

```

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
>
> Regression with continuous variable and discrete variables, discrete variables could interact with each other, and interact with c
> */

. ///--- File Names
> global st_file_root "~\Stata4Econ\table\tabsumm\tab_mcol_npanel\"

. global st_log_file "${st_file_root}gen_reg"

. global st_out_html "${st_file_root}tab_mcol_npanel.html"

. global st_out_rtf "${st_file_root}tab_mcol_npanel.rtf"

. global st_out_tex "${st_file_root}tab_mcol_npanel_texbody.tex"

. ///--- Start log
> capture log close

. log using "${st_log_file}" , replace
(note: file C:\Users\fan\Stata4Econ\table\tabsumm\tab_mcol_npanel\gen_reg.smcl not found)

```

```

name: <unnamed>
log: C:\Users\fan\Stata4Econ\table\tabsumm\tab_mcol_npanel\gen_reg.smcl
log type: smcl
opened on: 25 Aug 2019, 09:58:24

```

```

. log on
(log already on)

```

```

. set trace off

. set tracedepth 1

```

```

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

```

```

. sysuse bplong, clear
(fictional blood-pressure data)

```

```

. tab sex

```

Sex	Freq.	Percent	Cum.
Male	120	50.00	50.00
Female	120	50.00	100.00
Total	240	100.00	

```

. tab agegrp

```

Age Group	Freq.	Percent	Cum.
30-45	80	33.33	33.33
46-59	80	33.33	66.67
60+	80	33.33	100.00
Total	240	100.00	

```

. tab when

```

Status	Freq.	Percent	Cum.
Before	120	50.00	50.00
After	120	50.00	100.00
Total	240	100.00	

```

. tab sex when

```

Sex	Status		Total
	Before	After	
Male	60	60	120
Female	60	60	120
Total	120	120	240

```

. tab sex agegrp

```

Sex	Age Group			Total
	30-45	46-59	60+	
Male	40	40	40	120
Female	40	40	40	120
Total	80	80	80	240

```
. egen sex_when = group(sex when), label
. egen sex_agegrp = group(sex agegrp), label
. egen when_agegrp = group(when agegrp), label
```

```
. drop if agegrp == 2 & sex_when == 3
(20 observations deleted)
```

```
. set seed 123
```

```
. gen rand1 = floor(runiform()*2)
. gen rand2 = floor(runiform()*20)
. gen rand3 = floor(runiform()*3000)
```

```
. //////////////////////////////////////
> ///--- A1. Define Regression Variables
> //////////////////////////////////////
>
```

```
. * shared variables to summarize over
. global svr_summ "bp patient rand1 rand2"
```

```
. * for each column, conditioning differs
. global it_colcate_n = 4
```

```
. global it_rowcate_n = 3
```

```
. global sif_colcate_1 "sex_when == 1"
```

```
. global sif_colcate_2 "sex_when == 2"
```

```
. global sif_colcate_3 "sex_when == 3"
```

```
. global sif_colcate_4 "sex_when == 4"
```

```
. global sif_rowcate_1 "agegrp == 1"
```

```
. global sif_rowcate_2 "agegrp == 2"
```

```
. global sif_rowcate_3 "agegrp == 3"
```

```
. //////////////////////////////////////
> ///--- A2. Titling
> //////////////////////////////////////
>
```

```
. global slb_title "Cross Tabulate Age, Gender and Time Statistics"
```

```
. global slb_title_inner "Tabulate Stats: \textbf{Mean} (\textit{S.D.})"
```

```
. global slb_label_tex "tab:sctabsumm"
```

```
. //////////////////////////////////////
> ///--- A3. Row Labeling
> //////////////////////////////////////
>
```

```
. ///--- Row Tab Names
```

```
> global slb_rowcate_1 "Group 1: Age 30 to 45"
```

```
. global slb_rowcate_2 "Group 2: Age 46 to 59"
```

```
. global slb_rowcate_3 "Group 3: Age >60"
```

```
. ///--- Var Subgroup Subtitling
```

```
> global slb_subvargrp_1 "Summ Group One (cts)"
```

```
. global slb_subvargrp_2 "Summ Group Two (discrete)"
```

```
. ///--- Labeling for each variable
```

```
> global slb_var_spc "\hspace*{3mm}"
```

```
. label variable bp "${slb_var_spc}Blood pressure"
```

```
. label variable patient "${slb_var_spc}Patient ID"
```

```
. label variable rand1 "${slb_var_spc}Random \textit{Male} or \textit{Female}"
```

```
. label variable rand2 "${slb_var_spc}Random Three Cates \textbf{after}"
```

```
. label variable rand3 "${slb_var_spc}Random Thousands"
```

```
. ///--- Labeling Head Tag
```

```
> global svr_first "bp"
```

```
. global svr_first_subvargrp_1 "bp"
```

```
. global svr_first_subvargrp_2 "rand1"
```

```
. //////////////////////////////////////
> ///--- A4. Column Labeling
> //////////////////////////////////////
>
```



```

. local it_tabcell_ctr = 0
. foreach it_rowcate of numlist 1(1)$it_rowcate_n {
.   2.   global st_cur_sm_store "smd `it_rowcate' _m"
.   3.   global ${st_cur_sm_store} ""
.   4.   foreach it_colcate of numlist 1(1)$it_colcate_n {
.   5.     local it_tabcell_ctr = `it_tabcell_ctr' + 1
.   6.     global st_cur_srg_name "srg_cate_row`it_rowcate'_col`it_colcate'"
.   7.     di "it_rowcate:`it_rowcate', it_tabcell_ctr:`it_tabcell_ctr', st_cur_srg_name:${st_cur_srg_name}"
.   8.     ///--- Summ Stats
.   >     count if ${sif_colcate_`it_colcate'}` & ${sif_rowcate_`it_rowcate'}`
.   9.     global curcount = r(N)
.   10.    if ($curcount>1) {
.   11.      eststo m`it_tabcell_ctr', title("${sif_colcate_`it_colcate'}`) : ${st_cur_srg_name} ${stc_opts}
.   12.    }
.   13.    else {
.   14.      ///--- This means this tabulated subgroup has N = 0
.   >      * Generate a fake observation to create a new estimated model
.   * Then replace the observation N by setting it to 0, otherwise N = 1
.   capture drop aaa
.   15.   gen aaa = 0 if _n == 1
.   16.   eststo m`it_tabcell_ctr', title("${sif_colcate_`it_colcate'}`) : estpost tabstat aaa , statistics(n)
.   17.   estadd scalar N = 0, replace
.   18.   }
.   19.   ///--- Track Regression Store
.   >   global $st_cur_sm_store "${st_cur_sm_store}} m`it_tabcell_ctr'"
.   20.   }
.   21.   di "${st_cur_sm_store}"
.   22.   }
it_rowcate:1, it_tabcell_ctr:1, st_cur_srg_name:srg_cate_row1_col1
20

```

Summary statistics: mean sd p10 p50 p90
for variables: bp patient rand1 rand2

	e (mean)	e (sd)	e (p10)	e (p50)	e (p90)
bp	153.45	9.95503	143	152.5	169
patient	10.5	5.91608	2.5	10.5	18.5
rand1	.5	.5129892	0	.5	1
rand2	9.85	5.593935	2.5	10.5	17.5

it_rowcate:1, it_tabcell_ctr:2, st_cur_srg_name:srg_cate_row1_col2

20

Summary statistics: mean sd p10 p50 p90
for variables: bp patient rand1 rand2

	e (mean)	e (sd)	e (p10)	e (p50)	e (p90)
bp	146.45	14.05806	128.5	144.5	166
patient	10.5	5.91608	2.5	10.5	18.5
rand1	.65	.4893605	0	1	1
rand2	11.25	5.9283	2.5	12	18

it_rowcate:1, it_tabcell_ctr:3, st_cur_srg_name:srg_cate_row1_col3

20

Summary statistics: mean sd p10 p50 p90
for variables: bp patient rand1 rand2

	e (mean)	e (sd)	e (p10)	e (p50)	e (p90)
bp	149.9	8.378544	141.5	147	164
patient	70.5	5.91608	62.5	70.5	78.5
rand1	.75	.4442617	0	1	1
rand2	7.8	4.818823	2.5	7	15

it_rowcate:1, it_tabcell_ctr:4, st_cur_srg_name:srg_cate_row1_col4

20

Summary statistics: mean sd p10 p50 p90
for variables: bp patient rand1 rand2

	e (mean)	e (sd)	e (p10)	e (p50)	e (p90)
bp	142.2	9.122557	132	143	150
patient	70.5	5.91608	62.5	70.5	78.5
rand1	.45	.5104178	0	0	1
rand2	7.65	5.815361	0	7	16.5

m1 m2 m3 m4
it_rowcate:2, it_tabcell_ctr:5, st_cur_srg_name:srg_cate_row2_col1

20

Summary statistics: mean sd p10 p50 p90
for variables: bp patient rand1 rand2

	e (mean)	e (sd)	e (p10)	e (p50)	e (p90)
bp	159.05	12.37772	145	157.5	179.5
patient	30.5	5.91608	22.5	30.5	38.5
rand1	.4	.5026247	0	0	1
rand2	9.25	5.466405	3.5	9	17.5

it_rowcate:2, it_tabcell_ctr:6, st_cur_srg_name:srg_cate_row2_col2

20

Summary statistics: mean sd p10 p50 p90
for variables: bp patient rand1 rand2

	e (mean)	e (sd)	e (p10)	e (p50)	e (p90)
bp	157.25	15.56269	136	158	179
patient	30.5	5.91608	22.5	30.5	38.5
rand1	.5	.5129892	0	.5	1
rand2	8.55	6.278409	1	7.5	16.5

it_rowcate:2, it_tabcell_ctr:7, st_cur_srg_name:srg_cate_row2_col3

0

(219 missing values generated)

	e(count)
aaa	1

added scalar:

$$e(N) = 0$$

it_rowcate:2, it_tabcell_ctr:8, st_cur_srg_name:srg_cate_row2_col4
 20

Summary statistics: mean sd p10 p50 p90
 for variables: bp patient rand1 rand2

	e(mean)	e(sd)	e(p10)	e(p50)	e(p90)
bp	144.3	10.06348	132	145	157
patient	90.5	5.91608	82.5	90.5	98.5
rand1	.5	.5129892	0	.5	1
rand2	8.15	5.373179	2	7.5	16

m5 m6 m7 m8
 it_rowcate:3, it_tabcell_ctr:9, st_cur_srg_name:srg_cate_row3_col1
 20

Summary statistics: mean sd p10 p50 p90
 for variables: bp patient rand1 rand2

	e(mean)	e(sd)	e(p10)	e(p50)	e(p90)
bp	165.3	8.844267	154.5	167	175
patient	50.5	5.91608	42.5	50.5	58.5
rand1	.55	.5104178	0	1	1
rand2	7.15	5.402485	0	7.5	15.5

it_rowcate:3, it_tabcell_ctr:10, st_cur_srg_name:srg_cate_row3_col2
 20

Summary statistics: mean sd p10 p50 p90
 for variables: bp patient rand1 rand2

	e(mean)	e(sd)	e(p10)	e(p50)	e(p90)
bp	162.85	11.63604	146.5	163	180.5
patient	50.5	5.91608	42.5	50.5	58.5
rand1	.55	.5104178	0	1	1
rand2	9.85	5.546692	2.5	12	16

it_rowcate:3, it_tabcell_ctr:11, st_cur_srg_name:srg_cate_row3_col3
 20

Summary statistics: mean sd p10 p50 p90
 for variables: bp patient rand1 rand2

	e(mean)	e(sd)	e(p10)	e(p50)	e(p90)
bp	159.85	11.93083	147.5	160	178
patient	110.5	5.91608	102.5	110.5	118.5
rand1	.45	.5104178	0	0	1
rand2	11.4	5.275564	3	12	18

it_rowcate:3, it_tabcell_ctr:12, st_cur_srg_name:srg_cate_row3_col4
 20

Summary statistics: mean sd p10 p50 p90
 for variables: bp patient rand1 rand2

	e(mean)	e(sd)	e(p10)	e(p50)	e(p90)
bp	155.1	11.95122	141.5	152	175.5
patient	110.5	5.91608	102.5	110.5	118.5
rand1	.6	.5026247	0	1	1
rand2	10.75	6.086006	2	12	18

m9 m10 m11 m12

. di "\$smd_1_m"
 m1 m2 m3 m4

. di "\$smd_2_m"
 m5 m6 m7 m8

. di "\$smd_3_m"
 m9 m10 m11 m12

.
 > //////////////////////////////////////
 > ///--- D2. Regression Display Controls
 > //////////////////////////////////////
 >

. global slb_reg_stats "N"

. global sd `""`

. global keepcellstats "cells(mean(fmt(a2)) \$sd) wide"

. global slb_sd_tex `"\$\${stc_stats_paren}(fmt(a2) par("\vspace*{-2mm}{\footnotesize (" ") })))`"

. global slb_cells_tex `"\$cells(\$\${stc_stats_main}(fmt(a2)) \$slb_sd_tex) wide`"

. global slb_esttab_opt_tex `"\$\${slb_cells_tex} booktabs label collabels(none) nomtitles nonumbers star(\$\${slb_starLvl})`"

. global slb_sd_txt `"\$\${stc_stats_paren}(fmt(a2) par("(" " ")`)"`"


```

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. foreach curLoop of numlist 1(1)$it_colcate_n {
2.     global alignCenter "$alignCenter `eB1T`"
3.     }

.     di "alignCenter:$alignCenter"
alignCenter:m{7cm} >{\centering\arraybackslash}m{1.75cm} >{\centering\arraybackslash}m{1.75cm} >{\centering\arraybackslash}m{1.75cm} >{\ce

.
. //----- Gla. Tex Sectioning each panel
> //----- Gla. Tex Sectioning each panel
> //----- Gla. Tex Sectioning each panel
>
.     foreach it_rowcate of numlist 1(1)$it_rowcate_n {
2.     #delimiter ;
.     delimiter now ;
.     global slb_titling_panel `it_rowcate' "
>     ${svr_first} "\multicolumn{$totColCnt}{p{$totColWidLegend}cm}}${slb_title_spc}\textbf{$slb_rowcate `it_rowcate
>     ";
3.     global slb_refcat_panel `it_rowcate' `refcat($slb_titling_panel `it_rowcate'), nolabel)";
4.     #delimiter cr
.     delimiter now cr
.     }

. //----- Gld. Bottom
> //----- Gld. Bottom
> //----- Gld. Bottom
>
.     #delimiter ;
.     delimiter now ;
.     global slb_titling_bottom `
>     stats(N,
>     labels(Observations
>     "\midrule \multicolumn{$totColCnt}{L{$totColWid}cm}}${slb_title_spc}\textbf{\textit{\normalsize $slb_bottom

.     #delimiter cr
.     delimiter now cr

. //----- G2. Tex Headline
> //----- G2. Tex Headline
> //----- G2. Tex Headline
>
.     ///--- C.3.A. Initialize
>     global row1 "&"

.     global row1MidLine ""

.     global row2 ""

.     global row2MidLine ""

.     global row3 ""

.
.     ///--- B. Row 2 and row 2 midline
> * global colSeq "2 3 6"
.     global cmidrule ""

.     global colCtr = -1

.     foreach curCol of numlist $colSeq {
2.     global colCtr = $colCtr + 1
3.     global curCollMin = `curCol' - 1
4.     if ($colCtr == 0 ) {
5.         global minCoefCol = "`curCol'"
6.     }
7.     if ($colCtr != 0 ) {
8.         global gapCnt = (`curCol' - `lastCol')
9.         global gapWidth = (`curCol' - `lastCol')*$perCoefColWid
10.        di "curCollMin:$curCollMin, lastCol:`lastCol'"
11.        di "$gapCnt"
12.
13.        di "\multicolumn{$gapCnt}{C{$gapWidth}cm}}{\small no Control}"
14.        di "\cmidrule(1{5pt}r{5pt}){\`lastCol'-$curCollMin}"

15.        global curRow2MidLine "\cmidrule(1{5pt}r{5pt}){\`lastCol'-$curCollMin}"
16.        global row2MidLine "$row2MidLine $curRow2MidLine"

17.        global curRow2 "\multicolumn{$gapCnt}{C{$gapWidth}cm}}{\small ${labG$colCtr}}}"
18.        global row2 "$row2 & $curRow2"

19.    }
20.    local lastCol = `curCol'

.     }
curCollMin:3, lastCol:2
2
\multicolumn{2}{C{3.5cm}}{\small no Control}
\cmidrule(1{5pt}r{5pt}){2-3}
curCollMin:5, lastCol:4
2
\multicolumn{2}{C{3.5cm}}{\small no Control}
\cmidrule(1{5pt}r{5pt}){4-5}

.
.     ///--- C. Row 3
> * Initial & for label column
.     foreach curLoop of numlist 1(1)$it_colcate_n {
2.         global curText "${labC`curLoop}"
3.         global textUse "("`curLoop'"
4.         if ("`curText" != "") {
5.             global textUse "`curText"
6.         }
7.         global curRow3 "\multicolumn{1}{C{$perCoefColWid}cm}}{$textUse}"
8.         global row3 "$row3 & $curRow3"
9.     }

```

```

. ///--- D. Row 1 and midline:
> global row1 "\multicolumn{\it_colcate_n}{p{\totCoefColWid}cm)}{\slb_title_inner}"
.
. global row1MidLine "\cmidrule(1{5pt}r{5pt}){\minCoefCol}-{\curCollMin}"
.
.
. ///--- C.3.E Print lines
> di "$row1 \"
& \multicolumn{4}{p{7cm}}{Tabulate Stats: \textbf{Mean} (\textit{S.D.})} \\
.
. di "$row1MidLine "
\cmidrule(1{5pt}r{5pt}){2-5}
.
. di "$row2 \"
& \multicolumn{2}{C{3.5cm}}{\small Male} & \multicolumn{2}{C{3.5cm}}{\small Female} \\
.
. di "$row2MidLine"
\cmidrule(1{5pt}r{5pt}){2-3} \cmidrule(1{5pt}r{5pt}){4-5}
.
. di "$row3 \"
& \multicolumn{1}{C{1.75cm}}{\small Before} & \multicolumn{1}{C{1.75cm}}{\small After} & \multicolumn{1}{C{1.75cm}}{\small Before} \\
.
.
. ///--- C.4 Together
> #delimit ;
delimiter now ;
. ///--- 1. Section
> * local section "
> * \section{\fileTitle}\vspace*{-6mm}
> * ";
. ///--- 2. Align and Column Define
> local centering "$alignCenter";
.
. global headline "
> $row1 \\
> $row1MidLine
> $row2 \\
> $row2MidLine
> $row3 \\
> ";
.
. #delimit cr
delimiter now cr
.
. //////////////////////////////////////
> ///--- G4. Head
> //////////////////////////////////////
>
. #delimit ;
delimiter now ;
. global adjustBoxStart "\begin{adjustbox}{max width=${tableAdjustBoxWidth}\textwidth}";
.
. global adjustBoxEnd "\end{adjustbox}";
.
. global notewrap "
> \multicolumn{\totColCnt}{p{\totColWidFootnote}cm)}{\slb_foot_spc} \footnotesize\justify {\slb_note}} \\
> ";
.
. global startTable "\begin{table}[htbp]
> \centering
> \caption{\slb_title\label{\slb_label_tex}}{\adjustBoxStart}\begin{tabular}{\centering}
> \toprule
> ";
.
. global headlineAll "prehead({startTable}{headline})";
.
. global headlineAllNoHead "prehead({startTable})";
.
. global postAll "postfoot(\bottomrule {notewrap} \end{tabular}{adjustBoxEnd}\end{table})";
.
. #delimit cr
delimiter now cr
.
. //////////////////////////////////////
> ///--- H1. Output Results to HTML
> //////////////////////////////////////
>
. esttab ${smd_1_m} using "${st_out_html}", title("${slb_rowcate_it_rowcate}") ${slb_esttab_opt_txt} replace
(output written to ~\Stata4Econ\table\tabsumm\tab_mcol_npanel\tab_mcol_npanel.html)
.
. esttab ${smd_1_m} using "${st_out_rtf}", title("${slb_rowcate_it_rowcate}") ${slb_esttab_opt_txt} replace
(output written to ~\Stata4Econ\table\tabsumm\tab_mcol_npanel\tab_mcol_npanel.rtf)
.
. foreach it_rowcate of numlist 2(1){it_rowcate_n {
. 2. esttab ${smd_it_rowcate_m} using "${st_out_html}", title("${slb_rowcate_it_rowcate}") ${slb_esttab_opt_txt} append
. 3. esttab ${smd_it_rowcate_m} using "${st_out_rtf}", title("${slb_rowcate_it_rowcate}") ${slb_esttab_opt_txt} append
. 4. }
(output written to ~\Stata4Econ\table\tabsumm\tab_mcol_npanel\tab_mcol_npanel.html)
(output written to ~\Stata4Econ\table\tabsumm\tab_mcol_npanel\tab_mcol_npanel.rtf)
(output written to ~\Stata4Econ\table\tabsumm\tab_mcol_npanel\tab_mcol_npanel.html)
(output written to ~\Stata4Econ\table\tabsumm\tab_mcol_npanel\tab_mcol_npanel.rtf)
.
. //////////////////////////////////////
> ///--- H2. Output Results to Tex
> //////////////////////////////////////
>
. esttab ${smd_1_m} using "${st_out_tex}", ///
> title("${slb_rowcate_1}") ///
> ${slb_refcat_panel_1} ///
> ${slb_esttab_opt_tex} ///
> fragment $headlineAll postfoot("") replace
(output written to ~\Stata4Econ\table\tabsumm\tab_mcol_npanel\tab_mcol_npanel_texbody.tex)

```



```
. global it_rowcate_n_mins_1 = `it_rowcate_n' - 1
.
.   foreach it_rowcate of numlist 2(1)`it_rowcate_n_mins_1' {
2.       esttab `${smd `it_rowcate'_m} using "${st_out_tex}", ///
.         title("${slb_rowcate_`it_rowcate'}") ///
>         `${slb_refcat_panel_`it_rowcate'}` ///
>         `${slb_esttab_opt_tex}` ///
>         fragment prehead("") postfoot("") append
3.     }
. }
```

(output written to ~\Stata4Econ\table\tabsumm\tab_mcol_npanel\tab_mcol_npanel_texbody.tex)

```
. esttab `${smd_`${it_rowcate_n}_m} using "${st_out_tex}", ///
> title("${slb_rowcate_`${it_rowcate_n}`}") ///
> `${slb_refcat_panel_`${it_rowcate_n}`}` ///
> `${slb_esttab_opt_tex}` ///
> `${slb_titling_bottom}` ///
> fragment prehead("") $postAll append
(output written to ~\Stata4Econ\table\tabsumm\tab_mcol_npanel\tab_mcol_npanel_texbody.tex)
```

```
. //////////////////////////////////////
> ///--- I. Out Logs
> //////////////////////////////////////
```

. ///--- End Log and to HTML

```
> log close
. name: <unnamed>
. log: C:\Users\fan\Stata4Econ\table\tabsumm\tab_mcol_npanel\gen_reg.smcl
. log type: smcl
. closed on: 25 Aug 2019, 09:58:26
```

```
. ///--- to PDF
> capture noisily {
.   translator set Results2pdf logo off
.   translator set Results2pdf fontsize 10
.   translator set Results2pdf pagesize custom
.   translator set Results2pdf pagewidth 11.69
.   translator set Results2pdf pageheight 16.53
.   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 "${st_log_file}.pdf", replace translator(Results2pdf)
```