```
-------------------------------------------------------------------------------------------------------------------
      name:  <unnamed>
       log:  /Users/codydehaan/Desktop/Lower_Buffet_Prices.smcl
  log type:  text
 opened on:  24 Apr 2017, 20:21:32

. import delimited "/Users/codydehaan/Desktop/PizzaStudy.txt" //importing the data
(30 vars, 139 obs)

.
. //Labeling the variables
. label variable treatment "The manipulation group"

. label define treatment1 1 "$4" 2 "$8"

. label value treatment treatment1

. label variable pieces "How many pieces of pizza did you eat today?"

. label variable gender "Gender"

. label define gender1 1 "Male" 2 "Female"

. label value gender gender1

. label variable slice_cond "Condition based on pieces"

. label define slice_cond1 1 "1 piece" 2 "2 pieces" 3 "3 pieces"

. label value slice_cond slice_cond1

. label variable genderd "Gender"

. label define gender2 1 "Male" 0 "Female"

. label value genderd gender2

. label variable taste_general "The pizza, in general, tasted really great"

. label variable taste_first "The first piece of pizza I ate tasted really great"
```

```
. label variable sat_first "The first piece of pizza I ate was very satisfying"

. label variable enj_first "The first piece of pizza I ate was very enjoyable"

. label variable taste_middle "The middle piece of pizza I ate tasted really great"

. label variable sat_middle "The middle piece of pizza I ate was very satisfying"

. label variable enj_middle "The middle piece of pizza I ate was very enjoyable"

. label variable taste_last "The last piece of pizza I ate tasted really great"

. label variable sat_last "The last piece of pizza I ate was very satisfying"

. label variable enj_last "The last piece of pizza I ate was very enjoyable"

. label variable ate_more_pizza "I ate more pizza than I should have"

. label variable was_hungry "I was very hungry when I came in"

. label variable am_hungry "I am hungry now"

. label variable feel_guilty "I feel guilty about how much I ate"

. label variable physic_uncomf "I am physically uncomfortable"

. label variable overate "I overate"

. label variable ate_more_general "I ate more than I should have"

. label variable felt_rushed "I felt rushed"

. label variable salad "Mark the amount of salad you ate (continuous rating scale)"

. label variable calories "The amount of calories that participants thought they ate"

. label variable mixedgroup "The type of group"

. label define yes_no 1 "Yes" 0 "No"

. label value mixedgroup yes_no
```

```
. label variable male_1 "An indicator that there are multiple males in a mixed-sex groups"

. label define male_1d 1 "Male, and the only male in mixed-sex group" 0 "Male, and in a mixed-sex group with at least
>  one other male"

. label value male_1 male_1d

. label variable id "The ID of participants for reshaping the data"

. label variable mmff "The type of groups"

. label define mmff1 1 "Males eating with females" 2 "Males eating with males" 3 "Females eating with males" 4 "Femal
> es eating with females"

. label value mmff mmff1

. label variable group "Number of people in the group"

.
.
. ************ Table1 - Means and F-test results
. //The script for age, height and weight is commented because the respective data is removed to de-identify particip
> ants.
. //However the code-lines show how the averages are calculated
. /*
> label variable age "Age"
> label variable height_inch "Height in inches"
> label variable weight_lbs "Weight in pounds"
>
> tab treatment, sum (age)
> ttest age, by (treatment)
>
> tab treatment, sum (age)
> anova age treatment
>
> tab treatment if height_inch>8, sum (height_inch)  // removing an outlier (more than 3 sigma)
> anova height_inch treatment  if height_inch>8
>
> tab treatment if weight_lbs<450, sum (weight_lbs)  // removing an outlier (more than 3 sigma)
> anova weight_lbs treatment  if weight_lbs<450
```

```
> */
.
. tab treatment, sum (genderd)

        The |
manipulatio |          Summary of Gender
    n group |        Mean   Std. Dev.       Freq.
------------+------------------------------------
         $4 |          .6   .49371044          65
         $8 |   .51470588   .50349961          68
------------+------------------------------------
      Total |   .55639098   .49868819         133

. anova genderd treatment

                          Number of obs =        133    R-squared     =  0.0074
                          Root MSE      =    .498741    Adj R-squared = -0.0002

                  Source | Partial SS         df         MS        F    Prob>F
              -----------+----------------------------------------------------
                   Model |  .24177355          1   .24177355      0.97  0.3260
                         |
                treatment |  .24177355          1   .24177355      0.97  0.3260
                         |
                 Residual |  32.585294        131    .2487427
              -----------+----------------------------------------------------
                   Total |  32.827068        132   .24868991

.
. tab treatment, sum (group)

        The | Summary of Number of people in the
manipulatio |                group
    n group |        Mean   Std. Dev.       Freq.
------------+------------------------------------
         $4 |   3.0307692   1.5203744          65
         $8 |   3.2794118   1.2911361          68
------------+------------------------------------
      Total |   3.1578947   1.4079972         133

. anova group treatment
```

```
                          Number of obs =       133    R-squared     =  0.0079
                          Root MSE      =    1.4078    Adj R-squared =  0.0003

                  Source | Partial SS         df         MS        F    Prob>F
              -----------+----------------------------------------------------
                   Model |  2.0545725          1   2.0545725      1.04  0.3105
                         |
                treatment |  2.0545725          1   2.0545725      1.04  0.3105
                         |
                 Residual |  259.62964        131   1.9819056
              -----------+----------------------------------------------------
                   Total |  261.68421        132   1.9824561

.
. tab treatment, sum (was_hungry)

        The | Summary of I was very hungry when I
manipulatio |               came in
    n group |        Mean   Std. Dev.       Freq.
------------+------------------------------------
         $4 |   6.6212121   1.8544346          66
         $8 |   6.6428571   2.0644381          70
------------+------------------------------------
      Total |   6.6323529   1.9581126         136

. anova was_hungry treatment

                          Number of obs =       136    R-squared     =  0.0000
                          Root MSE      =   1.96538    Adj R-squared = -0.0074

                  Source | Partial SS         df         MS        F    Prob>F
              -----------+----------------------------------------------------
                   Model |  .01591546          1   .01591546      0.00  0.9489
                         |
                treatment |  .01591546          1   .01591546      0.00  0.9489
                         |
                 Residual |  517.60173        134   3.8626995
              -----------+----------------------------------------------------
                   Total |  517.61765        135   3.8342048
```

```
.
. tab treatment, sum (am_hungry)

        The |
manipulatio |     Summary of I am hungry now
    n group |        Mean   Std. Dev.       Freq.
------------+------------------------------------
         $4 |    1.880597   1.3430222          67
         $8 |   1.8484848    1.747459          66
------------+------------------------------------
      Total |   1.8646617     1.55106         133

. anova am_hungry treatment

                          Number of obs =        133    R-squared     =  0.0001
                          Root MSE      =    1.55688    Adj R-squared = -0.0075

                  Source | Partial SS         df         MS        F    Prob>F
              -----------+----------------------------------------------------
                   Model |  .03428517          1   .03428517      0.01  0.9055
                         |
                treatment |  .03428517          1   .03428517      0.01  0.9055
                         |
                 Residual |  317.52962        131   2.4238903
              -----------+----------------------------------------------------
                   Total |  317.56391        132   2.4057872

.
. //Removing values for extra observations who ate only  one or two pieces of pizza for Table 2
. //Counting the number of responses with different pieces of pizza consumption that should be removed
. egen nonmiss0 = rownonmiss(taste_general taste_first taste_middle taste_last enj_first enj_middle enj_last sat_firs
> t sat_middle sat_last)

. count if pieces == 0 & nonmiss0 != 0
  4

.
. egen nonmiss1 = rownonmiss(taste_middle taste_last enj_middle enj_last sat_middle sat_last)

. count if pieces >0 & pieces <= 1 & nonmiss1 != 0
  10
```

```
.
. egen nonmiss2 = rownonmiss(taste_middle enj_middle sat_middle)

. count if pieces > 1 & pieces <= 2 & nonmiss2 != 0
  21

.
. //who did not eat any pizza
. replace taste_general = . if pieces == 0
(3 real changes made, 3 to missing)

. replace taste_first = . if pieces == 0
(2 real changes made, 2 to missing)

. replace sat_first = . if pieces == 0
(2 real changes made, 2 to missing)

. replace enj_first = . if pieces == 0
(2 real changes made, 2 to missing)

. replace taste_middle = . if pieces == 0
(2 real changes made, 2 to missing)

. replace sat_middle = . if pieces == 0
(2 real changes made, 2 to missing)

. replace enj_middle = . if pieces == 0
(2 real changes made, 2 to missing)

. replace taste_last = . if pieces == 0
(2 real changes made, 2 to missing)

. replace sat_last = . if pieces == 0
(3 real changes made, 3 to missing)

. replace enj_last = . if pieces == 0
(2 real changes made, 2 to missing)

.
. //who ate only one piece
```

```
. replace taste_middle = . if pieces >0 & pieces <= 1 & pieces !=.
(9 real changes made, 9 to missing)

. replace sat_middle = . if pieces >0 & pieces <= 1 & pieces !=.
(9 real changes made, 9 to missing)

. replace enj_middle = . if pieces >0 & pieces <= 1 & pieces !=.
(8 real changes made, 8 to missing)

. replace taste_last = . if pieces >0 & pieces <= 1 & pieces !=.
(9 real changes made, 9 to missing)

. replace sat_last = . if pieces >0 & pieces <= 1 & pieces !=.
(9 real changes made, 9 to missing)

. replace enj_last = . if pieces >0 & pieces <= 1 & pieces !=.
(9 real changes made, 9 to missing)

.
. //who ate two pieces
. replace taste_middle = . if pieces > 1 & pieces <= 2 & pieces !=.
(20 real changes made, 20 to missing)

. replace sat_middle = . if pieces > 1 & pieces <= 2 & pieces !=.
(19 real changes made, 19 to missing)

. replace enj_middle = . if pieces > 1 & pieces <= 2 & pieces !=.
(20 real changes made, 20 to missing)

.
. ************ Table2 - Means and F-test results
. tab treatment, sum ( taste_general )  //general taste

        The |  Summary of The pizza, in general,
manipulatio |         tasted really great
    n group |        Mean   Std. Dev.       Freq.
------------+------------------------------------
         $4 |   6.9193548   1.3825421          62
         $8 |   7.5762712    1.416691          59
------------+------------------------------------
      Total |   7.2396694   1.4319264         121
```

```
. anova taste_general treatment

                          Number of obs =        121    R-squared     =  0.0530
                          Root MSE      =    1.39929    Adj R-squared =  0.0451

                  Source | Partial SS         df         MS        F    Prob>F
              -----------+----------------------------------------------------
                   Model |  13.046033          1   13.046033      6.66  0.0111
                         |
               treatment |  13.046033          1   13.046033      6.66  0.0111
                         |
                Residual |  233.00355        119   1.9580131
              -----------+----------------------------------------------------
                   Total |  246.04959        120   2.0504132

.
. tab treatment, sum ( taste_first )      //the first piece taste

        The | Summary of The first piece of pizza
manipulatio |      I ate tasted really great
    n group |        Mean   Std. Dev.       Freq.
------------+------------------------------------
         $4 |   7.0806452   1.2968864          62
         $8 |   7.5862069   1.4392308          58
------------+------------------------------------
      Total |       7.325   1.3851706         120

. anova taste_first treatment

                          Number of obs =        120    R-squared     =  0.0335
                          Root MSE      =     1.3675    Adj R-squared =  0.0254

                  Source | Partial SS         df         MS        F    Prob>F
              -----------+----------------------------------------------------
                   Model |  7.6592603          1   7.6592603      4.10  0.0452
                         |
               treatment |  7.6592603          1   7.6592603      4.10  0.0452
                         |
                Residual |  220.66574        118   1.8700486
              -----------+----------------------------------------------------
```

```
                  Total |    228.325        119   1.9186975

.
. tab treatment, sum ( sat_first )        //the first piece satisfaction

        The | Summary of The first piece of pizza
manipulatio |      I ate was very satisfying
    n group |        Mean   Std. Dev.       Freq.
------------+------------------------------------
         $4 |   7.0833333   1.3690485          60
         $8 |   7.4736842   1.4893103          57
------------+------------------------------------
      Total |   7.2735043   1.4361342         117

. anova sat_first treatment

                          Number of obs =        117    R-squared     =  0.0186
                          Root MSE      =    1.42888    Adj R-squared =  0.0101

                   Source | Partial SS         df         MS        F    Prob>F
               -----------+----------------------------------------------------
                    Model |  4.4540036          1   4.4540036      2.18  0.1424
                          |
                treatment |  4.4540036          1   4.4540036      2.18  0.1424
                          |
                 Residual |  234.79386        115   2.0416857
               -----------+----------------------------------------------------
                    Total |  239.24786        116   2.0624816

.
. tab treatment, sum ( enj_first )        //the first piece enjoyment

        The | Summary of The first piece of pizza
manipulatio |      I ate was very enjoyable
    n group |        Mean   Std. Dev.       Freq.
------------+------------------------------------
         $4 |        7.05   1.3952097          60
         $8 |   7.5344828   1.5010583          58
------------+------------------------------------
      Total |   7.2881356   1.4623579         118
```

```
. anova enj_first treatment

                          Number of obs =        118    R-squared     =  0.0277
                          Root MSE      =    1.44819    Adj R-squared =  0.0193

                  Source | Partial SS         df         MS        F    Prob>F
              -----------+----------------------------------------------------
                   Model |  6.9223553          1   6.9223553      3.30  0.0718
                         |
               treatment |  6.9223553          1   6.9223553      3.30  0.0718
                         |
                Residual |  243.28103        116   2.0972503
              -----------+----------------------------------------------------
                   Total |  250.20339        117   2.1384905

.
. tab treatment, sum ( taste_middle )     //the middle piece taste

        The |   Summary of The middle piece of
manipulatio |   pizza I ate tasted really great
    n group |        Mean   Std. Dev.       Freq.
------------+------------------------------------
         $4 |   6.8333333   1.5788457          24
         $8 |   8.0588235   1.1440383          17
------------+------------------------------------
      Total |   7.3414634   1.5265935          41

. anova taste_middle treatment

                          Number of obs =         41    R-squared     =  0.1603
                          Root MSE      =     1.4167    Adj R-squared =  0.1388

                  Source | Partial SS         df         MS        F    Prob>F
              -----------+----------------------------------------------------
                   Model |  14.945002          1   14.945002      7.45  0.0095
                         |
               treatment |  14.945002          1   14.945002      7.45  0.0095
                         |
                Residual |   78.27451         39   2.0070387
              -----------+----------------------------------------------------
                   Total |  93.219512         40   2.3304878
```

```
.
. tab treatment, sum ( sat_middle )       //the middle piece satisfaction

        The |   Summary of The middle piece of
manipulatio |   pizza I ate was very satisfying
    n group |        Mean   Std. Dev.       Freq.
------------+------------------------------------
         $4 |   6.8636364   1.6123173          22
         $8 |   7.9411765   1.1974237          17
------------+------------------------------------
      Total |   7.3333333   1.5275252          39

. anova sat_middle treatment

                          Number of obs =         39    R-squared     =  0.1256
                          Root MSE      =    1.44757    Adj R-squared =  0.1019

                  Source | Partial SS         df         MS        F    Prob>F
              -----------+----------------------------------------------------
                   Model |  11.134581          1   11.134581      5.31  0.0269
                         |
                treatment |  11.134581          1   11.134581      5.31  0.0269
                         |
                Residual |  77.532086         37   2.0954618
              -----------+----------------------------------------------------
                   Total |  88.666667         38   2.3333333

.
. tab treatment, sum ( enj_middle )       //the middle piece enjoyment

        The |   Summary of The middle piece of
manipulatio |   pizza I ate was very enjoyable
    n group |        Mean   Std. Dev.       Freq.
------------+------------------------------------
         $4 |   6.7727273   1.6015415          22
         $8 |   7.8888889   1.1826634          18
------------+------------------------------------
      Total |       7.275    1.518898          40

. anova enj_middle treatment
```

```
                           Number of obs =         40    R-squared     =  0.1371
                           Root MSE      =     1.4294    Adj R-squared =  0.1144

                  Source | Partial SS         df         MS        F     Prob>F
              -----------+----------------------------------------------------
                   Model |  12.333586          1   12.333586      6.04  0.0187
                         |
               treatment |  12.333586          1   12.333586      6.04  0.0187
                         |
                Residual |  77.641414         38   2.0431951
              -----------+----------------------------------------------------
                   Total |     89.975         39   2.3070513

.
. tab treatment, sum ( taste_last )       //the last piece taste

        The | Summary of The last piece of pizza
manipulatio |      I ate tasted really great
    n group |        Mean   Std. Dev.       Freq.
------------+------------------------------------
         $4 |   6.0769231   2.0181364          39
         $8 |         7.6   1.3974767          35
------------+------------------------------------
      Total |   6.7972973   1.9015475          74

. anova taste_last treatment

                           Number of obs =         74    R-squared     =  0.1621
                           Root MSE      =    1.75265    Adj R-squared =  0.1505

                  Source | Partial SS         df         MS        F     Prob>F
              -----------+----------------------------------------------------
                   Model |  42.790229          1   42.790229     13.93  0.0004
                         |
               treatment |  42.790229          1   42.790229     13.93  0.0004
                         |
                Residual |  221.16923         72   3.0717949
              -----------+----------------------------------------------------
                   Total |  263.95946         73    3.615883
```

```
.
. tab treatment, sum ( sat_last ) //the last piece satisfaction

        The | Summary of The last piece of pizza
manipulatio |      I ate was very satisfying
    n group |        Mean   Std. Dev.       Freq.
------------+------------------------------------
         $4 |   6.0540541   1.9992491          37
         $8 |   7.5142857    1.482673          35
------------+------------------------------------
      Total |   6.7638889   1.9025043          72

. anova sat_last treatment

                          Number of obs =         72    R-squared     =  0.1492
                          Root MSE      =     1.7673    Adj R-squared =  0.1371

                  Source | Partial SS         df         MS        F    Prob>F
              -----------+----------------------------------------------------
                   Model |  38.351362          1   38.351362     12.28  0.0008
                         |
                treatment |  38.351362          1   38.351362     12.28  0.0008
                         |
                 Residual |  218.63475         70   3.1233536
              -----------+----------------------------------------------------
                   Total |  256.98611         71   3.6195227

.
. tab treatment, sum ( enj_last ) //the last piece enjoyment

        The | Summary of The last piece of pizza
manipulatio |      I ate was very enjoyable
    n group |        Mean   Std. Dev.       Freq.
------------+------------------------------------
         $4 |   5.8611111   1.9734347          36
         $8 |   7.4054054   1.5538386          37
------------+------------------------------------
      Total |   6.6438356   1.9247645          73

. anova enj_last treatment
```

```
                  Number of obs =         73    R-squared     =  0.1631
                  Root MSE      =    1.77313    Adj R-squared =  0.1514

      Source | Partial SS         df         MS        F     Prob>F
-------------+----------------------------------------------------
       Model |  43.515252          1   43.515252     13.84  0.0004
             |
   treatment |  43.515252          1   43.515252     13.84  0.0004
             |
    Residual |  223.22447         71   3.1440067
-------------+----------------------------------------------------
       Total |  266.73973         72   3.7047184

.
. ************ Table3 - ANOVA analysis by treatmetn and by the amount eaten
. /* The average ratings for taste, satisfaction and enjoyment were obtained by
> averaging the corresponding answers for all the pieces eaten. */
. //deleting the observations that had lower  than three pieces of pizza consumption
. drop if pieces <3 | pieces ==.
(101 observations deleted)

.
. //Keeping only the data ereported in Table 3
. keep taste_first taste_middle taste_last sat_first sat_middle sat_last enj_first enj_middle enj_last treatment slic
> e_cond pieces id

.
. rename taste_first taste1

. rename taste_middle taste2

. rename taste_last taste3

. rename sat_first sat1

. rename sat_middle sat2

. rename sat_last sat3

. rename enj_first enj1
```

```
. rename enj_middle enj2

. rename enj_last enj3

.
. //reshaping the data for the test
. reshape long taste sat enj, i(id treatment slice_cond pieces) j(piece)  //reshaping the data into a long form for r
> epeated sample ANOVA test
(note: j = 1 2 3)

Data                               wide   ->   long
-----------------------------------------------------------------------------
Number of obs.                       38   ->     114
Number of variables                  13   ->       8
j variable (3 values)                     ->   piece
xij variables:
                    taste1 taste2 taste3   ->   taste
                           sat1 sat2 sat3   ->   sat
                           enj1 enj2 enj3   ->   enj
-----------------------------------------------------------------------------

.
. //Labeling newly created variables for long-shaped data
. label variable piece "The order for the first, middle, and last piece"

. label variable taste "The taste rating for the first, middle and last piece"

. label variable sat "The satisfaction rating for the first, middle and last piece"

. label variable enj "The enjoyment rating for the first, middle and last piece"

.
. **** Pizza taste evaluations
. tab treatment, sum (taste) //Effect of price paid

        The | Summary of The taste rating for the
manipulatio |    first, middle and last piece
    n group |        Mean   Std. Dev.       Freq.
------------+------------------------------------
         $4 |   6.9047619   1.5934775          63
         $8 |           8   1.1669199          48
```

```
------------+-----------------------------------
      Total |   7.3783784   1.5198927         111

. tab piece, sum (taste) //Effect of pieces consumed

  The order |
    for the |
     first, | Summary of The taste rating for the
middle, and |    first, middle and last piece
 last piece |        Mean   Std. Dev.       Freq.
------------+-----------------------------------
          1 |   7.7297297    1.261583          37
          2 |   7.3243243   1.5102254          37
          3 |   7.0810811   1.7220527          37
------------+-----------------------------------
      Total |   7.3783784   1.5198927         111

. tab treatment piece, sum(taste) //Effect of Price x Pieces

                Means, Standard Deviations and Frequencies
         of The taste rating for the first, middle and last piece

       The |   The order for the first,
manipulati |    middle, and last piece
  on group |         1          2          3 |     Total
-----------+---------------------------------+----------
        $4 | 7.4285714  6.8095238  6.4761905 | 6.9047619
           | 1.2873006  1.5690458  1.8060744 | 1.5934775
           |        21         21         21 |        63
-----------+---------------------------------+----------
        $8 |     8.125          8      7.875 |         8
           |  1.147461  1.1547005  1.2583057 | 1.1669199
           |        16         16         16 |        48
-----------+---------------------------------+----------
     Total | 7.7297297  7.3243243  7.0810811 | 7.3783784
           |  1.261583  1.5102254  1.7220527 | 1.5198927
           |        37         37         37 |       111

. anova taste treatment / id|treatment piece treatment#piece /, repeated(piece) //Repeated sample ANOVA

                          Number of obs =        111    R-squared     =  0.8937
```

```
                        Root MSE      =    .621333    Adj R-squared =  0.8329

                  Source | Partial SS         df         MS        F    Prob>F
        -----------------+----------------------------------------------------
                   Model |   227.0843         40   5.6771075     14.71  0.0000
                         |
                treatment |  32.679537          1   32.679537      6.21  0.0176
           id|treatment |  184.09524         35   5.2598639
        -----------------+----------------------------------------------------
                   piece |  6.6879022          2   3.3439511      8.66  0.0004
        treatment#piece |  2.3635779          2   1.1817889      3.06  0.0531
                         |
                Residual |   27.02381         70   .38605442
        -----------------+----------------------------------------------------
                   Total |  254.10811        110   2.3100737


Between-subjects error term:  id|treatment
                     Levels:  37        (35 df)
     Lowest b.s.e. variable:  id
     Covariance pooled over:  treatment  (for repeated variable)

Repeated variable: piece
                                        Huynh-Feldt epsilon        =  0.7857
                                        Greenhouse-Geisser epsilon =  0.7388
                                        Box's conservative epsilon =  0.5000

                                          ------------ Prob > F ------------
                  Source |     df      F    Regular    H-F      G-G      Box
        -----------------+----------------------------------------------------
                   piece |      2     8.66   0.0004   0.0013   0.0017   0.0057
        treatment#piece |      2     3.06   0.0531   0.0666   0.0699   0.0889
                Residual |     70
        ------------------------------------------------------------------------

.
. **** Pizza satisfaction ratings
. tab treatment, sum (sat) //Effect of price paid

            | Summary of The satisfaction rating
        The |   for the first, middle and last
```

```
manipulatio |                piece
    n group |        Mean   Std. Dev.       Freq.
------------+------------------------------------
         $4 |   6.9285714   1.6388149          56
         $8 |   7.7916667   1.3362114          48
------------+------------------------------------
      Total |   7.3269231   1.5606963         104
```

```
. tab piece, sum (sat) //Effect of pieces consumed
```

```
  The order |
    for the | Summary of The satisfaction rating
     first, |   for the first, middle and last
middle, and |                piece
 last piece |        Mean   Std. Dev.       Freq.
------------+------------------------------------
          1 |   7.6285714   1.3522468          35
          2 |   7.3142857   1.5101895          35
          3 |   7.0294118   1.7835153          34
------------+------------------------------------
      Total |   7.3269231   1.5606963         104
```

```
. tab treatment piece, sum(sat) //Effect of Price x Pieces
```

```
               Means, Standard Deviations and Frequencies
      of The satisfaction rating for the first, middle and last piece

       The |   The order for the first,
manipulati |    middle, and last piece
  on group |         1          2          3 |     Total
-----------+---------------------------------+----------
        $4 | 7.5263158  6.8421053  6.3888889 | 6.9285714
           | 1.2635233  1.6077299  1.8830166 | 1.6388149
           |        19         19         18 |        56
-----------+---------------------------------+----------
        $8 |      7.75      7.875       7.75 | 7.7916667
           | 1.4832397  1.2041595  1.3904436 | 1.3362114
           |        16         16         16 |        48
-----------+---------------------------------+----------
     Total | 7.6285714  7.3142857  7.0294118 | 7.3269231
           | 1.3522468  1.5101895  1.7835153 | 1.5606963
```

```
           |        35         35         34 |       104

. anova sat treatment / id|treatment piece treatment#piece /, repeated(piece) //Repeated sample ANOVA

                          Number of obs =        104    R-squared     =  0.9045
                          Root MSE      =    .607255    Adj R-squared =  0.8486

                   Source | Partial SS         df         MS        F    Prob>F
          ----------------+----------------------------------------------------
                    Model |  226.91532         38   5.9714557     16.19  0.0000
                          |
                treatment |  18.917794          1   18.917794      3.20  0.0830
             id|treatment |  195.32164         33   5.9188375
          ----------------+----------------------------------------------------
                    piece |  5.0860239          2   2.5430119      6.90  0.0019
          treatment#piece |  5.5129146          2   2.7564573      7.47  0.0012
                          |
                 Residual |  23.969298         65   .36875843
          ----------------+----------------------------------------------------
                    Total |  250.88462        103    2.435773


Between-subjects error term:  id|treatment
                     Levels:  35        (33 df)
       Lowest b.s.e. variable:  id
       Covariance pooled over:  treatment  (for repeated variable)

Repeated variable: piece
                                       Huynh-Feldt epsilon        =  0.6592
                                       Greenhouse-Geisser epsilon =  0.6265
                                       Box's conservative epsilon =  0.5000

                                         ------------ Prob > F ------------
                   Source |     df      F    Regular    H-F      G-G       Box
          ----------------+-----------------------------------------------------
                    piece |      2     6.90   0.0019   0.0071   0.0080   0.0131
          treatment#piece |      2     7.47   0.0012   0.0051   0.0058   0.0100
                 Residual |     65
          ----------------------------------------------------------------------

.
```

```
. **** Pizza enjoyment ratings
. tab treatment,  sum (enj) //Effect of price paid

        The | Summary of The enjoyment rating for
manipulatio |  the first, middle and last piece
    n group |        Mean   Std. Dev.       Freq.
------------+------------------------------------
         $4 |   6.8214286   1.5966686          56
         $8 |   7.7843137     1.30098          51
------------+------------------------------------
      Total |   7.2803738   1.5344742         107

. tab piece, sum (enj) //Effect of pieces consumed

  The order |
    for the |
     first, | Summary of The enjoyment rating for
middle, and |  the first, middle and last piece
 last piece |        Mean   Std. Dev.       Freq.
------------+------------------------------------
          1 |   7.6944444   1.2608261          36
          2 |        7.25         1.5          36
          3 |   6.8857143   1.7451012          35
------------+------------------------------------
      Total |   7.2803738   1.5344742         107

. tab treatment piece, sum(enj) //Effect of Price x Pieces

               Means, Standard Deviations and Frequencies
       of The enjoyment rating for the first, middle and last piece

       The |   The order for the first,
manipulati |    middle, and last piece
  on group |         1          2          3 |     Total
-----------+---------------------------------+----------
        $4 | 7.5789474  6.7368421  6.1111111 | 6.8214286
           | 1.1212983  1.5931138  1.7452082 | 1.5966686
           |        19         19         18 |        56
-----------+---------------------------------+----------
        $8 | 7.8235294  7.8235294  7.7058824 | 7.7843137
           | 1.4245742  1.1850788  1.3585243 |   1.30098
```

```
           |        17         17         17 |        51
-----------+---------------------------------+----------
     Total | 7.6944444       7.25  6.8857143 | 7.2803738
           | 1.2608261        1.5  1.7451012 | 1.5344742
           |        36         36         35 |       107
```

```
. anova enj treatment / id|treatment piece treatment#piece /, repeated(piece) //Repeated sample ANOVA

                          Number of obs =        107    R-squared     =  0.9076
                          Root MSE      =    .586786    Adj R-squared =  0.8538

                  Source | Partial SS         df         MS        F    Prob>F
        -----------------+----------------------------------------------------
                   Model |  226.51953         39    5.808193     16.87  0.0000
                         |
                 treatment |  23.537297          1   23.537297      4.41  0.0432
            id|treatment |   181.4949         34   5.3380852
        -----------------+----------------------------------------------------
                   piece |  9.7561387          2   4.8780694     14.17  0.0000
          treatment#piece |  7.1656625          2   3.5828313     10.41  0.0001
                         |
                Residual |  23.069258         67   .34431729
        -----------------+----------------------------------------------------
                   Total |  249.58879        106   2.3546112


Between-subjects error term:  id|treatment
                     Levels:  36        (34 df)
     Lowest b.s.e. variable:  id
     Covariance pooled over:  treatment  (for repeated variable)

Repeated variable: piece
                                        Huynh-Feldt epsilon        =  0.6961
                                        Greenhouse-Geisser epsilon =  0.6597
                                        Box's conservative epsilon =  0.5000

                                          ------------ Prob > F ------------
                  Source |     df      F    Regular    H-F      G-G       Box
        -----------------+----------------------------------------------------
                   piece |      2    14.17   0.0000   0.0001   0.0002   0.0006
          treatment#piece |      2    10.41   0.0001   0.0008   0.0010   0.0028
```

```
       Residual |     67
      ----------------------------------------------------------------------


. ***Table 4 - Corrected Statistical Results Appearing in the Text
. ***The F statistics for the next two tables were derived from the following output tables
. ***Specifically, the F and p values for the first panel of Table 4 were derived from the row corresponding to "piec
> e" as the source of the variation.
. ***The F and p values for the second panel of Table 4 were derived from the row corresponding to "treatment#piece"
> as the source of the variation.
. ***** Taste - in text results
. anova taste treatment / id|treatment piece treatment#piece / if (piece == 1 | piece ==2), repeated(piece)  //first
> and second pieces

                      Number of obs =         74    R-squared     =  0.9133
                      Root MSE      =    .594046    Adj R-squared =  0.8192

                Source | Partial SS         df         MS        F    Prob>F
      -----------------+----------------------------------------------------
                 Model |  130.09476         38   3.4235462      9.70  0.0000
                       |
             treatment |  16.166184          1   16.166184      5.15  0.0295
          id|treatment |  109.77976         35   3.1365646
      -----------------+----------------------------------------------------
                 piece |  2.5136744          1   2.5136744      7.12  0.0115
      treatment#piece |   1.108269          1    1.108269      3.14  0.0851
                       |
              Residual |   12.35119         35   .35289116
      -----------------+----------------------------------------------------
                 Total |  142.44595         73   1.9513143


Between-subjects error term:  id|treatment
                     Levels:  37        (35 df)
     Lowest b.s.e. variable:  id
     Covariance pooled over:  treatment  (for repeated variable)

Repeated variable: piece
                                        Huynh-Feldt epsilon        =  1.0294
                                        *Huynh-Feldt epsilon reset to 1.0000
```

```
                                    Greenhouse-Geisser epsilon =  1.0000
                                    Box's conservative epsilon =  1.0000

                                      ------------ Prob > F ------------
             Source |     df      F    Regular    H-F      G-G      Box
        ------------+----------------------------------------------------
              piece |      1     7.12   0.0115   0.0115   0.0115   0.0115
        treatment#piece |      1     3.14   0.0851   0.0851   0.0851   0.0851
               Residual |     35
        ------------------------------------------------------------------------

. anova taste treatment / id|treatment piece treatment#piece / if (piece == 1 | piece ==3), repeated(piece)  //first
> and third pieces

                           Number of obs =         74    R-squared     =  0.8779
                           Root MSE      =    .774157    Adj R-squared =  0.7454

             Source | Partial SS         df         MS        F    Prob>F
        ------------+----------------------------------------------------
              Model |  150.86165         38   3.9700434      6.62  0.0000
                    |
            treatment |  19.933076          1   19.933076      5.77  0.0217
          id|treatment |  120.90476         35   3.4544218
        ------------+----------------------------------------------------
              piece |  6.5643501          1   6.5643501     10.95  0.0022
        treatment#piece |  2.2400257          1   2.2400257      3.74  0.0613
                    |
               Residual |   20.97619         35   .59931973
        ------------+----------------------------------------------------
              Total |  171.83784         73    2.353943


Between-subjects error term:  id|treatment
                     Levels:  37        (35 df)
         Lowest b.s.e. variable:  id
         Covariance pooled over:  treatment  (for repeated variable)

Repeated variable: piece
                                    Huynh-Feldt epsilon        =  1.0294
                                    *Huynh-Feldt epsilon reset to 1.0000
                                    Greenhouse-Geisser epsilon =  1.0000
```

```
                                        Box's conservative epsilon =  1.0000

                                          ------------ Prob > F ------------
                  Source |     df      F    Regular    H-F      G-G      Box
         ----------------+-----------------------------------------------------
                   piece |      1    10.95   0.0022   0.0022   0.0022   0.0022
         treatment#piece |      1     3.74   0.0613   0.0613   0.0613   0.0613
                Residual |     35
         ----------------------------------------------------------------------

. anova taste treatment / id|treatment piece treatment#piece / if (piece == 2 | piece ==3), repeated(piece)  //second
>  and third pieces

                            Number of obs =         74    R-squared     =  0.9621
                            Root MSE      =     .45382    Adj R-squared =  0.9209

                  Source | Partial SS         df         MS        F    Prob>F
         ----------------+-----------------------------------------------------
                   Model |  182.75113         38   4.8092402     23.35  0.0000
                         |
                treatment |  30.441602          1   30.441602      7.06  0.0118
           id|treatment |  151.01786         35   4.3147959
         ----------------+-----------------------------------------------------
                   piece |  .95382883          1   .95382883      4.63  0.0384
         treatment#piece |  .19707207          1   .19707207      0.96  0.3347
                         |
                Residual |  7.2083333         35   .20595238
         ----------------+-----------------------------------------------------
                   Total |  189.95946         73   2.6021844


Between-subjects error term:  id|treatment
                     Levels:  37        (35 df)
     Lowest b.s.e. variable:  id
     Covariance pooled over:  treatment  (for repeated variable)

Repeated variable: piece
                                        Huynh-Feldt epsilon        =  1.0294
                                        *Huynh-Feldt epsilon reset to 1.0000
                                        Greenhouse-Geisser epsilon =  1.0000
                                        Box's conservative epsilon =  1.0000
```

```
                                        ------------ Prob > F ------------
                  Source |     df      F    Regular    H-F      G-G      Box
         ----------------+-----------------------------------------------------
                   piece |      1     4.63   0.0384   0.0384   0.0384   0.0384
         treatment#piece |      1     0.96   0.3347   0.3347   0.3347   0.3347
                Residual |     35
         ------------------------------------------------------------------------

.
. ***** Satisfaction - in text results
. anova sat treatment / id|treatment piece treatment#piece / if (piece == 1 | piece ==2), repeated(piece) //first and
>  second pieces

                        Number of obs =         70    R-squared     =  0.9369
                        Root MSE      =    .520129    Adj R-squared =  0.8680

                  Source | Partial SS         df         MS        F    Prob>F
         ----------------+-----------------------------------------------------
                   Model |  132.51523         36   3.6809785     13.61  0.0000
                         |
                 treatment |  6.8573308          1   6.8573308      1.87  0.1808
            id|treatment |  121.08553         33   3.6692584
         ----------------+-----------------------------------------------------
                   piece |  1.3580827          1   1.3580827      5.02  0.0319
         treatment#piece |   2.843797          1    2.843797     10.51  0.0027
                         |
                Residual |  8.9276316         33   .27053429
         ----------------+-----------------------------------------------------
                   Total |  141.44286         69   2.0498965


Between-subjects error term:  id|treatment
                     Levels:  35        (33 df)
     Lowest b.s.e. variable:  id
     Covariance pooled over:  treatment  (for repeated variable)

Repeated variable: piece
                                     Huynh-Feldt epsilon        =  1.0312
                                     *Huynh-Feldt epsilon reset to 1.0000
                                     Greenhouse-Geisser epsilon =  1.0000
```

```
                                    Box's conservative epsilon =  1.0000

                                      ------------ Prob > F ------------
                  Source |     df      F    Regular    H-F      G-G      Box
         ----------------+-----------------------------------------------------
                   piece |      1     5.02   0.0319   0.0319   0.0319   0.0319
         treatment#piece |      1    10.51   0.0027   0.0027   0.0027   0.0027
                Residual |     33
         ----------------------------------------------------------------------

. anova sat treatment / id|treatment piece treatment#piece / if (piece == 1 | piece ==3), repeated(piece) //first and
>  third pieces

                        Number of obs =         69    R-squared     =  0.8795
                        Root MSE      =    .807947    Adj R-squared =  0.7439

                  Source | Partial SS         df         MS        F    Prob>F
         ----------------+-----------------------------------------------------
                   Model |  152.44444         36   4.2345679      6.49  0.0000
                         |
                 treatment |   10.28693          1    10.28693      2.61  0.1158
            id|treatment |  130.12573         33    3.943204
         ----------------+-----------------------------------------------------
                   piece |  5.2287582          1   5.2287582      8.01  0.0080
         treatment#piece |  5.2287582          1   5.2287582      8.01  0.0080
                         |
                Residual |  20.888889         32   .65277778
         ----------------+-----------------------------------------------------
                   Total |  173.33333         68   2.5490196


Between-subjects error term:  id|treatment
                     Levels:  35        (33 df)
     Lowest b.s.e. variable:  id
     Covariance pooled over:  treatment  (for repeated variable)

Repeated variable: piece
                                     Huynh-Feldt epsilon        =  1.0312
                                     *Huynh-Feldt epsilon reset to 1.0000
                                     Greenhouse-Geisser epsilon =  1.0000
                                     Box's conservative epsilon =  1.0000
```

```
                                    ------------ Prob > F ------------
             Source |     df      F    Regular    H-F      G-G      Box
        ------------+----------------------------------------------------
              piece |      1     8.01   0.0080   0.0080   0.0080   0.0080
        treatment#piece |      1     8.01   0.0080   0.0080   0.0080   0.0080
               Residual |     32
        ------------------------------------------------------------------------

. anova sat treatment / id|treatment piece treatment#piece / if (piece == 2 | piece ==3), repeated(piece) //second an
> d third pieces

                          Number of obs =         69    R-squared     =  0.9673
                          Root MSE      =    .433514    Adj R-squared =  0.9305

             Source | Partial SS         df         MS        F    Prob>F
        ------------+----------------------------------------------------
              Model |  177.89915         36   4.9416432     26.29  0.0000
                    |
            treatment |  22.986641          1   22.986641      5.01  0.0321
          id|treatment |   151.5402         33   4.5921274
        ------------+----------------------------------------------------
              piece |  1.1184641          1   1.1184641      5.95  0.0204
        treatment#piece |  .29493464          1   .29493464      1.57  0.2194
                    |
               Residual |  6.0138889         32   .18793403
        ------------+----------------------------------------------------
              Total |  183.91304         68   2.7046036


Between-subjects error term:  id|treatment
                     Levels:  35        (33 df)
         Lowest b.s.e. variable:  id
         Covariance pooled over:  treatment  (for repeated variable)

Repeated variable: piece
                                          Huynh-Feldt epsilon        =  1.0312
                                          *Huynh-Feldt epsilon reset to 1.0000
                                          Greenhouse-Geisser epsilon =  1.0000
                                          Box's conservative epsilon =  1.0000
```

```
                                    ------------ Prob > F ------------
             Source |     df      F    Regular    H-F      G-G      Box
        ------------+----------------------------------------------------
              piece |      1     5.95   0.0204   0.0204   0.0204   0.0204
        treatment#piece |      1     1.57   0.2194   0.2194   0.2194   0.2194
           Residual |     32
        ------------------------------------------------------------------------

.
. ***** Enjoyment - in text results
. anova enj treatment / id|treatment piece treatment#piece / if (piece == 1 | piece ==2), repeated(piece) //first and
>  second pieces

                        Number of obs =         72    R-squared     =  0.9256
                        Root MSE      =    .549416    Adj R-squared =  0.8446

                 Source | Partial SS         df         MS        F    Prob>F
        ----------------+----------------------------------------------------
                  Model |  127.68129         37   3.4508456     11.43  0.0000
                        |
              treatment |  7.9506364          1   7.9506364      2.39  0.1312
           id|treatment |  112.99381         34   3.3233473
        ----------------+----------------------------------------------------
                  piece |  3.1812865          1   3.1812865     10.54  0.0026
        treatment#piece |  3.1812865          1   3.1812865     10.54  0.0026
                        |
               Residual |  10.263158         34   .30185759
        ----------------+----------------------------------------------------
                  Total |  137.94444         71   1.9428795


Between-subjects error term:  id|treatment
                     Levels:  36        (34 df)
     Lowest b.s.e. variable:  id
     Covariance pooled over:  treatment  (for repeated variable)

Repeated variable: piece
                                        Huynh-Feldt epsilon        =  1.0303
                                        *Huynh-Feldt epsilon reset to 1.0000
                                        Greenhouse-Geisser epsilon =  1.0000
                                        Box's conservative epsilon =  1.0000
```

```
                                        ------------ Prob > F ------------
                  Source |     df      F    Regular    H-F      G-G      Box
         ----------------+-----------------------------------------------------
                   piece |      1    10.54   0.0026   0.0026   0.0026   0.0026
         treatment#piece |      1    10.54   0.0026   0.0026   0.0026   0.0026
                Residual |     34
         ----------------------------------------------------------------------

. anova enj treatment / id|treatment piece treatment#piece / if (piece == 1 | piece ==3), repeated(piece) //first and
>  third pieces

                            Number of obs =         71    R-squared     =  0.8886
                            Root MSE      =    .759211    Adj R-squared =  0.7638

                  Source | Partial SS         df         MS        F    Prob>F
         ----------------+-----------------------------------------------------
                   Model |  151.76749         37   4.1018241      7.12  0.0000
                         |
                 treatment |  13.547184          1   13.547184      3.92  0.0557
            id|treatment |  117.38811         34   3.4525916
         ----------------+-----------------------------------------------------
                   piece |  9.9216153          1   9.9216153     17.21  0.0002
         treatment#piece |  7.0644725          1   7.0644725     12.26  0.0014
                         |
                Residual |  19.021242         33   .57640127
         ----------------+-----------------------------------------------------
                   Total |  170.78873         70    2.439839


Between-subjects error term:  id|treatment
                     Levels:  36        (34 df)
     Lowest b.s.e. variable:  id
     Covariance pooled over:  treatment  (for repeated variable)

Repeated variable: piece
                                          Huynh-Feldt epsilon        =  1.0303
                                          *Huynh-Feldt epsilon reset to 1.0000
                                          Greenhouse-Geisser epsilon =  1.0000
                                          Box's conservative epsilon =  1.0000
```

```
                                        ------------ Prob > F ------------
                  Source |     df      F    Regular    H-F      G-G      Box
         ----------------+-----------------------------------------------------
                   piece |      1    17.21   0.0002   0.0002   0.0002   0.0002
         treatment#piece |      1    12.26   0.0014   0.0014   0.0014   0.0014
                Residual |     33
         ------------------------------------------------------------------------

. anova enj treatment / id|treatment piece treatment#piece / if (piece == 2 | piece ==3), repeated(piece) //second an
> d third pieces

                            Number of obs =         71    R-squared     =  0.9722
                            Root MSE      =    .394368    Adj R-squared =  0.9410

                  Source | Partial SS         df         MS        F     Prob>F
         ----------------+-----------------------------------------------------
                   Model |  179.51553         37   4.8517712     31.20  0.0000
                         |
                treatment |  28.553049          1   28.553049      6.73  0.0139
           id|treatment |  144.32964         34   4.2449893
         ----------------+-----------------------------------------------------
                   piece |  1.6676471          1   1.6676471     10.72  0.0025
         treatment#piece |  .63907563          1   .63907563      4.11  0.0508
                         |
                Residual |  5.1323529         33   .15552585
         ----------------+-----------------------------------------------------
                   Total |  184.64789         70    2.637827


Between-subjects error term:  id|treatment
                     Levels:  36        (34 df)
     Lowest b.s.e. variable:  id
     Covariance pooled over:  treatment  (for repeated variable)

Repeated variable: piece
                                          Huynh-Feldt epsilon        =  1.0303
                                          *Huynh-Feldt epsilon reset to 1.0000
                                          Greenhouse-Geisser epsilon =  1.0000
                                          Box's conservative epsilon =  1.0000

                                            ------------ Prob > F ------------
```

```
                  Source |     df      F    Regular    H-F      G-G      Box
         ----------------+-----------------------------------------------------
                   piece |      1    10.72   0.0025   0.0025   0.0025   0.0025
         treatment#piece |      1     4.11   0.0508   0.0508   0.0508   0.0508
                Residual |     33
         ------------------------------------------------------------------------

.
. //Figure 1 numbers are also drivenfrom the above data
.
.
. log close //closing the log
      name:  <unnamed>
       log:  /Users/codydehaan/Desktop/Lower_Buffet_Prices.smcl
  log type:  text
 closed on:  24 Apr 2017, 20:21:33
-------------------------------------------------------------------------------------------------------------------------
```