

```
. clear

.
. /*
>   Back to Fan's Stata4Econ or other repositories:
>   - http://fanwangecon.github.io
>   - http://fanwangecon.github.io/Stata4Econ
>   - http://fanwangecon.github.io/R4Econ
>   - http://fanwangecon.github.io/M4Econ
>   - http://fanwangecon.github.io/CodeDynaAsset/
>   - http://fanwangecon.github.io/Math4Econ/
>   - http://fanwangecon.github.io/Stat4Econ/
>   - http://fanwangecon.github.io/Tex4Econ
>
>   1. Same regression for two Subgroups
>   2. Show alll subgroup coefficients in one regression
> */
.
. ///--- Start log
> set more off

. capture log close

. cd "${root log}"
C:\Users\fan\Documents\Dropbox (UH-ECON)\Profile Paper\Paper Profile April 2016\stata

. global curlogfile "~\Stata4Econ\reglin\discrete\fs_reg_d_interact"

. log using "${curlogfile}" , replace
(note: file C:\Users\fan\Stata4Econ\reglin\discrete\fs_reg_d_interact.smcl not found)
```

name: <unnamed>  
log: C:\Users\fan\Stata4Econ\reglin\discrete\fs\_reg\_d\_interact.smcl  
log type: smcl  
opened on: 10 Aug 2019, 12:34:53

. log on  
(log already on)

```
.
. ///--- Load Data
> set more off
```

. sysuse auto, clear  
(1978 Automobile Data)

```
.
. tab rep78
```

Repair Record 1978	Freq.	Percent	Cum.
1	2	2.90	2.90
2	8	11.59	14.49
3	30	43.48	57.97
4	18	26.09	84.06
5	11	15.94	100.00
Total	69	100.00	

```
. tab foreign
```

Car type	Freq.	Percent	Cum.
Domestic	52	70.27	70.27
Foreign	22	29.73	100.00
Total	74	100.00	

```
.
. * 1. Same regression for two Subgroups
. eststo clear
```

```
. eststo, title(dom): regress weight ib3.rep78 if foreign == 0
```

Source	SS	df	MS	Number of obs	=	48
Model	4501656.94	4	1125414.24	F(4, 43)	=	2.73
Residual	17746209.7	43	412702.552	Prob > F	=	0.0414
				R-squared	=	0.2023
				Adj R-squared	=	0.1281
Total	22247866.7	47	473358.865	Root MSE	=	642.42

weight	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
rep78					
1	-342.2222	470.7829	-0.73	0.471	-1291.646 607.202
2	-88.47222	258.5983	-0.34	0.734	-609.9855 433.041
4	90	247.2673	0.36	0.718	-408.662 588.662
5	-1482.222	470.7829	-3.15	0.003	-2431.646 -532.798
_cons	3442.222	123.6337	27.84	0.000	3192.891 3691.553

(est1 stored)

```
. eststo, title(foreign): regress weight ib3.rep78 if foreign == 1
```

Source	SS	df	MS	Number of obs	=	21
Model	396711.111	2	198355.556	F(2, 18)	=	1.58
Residual	2263555.56	18	125753.086	Prob > F	=	0.2338
				R-squared	=	0.1491
				Adj R-squared	=	0.0546
Total	2660266.67	20	133013.333	Root MSE	=	354.62

weight	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
rep78					
4	197.7778	236.4112	0.84	0.414	-298.9037 694.4593
5	393.3333	236.4112	1.66	0.113	-103.3482 890.0149
_cons	2010	204.7381	9.82	0.000	1579.861 2440.139

(est2 stored)

```
. esttab, mtitle title("Foreign or Domestic")
```

Foreign or Domestic

	(1) dom	(2) foreign
1.rep78	-342.2 (-0.73)	
2.rep78	-88.47 (-0.34)	
3.rep78	0 (.)	0 (.)
4.rep78	90.00 (0.36)	197.8 (0.84)
5.rep78	-1482.2** (-3.15)	393.3 (1.66)
_cons	3442.2*** (27.84)	2010.0*** (9.82)
N	48	21

t statistics in parentheses  
\* p<0.05, \*\* p<0.01, \*\*\* p<0.001

```
.
. * 2. Show alll subgroup coefficients in one regression
. capture drop domestic
```

```
. recode foreign ///
>   (0 = 1 "domestic") ///1
>   (1 = 0 "foreign") ///
>   (else = .) ///
>   , ///
>   gen(domestic)
(74 differences between foreign and domestic)
```

```
. tab domestic foreign
```

RECODE of foreign (Car type)	Car type Domestic	Foreign	Total
foreign	0	22	22
domestic	52	0	52
Total	52	22	74

```
.
. * using factor for binary
. eststo clear

. eststo, title(both): quietly regress ///
>     weight ///
>     ib0.foreign ib0.domestic ///
>     ib3.rep78#ib0.foreign ///
>     ib3.rep78#ib0.domestic ///
>     , noc
(est1 stored)

. esttab, mtitle title("Foreign or Domestic")
```

Foreign or Domestic	
	(1) both
0.foreign	<b>0</b> (.)
1.foreign	<b>2010.0***</b> ( <b>6.08</b> )
0.domestic	<b>0</b> (.)
1.domestic	<b>3442.2***</b> ( <b>31.23</b> )
1.rep78#0.~n	<b>-342.2</b> ( <b>-0.82</b> )
1.rep78#1.~n	<b>0</b> (.)
2.rep78#0.~n	<b>-88.47</b> ( <b>-0.38</b> )
2.rep78#1.~n	<b>0</b> (.)
3.rep78#0.~n	<b>0</b> (.)
3.rep78#1.~n	<b>0</b> (.)
4.rep78#0.~n	<b>90.00</b> ( <b>0.41</b> )
4.rep78#1.~n	<b>197.8</b> ( <b>0.52</b> )
5.rep78#0.~n	<b>-1482.2***</b> ( <b>-3.53</b> )
5.rep78#1.~n	<b>393.3</b> ( <b>1.03</b> )
1.rep78#0.~c	<b>0</b> (.)
1.rep78#1.~c	<b>0</b> (.)
2.rep78#0.~c	<b>0</b> (.)
2.rep78#1.~c	<b>0</b> (.)
3.rep78#0.~c	<b>0</b> (.)
3.rep78#1.~c	<b>0</b> (.)
4.rep78#0.~c	<b>0</b> (.)
4.rep78#1.~c	<b>0</b> (.)
5.rep78#0.~c	<b>0</b> (.)
5.rep78#1.~c	<b>0</b> (.)
N	<b>69</b>

t statistics in parentheses  
\* p<0.05, \*\* p<0.01, \*\*\* p<0.001

```
.
. * using cts for binary
. eststo clear

. eststo, title(both): quietly regress ///
>     weight ///
>     c.foreign c.domestic ///
>     ib3.rep78#c.foreign ///
>     ib3.rep78#c.domestic ///
>     , noc
(est1 stored)

. esttab, mtitle title("Foreign or Domestic")
```

Foreign or Domestic	
	(1) both
foreign	<b>2010.0***</b> ( <b>6.08</b> )
domestic	<b>3442.2***</b> ( <b>31.23</b> )
1.rep78#c.~n	<b>0</b> (.)
2.rep78#c.~n	<b>0</b> (.)
3.rep78#c.~n	<b>0</b> (.)
4.rep78#c.~n	<b>197.8</b> ( <b>0.52</b> )
5.rep78#c.~n	<b>393.3</b> ( <b>1.03</b> )
1.rep78#c.~c	<b>-342.2</b> ( <b>-0.82</b> )
2.rep78#c.~c	<b>-88.47</b> ( <b>-0.38</b> )
3.rep78#c.~c	<b>0</b> (.)
4.rep78#c.~c	<b>90.00</b> ( <b>0.41</b> )
5.rep78#c.~c	<b>-1482.2***</b> ( <b>-3.53</b> )
N	<b>69</b>

t statistics in parentheses  
\* p<0.05, \*\* p<0.01, \*\*\* p<0.001

```
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. capture noisily {
.   log2html "${curlogfile}", replace

HTML log file ~\Stata4Econ\reglin\discrete\fs_reg_d_interact.html created
. }

. ///--- to PDF
> capture noisily {
.   translator set Results2pdf logo off
.   translator set Results2pdf fontsize 8
.   translator set Results2pdf pagesize custom
.   translator set Results2pdf pagewidth 9
.   translator set Results2pdf pageheight 20
.   translator set Results2pdf lmargin 0.2
.   translator set Results2pdf rmargin 0.2
.   translator set Results2pdf tmargin 0.2
.   translator set Results2pdf bmargin 0.2
.   translate @Results "${curlogfile}.pdf", replace translator(Results2pdf)
```