Stata Syntax for Section 9.4.1, Chapter 9

This example illustrates difference-in-differences analysis using ***psmatch2***.

Stata Syntax to Run Difference-in-Differences Estimation with Various Trimming and Bandwidth Specifications as Sensitivity Analysis

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// Chapter 9 Section 9.4.1 difference-in-differences (For Table 9.2)

cd "D:\psa\_e2\Chapter9\data"

capture log close

set more off

log using ex9\_1b,replace

clear

use ch9data1.dta, replace

logistic aodserv married high bahigh poverty2 poverty3 ///

 poverty4 poverty5 employ open black hispanic natam chdage2 ///

 chdage3 cgrage1 cgrage2 cgrage3 cra47a mental arrest psh17a ///

 sexual provide supervis other ra cidi cgneed

predict p

//create logit based on the predicted probability

g logit=log((1-p)/p)

//create difference score for each outcome: post-outcome minus pre-outcome

g extern=bc3\_ept-pbc\_ept

g intern=bc3\_ipt-pbc\_ipt

g total=bc3\_tpt-pbc\_tpt

sum logit extern intern total

//create a random variable to sort the sample data

g x=uniform()

sort x

set seed 1000

//use defual bandwidth=.06

psmatch2 aodserv, outcome(extern) pscore(logit) llr

bs "psmatch2 aodserv, outcome(extern) pscore(logit) llr" "r(att)"

sort x

//use defual bandwidth=.06

psmatch2 aodserv, outcome(intern) pscore(logit) llr

set seed 1000

bs "psmatch2 aodserv, outcome(intern) pscore(logit) llr" "r(att)"

sort x

//use defual bandwidth=.06

psmatch2 aodserv, outcome(total) pscore(logit) llr

bs "psmatch2 aodserv, outcome(total) pscore(logit) llr" "r(att)"

sort x

set seed 1000

//use a small bandwidth=.01

psmatch2 aodserv, outcome(extern) pscore(logit) llr bw(.01)

bs "psmatch2 aodserv, outcome(extern) pscore(logit) llr bw(.01)" "r(att)"

sort x

set seed 1000

//use a small bandwidth=.01

psmatch2 aodserv, outcome(intern) pscore(logit) llr bw(.01)

bs "psmatch2 aodserv, outcome(intern) pscore(logit) llr bw(.01)" "r(att)"

sort x

set seed 1000

//use a small bandwidth=.01

psmatch2 aodserv, outcome(total) pscore(logit) llr bw(.01)

bs "psmatch2 aodserv, outcome(total) pscore(logit) llr bw(.01)" "r(att)"

sort x

set seed 1000

//use a small bandwidth=.05

psmatch2 aodserv, outcome(extern) pscore(logit) llr bw(.05)

bs "psmatch2 aodserv, outcome(extern) pscore(logit) llr bw(.05)" "r(att)"

sort x

set seed 1000

//use a small bandwidth=.05

psmatch2 aodserv, outcome(intern) pscore(logit) llr bw(.05)

bs "psmatch2 aodserv, outcome(intern) pscore(logit) llr bw(.05)" "r(att)"

sort x

set seed 1000

//use a small bandwidth=.05

psmatch2 aodserv, outcome(total) pscore(logit) llr bw(.05)

bs "psmatch2 aodserv, outcome(total) pscore(logit) llr bw(.05)" "r(att)"

sort x

set seed 1000

//use a large bandwidth=.8

psmatch2 aodserv, outcome(extern) pscore(logit) llr bw(.8)

bs "psmatch2 aodserv, outcome(extern) pscore(logit) llr bw(.8)" "r(att)"

sort x

set seed 1000

//use a large bandwidth=.8

psmatch2 aodserv, outcome(intern) pscore(logit) llr bw(.8)

bs "psmatch2 aodserv, outcome(intern) pscore(logit) llr bw(.8)" "r(att)"

sort x

set seed 1000

//use a large bandwidth=.8

psmatch2 aodserv, outcome(total) pscore(logit) llr bw(.8)

bs "psmatch2 aodserv, outcome(total) pscore(logit) llr bw(.8)" "r(att)"

sort x

set seed 1000

//trim 2%

psmatch2 aodserv, outcome(extern) pscore(logit) llr trim(2)

bs "psmatch2 aodserv, outcome(extern) pscore(logit) llr trim(2)" "r(att)"

sort x

set seed 1000

//trim 2%

psmatch2 aodserv, outcome(intern) pscore(logit) llr trim(2)

bs "psmatch2 aodserv, outcome(intern) pscore(logit) llr trim(2)" "r(att)"

sort x

set seed 1000

//trim 2%

psmatch2 aodserv, outcome(total) pscore(logit) llr trim(2)

bs "psmatch2 aodserv, outcome(total) pscore(logit) llr trim(2)" "r(att)"

sort x

set seed 1000

//trim 5%

psmatch2 aodserv, outcome(extern) pscore(logit) llr trim(5)

bs "psmatch2 aodserv, outcome(extern) pscore(logit) llr trim(5)" "r(att)"

sort x

set seed 1000

//trim 5%

psmatch2 aodserv, outcome(intern) pscore(logit) llr trim(5)

bs "psmatch2 aodserv, outcome(intern) pscore(logit) llr trim(5)" "r(att)"

sort x

set seed 1000

//trim 5%

psmatch2 aodserv, outcome(total) pscore(logit) llr trim(5)

bs "psmatch2 aodserv, outcome(total) pscore(logit) llr trim(5)" "r(att)"

sort x

set seed 1000

//trim 10%

psmatch2 aodserv, outcome(extern) pscore(logit) llr trim(10)

bs "psmatch2 aodserv, outcome(extern) pscore(logit) llr trim(10)" "r(att)"

sort x

set seed 1000

//trim 10%

psmatch2 aodserv, outcome(intern) pscore(logit) llr trim(10)

bs "psmatch2 aodserv, outcome(intern) pscore(logit) llr trim(10)" "r(att)"

sort x

set seed 1000

//trim 10%

psmatch2 aodserv, outcome(total) pscore(logit) llr trim(10)

bs "psmatch2 aodserv, outcome(total) pscore(logit) llr trim(10)" "r(att)"

log close

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