Stata Syntax for Section 7.3.2, Chapter 7

Stata Syntax for Section 7.3.2

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//Chapter 7 Section 7.3.2

//propensity score weighting with a cox proportional hazards model

cd "D:\psa\_e2\Chapter7\Data"

set more off

log using weighted\_cox, replace

clear

use survival, replace

//create propensity score using logistic 3

logistic aodserv married high bahigh poverty2 poverty3 ///

 poverty4 poverty5 employ open black hispanic natam chdage1 chdage2 ///

 chdage3 cgrage1 cgrage2 cgrage3 CRA47A mental arrest PSH17A ///

 sexual provide supervis other ra cidi cgneed, coef

predict ps3

save survival1, replace

//Create various types of weights

gen ate\_w=1/(1-ps3) if aodserv==0

replace ate\_w=1/ps3 if aodserv==1

gen att\_w=ps3/(1-ps3) if aodserv==0

replace att\_w=1 if aodserv==1

//unweighted

stset durm, failure(rrpt==1)

stcox aodserv married high bahigh poverty2 poverty3 ///

 poverty4 poverty5 employ open black hispanic natam chdage1 chdage2 ///

 chdage3 CRA47A, robust

//ate-weighted

stset durm [pweight=ate\_w], failure(rrpt==1)

stcox aodserv married high bahigh poverty2 poverty3 ///

 poverty4 poverty5 employ open black hispanic natam chdage1 chdage2 ///

 chdage3 CRA47A

//att-weighted

stset durm [pweight=att\_w], failure(rrpt==1)

stcox aodserv married high bahigh poverty2 poverty3 ///

 poverty4 poverty5 employ open black hispanic natam chdage1 chdage2 ///

 chdage3 CRA47A

//balance check using chi-square tests

//original sample

program balance1

use `1', clear

tab married aodserv, chi2 row

tab educ aodserv, chi2 row

tab pov aodserv, chi2 row

tab employ aodserv, chi2 row

tab open aodserv, chi2 row

tab race aodserv, chi2 row

tab chdage aodserv, chi2 row

tab cgage aodserv, chi2 row

tab CRA47A aodserv, chi2 row

tab mental aodserv, chi2 row

tab arrest aodserv, chi2 row

tab PSH17A aodserv, chi2 row

tab maltx aodserv, chi2 row

tab ra aodserv, chi2 row

tab cidi aodserv, chi2 row

tab cgneed aodserv, chi2 row

end

balance1 survival1

program balance\_2

use `1', clear

gen ate\_w=1/(1-ps3) if aodserv==0

replace ate\_w=1/ps3 if aodserv==1

logistic married aodserv [pweight=ate\_w]

logistic high aodserv[pweight=ate\_w]

logistic bahigh aodserv[pweight=ate\_w]

logistic poverty2 aodserv[pweight=ate\_w]

logistic poverty3 aodserv[pweight=ate\_w]

logistic poverty4 aodserv[pweight=ate\_w]

logistic poverty5 aodserv[pweight=ate\_w]

logistic employ aodserv[pweight=ate\_w]

logistic open aodserv[pweight=ate\_w]

logistic black aodserv[pweight=ate\_w]

logistic hispanic aodserv[pweight=ate\_w]

logistic natam aodserv[pweight=ate\_w]

logistic chdage1 aodserv[pweight=ate\_w]

logistic chdage2 aodserv[pweight=ate\_w]

logistic chdage3 aodserv[pweight=ate\_w]

logistic cgrage1 aodserv[pweight=ate\_w]

logistic cgrage2 aodserv[pweight=ate\_w]

logistic cgrage3 aodserv[pweight=ate\_w]

logistic CRA47A aodserv[pweight=ate\_w]

logistic mental aodserv[pweight=ate\_w]

logistic arrest aodserv[pweight=ate\_w]

logistic PSH17A aodserv[pweight=ate\_w]

logistic sexual aodserv[pweight=ate\_w]

logistic provide aodserv[pweight=ate\_w]

logistic supervis aodserv[pweight=ate\_w]

logistic other aodserv[pweight=ate\_w]

logistic ra aodserv[pweight=ate\_w]

logistic cidi aodserv[pweight=ate\_w]

logistic cgneed aodserv[pweight=ate\_w]

end

balance\_2 survival1

program balance\_3

use `1', clear

gen att\_w=ps3/(1-ps3) if aodserv==0

replace att\_w=1 if aodserv==1

logistic married aodserv [pweight=att\_w]

logistic high aodserv[pweight=att\_w]

logistic bahigh aodserv[pweight=att\_w]

logistic poverty2 aodserv[pweight=att\_w]

logistic poverty3 aodserv[pweight=att\_w]

logistic poverty4 aodserv[pweight=att\_w]

logistic poverty5 aodserv[pweight=att\_w]

logistic employ aodserv[pweight=att\_w]

logistic open aodserv[pweight=att\_w]

logistic black aodserv[pweight=att\_w]

logistic hispanic aodserv[pweight=att\_w]

logistic natam aodserv[pweight=att\_w]

logistic chdage1 aodserv[pweight=att\_w]

logistic chdage2 aodserv[pweight=att\_w]

logistic chdage3 aodserv[pweight=att\_w]

logistic cgrage1 aodserv[pweight=att\_w]

logistic cgrage2 aodserv[pweight=att\_w]

logistic cgrage3 aodserv[pweight=att\_w]

logistic CRA47A aodserv[pweight=att\_w]

logistic mental aodserv[pweight=att\_w]

logistic arrest aodserv[pweight=att\_w]

logistic PSH17A aodserv[pweight=att\_w]

logistic sexual aodserv[pweight=att\_w]

logistic provide aodserv[pweight=att\_w]

logistic supervis aodserv[pweight=att\_w]

logistic other aodserv[pweight=att\_w]

logistic ra aodserv[pweight=att\_w]

logistic cidi aodserv[pweight=att\_w]

logistic cgneed aodserv[pweight=att\_w]

end

balance\_3 survival1

log close

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