist/Soc
                                                Studies. 4: PE/Elec. From
                                                signup sheet.
yesno           byte    %8.0g                 Signed up for course
college         byte    %8.0g                 Plan to attend college? 1:
                                                4-year. 2: 2-year. 3: N. 4:
                                                Don't know. From q.
grades          byte    %8.0g                 Grades? 1: As. 2: As and Bs. 3:
                                                Bs and Cs. 4: Cs and Ds. 5:
                                                Ds and Fs. From q.
how_pop         byte    %8.0g                 How popular are you in school
                                                in school? From
                                                questionnaire.
preference      byte    %8.0g                 Which prefer? 1: 50 dollars
                                                now. 2: 75 dollars in six
                                                months. From q.
```

future	byte	%8.0g	**How often do you think about your life when you are 40 years old? From q.**
skip	byte	%8.0g	**Do you ever skip school w/ friends? 1: Sometimes. 2: Never. From q.**
friends	byte	%8.0g	**Do most of your friends plan to graduate/good college? 1: Y. 2: N. From q.**
define	byte	%8.0g	**1: I do what my friends do. 2: I do things my own way. From q.**
honor	byte	%8.0g	**Surveyed in honors class**
price	float	%8.0g	**Estimated price of SAT prep course? ___ dollars. From questionnaire.**
chance	byte	%8.0g	**Think will have another chance to sign up for course? 1: Yes. 2: No. From q.**
percent	float	%8.0g	**Estimated % of classmates w/ taken/plan take another prep course. From q.**
gifted	byte	%8.0g	**Listed as Gifted/Talented at school? 1: Yes. 2: No. 3: Don't know. From q.**
honor_ap_tot	byte	%8.0g	**Total number of honors/AP classes**
gpa	float	%8.0g	**GPA**
classroom_id	byte	%8.0g	**Classroom ID**
no_usage	byte	%8.0g	**Did not log into training course**
public	float	%9.0g	**Received form A -- public version**
important_pop~y	float	%9.0g	**How imp to be pop in your school? 1 if 3-5, 0 if 1-2. From q.**
hispanic	float	%9.0g	**Hispanic. Generated from ethnicity, from questionnaire**
age	float	%9.0g	**Age**
surveyor	float	%9.0g	**Surveyor**
total_honor_ms	float	%9.0g	**Total number of math and science honors classes**
total_honor_s~i	float	%9.0g	**Total number of social sciences honors classes**
honor_lang_art	float	%9.0g	**Enrolled in honors language arts class**

```
male            float   %9.0g                 Male. Generated from gender,
                                                from questionnaire
private         float   %9.0g                 Received form B -- private
                                                version
private_hon     float   %9.0g                 Received form B in honors class
private_reg     float   %9.0g                 Received form B in regular
                                                class
public_hon      float   %9.0g                 Received form A in honors class
public_reg      float   %9.0g                 Received form A in regular
                                                class
-------------------------------------------------------------------------------
Sorted by:

14 .         ** 825 observations/students in the data.
15 .
16 .         **1b**
17 .         bysort public: count

-------------------------------------------------------------------------------
-> public = 0
  411
-------------------------------------------------------------------------------
-> public = 1
  414

18 .         **  411 private treatment assignments.
19 .
20 .         **1c**
21 .         tab public

    Received |
  form A -- |
     public |
    version |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        411       49.82       49.82
          1 |        414       50.18      100.00
------------+-----------------------------------
      Total |        825      100.00
```

```
22 .         ** 49.82% assigned to private treatment.
23 .
24 .         **2a** Honors class (binary) variable analysis
25 .         **i.  265 in an honors class.
26 .         bysort honor: count

-------------------------------------------------------------------------------
-> honor = 0
  560
-------------------------------------------------------------------------------
-> honor = 1
  265

27 .         **ii. 32.12%
28 .         tab honor

  Surveyed in |
      honors |
       class |      Freq.     Percent        Cum.
-------------+-----------------------------------
           0 |        560       67.88       67.88
           1 |        265       32.12      100.00
-------------+-----------------------------------
       Total |        825      100.00

29 .         **iii.
30 .         ttest honor, by(public)

Two-sample t test with equal variances
------------------------------------------------------------------------------
> —
   Group |     Obs        Mean    Std. err.   Std. dev.   [95% conf. interval
> ]
---------+--------------------------------------------------------------------
> —
       0 |     411    .3211679    .0230598    .4674942    .2758377    .366498
> 1
       1 |     414     .321256    .0229775    .4675239    .2760885    .366423
> 6
---------+--------------------------------------------------------------------
> —
Combined |     825    .3212121    .0162667    .4672253    .2892831    .353141
> 2
---------+--------------------------------------------------------------------
> —
    diff |           -.0000882    .0325534               -.0639856    .063809
```

```
> 2
--------+-------------------------------------------------------------------
> —
    diff = mean(0) - mean(1)                                      t =  -0.002
> 7
H0: diff = 0                                     Degrees of freedom =      82
> 3

    Ha: diff < 0                 Ha: diff != 0                 Ha: diff > 0
 Pr(T < t) = 0.4989         Pr(|T| > |t|) = 0.9978          Pr(T > t) = 0.501
> 1

31 .
32 .         **2b** Male (binary) variable analysis
33 .         **i. 423 male.
34 .         bysort male: count

------------------------------------------------------------------------------
-> male = 0
  402
------------------------------------------------------------------------------
-> male = 1
  423

35 .         **ii. 51.27%
36 .         tab male

      Male. |
  Generated |
       from |
     gender, |
       from |
questionnai |
         re |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        402       48.73       48.73
          1 |        423       51.27      100.00
------------+-----------------------------------
      Total |        825      100.00
```

```
37 .         **iii.
38 .         ttest male, by(public)

   Two-sample t test with equal variances
   ─────────┬──────────────────────────────────────────────────────────────────────
   > ─
      Group │     Obs        Mean    Std. err.   Std. dev.   [95% conf. interval
   > ]
   ─────────┼──────────────────────────────────────────────────────────────────────
   > ─
          0 │     411    .5060827    .0246914    .5005723    .4575452    .554620
   > 3
          1 │     414    .5193237     .024585     .500231    .4709963     .56765
   > 1
   ─────────┼──────────────────────────────────────────────────────────────────────
   > ─
   Combined │     825    .5127273    .0174127    .5001412    .4785488    .546905
   > 7
   ─────────┼──────────────────────────────────────────────────────────────────────
   > ─
       diff │           -.0132409    .0348437               -.0816339     .05515
   > 2
   ─────────┴──────────────────────────────────────────────────────────────────────
   > ─
       diff = mean(0) - mean(1)                                      t =  -0.380
   > 0
   H0: diff = 0                                     Degrees of freedom =      82
   > 3

       Ha: diff < 0                 Ha: diff != 0                 Ha: diff > 0
    Pr(T < t) = 0.3520         Pr(|T| > |t|) = 0.7040          Pr(T > t) = 0.648
   > 0

39 .
```

```
40 .         **2c** Age (continuous) variable analysis
41 .         **i. 16.74
42 .         summarize age
```

Variable	Obs	Mean	Std. dev.	Min	Max
age	**801**	**16.74205**	**.5125401**	**16.0219**	**21.06228**

```
43 .         **ii.
44 .         ttest age, by(public)
```

Two-sample t test with equal variances

Group	Obs	Mean	Std. err.	Std. dev.	[95% conf.	interval]
0	**403**	**16.73867**	**.0266499**	**.534993**	**16.68628**	**16.79106**
1	**398**	**16.74547**	**.0245318**	**.4894071**	**16.69724**	**16.793**
Combined	**801**	**16.74205**	**.0181097**	**.5125401**	**16.7065**	**16.7776**
diff		**-.0068032**	**.036242**		**-.077944**	**.064337**

diff = mean(**0**) - mean(**1**) t = **-0.187**

H0: diff = 0 Degrees of freedom = **79**

Ha: diff < 0 Ha: diff != 0 Ha: diff > 0

Pr(T < t) = **0.4256** Pr(|T| > |t|) = **0.8511** Pr(T > t) = **0.574**

```
45 .
46 .         **3a**
47 .         ttest yesno, by(public)

   Two-sample t test with equal variances
------------------------------------------------------------------------------
> ─
   Group │     Obs        Mean    Std. err.   Std. dev.   [95% conf. interval
> ]
─────────┼──────────────────────────────────────────────────────────────────────
> ─
       0 │     411    .7810219     .020424    .4140578    .7408731    .821170
> 6
       1 │     414    .7125604    .0222694    .4531159    .6687848     .75633
> 6
─────────┼──────────────────────────────────────────────────────────────────────
> ─
Combined │     825    .7466667    .0151512     .435184    .7169273    .776406
> 1
─────────┼──────────────────────────────────────────────────────────────────────
> ─
    diff │            .0684615    .0302269                .0091307    .127792
> 3
─────────┴──────────────────────────────────────────────────────────────────────
> ─
    diff = mean(0) - mean(1)                                      t =   2.264
> 9
H0: diff = 0                                     Degrees of freedom =      82
> 3

    Ha: diff < 0                 Ha: diff != 0                 Ha: diff > 0
 Pr(T < t) = 0.9881         Pr(|T| > |t|) = 0.0238          Pr(T > t) = 0.011
> 9
```

```
48 .
49 .         **3b**
50 .         ttest no_usage, by(public)

   Two-sample t test with equal variances
------------------------------------------------------------------------------
> ─
   Group │     Obs        Mean    Std. err.   Std. dev.   [95% conf. interval
> ]
─────────┼──────────────────────────────────────────────────────────────────────
> ─
       0 │     411    .3649635    .0237756    .4820067    .3182261    .411700
> 9
       1 │     414    .4178744    .0242692     .493806    .3701678     .46558
> 1
─────────┼──────────────────────────────────────────────────────────────────────
> ─
Combined │     825    .3915152    .0170034    .4883853    .3581401    .424890
> 2
─────────┼──────────────────────────────────────────────────────────────────────
> ─
    diff │           -.0529109    .0339776               -.1196039    .013782
> 1
─────────┴──────────────────────────────────────────────────────────────────────
> ─
    diff = mean(0) - mean(1)                                      t =  -1.557
> 2
H0: diff = 0                                     Degrees of freedom =      82
> 3

    Ha: diff < 0                 Ha: diff != 0                 Ha: diff > 0
 Pr(T < t) = 0.0599         Pr(|T| > |t|) = 0.1198          Pr(T > t) = 0.940
> 1
```

```
51 .
52 .
53 .
54 . *********
55 . *       3: Close log file
56 . *********
57 .
58 .         log close
        name:  <unnamed>
         log:  /Users/carsoncrenshaw/Library/CloudStorage/OneDrive-Universityof
> Virginia/RMDA I/RMDA1_Homework2_log.smcl
    log type:  smcl
   closed on:  19 Sep 2023, 14:41:23
  ──────────────────────────────────────────────────────────────────────────────
```