```
                                          ___  ____  ____  ____  ____ (R)
                                         /__    /   __/   /   /___/
                                        ___/   /   /___/   /   /___/
                                          Statistics/Data Analysis


       ___  ____  ___  ___  ___  (R)
      /__    /   __/   /   /___/
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     Notes:
           1.  Unicode is supported; see help unicode_advice.
           2.  Maximum number of variables is set to 5000; see help set_maxvar.
           3.  New update available; type -update all-
```

1 . use "C:\Users\Workstation User\Downloads\basiclit.dta"

2 . do "C:\Users\WORKST~1\AppData\Local\Temp\STD1cb8_000000.tmp"

3 . d

```
  Contains data from C:\Users\Workstation User\Downloads\basiclit.dta
    obs:           234
   vars:             3                          19 Apr 2019 11:47
   size:         2,808
```

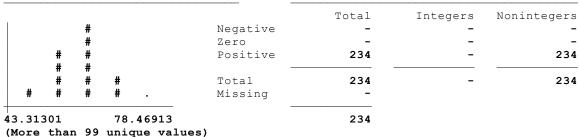| variable name	storage type	display format	value label	variable label
pretest	float	%9.0g		**Basic Literacy Pretest**
basiclit	float	%9.0g		**Assigned to Basic Literacy Course**
earnyr3	float	%9.0g		**Earnings in Year 3**

```
  Sorted by:
```

4 .
```
  end of do-file
```

5 . do "C:\Users\WORKST~1\AppData\Local\Temp\STD1cb8_000000.tmp"

6 . inspect *

pretest: Basic Literacy Pretest   Number of Observations

		Total	Integers	Nonintegers
#	Negative	-	-	-
#	Zero	-	-	-
# #	Positive	**234**	-	**234**
# #				
# # #	Total	**234**	-	**234**
# # # # .	Missing	-		

```
  43.31301       78.46913                        234
  (More than 99 unique values)
```

basiclit: Assigned to Basic Literacy Co   Number of Observations

	Total	Integers	Nonintegers
Negative	-	-	-
Zero	112	112	-
Positive	122	122	-
Total	234	234	-
Missing	-		
	234		

```
    |     #
    |  #  #
    |  #  #
    |  #  #
    |  #  #
    |  #  #
    |_____
    0              1
    (2 unique values)
```

earnyr3: Earnings in Year 3   Number of Observations

	Total	Integers	Nonintegers
Negative	-	-	-
Zero	-	-	-
Positive	234	1	233
Total	234	1	233
Missing	-		
	234		

```
    |        #
    |     #  #
    |     #  #
    |     #  #
    |     #  #
    |  .  #  #  #  #
    |_____
    22679.51      42099.66
    (More than 99 unique values)
```

```
  7 .
    end of do-file

  8 . d basiclit
```

	storage	display	value	
variable name	type	format	label	variable label

basiclit	float	%9.0g		**Assigned to Basic Literacy Course**

```
  9 . edit

 10 . help regress

 11 . reg pretest T earnyr3
    variable T not found
    r(111);

 12 . sum
```

Variable	Obs	Mean	Std. Dev.	Min	Max
pretest	234	60.23216	6.749992	43.31301	78.46913
basiclit	234	.5213675	.5006141	0	1
earnyr3	234	33889.75	3459.876	22679.51	42099.66

```
 13 . reg pretest basiclit earnyr3
```

Source	SS	df	MS			
				Number of obs	=	234
				F(2, 231)	=	607.14
Model	8919.26976	2	4459.63488	Prob > F	=	0.0000
Residual	1696.76791	231	7.34531563	R-squared	=	0.8402
				Adj R-squared	=	0.8388
Total	10616.0377	233	45.5623935	Root MSE	=	2.7102

pretest	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
basiclit	-6.98183	.4207094	-16.60	0.000	-7.810748	-6.152911
earnyr3	.0010291	.0000609	16.91	0.000	.0009091	.001149
_cons	28.99751	2.195933	13.21	0.000	24.67089	33.32413

14 . reg basiclit earnyr3

Source	SS	df	MS		Number of obs	=	234
					F(1, 232)	=	94.44
Model	16.8933676	1	16.8933676		Prob > F	=	0.0000
Residual	41.4997948	232	.178878426		R-squared	=	0.2893
					Adj R-squared	=	0.2862
Total	58.3931624	233	.250614431		Root MSE	=	.42294

basiclit	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
earnyr3	-.0000778	8.01e-06	-9.72	0.000	-.0000936	-.000062
_cons	3.15884	.272804	11.58	0.000	2.62135	3.69633

15 . twoway (scatter pretest earnyr3)

16 . twoway (scatter pretest earnyr3)

17 . edit

18 . help regress

19 . reg pretest basiclit earnyr3

Source	SS	df	MS		Number of obs	=	234
					F(2, 231)	=	607.14
Model	8919.26976	2	4459.63488		Prob > F	=	0.0000
Residual	1696.76791	231	7.34531563		R-squared	=	0.8402
					Adj R-squared	=	0.8388
Total	10616.0377	233	45.5623935		Root MSE	=	2.7102

pretest	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
basiclit	-6.98183	.4207094	-16.60	0.000	-7.810748	-6.152911
earnyr3	.0010291	.0000609	16.91	0.000	.0009091	.001149
_cons	28.99751	2.195933	13.21	0.000	24.67089	33.32413

20 . estimates store model1

21 . scatter pretest earnyr3

22 . do "C:\Users\WORKST~1\AppData\Local\Temp\STD1cb8_000000.tmp"

23 . reg pretest earnyr3 if basiclit == 1

Source	SS	df	MS		Number of obs	=	122
					F(1, 120)	=	280.53
Model	1146.68128	1	1146.68128		Prob > F	=	0.0000
Residual	490.502711	120	4.0875226		R-squared	=	0.7004
					Adj R-squared	=	0.6979
Total	1637.184	121	13.5304462		Root MSE	=	2.0218

pretest	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
earnyr3	.0009282	.0000554	16.75	0.000	.0008185	.001038
_cons	25.25304	1.788973	14.12	0.000	21.711	28.79508

24 .
   end of do-file

25 . do "C:\Users\WORKST~1\AppData\Local\Temp\STD1cb8_000000.tmp"

26 . reg pretest earnyr3 if basiclit == 0

Source	SS	df	MS		Number of obs	=	112
					F(1, 110)	=	93.81
Model	993.643745	1	993.643745		Prob > F	=	0.0000
Residual	1165.10432	110	10.5918574		R-squared	=	0.4603
					Adj R-squared	=	0.4554
Total	2158.74806	111	19.4481807		Root MSE	=	3.2545

pretest	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
earnyr3	.001235	.0001275	9.69	0.000	.0009823	.0014877
_cons	21.61845	4.578767	4.72	0.000	12.54441	30.69249

27 .
   end of do-file

28 . do "C:\Users\WORKST~1\AppData\Local\Temp\STD1cb8_000000.tmp"

29 . reg pretest earnyr3 if basiclit == 1

Source	SS	df	MS		Number of obs	=	122
					F(1, 120)	=	280.53
Model	1146.68128	1	1146.68128		Prob > F	=	0.0000
Residual	490.502711	120	4.0875226		R-squared	=	0.7004
					Adj R-squared	=	0.6979
Total	1637.184	121	13.5304462		Root MSE	=	2.0218

pretest	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
earnyr3	.0009282	.0000554	16.75	0.000	.0008185	.001038
_cons	25.25304	1.788973	14.12	0.000	21.711	28.79508

```
30 . predict pretesthat
   (option xb assumed; fitted values)

31 .
   end of do-file

32 . do "C:\Users\WORKST~1\AppData\Local\Temp\STD1cb8_000000.tmp"

33 . reg pretest earnyr3 if basiclit == 0
```

Source	SS	df	MS
Model	993.643745	1	993.643745
Residual	1165.10432	110	10.5918574
Total	2158.74806	111	19.4481807

Number of obs	=	112
F(1, 110)	=	93.81
Prob > F	=	0.0000
R-squared	=	0.4603
Adj R-squared	=	0.4554
Root MSE	=	3.2545

pretest	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
earnyr3	.001235	.0001275	9.69	0.000	.0009823	.0014877
_cons	21.61845	4.578767	4.72	0.000	12.54441	30.69249

```
34 . predict pretesthat0
   (option xb assumed; fitted values)

35 .
   end of do-file

36 . do "C:\Users\WORKST~1\AppData\Local\Temp\STD1cb8_000000.tmp"

37 . scatter pretest earnyr3, msize(tiny) xline(0.5) xtitle("Year 3 Earnings") ///
   > ytitle("Pretest Score") || ///
   > line pretesthat earnyr3 if basiclit == 1, sort color(red) || ///
   > line pretesthat0 earnyr3 if basiclit == 0, sort color(red) legend(off)

38 .
   end of do-file

39 . do "C:\Users\WORKST~1\AppData\Local\Temp\STD1cb8_000000.tmp"

40 . gen basiclit1 if basiclit == 1
   =exp required
   r(100);

   end of do-file

   r(100);

41 . gen basiclit1 if basiclit = 1
   (112 missing values generated)

42 . gen basiclit0 if basiclit = 0
   (112 missing values generated)
```

43 . reg pretest basiclit0 earnyear3
   variable earnyear3 not found
   r(111);

44 . reg pretest basiclit0 earnyr3
   note: basiclit0 omitted because of collinearity

Source	SS	df	MS			
Model	1146.68128	1	1146.68128			
Residual	490.502711	120	4.0875226			
Total	1637.184	121	13.5304462			

Number of obs = 122
F(1, 120) = 280.53
Prob > F = 0.0000
R-squared = 0.7004
Adj R-squared = 0.6979
Root MSE = 2.0218

pretest	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
basiclit0	0	(omitted)				
earnyr3	.0009282	.0000554	16.75	0.000	.0008185	.001038
_cons	25.25304	1.788973	14.12	0.000	21.711	28.79508

45 . reg pretest basiclit1 earnyr3
   note: basiclit1 omitted because of collinearity

Source	SS	df	MS			
Model	1146.68128	1	1146.68128			
Residual	490.502711	120	4.0875226			
Total	1637.184	121	13.5304462			

Number of obs = 122
F(1, 120) = 280.53
Prob > F = 0.0000
R-squared = 0.7004
Adj R-squared = 0.6979
Root MSE = 2.0218

pretest	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
basiclit1	0	(omitted)				
earnyr3	.0009282	.0000554	16.75	0.000	.0008185	.001038
_cons	25.25304	1.788973	14.12	0.000	21.711	28.79508

46 . reg pretest basiclit earnyr3 basiclit0
   note: basiclit omitted because of collinearity
   note: basiclit0 omitted because of collinearity

Source	SS	df	MS			
Model	1146.68128	1	1146.68128			
Residual	490.502711	120	4.0875226			
Total	1637.184	121	13.5304462			

Number of obs = 122
F(1, 120) = 280.53
Prob > F = 0.0000
R-squared = 0.7004
Adj R-squared = 0.6979
Root MSE = 2.0218

pretest	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
basiclit	0	(omitted)				
earnyr3	.0009282	.0000554	16.75	0.000	.0008185	.001038
basiclit0	0	(omitted)				
_cons	25.25304	1.788973	14.12	0.000	21.711	28.79508

47 .