\*\*\*\*\*For Tables 8.3-8.9, Figure 8.3\*\*\*\*\*

. use "C:\Users\ecm2\sfuvault2\Research\Papers\Accepted\Books\ISVYOS Book\Transparency\Chapter 8\Life Course - Analysis 2.dta", clear

. do "C:\Users\ecm2\AppData\Local\Temp\STD56f0\_000000.tmp"

.

. \*Table 8.3.

. \*MAIN EFFECTS OF INFORMAL SOCIAL CONTROLS ON OFFENDING

.

. nbreg Convictions\_Age39FU ib2.Gender\_RC i.Ethnicity\_RC EAAdultAx\_Family\_Relationships\_R EAAdultAx\_Living\_Arrangements\_RC EAAdultAx\_

> Companion\_Significant0 EAAdultAx\_Academic\_Vocational\_S0 EAAdultAx\_Employment\_Pattern\_RC, irr exposure(Exposure\_39)

Fitting Poisson model:

Iteration 0: log likelihood = -4196.0737

Iteration 1: log likelihood = -4195.9869

Iteration 2: log likelihood = -4195.9869

Fitting constant-only model:

Iteration 0: log likelihood = -1896.1935

Iteration 1: log likelihood = -1718.5228

Iteration 2: log likelihood = -1710.3756

Iteration 3: log likelihood = -1710.2635

Iteration 4: log likelihood = -1710.2635

Fitting full model:

Iteration 0: log likelihood = -1688.508

Iteration 1: log likelihood = -1684.5151

Iteration 2: log likelihood = -1684.2558

Iteration 3: log likelihood = -1684.2553

Iteration 4: log likelihood = -1684.2553

Negative binomial regression Number of obs = 559

LR chi2(8) = 52.02

Dispersion = mean Prob > chi2 = 0.0000

Log likelihood = -1684.2553 Pseudo R2 = 0.0152

--------------------------------------------------------------------------------------------------

Convictions\_Age39FU | IRR Std. Err. z P>|z| [95% Conf. Interval]

---------------------------------+----------------------------------------------------------------

Gender\_RC |

Male | 2.53849 .5269068 4.49 0.000 1.690029 3.812912

|

Ethnicity\_RC |

Indigenous | 1.322308 .210609 1.75 0.079 .9677398 1.806786

Other | .8693763 .1919571 -0.63 0.526 .56398 1.340145

|

EAAdultAx\_Family\_Relationships\_R | .6861284 .1266426 -2.04 0.041 .4778529 .9851822

EAAdultAx\_Living\_Arrangements\_RC | .7754553 .1260559 -1.56 0.118 .5638814 1.066414

EAAdultAx\_Companion\_Significant0 | .5396592 .1200993 -2.77 0.006 .3488892 .8347408

EAAdultAx\_Academic\_Vocational\_S0 | 1.219272 .2300043 1.05 0.293 .8424214 1.764704

EAAdultAx\_Employment\_Pattern\_RC | .7147796 .1332815 -1.80 0.072 .4959669 1.030129

\_cons | 19.52546 4.291101 13.52 0.000 12.69209 30.03789

ln(Exposure\_39) | 1 (exposure)

---------------------------------+----------------------------------------------------------------

/lnalpha | .9159864 .0672023 .7842724 1.0477

---------------------------------+----------------------------------------------------------------

alpha | 2.499239 .1679546 2.190812 2.851087

--------------------------------------------------------------------------------------------------

Note: Estimates are transformed only in the first equation.

Note: \_cons estimates baseline incidence rate.

LR test of alpha=0: chibar2(01) = 5023.46 Prob >= chibar2 = 0.000

.

. \*In-text report of relationship between ISC scale (as opposed to individual ISCs) and convictions.

. nbreg Convictions\_Age39FU ib2.Gender\_RC i.Ethnicity\_RC ISC\_EAAdult, irr exposure(Exposure\_39)

Fitting Poisson model:

Iteration 0: log likelihood = -4255.5039

Iteration 1: log likelihood = -4255.4196

Iteration 2: log likelihood = -4255.4196

Fitting constant-only model:

Iteration 0: log likelihood = -1918.6163

Iteration 1: log likelihood = -1735.863

Iteration 2: log likelihood = -1727.5067

Iteration 3: log likelihood = -1727.3894

Iteration 4: log likelihood = -1727.3893

Fitting full model:

Iteration 0: log likelihood = -1703.6767

Iteration 1: log likelihood = -1699.9233

Iteration 2: log likelihood = -1699.7352

Iteration 3: log likelihood = -1699.735

Iteration 4: log likelihood = -1699.735

Negative binomial regression Number of obs = 567

LR chi2(4) = 55.31

Dispersion = mean Prob > chi2 = 0.0000

Log likelihood = -1699.735 Pseudo R2 = 0.0160

-------------------------------------------------------------------------------------

Convictions\_Age39FU | IRR Std. Err. z P>|z| [95% Conf. Interval]

--------------------+----------------------------------------------------------------

Gender\_RC |

Male | 2.668964 .5344224 4.90 0.000 1.802609 3.951699

|

Ethnicity\_RC |

Indigenous | 1.319687 .2056903 1.78 0.075 .9722992 1.79119

Other | .8809623 .1913417 -0.58 0.560 .5755453 1.348451

|

ISC\_EAAdult | .8558375 .0247142 -5.39 0.000 .8087438 .9056735

\_cons | 65.99682 24.43933 11.31 0.000 31.93846 136.3742

ln(Exposure\_39) | 1 (exposure)

--------------------+----------------------------------------------------------------

/lnalpha | .9170875 .0670678 .7856369 1.048538

--------------------+----------------------------------------------------------------

alpha | 2.501993 .1678032 2.193804 2.853476

-------------------------------------------------------------------------------------

Note: Estimates are transformed only in the first equation.

Note: \_cons estimates baseline incidence rate.

LR test of alpha=0: chibar2(01) = 5111.37 Prob >= chibar2 = 0.000

.

.

. \*INTERACTION MODELS.

. \*Warning - code removes data; do not save data once code for Table 8.4 has been run (or use 'Save As' instead). For each Table from

> Table 8.4-Table 8.7 you must run code for one...

. \*...Table at a time (i.e., run Table 8.4, re-open original dataset, run code for Table 8.5, repeat.

.

.

. \*Table 8.4.

. \*Note - for the continuous x continuous interactions, the two variables being interacted must be the first two that are listed in o

> rder to correctly produce the plots.

. \*Interactions between ISC in adulthood and Youth Custody.

.

. \*Model 1.

. nbreg Convictions\_Age39FU ib2.Gender\_RC i.Ethnicity\_RC EAAdultAx\_Family\_Relationships\_R EAAdultAx\_Living\_Arrangements\_RC EAAdultAx\_

> Companion\_Significant0 EAAdultAx\_Academic\_Vocational\_S0 EAAdultAx\_Employment\_Pattern\_RC Youth\_Custody\_Months\_Cent c.EAAdultAx\_Famil

> y\_Relationships\_R#c.Youth\_Custody\_Months\_Cent, irr exposure(Exposure\_39)

Fitting Poisson model:

Iteration 0: log likelihood = -4031.0087

Iteration 1: log likelihood = -4030.8995

Iteration 2: log likelihood = -4030.8994

Fitting constant-only model:

Iteration 0: log likelihood = -1840.0758

Iteration 1: log likelihood = -1667.338

Iteration 2: log likelihood = -1659.1767

Iteration 3: log likelihood = -1659.0644

Iteration 4: log likelihood = -1659.0644

Fitting full model:

Iteration 0: log likelihood = -1636.5152

Iteration 1: log likelihood = -1632.1142

Iteration 2: log likelihood = -1631.7818

Iteration 3: log likelihood = -1631.781

Iteration 4: log likelihood = -1631.781

Negative binomial regression Number of obs = 539

LR chi2(10) = 54.57

Dispersion = mean Prob > chi2 = 0.0000

Log likelihood = -1631.781 Pseudo R2 = 0.0164

--------------------------------------------------------------------------------------------------------------------------------

Convictions\_Age39FU | IRR Std. Err. z P>|z| [95% Conf. Interval]

---------------------------------------------------------------+----------------------------------------------------------------

Gender\_RC |

Male | 2.422884 .5134268 4.18 0.000 1.599399 3.670359

|

Ethnicity\_RC |

Indigenous | 1.291759 .2090439 1.58 0.114 .9406601 1.773906

Other | .9323998 .2161861 -0.30 0.763 .5918923 1.468797

|

EAAdultAx\_Family\_Relationships\_R | .6802185 .1272353 -2.06 0.039 .4714445 .9814457

EAAdultAx\_Living\_Arrangements\_RC | .7998996 .1318796 -1.35 0.176 .5790255 1.105028

EAAdultAx\_Companion\_Significant0 | .6045967 .139064 -2.19 0.029 .3851944 .9489682

EAAdultAx\_Academic\_Vocational\_S0 | 1.205053 .231889 0.97 0.332 .826436 1.757128

EAAdultAx\_Employment\_Pattern\_RC | .7196304 .1367519 -1.73 0.083 .4958553 1.044393

Youth\_Custody\_Months\_Cent | 1.019174 .0108196 1.79 0.074 .9981875 1.040603

|

c.EAAdultAx\_Family\_Relationships\_R#c.Youth\_Custody\_Months\_Cent | 1.003953 .0202806 0.20 0.845 .9649806 1.0445

|

\_cons | 19.9827 4.416852 13.55 0.000 12.95716 30.81758

ln(Exposure\_39) | 1 (exposure)

---------------------------------------------------------------+----------------------------------------------------------------

/lnalpha | .9032592 .0685088 .7689844 1.037534

---------------------------------------------------------------+----------------------------------------------------------------

alpha | 2.467633 .1690546 2.157574 2.822249

--------------------------------------------------------------------------------------------------------------------------------

Note: Estimates are transformed only in the first equation.

Note: \_cons estimates baseline incidence rate.

LR test of alpha=0: chibar2(01) = 4798.24 Prob >= chibar2 = 0.000

. quietly margins, at(Youth\_Custody\_Months\_Cent=(-8/16) EAAdultAx\_Family\_Relationships\_R=(0/1)) plot

.

. \*Model 2.

. nbreg Convictions\_Age39FU ib2.Gender\_RC i.Ethnicity\_RC EAAdultAx\_Family\_Relationships\_R EAAdultAx\_Living\_Arrangements\_RC EAAdultAx\_

> Companion\_Significant0 EAAdultAx\_Academic\_Vocational\_S0 EAAdultAx\_Employment\_Pattern\_RC Youth\_Custody\_Months\_Cent c.EAAdultAx\_Livin

> g\_Arrangements\_RC#c.Youth\_Custody\_Months\_Cent, irr exposure(Exposure\_39)

Fitting Poisson model:

Iteration 0: log likelihood = -4006.8143

Iteration 1: log likelihood = -4006.7424

Iteration 2: log likelihood = -4006.7424

Fitting constant-only model:

Iteration 0: log likelihood = -1840.0758

Iteration 1: log likelihood = -1667.338

Iteration 2: log likelihood = -1659.1767

Iteration 3: log likelihood = -1659.0644

Iteration 4: log likelihood = -1659.0644

Fitting full model:

Iteration 0: log likelihood = -1636.8162

Iteration 1: log likelihood = -1632.1117

Iteration 2: log likelihood = -1631.6404

Iteration 3: log likelihood = -1631.639

Iteration 4: log likelihood = -1631.639

Negative binomial regression Number of obs = 539

LR chi2(10) = 54.85

Dispersion = mean Prob > chi2 = 0.0000

Log likelihood = -1631.639 Pseudo R2 = 0.0165

--------------------------------------------------------------------------------------------------------------------------------

Convictions\_Age39FU | IRR Std. Err. z P>|z| [95% Conf. Interval]

---------------------------------------------------------------+----------------------------------------------------------------

Gender\_RC |

Male | 2.436012 .5161977 4.20 0.000 1.608079 3.690212

|

Ethnicity\_RC |

Indigenous | 1.283681 .2055477 1.56 0.119 .9379066 1.756931

Other | .9384328 .217821 -0.27 0.784 .5954285 1.479029

|

EAAdultAx\_Family\_Relationships\_R | .6874342 .1289585 -2.00 0.046 .4759385 .9929136

EAAdultAx\_Living\_Arrangements\_RC | .8004591 .1322208 -1.35 0.178 .5790774 1.106475

EAAdultAx\_Companion\_Significant0 | .6052207 .1386607 -2.19 0.028 .3862754 .9482668

EAAdultAx\_Academic\_Vocational\_S0 | 1.201895 .2317433 0.95 0.340 .8236488 1.753843

EAAdultAx\_Employment\_Pattern\_RC | .7124249 .1362106 -1.77 0.076 .4897736 1.036294

Youth\_Custody\_Months\_Cent | 1.016145 .011601 1.40 0.161 .9936605 1.039139

|

c.EAAdultAx\_Living\_Arrangements\_RC#c.Youth\_Custody\_Months\_Cent | 1.010535 .0186981 0.57 0.571 .9745438 1.047855

|

\_cons | 20.00387 4.413392 13.58 0.000 12.98123 30.82563

ln(Exposure\_39) | 1 (exposure)

---------------------------------------------------------------+----------------------------------------------------------------

/lnalpha | .9022052 .0685556 .7678386 1.036572

---------------------------------------------------------------+----------------------------------------------------------------

alpha | 2.465033 .1689918 2.155103 2.819534

--------------------------------------------------------------------------------------------------------------------------------

Note: Estimates are transformed only in the first equation.

Note: \_cons estimates baseline incidence rate.

LR test of alpha=0: chibar2(01) = 4750.21 Prob >= chibar2 = 0.000

. quietly margins, at(Youth\_Custody\_Months\_Cent=(-8/16) EAAdultAx\_Living\_Arrangements\_RC=(0/1)) plot

.

. \*Model 3.

. nbreg Convictions\_Age39FU ib2.Gender\_RC i.Ethnicity\_RC EAAdultAx\_Family\_Relationships\_R EAAdultAx\_Living\_Arrangements\_RC EAAdultAx\_

> Companion\_Significant0 EAAdultAx\_Academic\_Vocational\_S0 EAAdultAx\_Employment\_Pattern\_RC Youth\_Custody\_Months\_Cent c.EAAdultAx\_Compa

> nion\_Significant0#c.Youth\_Custody\_Months\_Cent, irr exposure(Exposure\_39)

Fitting Poisson model:

Iteration 0: log likelihood = -4031.6841

Iteration 1: log likelihood = -4031.6149

Iteration 2: log likelihood = -4031.6149

Fitting constant-only model:

Iteration 0: log likelihood = -1840.0758

Iteration 1: log likelihood = -1667.338

Iteration 2: log likelihood = -1659.1767

Iteration 3: log likelihood = -1659.0644

Iteration 4: log likelihood = -1659.0644

Fitting full model:

Iteration 0: log likelihood = -1636.3904

Iteration 1: log likelihood = -1632.0227

Iteration 2: log likelihood = -1631.6984

Iteration 3: log likelihood = -1631.6976

Iteration 4: log likelihood = -1631.6976

Negative binomial regression Number of obs = 539

LR chi2(10) = 54.73

Dispersion = mean Prob > chi2 = 0.0000

Log likelihood = -1631.6976 Pseudo R2 = 0.0165

--------------------------------------------------------------------------------------------------------------------------------

Convictions\_Age39FU | IRR Std. Err. z P>|z| [95% Conf. Interval]

---------------------------------------------------------------+----------------------------------------------------------------

Gender\_RC |

Male | 2.436321 .5163959 4.20 0.000 1.608111 3.691075

|

Ethnicity\_RC |

Indigenous | 1.286057 .2058944 1.57 0.116 .9396907 1.760092

Other | .9294099 .215509 -0.32 0.752 .5899743 1.464136

|

EAAdultAx\_Family\_Relationships\_R | .6762542 .1262644 -2.10 0.036 .4690087 .9750773

EAAdultAx\_Living\_Arrangements\_RC | .7988882 .1313949 -1.37 0.172 .5787447 1.10277

EAAdultAx\_Companion\_Significant0 | .5619085 .1500864 -2.16 0.031 .332896 .9484677

EAAdultAx\_Academic\_Vocational\_S0 | 1.209855 .2319721 0.99 0.320 .8308602 1.761728

EAAdultAx\_Employment\_Pattern\_RC | .712404 .1356733 -1.78 0.075 .4904784 1.034744

Youth\_Custody\_Months\_Cent | 1.02104 .0094454 2.25 0.024 1.002694 1.039721

|

c.EAAdultAx\_Companion\_Significant0#c.Youth\_Custody\_Months\_Cent | .9787339 .0452342 -0.47 0.642 .8939735 1.071531

|

\_cons | 19.97842 4.405912 13.58 0.000 12.9671 30.78079

ln(Exposure\_39) | 1 (exposure)

---------------------------------------------------------------+----------------------------------------------------------------

/lnalpha | .9027894 .0685218 .768489 1.03709

---------------------------------------------------------------+----------------------------------------------------------------

alpha | 2.466473 .1690073 2.156505 2.820995

--------------------------------------------------------------------------------------------------------------------------------

Note: Estimates are transformed only in the first equation.

Note: \_cons estimates baseline incidence rate.

LR test of alpha=0: chibar2(01) = 4799.83 Prob >= chibar2 = 0.000

. quietly margins, at(Youth\_Custody\_Months\_Cent=(-8/16) EAAdultAx\_Companion\_Significant0=(0/1)) plot

.

. \*Model 4.

. nbreg Convictions\_Age39FU ib2.Gender\_RC i.Ethnicity\_RC EAAdultAx\_Family\_Relationships\_R EAAdultAx\_Living\_Arrangements\_RC EAAdultAx\_

> Companion\_Significant0 EAAdultAx\_Academic\_Vocational\_S0 EAAdultAx\_Employment\_Pattern\_RC Youth\_Custody\_Months\_Cent c.EAAdultAx\_Acade

> mic\_Vocational\_S0#c.Youth\_Custody\_Months\_Cent, irr exposure(Exposure\_39)

Fitting Poisson model:

Iteration 0: log likelihood = -4031.2739

Iteration 1: log likelihood = -4031.1884

Iteration 2: log likelihood = -4031.1884

Fitting constant-only model:

Iteration 0: log likelihood = -1840.0758

Iteration 1: log likelihood = -1667.338

Iteration 2: log likelihood = -1659.1767

Iteration 3: log likelihood = -1659.0644

Iteration 4: log likelihood = -1659.0644

Fitting full model:

Iteration 0: log likelihood = -1636.3755

Iteration 1: log likelihood = -1632.0292

Iteration 2: log likelihood = -1631.7213

Iteration 3: log likelihood = -1631.7207

Iteration 4: log likelihood = -1631.7207

Negative binomial regression Number of obs = 539

LR chi2(10) = 54.69

Dispersion = mean Prob > chi2 = 0.0000

Log likelihood = -1631.7207 Pseudo R2 = 0.0165

--------------------------------------------------------------------------------------------------------------------------------

Convictions\_Age39FU | IRR Std. Err. z P>|z| [95% Conf. Interval]

---------------------------------------------------------------+----------------------------------------------------------------

Gender\_RC |

Male | 2.413403 .51225 4.15 0.000 1.592064 3.658468

|

Ethnicity\_RC |

Indigenous | 1.295729 .2089272 1.61 0.108 .944635 1.777316

Other | .9383893 .2182646 -0.27 0.785 .5948368 1.480363

|

EAAdultAx\_Family\_Relationships\_R | .679406 .1267937 -2.07 0.038 .471275 .9794546

EAAdultAx\_Living\_Arrangements\_RC | .7952522 .1310116 -1.39 0.164 .5758059 1.098332

EAAdultAx\_Companion\_Significant0 | .6078879 .1399969 -2.16 0.031 .3870716 .9546754

EAAdultAx\_Academic\_Vocational\_S0 | 1.208498 .2326217 0.98 0.325 .8287045 1.762351

EAAdultAx\_Employment\_Pattern\_RC | .7204293 .1369541 -1.72 0.085 .4963378 1.045696

Youth\_Custody\_Months\_Cent | 1.017738 .011132 1.61 0.108 .9961516 1.039792

|

c.EAAdultAx\_Academic\_Vocational\_S0#c.Youth\_Custody\_Months\_Cent | 1.007626 .0192487 0.40 0.691 .9705971 1.046068

|

\_cons | 20.05614 4.432735 13.57 0.000 13.00522 30.92978

ln(Exposure\_39) | 1 (exposure)

---------------------------------------------------------------+----------------------------------------------------------------

/lnalpha | .9029598 .0685159 .768671 1.037249

---------------------------------------------------------------+----------------------------------------------------------------

alpha | 2.466894 .1690215 2.156898 2.821443

--------------------------------------------------------------------------------------------------------------------------------

Note: Estimates are transformed only in the first equation.

Note: \_cons estimates baseline incidence rate.

LR test of alpha=0: chibar2(01) = 4798.94 Prob >= chibar2 = 0.000

. quietly margins, at(Youth\_Custody\_Months\_Cent=(-8/16) EAAdultAx\_Academic\_Vocational\_S0=(0/1)) plot

.

. \*Model 5.

. nbreg Convictions\_Age39FU ib2.Gender\_RC i.Ethnicity\_RC EAAdultAx\_Family\_Relationships\_R EAAdultAx\_Living\_Arrangements\_RC EAAdultAx\_

> Companion\_Significant0 EAAdultAx\_Academic\_Vocational\_S0 EAAdultAx\_Employment\_Pattern\_RC Youth\_Custody\_Months\_Cent c.EAAdultAx\_Emplo

> yment\_Pattern\_RC#c.Youth\_Custody\_Months\_Cent, irr exposure(Exposure\_39)

Fitting Poisson model:

Iteration 0: log likelihood = -4022.5047

Iteration 1: log likelihood = -4022.4321

Iteration 2: log likelihood = -4022.4321

Fitting constant-only model:

Iteration 0: log likelihood = -1840.0758

Iteration 1: log likelihood = -1667.338

Iteration 2: log likelihood = -1659.1767

Iteration 3: log likelihood = -1659.0644

Iteration 4: log likelihood = -1659.0644

Fitting full model:

Iteration 0: log likelihood = -1636.1247

Iteration 1: log likelihood = -1631.7109

Iteration 2: log likelihood = -1631.3901

Iteration 3: log likelihood = -1631.3894

Iteration 4: log likelihood = -1631.3894

Negative binomial regression Number of obs = 539

LR chi2(10) = 55.35

Dispersion = mean Prob > chi2 = 0.0000

Log likelihood = -1631.3894 Pseudo R2 = 0.0167

-------------------------------------------------------------------------------------------------------------------------------

Convictions\_Age39FU | IRR Std. Err. z P>|z| [95% Conf. Interval]

--------------------------------------------------------------+----------------------------------------------------------------

Gender\_RC |

Male | 2.407045 .5107493 4.14 0.000 1.588065 3.648381

|

Ethnicity\_RC |

Indigenous | 1.303556 .2094572 1.65 0.099 .9513872 1.786084

Other | .9612872 .2252924 -0.17 0.866 .6072409 1.521757

|

EAAdultAx\_Family\_Relationships\_R | .6851253 .1280142 -2.02 0.043 .4750341 .9881325

EAAdultAx\_Living\_Arrangements\_RC | .7843063 .1299048 -1.47 0.142 .5668929 1.085102

EAAdultAx\_Companion\_Significant0 | .6223465 .1443796 -2.04 0.041 .3949663 .9806284

EAAdultAx\_Academic\_Vocational\_S0 | 1.214132 .2345289 1.00 0.315 .8314625 1.77292

EAAdultAx\_Employment\_Pattern\_RC | .7184722 .137121 -1.73 0.083 .4942624 1.044389

Youth\_Custody\_Months\_Cent | 1.014818 .010802 1.38 0.167 .9938654 1.036211

|

c.EAAdultAx\_Employment\_Pattern\_RC#c.Youth\_Custody\_Months\_Cent | 1.017996 .0201984 0.90 0.369 .9791679 1.058364

|

\_cons | 20.03807 4.425367 13.57 0.000 12.99779 30.89171

ln(Exposure\_39) | 1 (exposure)

--------------------------------------------------------------+----------------------------------------------------------------

/lnalpha | .9013729 .068551 .7670155 1.03573

--------------------------------------------------------------+----------------------------------------------------------------

alpha | 2.462982 .1688398 2.15333 2.817163

-------------------------------------------------------------------------------------------------------------------------------

Note: Estimates are transformed only in the first equation.

Note: \_cons estimates baseline incidence rate.

LR test of alpha=0: chibar2(01) = 4782.09 Prob >= chibar2 = 0.000

. quietly margins, at(Youth\_Custody\_Months\_Cent=(-8/16) EAAdultAx\_Employment\_Pattern\_RC=(0/1)) plot

.

. \*Model 6.

. nbreg Convictions\_Age39FU ISC\_EAAdult\_Cent Youth\_Custody\_Months\_Cent c.ISC\_EAAdult\_Cent#c.Youth\_Custody\_Months\_Cent ib2.Gender\_RC i

> .Ethnicity\_RC, irr exposure(Exposure\_39)

Fitting Poisson model:

Iteration 0: log likelihood = -4085.1732

Iteration 1: log likelihood = -4085.0952

Iteration 2: log likelihood = -4085.0952

Fitting constant-only model:

Iteration 0: log likelihood = -1860.2719

Iteration 1: log likelihood = -1683.4907

Iteration 2: log likelihood = -1675.133

Iteration 3: log likelihood = -1675.0159

Iteration 4: log likelihood = -1675.0159

Fitting full model:

Iteration 0: log likelihood = -1650.6107

Iteration 1: log likelihood = -1645.6512

Iteration 2: log likelihood = -1645.2572

Iteration 3: log likelihood = -1645.2563

Iteration 4: log likelihood = -1645.2563

Negative binomial regression Number of obs = 546

LR chi2(6) = 59.52

Dispersion = mean Prob > chi2 = 0.0000

Log likelihood = -1645.2563 Pseudo R2 = 0.0178

----------------------------------------------------------------------------------------------------------------

Convictions\_Age39FU | IRR Std. Err. z P>|z| [95% Conf. Interval]

-----------------------------------------------+----------------------------------------------------------------

ISC\_EAAdult\_Cent | .8642307 .0256137 -4.92 0.000 .815459 .9159194

Youth\_Custody\_Months\_Cent | 1.023192 .0096991 2.42 0.016 1.004358 1.04238

|

c.ISC\_EAAdult\_Cent#c.Youth\_Custody\_Months\_Cent | 1.005625 .0033966 1.66 0.097 .9989904 1.012305

|

Gender\_RC |

Male | 2.477839 .5119099 4.39 0.000 1.652795 3.714731

|

Ethnicity\_RC |

Indigenous | 1.297777 .203509 1.66 0.096 .9543769 1.764737

Other | .9617322 .2179092 -0.17 0.863 .6168634 1.499406

|

\_cons | 14.08163 2.823746 13.19 0.000 9.505263 20.86132

ln(Exposure\_39) | 1 (exposure)

-----------------------------------------------+----------------------------------------------------------------

/lnalpha | .8985779 .0683577 .7645993 1.032556

-----------------------------------------------+----------------------------------------------------------------

alpha | 2.456108 .1678938 2.148133 2.808236

----------------------------------------------------------------------------------------------------------------

Note: Estimates are transformed only in the first equation.

Note: \_cons estimates baseline incidence rate.

LR test of alpha=0: chibar2(01) = 4879.68 Prob >= chibar2 = 0.000

. \*Code below creates top-left panel of Figure 8.3.

. \*Min/max for Adult ISC = -5.47/7.53.

. \*Min/max for Youth Custody = -8.71/46.26.

. quietly margins, at(ISC\_EAAdult\_Cent=(-6(2)6))

. marginsplot

Variables that uniquely identify margins: ISC\_EAAdult\_Cent

. quietly margins, at(Youth\_Custody\_Months\_Cent=(-8.71(2)46.26))

. marginsplot

Variables that uniquely identify margins: Youth\_Custody\_Months\_Cent

. quietly margins, at(ISC\_EAAdult\_Cent=(-6(2)6) Youth\_Custody\_Months\_Cent=(-8.71(2)46.26)) saving(predictions, replace)

. use predictions, clear

(Created by command margins; also see char list)

. list \_at1 \_at2 \_margin in 1/5

+-------------------------+

| \_at1 \_at2 \_margin |

|-------------------------|

1. | -6 -8.71 28.84613 |

2. | -6 -6.71 28.23363 |

3. | -6 -4.71 27.63414 |

4. | -6 -2.71 27.04737 |

5. | -6 -.71 26.47307 |

+-------------------------+

. rename \_at1 ISC

. rename \_at2 Custody

. rename \_margin Pred\_Con

. list ISC Custody Pred\_Con in 1/5, abbreviate(9)

+--------------------------+

| ISC Custody Pred\_Con |

|--------------------------|

1. | -6 -8.71 28.84613 |

2. | -6 -6.71 28.23363 |

3. | -6 -4.71 27.63414 |

4. | -6 -2.71 27.04737 |

5. | -6 -.71 26.47307 |

+--------------------------+

. twoway (contour Pred\_Con ISC Custody, ccuts(0(8)40)),

. xlabel(-8(2)20)

command xlabel is unrecognized

r(199);

end of do-file

r(199);

. use "C:\Users\ecm2\sfuvault2\Research\Papers\Accepted\Books\ISVYOS Book\Transparency\Chapter 8\Life Course - Analysis 2.dta", clear

. do "C:\Users\ecm2\AppData\Local\Temp\STD56f0\_000000.tmp"

. \*Table 8.5.

. \*Interactions between ISC in adulthood and Youth Individual-Level Risk.

. \*Note - for the continuous x continuous interactions, the two variables being interacted must be the first two that are listed in o

> rder to correctly produce the plots.

.

.

. \*Model 1.

. nbreg Convictions\_Age39FU ib2.Gender\_RC i.Ethnicity\_RC EAAdultAx\_Family\_Relationships\_R EAAdultAx\_Living\_Arrangements\_RC EAAdultAx\_

> Companion\_Significant0 EAAdultAx\_Academic\_Vocational\_S0 EAAdultAx\_Employment\_Pattern\_RC Youth\_Individual\_Risk\_Cent c.EAAdultAx\_Fami

> ly\_Relationships\_R#c.Youth\_Individual\_Risk\_Cent, irr exposure(Exposure\_39)

Fitting Poisson model:

Iteration 0: log likelihood = -2751.47

Iteration 1: log likelihood = -2751.3768

Iteration 2: log likelihood = -2751.3767

Fitting constant-only model:

Iteration 0: log likelihood = -1294.1022

Iteration 1: log likelihood = -1165.8622

Iteration 2: log likelihood = -1160.3519

Iteration 3: log likelihood = -1160.2574

Iteration 4: log likelihood = -1160.2574

Fitting full model:

Iteration 0: log likelihood = -1147.7293

Iteration 1: log likelihood = -1143.0637

Iteration 2: log likelihood = -1142.6341

Iteration 3: log likelihood = -1142.6329

Iteration 4: log likelihood = -1142.6329

Negative binomial regression Number of obs = 392

LR chi2(10) = 35.25

Dispersion = mean Prob > chi2 = 0.0001

Log likelihood = -1142.6329 Pseudo R2 = 0.0152

---------------------------------------------------------------------------------------------------------------------------------

Convictions\_Age39FU | IRR Std. Err. z P>|z| [95% Conf. Interval]

----------------------------------------------------------------+----------------------------------------------------------------

Gender\_RC |

Male | 2.694612 .6775903 3.94 0.000 1.646085 4.411034

|

Ethnicity\_RC |

Indigenous | 1.454019 .2846677 1.91 0.056 .990654 2.134117

Other | .9308336 .2764686 -0.24 0.809 .520062 1.666054

|

EAAdultAx\_Family\_Relationships\_R | .7168543 .1671532 -1.43 0.153 .4538906 1.132167

EAAdultAx\_Living\_Arrangements\_RC | .9295529 .1850301 -0.37 0.714 .6292744 1.373119

EAAdultAx\_Companion\_Significant0 | .7519378 .2111714 -1.02 0.310 .4336442 1.303858

EAAdultAx\_Academic\_Vocational\_S0 | 1.247475 .2900733 0.95 0.342 .7908667 1.967706

EAAdultAx\_Employment\_Pattern\_RC | .6256796 .1423866 -2.06 0.039 .4005374 .9773743

Youth\_Individual\_Risk\_Cent | .990431 .0181278 -0.53 0.599 .9555309 1.026606

|

c.EAAdultAx\_Family\_Relationships\_R#c.Youth\_Individual\_Risk\_Cent | 1.062361 .0432491 1.49 0.137 .9808879 1.150601

|

\_cons | 17.45025 4.903196 10.18 0.000 10.06074 30.26729

ln(Exposure\_39) | 1 (exposure)

----------------------------------------------------------------+----------------------------------------------------------------

/lnalpha | .9574444 .0814217 .7978608 1.117028

----------------------------------------------------------------+----------------------------------------------------------------

alpha | 2.605031 .212106 2.220785 3.055759

---------------------------------------------------------------------------------------------------------------------------------

Note: Estimates are transformed only in the first equation.

Note: \_cons estimates baseline incidence rate.

LR test of alpha=0: chibar2(01) = 3217.49 Prob >= chibar2 = 0.000

. quietly margins, at(Youth\_Individual\_Risk\_Cent=(-8/10) EAAdultAx\_Family\_Relationships\_R=(0/1)) plot

.

. \*Model 2.

. \*sig interaction.

. nbreg Convictions\_Age39FU ib2.Gender\_RC i.Ethnicity\_RC EAAdultAx\_Family\_Relationships\_R EAAdultAx\_Living\_Arrangements\_RC EAAdultAx\_

> Companion\_Significant0 EAAdultAx\_Academic\_Vocational\_S0 EAAdultAx\_Employment\_Pattern\_RC Youth\_Individual\_Risk\_Cent c.EAAdultAx\_Livi

> ng\_Arrangements\_RC#c.Youth\_Individual\_Risk\_Cent, irr exposure(Exposure\_39)

Fitting Poisson model:

Iteration 0: log likelihood = -2733.8412

Iteration 1: log likelihood = -2733.766

Iteration 2: log likelihood = -2733.7659

Fitting constant-only model:

Iteration 0: log likelihood = -1294.1022

Iteration 1: log likelihood = -1165.8622

Iteration 2: log likelihood = -1160.3519

Iteration 3: log likelihood = -1160.2574

Iteration 4: log likelihood = -1160.2574

Fitting full model:

Iteration 0: log likelihood = -1145.8305

Iteration 1: log likelihood = -1140.6908

Iteration 2: log likelihood = -1139.9782

Iteration 3: log likelihood = -1139.9774

Iteration 4: log likelihood = -1139.9774

Negative binomial regression Number of obs = 392

LR chi2(10) = 40.56

Dispersion = mean Prob > chi2 = 0.0000

Log likelihood = -1139.9774 Pseudo R2 = 0.0175

---------------------------------------------------------------------------------------------------------------------------------

Convictions\_Age39FU | IRR Std. Err. z P>|z| [95% Conf. Interval]

----------------------------------------------------------------+----------------------------------------------------------------

Gender\_RC |

Male | 2.547716 .6399918 3.72 0.000 1.557139 4.168451

|

Ethnicity\_RC |

Indigenous | 1.503783 .2865253 2.14 0.032 1.035143 2.184591

Other | .9383775 .2744456 -0.22 0.828 .5289664 1.664666

|

EAAdultAx\_Family\_Relationships\_R | .7284134 .1673702 -1.38 0.168 .4642953 1.142777

EAAdultAx\_Living\_Arrangements\_RC | .9011275 .1785341 -0.53 0.599 .6111442 1.328706

EAAdultAx\_Companion\_Significant0 | .7805881 .2201944 -0.88 0.380 .449064 1.356862

EAAdultAx\_Academic\_Vocational\_S0 | 1.229892 .2864379 0.89 0.374 .7791567 1.941373

EAAdultAx\_Employment\_Pattern\_RC | .5984182 .1366443 -2.25 0.025 .382507 .9362035

Youth\_Individual\_Risk\_Cent | .9683913 .0196938 -1.58 0.114 .9305512 1.00777

|

c.EAAdultAx\_Living\_Arrangements\_RC#c.Youth\_Individual\_Risk\_Cent | 1.095867 .0366725 2.74 0.006 1.026297 1.170153

|

\_cons | 18.09835 5.050655 10.38 0.000 10.47361 31.27385

ln(Exposure\_39) | 1 (exposure)

----------------------------------------------------------------+----------------------------------------------------------------

/lnalpha | .9423635 .0816308 .7823701 1.102357

----------------------------------------------------------------+----------------------------------------------------------------

alpha | 2.566039 .2094679 2.186649 3.011255

---------------------------------------------------------------------------------------------------------------------------------

Note: Estimates are transformed only in the first equation.

Note: \_cons estimates baseline incidence rate.

LR test of alpha=0: chibar2(01) = 3187.58 Prob >= chibar2 = 0.000

. quietly margins, at(Youth\_Individual\_Risk\_Cent=(-8/10) EAAdultAx\_Living\_Arrangements\_RC=(0/1)) plot

.

. \*Model 3.

. nbreg Convictions\_Age39FU ib2.Gender\_RC i.Ethnicity\_RC EAAdultAx\_Family\_Relationships\_R EAAdultAx\_Living\_Arrangements\_RC EAAdultAx\_

> Companion\_Significant0 EAAdultAx\_Academic\_Vocational\_S0 EAAdultAx\_Employment\_Pattern\_RC Youth\_Individual\_Risk\_Cent c.EAAdultAx\_Comp

> anion\_Significant0#c.Youth\_Individual\_Risk\_Cent, irr exposure(Exposure\_39)

Fitting Poisson model:

Iteration 0: log likelihood = -2769.7966

Iteration 1: log likelihood = -2769.7197

Iteration 2: log likelihood = -2769.7197

Fitting constant-only model:

Iteration 0: log likelihood = -1294.1022

Iteration 1: log likelihood = -1165.8622

Iteration 2: log likelihood = -1160.3519

Iteration 3: log likelihood = -1160.2574

Iteration 4: log likelihood = -1160.2574

Fitting full model:

Iteration 0: log likelihood = -1148.4099

Iteration 1: log likelihood = -1143.9149

Iteration 2: log likelihood = -1143.5562

Iteration 3: log likelihood = -1143.555

Iteration 4: log likelihood = -1143.555

Negative binomial regression Number of obs = 392

LR chi2(10) = 33.40

Dispersion = mean Prob > chi2 = 0.0002

Log likelihood = -1143.555 Pseudo R2 = 0.0144

---------------------------------------------------------------------------------------------------------------------------------

Convictions\_Age39FU | IRR Std. Err. z P>|z| [95% Conf. Interval]

----------------------------------------------------------------+----------------------------------------------------------------

Gender\_RC |

Male | 2.825584 .7143117 4.11 0.000 1.721564 4.637599

|

Ethnicity\_RC |

Indigenous | 1.541963 .296976 2.25 0.025 1.057148 2.249117

Other | .9481132 .2825248 -0.18 0.858 .5287054 1.700226

|

EAAdultAx\_Family\_Relationships\_R | .6867145 .1575406 -1.64 0.101 .4380265 1.076594

EAAdultAx\_Living\_Arrangements\_RC | .9139175 .1835416 -0.45 0.654 .6165391 1.354732

EAAdultAx\_Companion\_Significant0 | .7767623 .2264689 -0.87 0.386 .4386479 1.375499

EAAdultAx\_Academic\_Vocational\_S0 | 1.243593 .2943788 0.92 0.357 .7819607 1.977751

EAAdultAx\_Employment\_Pattern\_RC | .6545682 .1491056 -1.86 0.063 .4188493 1.022944

Youth\_Individual\_Risk\_Cent | .9997067 .0172343 -0.02 0.986 .9664923 1.034062

|

c.EAAdultAx\_Companion\_Significant0#c.Youth\_Individual\_Risk\_Cent | 1.035729 .0578273 0.63 0.530 .9283707 1.155502

|

\_cons | 16.08412 4.459941 10.02 0.000 9.340474 27.69655

ln(Exposure\_39) | 1 (exposure)

----------------------------------------------------------------+----------------------------------------------------------------

/lnalpha | .9630686 .0813042 .8037153 1.122422

----------------------------------------------------------------+----------------------------------------------------------------

alpha | 2.619723 .2129944 2.233825 3.072286

---------------------------------------------------------------------------------------------------------------------------------

Note: Estimates are transformed only in the first equation.

Note: \_cons estimates baseline incidence rate.

LR test of alpha=0: chibar2(01) = 3252.33 Prob >= chibar2 = 0.000

. quietly margins, at(Youth\_Individual\_Risk\_Cent=(-8/10) EAAdultAx\_Companion\_Significant0=(0/1)) plot

.

. \*Model 4.

. nbreg Convictions\_Age39FU ib2.Gender\_RC i.Ethnicity\_RC EAAdultAx\_Family\_Relationships\_R EAAdultAx\_Living\_Arrangements\_RC EAAdultAx\_

> Companion\_Significant0 EAAdultAx\_Academic\_Vocational\_S0 EAAdultAx\_Employment\_Pattern\_RC Youth\_Individual\_Risk\_Cent c.EAAdultAx\_Acad

> emic\_Vocational\_S0#c.Youth\_Individual\_Risk\_Cent, irr exposure(Exposure\_39)

Fitting Poisson model:

Iteration 0: log likelihood = -2772.3043

Iteration 1: log likelihood = -2772.2291

Iteration 2: log likelihood = -2772.2291

Fitting constant-only model:

Iteration 0: log likelihood = -1294.1022

Iteration 1: log likelihood = -1165.8622

Iteration 2: log likelihood = -1160.3519

Iteration 3: log likelihood = -1160.2574

Iteration 4: log likelihood = -1160.2574

Fitting full model:

Iteration 0: log likelihood = -1148.9022

Iteration 1: log likelihood = -1143.8343

Iteration 2: log likelihood = -1143.4168

Iteration 3: log likelihood = -1143.4155

Iteration 4: log likelihood = -1143.4155

Negative binomial regression Number of obs = 392

LR chi2(10) = 33.68

Dispersion = mean Prob > chi2 = 0.0002

Log likelihood = -1143.4155 Pseudo R2 = 0.0145

---------------------------------------------------------------------------------------------------------------------------------

Convictions\_Age39FU | IRR Std. Err. z P>|z| [95% Conf. Interval]

----------------------------------------------------------------+----------------------------------------------------------------

Gender\_RC |

Male | 2.836237 .717619 4.12 0.000 1.727321 4.65706

|

Ethnicity\_RC |

Indigenous | 1.564035 .3026867 2.31 0.021 1.070321 2.285488

Other | .8910023 .2720945 -0.38 0.705 .4897097 1.621134

|

EAAdultAx\_Family\_Relationships\_R | .6874084 .15581 -1.65 0.098 .4408379 1.071891

EAAdultAx\_Living\_Arrangements\_RC | .9109882 .1820799 -0.47 0.641 .6157189 1.347855

EAAdultAx\_Companion\_Significant0 | .7528016 .2103359 -1.02 0.309 .4353628 1.301697

EAAdultAx\_Academic\_Vocational\_S0 | 1.231067 .2899117 0.88 0.377 .7759381 1.953154

EAAdultAx\_Employment\_Pattern\_RC | .6810482 .158459 -1.65 0.099 .4316478 1.074549

Youth\_Individual\_Risk\_Cent | 1.011684 .0198853 0.59 0.555 .973451 1.051419

|

c.EAAdultAx\_Academic\_Vocational\_S0#c.Youth\_Individual\_Risk\_Cent | .9706959 .0349298 -0.83 0.409 .9045931 1.041629

|

\_cons | 15.7851 4.414061 9.87 0.000 9.124765 27.30692

ln(Exposure\_39) | 1 (exposure)

----------------------------------------------------------------+----------------------------------------------------------------

/lnalpha | .9628275 .0812694 .8035423 1.122113

----------------------------------------------------------------+----------------------------------------------------------------

alpha | 2.619091 .2128521 2.233438 3.071336

---------------------------------------------------------------------------------------------------------------------------------

Note: Estimates are transformed only in the first equation.

Note: \_cons estimates baseline incidence rate.

LR test of alpha=0: chibar2(01) = 3257.63 Prob >= chibar2 = 0.000

. quietly margins, at(Youth\_Individual\_Risk\_Cent=(-8/10) EAAdultAx\_Academic\_Vocational\_S0=(0/1)) plot

.

. \*Model 5.

. nbreg Convictions\_Age39FU ib2.Gender\_RC i.Ethnicity\_RC EAAdultAx\_Family\_Relationships\_R EAAdultAx\_Living\_Arrangements\_RC EAAdultAx\_

> Companion\_Significant0 EAAdultAx\_Academic\_Vocational\_S0 EAAdultAx\_Employment\_Pattern\_RC Youth\_Individual\_Risk\_Cent c.EAAdultAx\_Empl

> oyment\_Pattern\_RC#c.Youth\_Individual\_Risk\_Cent, irr exposure(Exposure\_39)

Fitting Poisson model:

Iteration 0: log likelihood = -2766.0098

Iteration 1: log likelihood = -2765.9317

Iteration 2: log likelihood = -2765.9317

Fitting constant-only model:

Iteration 0: log likelihood = -1294.1022

Iteration 1: log likelihood = -1165.8622

Iteration 2: log likelihood = -1160.3519

Iteration 3: log likelihood = -1160.2574

Iteration 4: log likelihood = -1160.2574

Fitting full model:

Iteration 0: log likelihood = -1149.3288

Iteration 1: log likelihood = -1144.1785

Iteration 2: log likelihood = -1143.7158

Iteration 3: log likelihood = -1143.7147

Iteration 4: log likelihood = -1143.7147

Negative binomial regression Number of obs = 392

LR chi2(10) = 33.09

Dispersion = mean Prob > chi2 = 0.0003

Log likelihood = -1143.7147 Pseudo R2 = 0.0143

--------------------------------------------------------------------------------------------------------------------------------

Convictions\_Age39FU | IRR Std. Err. z P>|z| [95% Conf. Interval]

---------------------------------------------------------------+----------------------------------------------------------------

Gender\_RC |

Male | 2.787924 .7024271 4.07 0.000 1.701445 4.56819

|

Ethnicity\_RC |

Indigenous | 1.528138 .2954461 2.19 0.028 1.04615 2.232193

Other | .9560836 .2874509 -0.15 0.881 .5303691 1.723509

|

EAAdultAx\_Family\_Relationships\_R | .6836545 .1560817 -1.67 0.096 .4370218 1.069474

EAAdultAx\_Living\_Arrangements\_RC | .9008699 .181035 -0.52 0.603 .6075867 1.335722

EAAdultAx\_Companion\_Significant0 | .746558 .2095153 -1.04 0.298 .430706 1.294035

EAAdultAx\_Academic\_Vocational\_S0 | 1.250902 .2952001 0.95 0.343 .7876779 1.986544

EAAdultAx\_Employment\_Pattern\_RC | .6579557 .1496779 -1.84 0.066 .4212669 1.027628

Youth\_Individual\_Risk\_Cent | .9995597 .0201893 -0.02 0.983 .9607624 1.039924

|

c.EAAdultAx\_Employment\_Pattern\_RC#c.Youth\_Individual\_Risk\_Cent | 1.009835 .0340193 0.29 0.771 .9453121 1.078762

|

\_cons | 16.32199 4.535492 10.05 0.000 9.467697 28.13855

ln(Exposure\_39) | 1 (exposure)

---------------------------------------------------------------+----------------------------------------------------------------

/lnalpha | .963677 .0813241 .8042848 1.123069

---------------------------------------------------------------+----------------------------------------------------------------

alpha | 2.621317 .2131761 2.235097 3.074275

--------------------------------------------------------------------------------------------------------------------------------

Note: Estimates are transformed only in the first equation.

Note: \_cons estimates baseline incidence rate.

LR test of alpha=0: chibar2(01) = 3244.43 Prob >= chibar2 = 0.000

. quietly margins, at(Youth\_Individual\_Risk\_Cent=(-8/10) EAAdultAx\_Employment\_Pattern\_RC=(0/1)) plot

.

. \*Model 6.

. nbreg Convictions\_Age39FU ISC\_EAAdult\_Cent Youth\_Individual\_Risk\_Cent c.ISC\_EAAdult\_Cent#c.Youth\_Individual\_Risk\_Cent ib2.Gender\_RC

> i.Ethnicity\_RC, irr exposure(Exposure\_39)

Fitting Poisson model:

Iteration 0: log likelihood = -2781.9503

Iteration 1: log likelihood = -2781.7996

Iteration 2: log likelihood = -2781.7996

Fitting constant-only model:

Iteration 0: log likelihood = -1310.3717

Iteration 1: log likelihood = -1180.2803

Iteration 2: log likelihood = -1174.6932

Iteration 3: log likelihood = -1174.5959

Iteration 4: log likelihood = -1174.5959

Fitting full model:

Iteration 0: log likelihood = -1160.8718

Iteration 1: log likelihood = -1156.0254

Iteration 2: log likelihood = -1155.5237

Iteration 3: log likelihood = -1155.5225

Iteration 4: log likelihood = -1155.5225

Negative binomial regression Number of obs = 398

LR chi2(6) = 38.15

Dispersion = mean Prob > chi2 = 0.0000

Log likelihood = -1155.5225 Pseudo R2 = 0.0162

-----------------------------------------------------------------------------------------------------------------

Convictions\_Age39FU | IRR Std. Err. z P>|z| [95% Conf. Interval]

------------------------------------------------+----------------------------------------------------------------

ISC\_EAAdult\_Cent | .8741286 .0322438 -3.65 0.000 .8131623 .9396658

Youth\_Individual\_Risk\_Cent | 1.007531 .0170303 0.44 0.657 .9746993 1.041469

|

c.ISC\_EAAdult\_Cent#c.Youth\_Individual\_Risk\_Cent | 1.01445 .0068599 2.12 0.034 1.001094 1.027985

|

Gender\_RC |

Male | 2.569098 .6344503 3.82 0.000 1.583334 4.168585

|

Ethnicity\_RC |

Indigenous | 1.407717 .2634523 1.83 0.068 .9754702 2.031499

Other | .9136233 .2533239 -0.33 0.745 .5305804 1.573197

|

\_cons | 13.98668 3.453291 10.68 0.000 8.62093 22.69212

ln(Exposure\_39) | 1 (exposure)

------------------------------------------------+----------------------------------------------------------------

/lnalpha | .9505204 .0809859 .791791 1.10925

------------------------------------------------+----------------------------------------------------------------

alpha | 2.587056 .2095149 2.207346 3.032083

-----------------------------------------------------------------------------------------------------------------

Note: Estimates are transformed only in the first equation.

Note: \_cons estimates baseline incidence rate.

LR test of alpha=0: chibar2(01) = 3252.55 Prob >= chibar2 = 0.000

. \*Code below creates top-right panel of Figure 8.3.

. \*Min/max for Adult ISC = -5.47/7.53.

. \*Min/max for YouthIndividual Risk = -7.77/15.23.

. quietly margins, at(ISC\_EAAdult\_Cent=(-6(2)6))

. marginsplot

Variables that uniquely identify margins: ISC\_EAAdult\_Cent

. quietly margins, at(Youth\_Individual\_Risk\_Cent=(-7.77(2)15.23))

. marginsplot

Variables that uniquely identify margins: Youth\_Individual\_Risk\_Cent

. quietly margins, at(ISC\_EAAdult\_Cent=(-6(2)6) Youth\_Individual\_Risk\_Cent=(-7.77(2)15.23)) saving(predictions, replace)

. use predictions, clear

(Created by command margins; also see char list)

. list \_at1 \_at2 \_margin in 1/5

+-------------------------+

| \_at1 \_at2 \_margin |

|-------------------------|

1. | -6 -7.77 40.83349 |

2. | -6 -5.77 34.89524 |

3. | -6 -3.77 29.82056 |

4. | -6 -1.77 25.48388 |

5. | -6 .23 21.77786 |

+-------------------------+

. rename \_at1 ISC

. rename \_at2 Individual\_Risk

. rename \_margin Pred\_Con

. list ISC Individual\_Risk Pred\_Con in 1/5, abbreviate(9)

+----------------------------+

| ISC Individ~k Pred\_Con |

|----------------------------|

1. | -6 -7.77 40.83349 |

2. | -6 -5.77 34.89524 |

3. | -6 -3.77 29.82056 |

4. | -6 -1.77 25.48388 |

5. | -6 .23 21.77786 |

+----------------------------+

. twoway (contour Pred\_Con ISC Individual\_Risk, ccuts(0(8)40)),

. xlabel(-6(2)8)

command xlabel is unrecognized

r(199);

end of do-file

r(199);

. use "C:\Users\ecm2\sfuvault2\Research\Papers\Accepted\Books\ISVYOS Book\Transparency\Chapter 8\Life Course - Analysis 2.dta", clear

. do "C:\Users\ecm2\AppData\Local\Temp\STD56f0\_000000.tmp"

. \*Table 8.6.

. \*Interactions between ISC in adulthood and Family-Level Risk.

. \*Note - for the continuous x continuous interactions, the two variables being interacted must be the first two that are listed in o

> rder to correctly produce the plots.

.

. \*Model 1.

. \*sig interaction.

. nbreg Convictions\_Age39FU ib2.Gender\_RC i.Ethnicity\_RC EAAdultAx\_Family\_Relationships\_R EAAdultAx\_Living\_Arrangements\_RC EAAdultAx\_

> Companion\_Significant0 EAAdultAx\_Academic\_Vocational\_S0 EAAdultAx\_Employment\_Pattern\_RC Youth\_Family\_Risk\_Cent c.EAAdultAx\_Family\_R

> elationships\_R#c.Youth\_Family\_Risk\_Cent, irr exposure(Exposure\_39)

Fitting Poisson model:

Iteration 0: log likelihood = -2395.1308

Iteration 1: log likelihood = -2394.9874

Iteration 2: log likelihood = -2394.9873

Fitting constant-only model:

Iteration 0: log likelihood = -1132.5429

Iteration 1: log likelihood = -1019.1125

Iteration 2: log likelihood = -1013.9869

Iteration 3: log likelihood = -1013.8974

Iteration 4: log likelihood = -1013.8974

Fitting full model:

Iteration 0: log likelihood = -1001.3794

Iteration 1: log likelihood = -996.09448

Iteration 2: log likelihood = -994.14104

Iteration 3: log likelihood = -994.13816

Iteration 4: log likelihood = -994.13816

Negative binomial regression Number of obs = 341

LR chi2(10) = 39.52

Dispersion = mean Prob > chi2 = 0.0000

Log likelihood = -994.13816 Pseudo R2 = 0.0195

-----------------------------------------------------------------------------------------------------------------------------

Convictions\_Age39FU | IRR Std. Err. z P>|z| [95% Conf. Interval]

------------------------------------------------------------+----------------------------------------------------------------

Gender\_RC |

Male | 2.794202 .7442402 3.86 0.000 1.657826 4.709521

|

Ethnicity\_RC |

Indigenous | 1.3094 .2721743 1.30 0.195 .8712443 1.967907

Other | .8731751 .272554 -0.43 0.664 .473594 1.609891

|

EAAdultAx\_Family\_Relationships\_R | .6289448 .1496471 -1.95 0.051 .3945328 1.002633

EAAdultAx\_Living\_Arrangements\_RC | 1.008084 .2177893 0.04 0.970 .6600861 1.539546

EAAdultAx\_Companion\_Significant0 | .9837977 .3025406 -0.05 0.958 .5384453 1.797504

EAAdultAx\_Academic\_Vocational\_S0 | 1.285428 .3257545 0.99 0.322 .782232 2.112323

EAAdultAx\_Employment\_Pattern\_RC | .5781892 .1419017 -2.23 0.026 .3574081 .9353531

Youth\_Family\_Risk\_Cent | .9149916 .0439853 -1.85 0.065 .8327187 1.005393

|

c.EAAdultAx\_Family\_Relationships\_R#c.Youth\_Family\_Risk\_Cent | 1.339847 .1324539 2.96 0.003 1.103843 1.626308

|

\_cons | 17.89704 5.270947 9.79 0.000 10.04823 31.87666

ln(Exposure\_39) | 1 (exposure)

------------------------------------------------------------+----------------------------------------------------------------

/lnalpha | .9231293 .0873487 .7519291 1.09433

------------------------------------------------------------+----------------------------------------------------------------

alpha | 2.517155 .2198702 2.121088 2.987179

-----------------------------------------------------------------------------------------------------------------------------

Note: Estimates are transformed only in the first equation.

Note: \_cons estimates baseline incidence rate.

LR test of alpha=0: chibar2(01) = 2801.70 Prob >= chibar2 = 0.000

.

. \*Model 2.

. \*sig interaction.

. nbreg Convictions\_Age39FU ib2.Gender\_RC i.Ethnicity\_RC EAAdultAx\_Family\_Relationships\_R EAAdultAx\_Living\_Arrangements\_RC EAAdultAx\_

> Companion\_Significant0 EAAdultAx\_Academic\_Vocational\_S0 EAAdultAx\_Employment\_Pattern\_RC Youth\_Family\_Risk\_Cent c.EAAdultAx\_Living\_A

> rrangements\_RC#c.Youth\_Family\_Risk\_Cent, irr exposure(Exposure\_39)

Fitting Poisson model:

Iteration 0: log likelihood = -2345.8284

Iteration 1: log likelihood = -2345.6991

Iteration 2: log likelihood = -2345.6991

Fitting constant-only model:

Iteration 0: log likelihood = -1132.5429

Iteration 1: log likelihood = -1019.1125

Iteration 2: log likelihood = -1013.9869

Iteration 3: log likelihood = -1013.8974

Iteration 4: log likelihood = -1013.8974

Fitting full model:

Iteration 0: log likelihood = -1000.0046

Iteration 1: log likelihood = -994.45558

Iteration 2: log likelihood = -992.36972

Iteration 3: log likelihood = -992.36619

Iteration 4: log likelihood = -992.36619

Negative binomial regression Number of obs = 341

LR chi2(10) = 43.06

Dispersion = mean Prob > chi2 = 0.0000

Log likelihood = -992.36619 Pseudo R2 = 0.0212

-----------------------------------------------------------------------------------------------------------------------------

Convictions\_Age39FU | IRR Std. Err. z P>|z| [95% Conf. Interval]

------------------------------------------------------------+----------------------------------------------------------------

Gender\_RC |

Male | 2.75102 .7240205 3.85 0.000 1.642375 4.608028

|

Ethnicity\_RC |

Indigenous | 1.358403 .2784239 1.49 0.135 .9089977 2.029992

Other | .7935379 .2466144 -0.74 0.457 .4315516 1.459159

|

EAAdultAx\_Family\_Relationships\_R | .7025552 .1698538 -1.46 0.144 .4374104 1.128423

EAAdultAx\_Living\_Arrangements\_RC | .9200075 .1961014 -0.39 0.696 .6058375 1.397097

EAAdultAx\_Companion\_Significant0 | .8723293 .2669314 -0.45 0.655 .4788661 1.589084

EAAdultAx\_Academic\_Vocational\_S0 | 1.203547 .3043395 0.73 0.464 .7331967 1.975629

EAAdultAx\_Employment\_Pattern\_RC | .6064678 .1464344 -2.07 0.038 .3778168 .9734961

Youth\_Family\_Risk\_Cent | .8524052 .0477815 -2.85 0.004 .7637163 .9513934

|

c.EAAdultAx\_Living\_Arrangements\_RC#c.Youth\_Family\_Risk\_Cent | 1.352511 .1124747 3.63 0.000 1.149092 1.59194

|

\_cons | 17.91799 5.201226 9.94 0.000 10.14385 31.65014

ln(Exposure\_39) | 1 (exposure)

------------------------------------------------------------+----------------------------------------------------------------

/lnalpha | .9084652 .0878226 .7363361 1.080594

------------------------------------------------------------+----------------------------------------------------------------

alpha | 2.480512 .2178449 2.08827 2.94643

-----------------------------------------------------------------------------------------------------------------------------

Note: Estimates are transformed only in the first equation.

Note: \_cons estimates baseline incidence rate.

LR test of alpha=0: chibar2(01) = 2706.67 Prob >= chibar2 = 0.000

. quietly margins, at(Youth\_Family\_Risk\_Cent=(-2/5) EAAdultAx\_Living\_Arrangements\_RC=(0/1)) plot

.

. \*Model 3.

. nbreg Convictions\_Age39FU ib2.Gender\_RC i.Ethnicity\_RC EAAdultAx\_Family\_Relationships\_R EAAdultAx\_Living\_Arrangements\_RC EAAdultAx\_

> Companion\_Significant0 EAAdultAx\_Academic\_Vocational\_S0 EAAdultAx\_Employment\_Pattern\_RC Youth\_Family\_Risk\_Cent c.EAAdultAx\_Companio

> n\_Significant0#c.Youth\_Family\_Risk\_Cent, irr exposure(Exposure\_39)

Fitting Poisson model:

Iteration 0: log likelihood = -2417.3436

Iteration 1: log likelihood = -2417.2124

Iteration 2: log likelihood = -2417.2124

Fitting constant-only model:

Iteration 0: log likelihood = -1132.5429

Iteration 1: log likelihood = -1019.1125

Iteration 2: log likelihood = -1013.9869

Iteration 3: log likelihood = -1013.8974

Iteration 4: log likelihood = -1013.8974

Fitting full model:

Iteration 0: log likelihood = -1005.7704

Iteration 1: log likelihood = -1000.0722

Iteration 2: log likelihood = -998.89274

Iteration 3: log likelihood = -998.89207

Iteration 4: log likelihood = -998.89207

Negative binomial regression Number of obs = 341

LR chi2(10) = 30.01

Dispersion = mean Prob > chi2 = 0.0009

Log likelihood = -998.89207 Pseudo R2 = 0.0148

-----------------------------------------------------------------------------------------------------------------------------

Convictions\_Age39FU | IRR Std. Err. z P>|z| [95% Conf. Interval]

------------------------------------------------------------+----------------------------------------------------------------

Gender\_RC |

Male | 2.913196 .7791008 4.00 0.000 1.724748 4.920552

|

Ethnicity\_RC |

Indigenous | 1.52872 .3137607 2.07 0.039 1.022407 2.285767

Other | .8972117 .2870079 -0.34 0.735 .4792975 1.679518

|

EAAdultAx\_Family\_Relationships\_R | .6708429 .1657396 -1.62 0.106 .4133534 1.08873

EAAdultAx\_Living\_Arrangements\_RC | .9572033 .2142974 -0.20 0.845 .6172176 1.484465

EAAdultAx\_Companion\_Significant0 | .8640229 .2720793 -0.46 0.643 .4661045 1.601648

EAAdultAx\_Academic\_Vocational\_S0 | 1.3597 .3578073 1.17 0.243 .8117977 2.277394

EAAdultAx\_Employment\_Pattern\_RC | .6055561 .1525911 -1.99 0.047 .3695424 .9923034

Youth\_Family\_Risk\_Cent | .9901597 .0431817 -0.23 0.821 .9090414 1.078517

|

c.EAAdultAx\_Companion\_Significant0#c.Youth\_Family\_Risk\_Cent | 1.039401 .1640572 0.24 0.807 .7628355 1.416235

|

\_cons | 16.14551 4.679563 9.60 0.000 9.148342 28.49452

ln(Exposure\_39) | 1 (exposure)

------------------------------------------------------------+----------------------------------------------------------------

/lnalpha | .9548883 .0868022 .7847591 1.125017

------------------------------------------------------------+----------------------------------------------------------------

alpha | 2.59838 .225545 2.191879 3.08027

-----------------------------------------------------------------------------------------------------------------------------

Note: Estimates are transformed only in the first equation.

Note: \_cons estimates baseline incidence rate.

LR test of alpha=0: chibar2(01) = 2836.64 Prob >= chibar2 = 0.000

. quietly margins, at(Youth\_Family\_Risk\_Cent=(-2/5) EAAdultAx\_Companion\_Significant0=(0/1)) plot

.

. \*Model 4.

. nbreg Convictions\_Age39FU ib2.Gender\_RC i.Ethnicity\_RC EAAdultAx\_Family\_Relationships\_R EAAdultAx\_Living\_Arrangements\_RC EAAdultAx\_

> Companion\_Significant0 EAAdultAx\_Academic\_Vocational\_S0 EAAdultAx\_Employment\_Pattern\_RC Youth\_Family\_Risk\_Cent c.EAAdultAx\_Academic

> \_Vocational\_S0#c.Youth\_Family\_Risk\_Cent, irr exposure(Exposure\_39)

Fitting Poisson model:

Iteration 0: log likelihood = -2424.6873

Iteration 1: log likelihood = -2424.5762

Iteration 2: log likelihood = -2424.5762

Fitting constant-only model:

Iteration 0: log likelihood = -1132.5429

Iteration 1: log likelihood = -1019.1125

Iteration 2: log likelihood = -1013.9869

Iteration 3: log likelihood = -1013.8974

Iteration 4: log likelihood = -1013.8974

Fitting full model:

Iteration 0: log likelihood = -1004.6519

Iteration 1: log likelihood = -999.70875

Iteration 2: log likelihood = -998.74748

Iteration 3: log likelihood = -998.74685

Iteration 4: log likelihood = -998.74685

Negative binomial regression Number of obs = 341

LR chi2(10) = 30.30

Dispersion = mean Prob > chi2 = 0.0008

Log likelihood = -998.74685 Pseudo R2 = 0.0149

-----------------------------------------------------------------------------------------------------------------------------

Convictions\_Age39FU | IRR Std. Err. z P>|z| [95% Conf. Interval]

------------------------------------------------------------+----------------------------------------------------------------

Gender\_RC |

Male | 2.923503 .7825309 4.01 0.000 1.730068 4.940191

|

Ethnicity\_RC |

Indigenous | 1.518265 .311587 2.03 0.042 1.015452 2.270053

Other | .9325058 .3044937 -0.21 0.831 .4917069 1.768466

|

EAAdultAx\_Family\_Relationships\_R | .6556434 .1604702 -1.72 0.085 .4058206 1.059257

EAAdultAx\_Living\_Arrangements\_RC | .9468316 .2117332 -0.24 0.807 .610836 1.467645

EAAdultAx\_Companion\_Significant0 | .8455788 .2579321 -0.55 0.582 .4650577 1.537451

EAAdultAx\_Academic\_Vocational\_S0 | 1.382246 .3614725 1.24 0.216 .8279168 2.307724

EAAdultAx\_Employment\_Pattern\_RC | .5988988 .1511923 -2.03 0.042 .3651465 .98229

Youth\_Family\_Risk\_Cent | .9712159 .0541241 -0.52 0.600 .8707226 1.083307

|

c.EAAdultAx\_Academic\_Vocational\_S0#c.Youth\_Family\_Risk\_Cent | 1.049997 .0863358 0.59 0.553 .8937129 1.23361

|

\_cons | 16.15804 4.693917 9.58 0.000 9.143541 28.55374

ln(Exposure\_39) | 1 (exposure)

------------------------------------------------------------+----------------------------------------------------------------

/lnalpha | .9539948 .0868122 .783846 1.124144

------------------------------------------------------------+----------------------------------------------------------------

alpha | 2.59606 .2253696 2.189878 3.07758

-----------------------------------------------------------------------------------------------------------------------------

Note: Estimates are transformed only in the first equation.

Note: \_cons estimates baseline incidence rate.

LR test of alpha=0: chibar2(01) = 2851.66 Prob >= chibar2 = 0.000

. quietly margins, at(Youth\_Family\_Risk\_Cent=(-2/5) EAAdultAx\_Academic\_Vocational\_S0=(0/1)) plot

.

. \*Model 5.

. nbreg Convictions\_Age39FU ib2.Gender\_RC i.Ethnicity\_RC EAAdultAx\_Family\_Relationships\_R EAAdultAx\_Living\_Arrangements\_RC EAAdultAx\_

> Companion\_Significant0 EAAdultAx\_Academic\_Vocational\_S0 EAAdultAx\_Employment\_Pattern\_RC Youth\_Family\_Risk\_Cent c.EAAdultAx\_Employme

> nt\_Pattern\_RC#c.Youth\_Family\_Risk\_Cent, irr exposure(Exposure\_39)

Fitting Poisson model:

Iteration 0: log likelihood = -2423.5202

Iteration 1: log likelihood = -2423.3987

Iteration 2: log likelihood = -2423.3987

Fitting constant-only model:

Iteration 0: log likelihood = -1132.5429

Iteration 1: log likelihood = -1019.1125

Iteration 2: log likelihood = -1013.9869

Iteration 3: log likelihood = -1013.8974

Iteration 4: log likelihood = -1013.8974

Fitting full model:

Iteration 0: log likelihood = -1004.8787

Iteration 1: log likelihood = -999.48891

Iteration 2: log likelihood = -998.53453

Iteration 3: log likelihood = -998.53411

Iteration 4: log likelihood = -998.53411

Negative binomial regression Number of obs = 341

LR chi2(10) = 30.73

Dispersion = mean Prob > chi2 = 0.0007

Log likelihood = -998.53411 Pseudo R2 = 0.0152

----------------------------------------------------------------------------------------------------------------------------

Convictions\_Age39FU | IRR Std. Err. z P>|z| [95% Conf. Interval]

-----------------------------------------------------------+----------------------------------------------------------------

Gender\_RC |

Male | 2.918239 .7803396 4.01 0.000 1.727861 4.928706

|

Ethnicity\_RC |

Indigenous | 1.533403 .314139 2.09 0.037 1.026303 2.291062

Other | .9539479 .3126792 -0.14 0.886 .5017912 1.813536

|

EAAdultAx\_Family\_Relationships\_R | .6545273 .1598532 -1.74 0.083 .4055473 1.056365

EAAdultAx\_Living\_Arrangements\_RC | .9548384 .2120835 -0.21 0.835 .6178253 1.475687

EAAdultAx\_Companion\_Significant0 | .850634 .2596913 -0.53 0.596 .4676039 1.547417

EAAdultAx\_Academic\_Vocational\_S0 | 1.363775 .3567452 1.19 0.236 .816733 2.277224

EAAdultAx\_Employment\_Pattern\_RC | .5996893 .1510305 -2.03 0.042 .3660605 .9824257

Youth\_Family\_Risk\_Cent | .9629502 .0518403 -0.70 0.483 .8665218 1.070109

|

c.EAAdultAx\_Employment\_Pattern\_RC#c.Youth\_Family\_Risk\_Cent | 1.074284 .0873192 0.88 0.378 .9160773 1.259812

|

\_cons | 16.0521 4.663635 9.55 0.000 9.083038 28.36824

ln(Exposure\_39) | 1 (exposure)

-----------------------------------------------------------+----------------------------------------------------------------

/lnalpha | .9523075 .086864 .7820571 1.122558

-----------------------------------------------------------+----------------------------------------------------------------

alpha | 2.591683 .2251241 2.185964 3.072704

----------------------------------------------------------------------------------------------------------------------------

Note: Estimates are transformed only in the first equation.

Note: \_cons estimates baseline incidence rate.

LR test of alpha=0: chibar2(01) = 2849.73 Prob >= chibar2 = 0.000

. quietly margins, at(Youth\_Family\_Risk\_Cent=(-2/5) EAAdultAx\_Employment\_Pattern\_RC=(0/1)) plot

.

. \*Model 6.

. nbreg Convictions\_Age39FU ISC\_EAAdult\_Cent Youth\_Family\_Risk\_Cent c.ISC\_EAAdult\_Cent#c.Youth\_Family\_Risk\_Cent ib2.Gender\_RC i.Ethni

> city\_RC, irr exposure(Exposure\_39)

Fitting Poisson model:

Iteration 0: log likelihood = -2441.2098

Iteration 1: log likelihood = -2441.0272

Iteration 2: log likelihood = -2441.0272

Fitting constant-only model:

Iteration 0: log likelihood = -1146.6212

Iteration 1: log likelihood = -1030.5309

Iteration 2: log likelihood = -1025.2814

Iteration 3: log likelihood = -1025.1872

Iteration 4: log likelihood = -1025.1872

Fitting full model:

Iteration 0: log likelihood = -1013.1655

Iteration 1: log likelihood = -1007.9876

Iteration 2: log likelihood = -1006.1842

Iteration 3: log likelihood = -1006.18

Iteration 4: log likelihood = -1006.18

Negative binomial regression Number of obs = 346

LR chi2(6) = 38.01

Dispersion = mean Prob > chi2 = 0.0000

Log likelihood = -1006.18 Pseudo R2 = 0.0185

-------------------------------------------------------------------------------------------------------------

Convictions\_Age39FU | IRR Std. Err. z P>|z| [95% Conf. Interval]

--------------------------------------------+----------------------------------------------------------------

ISC\_EAAdult\_Cent | .8771751 .0339375 -3.39 0.001 .8131183 .9462783

Youth\_Family\_Risk\_Cent | .9992563 .040782 -0.02 0.985 .9224383 1.082472

|

c.ISC\_EAAdult\_Cent#c.Youth\_Family\_Risk\_Cent | 1.0499 .0169251 3.02 0.003 1.017246 1.083603

|

Gender\_RC |

Male | 2.92124 .7532915 4.16 0.000 1.762261 4.842438

|

Ethnicity\_RC |

Indigenous | 1.321634 .2689673 1.37 0.171 .8869151 1.969428

Other | .8432053 .2464587 -0.58 0.560 .4754856 1.495303

|

\_cons | 13.2231 3.351974 10.19 0.000 8.045608 21.7324

ln(Exposure\_39) | 1 (exposure)

--------------------------------------------+----------------------------------------------------------------

/lnalpha | .9352706 .0866287 .7654815 1.10506

--------------------------------------------+----------------------------------------------------------------

alpha | 2.547903 .2207216 2.150029 3.019405

-------------------------------------------------------------------------------------------------------------

Note: Estimates are transformed only in the first equation.

Note: \_cons estimates baseline incidence rate.

LR test of alpha=0: chibar2(01) = 2869.69 Prob >= chibar2 = 0.000

. \*Code below creates bottom-left panel of Figure 8.3.

. \*Min/max for Adult ISC = -5.47/7.53.

. \*Min/max for Family Risk = -2.71/8.18.

. quietly margins, at(ISC\_EAAdult\_Cent=(-6(2)6))

. marginsplot

Variables that uniquely identify margins: ISC\_EAAdult\_Cent

. quietly margins, at(Youth\_Family\_Risk\_Cent=(-2.71(1)8.18))

. marginsplot

Variables that uniquely identify margins: Youth\_Family\_Risk\_Cent

. quietly margins, at(ISC\_EAAdult\_Cent=(-6(2)6) Youth\_Family\_Risk\_Cent=(-2.71(1)8.18)) saving(predictions, replace)

. use predictions, clear

(Created by command margins; also see char list)

. list \_at1 \_at2 \_margin in 1/5

+-------------------------+

| \_at1 \_at2 \_margin |

|-------------------------|

1. | -6 -2.71 47.00011 |

2. | -6 -1.71 35.06608 |

3. | -6 -.71 26.16228 |

4. | -6 .29 19.51929 |

5. | -6 1.29 14.56305 |

+-------------------------+

. rename \_at1 ISC

. rename \_at2 Family\_Risk

. rename \_margin Pred\_Con

. list ISC Family\_Risk Pred\_Con in 1/5, abbreviate(9)

+----------------------------+

| ISC Family\_~k Pred\_Con |

|----------------------------|

1. | -6 -2.71 47.00011 |

2. | -6 -1.71 35.06608 |

3. | -6 -.71 26.16228 |

4. | -6 .29 19.51929 |

5. | -6 1.29 14.56305 |

+----------------------------+

. twoway (contour Pred\_Con ISC Family\_Risk, ccuts(0(10)40)),

. xlabel(-6(2)8)

command xlabel is unrecognized

r(199);

end of do-file

r(199);

. use "C:\Users\ecm2\sfuvault2\Research\Papers\Accepted\Books\ISVYOS Book\Transparency\Chapter 8\Life Course - Analysis 2.dta", clear

. do "C:\Users\ecm2\AppData\Local\Temp\STD56f0\_000000.tmp"

. \*Table 8.7.

. \*Interactions between ISC in adulthood and ISC in adolescence.

. \*Note - for the continuous x continuous interactions, the two variables being interacted must be the first two that are listed in o

> rder to correctly produce the plots.

.

. \*Model 1.

. \*sig interaction.

. nbreg Convictions\_Age39FU ib2.Gender\_RC i.Ethnicity\_RC EAAdultAx\_Family\_Relationships\_R EAAdultAx\_Living\_Arrangements\_RC EAAdultAx\_

> Companion\_Significant0 EAAdultAx\_Academic\_Vocational\_S0 EAAdultAx\_Employment\_Pattern\_RC ISC\_FirstYouth\_RC\_Cent c.EAAdultAx\_Family\_R

> elationships\_R#c.ISC\_FirstYouth\_RC\_Cent, irr exposure(Exposure\_39)

variable ISC\_FirstYouth\_RC\_Cent not found

r(111);

end of do-file

r(111);

. do "C:\Users\ecm2\AppData\Local\Temp\STD56f0\_000000.tmp"

.

. \*Model 1.

. \*sig interaction.

. nbreg Convictions\_Age39FU ib2.Gender\_RC i.Ethnicity\_RC EAAdultAx\_Family\_Relationships\_R EAAdultAx\_Living\_Arrangements\_RC EAAdultAx\_

> Companion\_Significant0 EAAdultAx\_Academic\_Vocational\_S0 EAAdultAx\_Employment\_Pattern\_RC ISC\_FirstYouth\_Cent c.EAAdultAx\_Family\_Rela

> tionships\_R#c.ISC\_FirstYouth\_Cent, irr exposure(Exposure\_39)

Fitting Poisson model:

Iteration 0: log likelihood = -3353.1811

Iteration 1: log likelihood = -3352.8407

Iteration 2: log likelihood = -3352.8405

Fitting constant-only model:

Iteration 0: log likelihood = -1571.8977

Iteration 1: log likelihood = -1417.0921

Iteration 2: log likelihood = -1410.1986

Iteration 3: log likelihood = -1410.0999

Iteration 4: log likelihood = -1410.0999

Fitting full model:

Iteration 0: log likelihood = -1394.5465

Iteration 1: log likelihood = -1386.9757

Iteration 2: log likelihood = -1385.11

Iteration 3: log likelihood = -1385.1088

Iteration 4: log likelihood = -1385.1088

Negative binomial regression Number of obs = 467

LR chi2(10) = 49.98

Dispersion = mean Prob > chi2 = 0.0000

Log likelihood = -1385.1088 Pseudo R2 = 0.0177

--------------------------------------------------------------------------------------------------------------------------

Convictions\_Age39FU | IRR Std. Err. z P>|z| [95% Conf. Interval]

---------------------------------------------------------+----------------------------------------------------------------

Gender\_RC |

Male | 2.491275 .5813877 3.91 0.000 1.576802 3.9361

|

Ethnicity\_RC |

Indigenous | 1.274446 .223592 1.38 0.167 .9036173 1.797457

Other | .9989488 .2565381 -0.00 0.997 .603876 1.652489

|

EAAdultAx\_Family\_Relationships\_R | .6662437 .1349354 -2.01 0.045 .4479586 .9908965

EAAdultAx\_Living\_Arrangements\_RC | .9021056 .1611405 -0.58 0.564 .6356378 1.28028

EAAdultAx\_Companion\_Significant0 | .5664059 .1418753 -2.27 0.023 .3466697 .9254217

EAAdultAx\_Academic\_Vocational\_S0 | 1.203812 .2493702 0.90 0.371 .8021058 1.806697

EAAdultAx\_Employment\_Pattern\_RC | .6294881 .128106 -2.27 0.023 .422436 .9380243

ISC\_FirstYouth\_Cent | .9961555 .0313565 -0.12 0.903 .9365554 1.059548

|

c.EAAdultAx\_Family\_Relationships\_R#c.ISC\_FirstYouth\_Cent | .8625036 .048206 -2.65 0.008 .7730128 .9623548

|

\_cons | 20.75098 5.225985 12.04 0.000 12.66688 33.99442

ln(Exposure\_39) | 1 (exposure)

---------------------------------------------------------+----------------------------------------------------------------

/lnalpha | .9251996 .0742571 .7796584 1.070741

---------------------------------------------------------+----------------------------------------------------------------

alpha | 2.522372 .187304 2.180727 2.91754

--------------------------------------------------------------------------------------------------------------------------

Note: Estimates are transformed only in the first equation.

Note: \_cons estimates baseline incidence rate.

LR test of alpha=0: chibar2(01) = 3935.46 Prob >= chibar2 = 0.000

. quietly margins, at(ISC\_FirstYouth\_Cent=(-4.5/5) EAAdultAx\_Family\_Relationships\_R=(0/1)) plot

.

end of do-file

. do "C:\Users\ecm2\AppData\Local\Temp\STD56f0\_000000.tmp"

. \*Model 2.

. nbreg Convictions\_Age39FU ib2.Gender\_RC i.Ethnicity\_RC EAAdultAx\_Family\_Relationships\_R EAAdultAx\_Living\_Arrangements\_RC EAAdultAx\_

> Companion\_Significant0 EAAdultAx\_Academic\_Vocational\_S0 EAAdultAx\_Employment\_Pattern\_RC ISC\_FirstYouth\_Cent c.EAAdultAx\_Living\_Arra

> ngements\_RC#c.ISC\_FirstYouth\_Cent, irr exposure(Exposure\_39)

Fitting Poisson model:

Iteration 0: log likelihood = -3414.8485

Iteration 1: log likelihood = -3414.773

Iteration 2: log likelihood = -3414.7729

Fitting constant-only model:

Iteration 0: log likelihood = -1571.8977

Iteration 1: log likelihood = -1417.0921

Iteration 2: log likelihood = -1410.1986

Iteration 3: log likelihood = -1410.0999

Iteration 4: log likelihood = -1410.0999

Fitting full model:

Iteration 0: log likelihood = -1394.0241

Iteration 1: log likelihood = -1388.5036

Iteration 2: log likelihood = -1387.6401

Iteration 3: log likelihood = -1387.6394

Iteration 4: log likelihood = -1387.6394

Negative binomial regression Number of obs = 467

LR chi2(10) = 44.92

Dispersion = mean Prob > chi2 = 0.0000

Log likelihood = -1387.6394 Pseudo R2 = 0.0159

--------------------------------------------------------------------------------------------------------------------------

Convictions\_Age39FU | IRR Std. Err. z P>|z| [95% Conf. Interval]

---------------------------------------------------------+----------------------------------------------------------------

Gender\_RC |

Male | 2.569704 .6072152 3.99 0.000 1.617134 4.083383

|

Ethnicity\_RC |

Indigenous | 1.374906 .2396859 1.83 0.068 .9769766 1.934916

Other | .9704793 .2500484 -0.12 0.907 .5856933 1.60806

|

EAAdultAx\_Family\_Relationships\_R | .6831937 .1390893 -1.87 0.061 .458406 1.01821

EAAdultAx\_Living\_Arrangements\_RC | .8528345 .1517302 -0.89 0.371 .6017625 1.208661

EAAdultAx\_Companion\_Significant0 | .610751 .1556935 -1.93 0.053 .3705739 1.006592

EAAdultAx\_Academic\_Vocational\_S0 | 1.223302 .2587389 0.95 0.341 .8081599 1.851698

EAAdultAx\_Employment\_Pattern\_RC | .6447482 .1353598 -2.09 0.037 .4272549 .9729561

ISC\_FirstYouth\_Cent | .9874619 .0366638 -0.34 0.734 .9181545 1.062001

|

c.EAAdultAx\_Living\_Arrangements\_RC#c.ISC\_FirstYouth\_Cent | .9299997 .0490361 -1.38 0.169 .83869 1.03125

|

\_cons | 19.64373 4.996188 11.71 0.000 11.93244 32.33841

ln(Exposure\_39) | 1 (exposure)

---------------------------------------------------------+----------------------------------------------------------------

/lnalpha | .9394764 .0738955 .794644 1.084309

---------------------------------------------------------+----------------------------------------------------------------

alpha | 2.558641 .189072 2.213653 2.957395

--------------------------------------------------------------------------------------------------------------------------

Note: Estimates are transformed only in the first equation.

Note: \_cons estimates baseline incidence rate.

LR test of alpha=0: chibar2(01) = 4054.27 Prob >= chibar2 = 0.000

. quietly margins, at(ISC\_FirstYouth\_Cent=(-4.5/5) EAAdultAx\_Living\_Arrangements\_RC=(0/1)) plot

.

. \*Model 3.

. \*sig interaction.

. nbreg Convictions\_Age39FU ib2.Gender\_RC i.Ethnicity\_RC EAAdultAx\_Family\_Relationships\_R EAAdultAx\_Living\_Arrangements\_RC EAAdultAx\_

> Companion\_Significant0 EAAdultAx\_Academic\_Vocational\_S0 EAAdultAx\_Employment\_Pattern\_RC ISC\_FirstYouth\_Cent c.EAAdultAx\_Companion\_S

> ignificant0#c.ISC\_FirstYouth\_Cent, irr exposure(Exposure\_39)

Fitting Poisson model:

Iteration 0: log likelihood = -3322.7917

Iteration 1: log likelihood = -3321.3872

Iteration 2: log likelihood = -3321.3851

Iteration 3: log likelihood = -3321.3851

Fitting constant-only model:

Iteration 0: log likelihood = -1571.8977

Iteration 1: log likelihood = -1417.0921

Iteration 2: log likelihood = -1410.1986

Iteration 3: log likelihood = -1410.0999

Iteration 4: log likelihood = -1410.0999

Fitting full model:

Iteration 0: log likelihood = -1386.4443

Iteration 1: log likelihood = -1379.8976

Iteration 2: log likelihood = -1378.4103

Iteration 3: log likelihood = -1378.4096

Iteration 4: log likelihood = -1378.4096

Negative binomial regression Number of obs = 467

LR chi2(10) = 63.38

Dispersion = mean Prob > chi2 = 0.0000

Log likelihood = -1378.4096 Pseudo R2 = 0.0225

--------------------------------------------------------------------------------------------------------------------------

Convictions\_Age39FU | IRR Std. Err. z P>|z| [95% Conf. Interval]

---------------------------------------------------------+----------------------------------------------------------------

Gender\_RC |

Male | 3.096379 .699137 5.01 0.000 1.989114 4.820015

|

Ethnicity\_RC |

Indigenous | 1.347564 .2312763 1.74 0.082 .9626349 1.886415

Other | .9425075 .2414762 -0.23 0.817 .5704292 1.557284

|

EAAdultAx\_Family\_Relationships\_R | .7066248 .1386633 -1.77 0.077 .4810108 1.038061

EAAdultAx\_Living\_Arrangements\_RC | .9758599 .1762798 -0.14 0.892 .6848982 1.390429

EAAdultAx\_Companion\_Significant0 | .4480918 .114273 -3.15 0.002 .2718269 .738655

EAAdultAx\_Academic\_Vocational\_S0 | 1.07528 .2148121 0.36 0.716 .7268999 1.590629

EAAdultAx\_Employment\_Pattern\_RC | .7002097 .1386418 -1.80 0.072 .4749959 1.032206

ISC\_FirstYouth\_Cent | .9934292 .0275166 -0.24 0.812 .9409355 1.048851

|

c.EAAdultAx\_Companion\_Significant0#c.ISC\_FirstYouth\_Cent | .6953424 .0562978 -4.49 0.000 .5933103 .814921

|

\_cons | 16.26811 3.857247 11.76 0.000 10.22146 25.89173

ln(Exposure\_39) | 1 (exposure)

---------------------------------------------------------+----------------------------------------------------------------

/lnalpha | .8958898 .0745164 .7498405 1.041939

---------------------------------------------------------+----------------------------------------------------------------

alpha | 2.449514 .1825289 2.116662 2.834709

--------------------------------------------------------------------------------------------------------------------------

Note: Estimates are transformed only in the first equation.

Note: \_cons estimates baseline incidence rate.

LR test of alpha=0: chibar2(01) = 3885.95 Prob >= chibar2 = 0.000

. quietly margins, at(ISC\_FirstYouth\_Cent=(-4.5/5) EAAdultAx\_Companion\_Significant0=(0/1)) plot

.

. \*Model 4.

. nbreg Convictions\_Age39FU ib2.Gender\_RC i.Ethnicity\_RC EAAdultAx\_Family\_Relationships\_R EAAdultAx\_Living\_Arrangements\_RC EAAdultAx\_

> Companion\_Significant0 EAAdultAx\_Academic\_Vocational\_S0 EAAdultAx\_Employment\_Pattern\_RC ISC\_FirstYouth\_Cent c.EAAdultAx\_Academic\_Vo

> cational\_S0#c.ISC\_FirstYouth\_Cent, irr exposure(Exposure\_39)

Fitting Poisson model:

Iteration 0: log likelihood = -3416.9391

Iteration 1: log likelihood = -3416.8504

Iteration 2: log likelihood = -3416.8504

Fitting constant-only model:

Iteration 0: log likelihood = -1571.8977

Iteration 1: log likelihood = -1417.0921

Iteration 2: log likelihood = -1410.1986

Iteration 3: log likelihood = -1410.0999

Iteration 4: log likelihood = -1410.0999

Fitting full model:

Iteration 0: log likelihood = -1396.7676

Iteration 1: log likelihood = -1389.6103

Iteration 2: log likelihood = -1388.2295

Iteration 3: log likelihood = -1388.2291

Iteration 4: log likelihood = -1388.2291

Negative binomial regression Number of obs = 467

LR chi2(10) = 43.74

Dispersion = mean Prob > chi2 = 0.0000

Log likelihood = -1388.2291 Pseudo R2 = 0.0155

--------------------------------------------------------------------------------------------------------------------------

Convictions\_Age39FU | IRR Std. Err. z P>|z| [95% Conf. Interval]

---------------------------------------------------------+----------------------------------------------------------------

Gender\_RC |

Male | 2.738679 .6376876 4.33 0.000 1.735175 4.322541

|

Ethnicity\_RC |

Indigenous | 1.404594 .2514898 1.90 0.058 .9888831 1.995064

Other | .9672441 .2488771 -0.13 0.897 .5841405 1.601603

|

EAAdultAx\_Family\_Relationships\_R | .6951601 .1412817 -1.79 0.074 .466756 1.035332

EAAdultAx\_Living\_Arrangements\_RC | .8488707 .149838 -0.93 0.353 .6006093 1.199751

EAAdultAx\_Companion\_Significant0 | .601711 .1545333 -1.98 0.048 .3637305 .9953967

EAAdultAx\_Academic\_Vocational\_S0 | 1.196098 .2532908 0.85 0.398 .7897919 1.811427

EAAdultAx\_Employment\_Pattern\_RC | .6943807 .1441723 -1.76 0.079 .4622374 1.04311

ISC\_FirstYouth\_Cent | .936666 .03072 -1.99 0.046 .8783503 .9988533

|

c.EAAdultAx\_Academic\_Vocational\_S0#c.ISC\_FirstYouth\_Cent | 1.046619 .0560539 0.85 0.395 .9423251 1.162456

|

\_cons | 17.91337 4.49263 11.51 0.000 10.95716 29.28577

ln(Exposure\_39) | 1 (exposure)

---------------------------------------------------------+----------------------------------------------------------------

/lnalpha | .9429838 .0737975 .7983434 1.087624

---------------------------------------------------------+----------------------------------------------------------------

alpha | 2.567631 .1894847 2.221857 2.967216

--------------------------------------------------------------------------------------------------------------------------

Note: Estimates are transformed only in the first equation.

Note: \_cons estimates baseline incidence rate.

LR test of alpha=0: chibar2(01) = 4057.24 Prob >= chibar2 = 0.000

. quietly margins, at(ISC\_FirstYouth\_Cent=(-4.5/5) EAAdultAx\_Academic\_Vocational\_S0=(0/1)) plot

.

. \*Model 5.

. nbreg Convictions\_Age39FU ib2.Gender\_RC i.Ethnicity\_RC EAAdultAx\_Family\_Relationships\_R EAAdultAx\_Living\_Arrangements\_RC EAAdultAx\_

> Companion\_Significant0 EAAdultAx\_Academic\_Vocational\_S0 EAAdultAx\_Employment\_Pattern\_RC ISC\_FirstYouth\_Cent c.EAAdultAx\_Employment\_

> Pattern\_RC#c.ISC\_FirstYouth\_Cent, irr exposure(Exposure\_39)

Fitting Poisson model:

Iteration 0: log likelihood = -3391.1778

Iteration 1: log likelihood = -3391.0908

Iteration 2: log likelihood = -3391.0908

Fitting constant-only model:

Iteration 0: log likelihood = -1571.8977

Iteration 1: log likelihood = -1417.0921

Iteration 2: log likelihood = -1410.1986

Iteration 3: log likelihood = -1410.0999

Iteration 4: log likelihood = -1410.0999

Fitting full model:

Iteration 0: log likelihood = -1395.5597

Iteration 1: log likelihood = -1389.4086

Iteration 2: log likelihood = -1388.1451

Iteration 3: log likelihood = -1388.1446

Iteration 4: log likelihood = -1388.1446

Negative binomial regression Number of obs = 467

LR chi2(10) = 43.91

Dispersion = mean Prob > chi2 = 0.0000

Log likelihood = -1388.1446 Pseudo R2 = 0.0156

-------------------------------------------------------------------------------------------------------------------------

Convictions\_Age39FU | IRR Std. Err. z P>|z| [95% Conf. Interval]

--------------------------------------------------------+----------------------------------------------------------------

Gender\_RC |

Male | 2.796948 .6555648 4.39 0.000 1.766749 4.42786

|

Ethnicity\_RC |

Indigenous | 1.326123 .2330183 1.61 0.108 .9397576 1.871336

Other | 1.022352 .2685938 0.08 0.933 .610902 1.710919

|

EAAdultAx\_Family\_Relationships\_R | .6740891 .1363468 -1.95 0.051 .4534675 1.002048

EAAdultAx\_Living\_Arrangements\_RC | .835271 .1487604 -1.01 0.312 .5891552 1.1842

EAAdultAx\_Companion\_Significant0 | .568277 .1437319 -2.23 0.025 .3461539 .932934

EAAdultAx\_Academic\_Vocational\_S0 | 1.196787 .2531587 0.85 0.396 .7906067 1.811645

EAAdultAx\_Employment\_Pattern\_RC | .6867139 .1419423 -1.82 0.069 .4579671 1.029716

ISC\_FirstYouth\_Cent | .9683493 .0303683 -1.03 0.305 .9106209 1.029737

|

c.EAAdultAx\_Employment\_Pattern\_RC#c.ISC\_FirstYouth\_Cent | .9471187 .0544689 -0.94 0.345 .8461584 1.060125

|

\_cons | 18.28637 4.52939 11.73 0.000 11.2536 29.71416

ln(Exposure\_39) | 1 (exposure)

--------------------------------------------------------+----------------------------------------------------------------

/lnalpha | .9403015 .0739942 .7952755 1.085328

--------------------------------------------------------+----------------------------------------------------------------

alpha | 2.560753 .189481 2.215051 2.960409

-------------------------------------------------------------------------------------------------------------------------

Note: Estimates are transformed only in the first equation.

Note: \_cons estimates baseline incidence rate.

LR test of alpha=0: chibar2(01) = 4005.89 Prob >= chibar2 = 0.000

. quietly margins, at(ISC\_FirstYouth\_Cent=(-4.5/5) EAAdultAx\_Employment\_Pattern\_RC=(0/1)) plot

.

end of do-file

. use "C:\Users\ecm2\sfuvault2\Research\Papers\Accepted\Books\ISVYOS Book\Transparency\Chapter 8\Life Course - Analysis 2.dta"

. do "C:\Users\ecm2\AppData\Local\Temp\STD56f0\_000000.tmp"

. \*Model 6.

. nbreg Convictions\_Age39FU ISC\_EAAdult\_Cent ISC\_FirstYouth\_Cent c.ISC\_EAAdult\_Cent#c.ISC\_FirstYouth\_Cent ib2.Gender\_RC i.Ethnicity\_R

> C, irr exposure(Exposure\_39)

Fitting Poisson model:

Iteration 0: log likelihood = -3386.6486

Iteration 1: log likelihood = -3386.5277

Iteration 2: log likelihood = -3386.5277

Fitting constant-only model:

Iteration 0: log likelihood = -1588.2568

Iteration 1: log likelihood = -1431.5397

Iteration 2: log likelihood = -1424.5764

Iteration 3: log likelihood = -1424.4747

Iteration 4: log likelihood = -1424.4747

Fitting full model:

Iteration 0: log likelihood = -1405.4188

Iteration 1: log likelihood = -1399.6034

Iteration 2: log likelihood = -1398.6694

Iteration 3: log likelihood = -1398.6685

Iteration 4: log likelihood = -1398.6685

Negative binomial regression Number of obs = 473

LR chi2(6) = 51.61

Dispersion = mean Prob > chi2 = 0.0000

Log likelihood = -1398.6685 Pseudo R2 = 0.0181

----------------------------------------------------------------------------------------------------------

Convictions\_Age39FU | IRR Std. Err. z P>|z| [95% Conf. Interval]

-----------------------------------------+----------------------------------------------------------------

ISC\_EAAdult\_Cent | .8548064 .0280588 -4.78 0.000 .8015438 .9116082

ISC\_FirstYouth\_Cent | .9672324 .0245702 -1.31 0.190 .9202548 1.016608

|

c.ISC\_EAAdult\_Cent#c.ISC\_FirstYouth\_Cent | .9738976 .0107111 -2.40 0.016 .9531289 .9951189

|

Gender\_RC |

Male | 2.748592 .6155819 4.51 0.000 1.772038 4.263317

|

Ethnicity\_RC |

Indigenous | 1.300818 .2206207 1.55 0.121 .932935 1.813767

Other | .930087 .2302928 -0.29 0.770 .5724836 1.511068

|

\_cons | 13.41549 2.927188 11.90 0.000 8.747395 20.57473

ln(Exposure\_39) | 1 (exposure)

-----------------------------------------+----------------------------------------------------------------

/lnalpha | .920851 .0740358 .7757435 1.065959

-----------------------------------------+----------------------------------------------------------------

alpha | 2.511427 .1859355 2.172206 2.903621

----------------------------------------------------------------------------------------------------------

Note: Estimates are transformed only in the first equation.

Note: \_cons estimates baseline incidence rate.

LR test of alpha=0: chibar2(01) = 3975.72 Prob >= chibar2 = 0.000

. \*Code below creates bottom-right panel of Figure 8.3.

. \*Min/max for Adult ISC = -5.47/7.53.

. \*Min/max for Youth ISC = -4.44/9.56.

. quietly margins, at(ISC\_EAAdult\_Cent=(-6(2)6))

. marginsplot

Variables that uniquely identify margins: ISC\_EAAdult\_Cent

. quietly margins, at(ISC\_FirstYouth\_Cent=(-4.44(1)9.56))

. marginsplot

Variables that uniquely identify margins: ISC\_FirstYouth\_Cent

. quietly margins, at(ISC\_EAAdult\_Cent=(-6(2)6) ISC\_FirstYouth\_Cent=(-4.44(1)9.56)) saving(predictions, replace)

. use predictions, clear

(Created by command margins; also see char list)

. list \_at1 \_at2 \_margin in 1/5

+-------------------------+

| \_at1 \_at2 \_margin |

|-------------------------|

1. | -6 -4.44 14.83231 |

2. | -6 -3.44 16.81356 |

3. | -6 -2.44 19.05947 |

4. | -6 -1.44 21.60538 |

5. | -6 -.44 24.49136 |

+-------------------------+

. rename \_at1 ISC\_Adult

. rename \_at2 ISC\_Youth

. rename \_margin Pred\_Con

. list ISC\_Adult ISC\_Youth Pred\_Con in 1/5, abbreviate(9)

+----------------------------------+

| ISC\_Adult ISC\_Youth Pred\_Con |

|----------------------------------|

1. | -6 -4.44 14.83231 |

2. | -6 -3.44 16.81356 |

3. | -6 -2.44 19.05947 |

4. | -6 -1.44 21.60538 |

5. | -6 -.44 24.49136 |

+----------------------------------+

. twoway (contour Pred\_Con ISC\_Adult ISC\_Youth, ccuts(0(8)40)),

. xlabel(-6(2)8)

command xlabel is unrecognized

r(199);

end of do-file

r(199);

.

\_\_\_ \_\_\_\_ \_\_\_\_ \_\_\_\_ \_\_\_\_ (R)

/\_\_ / \_\_\_\_/ / \_\_\_\_/

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Notes:

1. Unicode is supported; see help unicode\_advice.

2. Maximum number of variables is set to 5,000; see help set\_maxvar.

. doedit "C:\Users\ecm2\sfuvault2\Research\Papers\Accepted\Books\ISVYOS Book\Transparency\Chapter 8\Chapter 8 - Stata Code.do"

. use "C:\Users\ecm2\sfuvault2\Research\Papers\Accepted\Books\ISVYOS Book\Transparency\Chapter 8\Change Dataset EA-LF.dta"

. do "C:\Users\ecm2\AppData\Local\Temp\STD3d84\_000000.tmp"

.

. \*TABLE 8.8.

.

. \*Cross-lagged dynamic panel models; full ISC scale. Justified to Tx as exogenous b/c convictions did not predict ISC.

. \*REPLICATING THE BM2018 MODEL--THE FULL ISC SCALE WAS NOT LAGGED.

.

. \*Model 1.

. \*Baseline - no interactions - CLEARED.

. xtset Code\_ wave

panel variable: Code\_ (strongly balanced)

time variable: wave, 1 to 6

delta: 1 unit

. xtdpdml convictionsln isc, pre(exposure) inv(youth\_custody\_ln ycrna\_final\_indr ycrna\_final\_famr ycrna\_final\_isc) fiml gof

Highlights: Dynamic Panel Data Model using ML for outcome variable convictionsln

----------------------------------------------------------------------------------

| OIM

convictionsln | Coef. Std. Err. z P>|z| [95% Conf. Interval]

-----------------+----------------------------------------------------------------

convictionsln |

convictionsln |

L1. | -.004731 .029811 -0.16 0.874 -.0631595 .0536976

|

isc | -.1410482 .0489683 -2.88 0.004 -.2370244 -.045072

exposure | -3.678929 .4190727 -8.78 0.000 -4.500297 -2.857562

youth\_custody\_ln | -.0230936 .0498281 -0.46 0.643 -.1207549 .0745678

ycrna\_final\_indr | .0398033 .0176083 2.26 0.024 .0052918 .0743149

ycrna\_final\_famr | -.0398119 .0407093 -0.98 0.328 -.1196006 .0399769

ycrna\_final\_isc | -.0143641 .030562 -0.47 0.638 -.0742646 .0455364

----------------------------------------------------------------------------------

# of units = 324. # of periods = 6. First dependent variable is from period 2.

Constants are free to vary across time periods

LR test of model vs. saturated: chi2(56) = 61.03, Prob > chi2 = 0.3000

IC Measures: BIC = 20050.15 AIC = 19392.30

Wald test of all coeff = 0: chi2(7) = 135.57, Prob > chi2 = 0.0000

----------------------------------------------------------------------------

Fit statistic | Value Description

---------------------+------------------------------------------------------

Likelihood ratio |

chi2\_ms(56) | 61.031 model vs. saturated

p > chi2 | 0.300

chi2\_bs(85) | 429.330 baseline vs. saturated

p > chi2 | 0.000

---------------------+------------------------------------------------------

Population error |

RMSEA | 0.017 Root mean squared error of approximation

90% CI, lower bound | 0.000

upper bound | 0.039

pclose | 0.996 Probability RMSEA <= 0.05

---------------------+------------------------------------------------------

Information criteria |

AIC | 19392.299 Akaike's information criterion

BIC | 20050.149 Bayesian information criterion

---------------------+------------------------------------------------------

Baseline comparison |

CFI | 0.985 Comparative fit index

TLI | 0.978 Tucker-Lewis index

---------------------+------------------------------------------------------

Size of residuals |

CD | 0.252 Coefficient of determination

----------------------------------------------------------------------------

Note: SRMR is not reported because of missing values.

.

. \*Model 2.

. \*Custody interaction - CLEARED.

. xtset Code\_ wave

panel variable: Code\_ (strongly balanced)

time variable: wave, 1 to 6

delta: 1 unit

. xtdpdml convictionsln isc isc\_youthcustodylngmc, pre(exposure) inv(youth\_custody\_ln ycrna\_final\_indr ycrna\_final\_famr ycrna\_final\_i

> sc) fiml gof

Highlights: Dynamic Panel Data Model using ML for outcome variable convictionsln

---------------------------------------------------------------------------------------

| OIM

convictionsln | Coef. Std. Err. z P>|z| [95% Conf. Interval]

----------------------+----------------------------------------------------------------

convictionsln |

convictionsln |

L1. | -.0061338 .0297157 -0.21 0.836 -.0643754 .0521078

|

isc | -.1370532 .0485358 -2.82 0.005 -.2321816 -.0419248

isc\_youthcustodylngmc | .0090297 .0223113 0.40 0.686 -.0346997 .0527591

exposure | -3.618737 .4170233 -8.68 0.000 -4.436088 -2.801387

youth\_custody\_ln | -.1142857 .234595 -0.49 0.626 -.5740835 .345512

ycrna\_final\_indr | .0426158 .0172497 2.47 0.013 .008807 .0764245

ycrna\_final\_famr | -.0457122 .0404697 -1.13 0.259 -.1250314 .033607

ycrna\_final\_isc | -.0148055 .0304949 -0.49 0.627 -.0745745 .0449635

---------------------------------------------------------------------------------------

# of units = 324. # of periods = 6. First dependent variable is from period 2.

Constants are free to vary across time periods

LR test of model vs. saturated: chi2(75) = 79.74, Prob > chi2 = 0.3324

IC Measures: BIC = 26322.63 AIC = 25282.93

Wald test of all coeff = 0: chi2(8) = 133.15, Prob > chi2 = 0.0000

----------------------------------------------------------------------------

Fit statistic | Value Description

---------------------+------------------------------------------------------

Likelihood ratio |

chi2\_ms(75) | 79.741 model vs. saturated

p > chi2 | 0.332

chi2\_bs(110) | 456.417 baseline vs. saturated

p > chi2 | 0.000

---------------------+------------------------------------------------------

Population error |

RMSEA | 0.014 Root mean squared error of approximation

90% CI, lower bound | 0.000

upper bound | 0.035

pclose | 0.999 Probability RMSEA <= 0.05

---------------------+------------------------------------------------------

Information criteria |

AIC | 25282.928 Akaike's information criterion

BIC | 26322.632 Bayesian information criterion

---------------------+------------------------------------------------------

Baseline comparison |

CFI | 0.986 Comparative fit index

TLI | 0.980 Tucker-Lewis index

---------------------+------------------------------------------------------

Size of residuals |

CD | 0.255 Coefficient of determination

----------------------------------------------------------------------------

Note: SRMR is not reported because of missing values.

.

. \*Model 3.

. \*Individual-risk interaction - CLEARED.

. xtset Code\_ wave

panel variable: Code\_ (strongly balanced)

time variable: wave, 1 to 6

delta: 1 unit

. xtdpdml convictionsln isc isc\_youthindrgmc, pre(exposure) inv(youth\_custody\_ln ycrna\_final\_indr ycrna\_final\_famr ycrna\_final\_isc) f

> iml gof

Highlights: Dynamic Panel Data Model using ML for outcome variable convictionsln

----------------------------------------------------------------------------------

| OIM

convictionsln | Coef. Std. Err. z P>|z| [95% Conf. Interval]

-----------------+----------------------------------------------------------------

convictionsln |

convictionsln |

L1. | -.0055646 .0298889 -0.19 0.852 -.0641456 .0530165

|

isc | -.1352389 .0491214 -2.75 0.006 -.2315152 -.0389627

isc\_youthindrgmc | .0094957 .009906 0.96 0.338 -.0099198 .0289112

exposure | -3.708057 .4184364 -8.86 0.000 -4.528177 -2.887937

youth\_custody\_ln | -.0172581 .0503753 -0.34 0.732 -.1159918 .0814756

ycrna\_final\_indr | -.0507517 .0960432 -0.53 0.597 -.2389929 .1374895

ycrna\_final\_famr | -.0389285 .0406215 -0.96 0.338 -.1185451 .0406882

ycrna\_final\_isc | -.0124407 .0306439 -0.41 0.685 -.0725017 .0476203

----------------------------------------------------------------------------------

# of units = 324. # of periods = 6. First dependent variable is from period 2.

Constants are free to vary across time periods

LR test of model vs. saturated: chi2(75) = 74.54, Prob > chi2 = 0.4932

IC Measures: BIC = 27170.38 AIC = 26130.67

Wald test of all coeff = 0: chi2(8) = 137.11, Prob > chi2 = 0.0000

----------------------------------------------------------------------------

Fit statistic | Value Description

---------------------+------------------------------------------------------

Likelihood ratio |

chi2\_ms(75) | 74.542 model vs. saturated

p > chi2 | 0.493

chi2\_bs(110) | 448.353 baseline vs. saturated

p > chi2 | 0.000

---------------------+------------------------------------------------------

Population error |

RMSEA | 0.000 Root mean squared error of approximation

90% CI, lower bound | 0.000

upper bound | 0.031

pclose | 1.000 Probability RMSEA <= 0.05

---------------------+------------------------------------------------------

Information criteria |

AIC | 26130.673 Akaike's information criterion

BIC | 27170.378 Bayesian information criterion

---------------------+------------------------------------------------------

Baseline comparison |

CFI | 1.000 Comparative fit index

TLI | 1.002 Tucker-Lewis index

---------------------+------------------------------------------------------

Size of residuals |

CD | 0.260 Coefficient of determination

----------------------------------------------------------------------------

Note: SRMR is not reported because of missing values.

.

. \*Model 4.

. \*Family-risk interaction - CLEARED.

. xtset Code\_ wave

panel variable: Code\_ (strongly balanced)

time variable: wave, 1 to 6

delta: 1 unit

. xtdpdml convictionsln isc isc\_youthfamrgmc, pre(exposure) inv(youth\_custody\_ln ycrna\_final\_indr ycrna\_final\_famr ycrna\_final\_isc) f

> iml gof

Highlights: Dynamic Panel Data Model using ML for outcome variable convictionsln

----------------------------------------------------------------------------------

| OIM

convictionsln | Coef. Std. Err. z P>|z| [95% Conf. Interval]

-----------------+----------------------------------------------------------------

convictionsln |

convictionsln |

L1. | -.0040722 .0298336 -0.14 0.891 -.062545 .0544007

|

isc | -.1344688 .0506854 -2.65 0.008 -.2338104 -.0351271

isc\_youthfamrgmc | .0028817 .0264081 0.11 0.913 -.0488773 .0546407

exposure | -3.691962 .4186283 -8.82 0.000 -4.512458 -2.871466

youth\_custody\_ln | -.021855 .0498418 -0.44 0.661 -.1195431 .0758332

ycrna\_final\_indr | .0401759 .0176835 2.27 0.023 .0055169 .074835

ycrna\_final\_famr | -.0694279 .2585879 -0.27 0.788 -.576251 .4373951

ycrna\_final\_isc | -.0140038 .0305632 -0.46 0.647 -.0739066 .045899

----------------------------------------------------------------------------------

# of units = 324. # of periods = 6. First dependent variable is from period 2.

Constants are free to vary across time periods

LR test of model vs. saturated: chi2(75) = 77.96, Prob > chi2 = 0.3849

IC Measures: BIC = 25242.06 AIC = 24202.35

Wald test of all coeff = 0: chi2(8) = 134.85, Prob > chi2 = 0.0000

----------------------------------------------------------------------------

Fit statistic | Value Description

---------------------+------------------------------------------------------

Likelihood ratio |

chi2\_ms(75) | 77.957 model vs. saturated

p > chi2 | 0.385

chi2\_bs(110) | 452.793 baseline vs. saturated

p > chi2 | 0.000

---------------------+------------------------------------------------------

Population error |

RMSEA | 0.011 Root mean squared error of approximation

90% CI, lower bound | 0.000

upper bound | 0.034

pclose | 1.000 Probability RMSEA <= 0.05

---------------------+------------------------------------------------------

Information criteria |

AIC | 24202.353 Akaike's information criterion

BIC | 25242.058 Bayesian information criterion

---------------------+------------------------------------------------------

Baseline comparison |

CFI | 0.991 Comparative fit index

TLI | 0.987 Tucker-Lewis index

---------------------+------------------------------------------------------

Size of residuals |

CD | 0.250 Coefficient of determination

----------------------------------------------------------------------------

Note: SRMR is not reported because of missing values.

.

. \*Model 5.

. \*ISC interaction - CLEARED.

. xtset Code\_ wave

panel variable: Code\_ (strongly balanced)

time variable: wave, 1 to 6

delta: 1 unit

. xtdpdml convictionsln isc isc\_youthiscgmc, pre(exposure) inv(youth\_custody\_ln ycrna\_final\_indr ycrna\_final\_famr ycrna\_final\_isc) fi

> ml gof

Highlights: Dynamic Panel Data Model using ML for outcome variable convictionsln

----------------------------------------------------------------------------------

| OIM

convictionsln | Coef. Std. Err. z P>|z| [95% Conf. Interval]

-----------------+----------------------------------------------------------------

convictionsln |

convictionsln |

L1. | -.0034056 .0298458 -0.11 0.909 -.0619023 .0550911

|

isc | -.1297387 .0492622 -2.63 0.008 -.2262909 -.0331865

isc\_youthiscgmc | .0013468 .0191673 0.07 0.944 -.0362204 .0389139

exposure | -3.698773 .4243957 -8.72 0.000 -4.530573 -2.866972

youth\_custody\_ln | -.0205354 .0500372 -0.41 0.682 -.1186065 .0775358

ycrna\_final\_indr | .0417965 .0175648 2.38 0.017 .0073701 .076223

ycrna\_final\_famr | -.0515025 .0405967 -1.27 0.205 -.1310705 .0280656

ycrna\_final\_isc | -.0288568 .1887378 -0.15 0.878 -.3987761 .3410625

----------------------------------------------------------------------------------

# of units = 324. # of periods = 6. First dependent variable is from period 2.

Constants are free to vary across time periods

LR test of model vs. saturated: chi2(75) = 82.89, Prob > chi2 = 0.2492

IC Measures: BIC = 26629.53 AIC = 25589.82

Wald test of all coeff = 0: chi2(8) = 134.17, Prob > chi2 = 0.0000

----------------------------------------------------------------------------

Fit statistic | Value Description

---------------------+------------------------------------------------------

Likelihood ratio |

chi2\_ms(75) | 82.892 model vs. saturated

p > chi2 | 0.249

chi2\_bs(110) | 453.780 baseline vs. saturated

p > chi2 | 0.000

---------------------+------------------------------------------------------

Population error |

RMSEA | 0.018 Root mean squared error of approximation

90% CI, lower bound | 0.000

upper bound | 0.038

pclose | 0.999 Probability RMSEA <= 0.05

---------------------+------------------------------------------------------

Information criteria |

AIC | 25589.824 Akaike's information criterion

BIC | 26629.528 Bayesian information criterion

---------------------+------------------------------------------------------

Baseline comparison |

CFI | 0.977 Comparative fit index

TLI | 0.966 Tucker-Lewis index

---------------------+------------------------------------------------------

Size of residuals |

CD | 0.247 Coefficient of determination

----------------------------------------------------------------------------

Note: SRMR is not reported because of missing values.

.

.

. \*TABLE 8.9.

.

. \*Cross-lagged dynamic panel models; full ISC scale. Justified to Tx as exogenous b/c convictions did not predict ISC.

. \*THE FULL ISC SCALE WAS LAGGED. CONTRASTS WITH THE BM2018 MODEL.

.

. \*Baseline - no interactions - CLEARED.

. xtset Code\_ wave

panel variable: Code\_ (strongly balanced)

time variable: wave, 1 to 6

delta: 1 unit

. xtdpdml convictionsln l.isc, pre(exposure) inv(youth\_custody\_ln ycrna\_final\_indr ycrna\_final\_famr ycrna\_final\_isc) fiml gof

Highlights: Dynamic Panel Data Model using ML for outcome variable convictionsln

----------------------------------------------------------------------------------

| OIM

convictionsln | Coef. Std. Err. z P>|z| [95% Conf. Interval]

-----------------+----------------------------------------------------------------

convictionsln |

convictionsln |

L1. | .0117936 .0312801 0.38 0.706 -.0495144 .0731016

|

isc |

L1. | .0216041 .0447521 0.48 0.629 -.0661084 .1093167

|

exposure | -3.971295 .4207638 -9.44 0.000 -4.795977 -3.146613

youth\_custody\_ln | .0061493 .0517215 0.12 0.905 -.095223 .1075216

ycrna\_final\_indr | .0493115 .0177303 2.78 0.005 .0145607 .0840624

ycrna\_final\_famr | -.0554756 .0412166 -1.35 0.178 -.1362586 .0253075

ycrna\_final\_isc | -.0229961 .0314343 -0.73 0.464 -.0846062 .038614

----------------------------------------------------------------------------------

# of units = 324. # of periods = 6. First dependent variable is from period 2.

Constants are free to vary across time periods

LR test of model vs. saturated: chi2(56) = 70.68, Prob > chi2 = 0.0896

IC Measures: BIC = 19762.42 AIC = 19104.57

Wald test of all coeff = 0: chi2(7) = 117.73, Prob > chi2 = 0.0000

----------------------------------------------------------------------------

Fit statistic | Value Description

---------------------+------------------------------------------------------

Likelihood ratio |

chi2\_ms(56) | 70.681 model vs. saturated

p > chi2 | 0.090

chi2\_bs(85) | 425.409 baseline vs. saturated

p > chi2 | 0.000

---------------------+------------------------------------------------------

Population error |

RMSEA | 0.028 Root mean squared error of approximation

90% CI, lower bound | 0.000

upper bound | 0.047

pclose | 0.973 Probability RMSEA <= 0.05

---------------------+------------------------------------------------------

Information criteria |

AIC | 19104.574 Akaike's information criterion

BIC | 19762.423 Bayesian information criterion

---------------------+------------------------------------------------------

Baseline comparison |

CFI | 0.957 Comparative fit index

TLI | 0.935 Tucker-Lewis index

---------------------+------------------------------------------------------

Size of residuals |

CD | 0.205 Coefficient of determination

----------------------------------------------------------------------------

Note: SRMR is not reported because of missing values.

.

. \*Custody interaction - CLEARED.

. xtset Code\_ wave

panel variable: Code\_ (strongly balanced)

time variable: wave, 1 to 6

delta: 1 unit

. xtdpdml convictionsln l.isc l.isc\_youthcustodylngmc, pre(exposure) inv(youth\_custody\_ln ycrna\_final\_indr ycrna\_final\_famr ycrna\_fin

> al\_isc) fiml gof

Highlights: Dynamic Panel Data Model using ML for outcome variable convictionsln

---------------------------------------------------------------------------------------

| OIM

convictionsln | Coef. Std. Err. z P>|z| [95% Conf. Interval]

----------------------+----------------------------------------------------------------

convictionsln |

convictionsln |

L1. | .0087886 .0312935 0.28 0.779 -.0525454 .0701227

|

isc |

L1. | .0168859 .0445026 0.38 0.704 -.0703376 .1041094

|

isc\_youthcustodylngmc |

L1. | .0075695 .0216045 0.35 0.726 -.0347747 .0499136

|

exposure | -3.900383 .4192638 -9.30 0.000 -4.722125 -3.078641

youth\_custody\_ln | -.0680782 .2218295 -0.31 0.759 -.502856 .3666997

ycrna\_final\_indr | .0510224 .0174325 2.93 0.003 .0168554 .0851894

ycrna\_final\_famr | -.0573075 .0413457 -1.39 0.166 -.1383435 .0237286

ycrna\_final\_isc | -.0208452 .0313944 -0.66 0.507 -.0823771 .0406867

---------------------------------------------------------------------------------------

# of units = 324. # of periods = 6. First dependent variable is from period 2.

Constants are free to vary across time periods

LR test of model vs. saturated: chi2(75) = 95.43, Prob > chi2 = 0.0559

IC Measures: BIC = 25624.09 AIC = 24584.39

Wald test of all coeff = 0: chi2(8) = 115.29, Prob > chi2 = 0.0000

----------------------------------------------------------------------------

Fit statistic | Value Description

---------------------+------------------------------------------------------

Likelihood ratio |

chi2\_ms(75) | 95.434 model vs. saturated

p > chi2 | 0.056

chi2\_bs(110) | 462.823 baseline vs. saturated

p > chi2 | 0.000

---------------------+------------------------------------------------------

Population error |

RMSEA | 0.029 Root mean squared error of approximation

90% CI, lower bound | 0.000

upper bound | 0.045

pclose | 0.986 Probability RMSEA <= 0.05

---------------------+------------------------------------------------------

Information criteria |

AIC | 24584.387 Akaike's information criterion

BIC | 25624.091 Bayesian information criterion

---------------------+------------------------------------------------------

Baseline comparison |

CFI | 0.942 Comparative fit index

TLI | 0.915 Tucker-Lewis index

---------------------+------------------------------------------------------

Size of residuals |

CD | 0.211 Coefficient of determination

----------------------------------------------------------------------------

Note: SRMR is not reported because of missing values.

.

. \*Individual-risk interaction - CLEARED.

. xtset Code\_ wave

panel variable: Code\_ (strongly balanced)

time variable: wave, 1 to 6

delta: 1 unit

. xtdpdml convictionsln l.isc l.isc\_youthindrgmc, pre(exposure) inv(youth\_custody\_ln ycrna\_final\_indr ycrna\_final\_famr ycrna\_final\_is

> c) fiml gof

Highlights: Dynamic Panel Data Model using ML for outcome variable convictionsln

----------------------------------------------------------------------------------

| OIM

convictionsln | Coef. Std. Err. z P>|z| [95% Conf. Interval]

-----------------+----------------------------------------------------------------

convictionsln |

convictionsln |

L1. | .0114764 .0314942 0.36 0.716 -.0502511 .073204

|

isc |

L1. | .0151069 .0439106 0.34 0.731 -.0709562 .1011701

|

isc\_youthindrgmc |

L1. | .0061496 .0092259 0.67 0.505 -.0119328 .024232

|

exposure | -3.961494 .420811 -9.41 0.000 -4.786269 -3.13672

youth\_custody\_ln | .0083501 .0516833 0.16 0.872 -.0929472 .1096474

ycrna\_final\_indr | -.0086835 .0886761 -0.10 0.922 -.1824854 .1651184

ycrna\_final\_famr | -.0546676 .0411113 -1.33 0.184 -.1352442 .025909

ycrna\_final\_isc | -.0221838 .0314346 -0.71 0.480 -.0837945 .0394269

----------------------------------------------------------------------------------

# of units = 324. # of periods = 6. First dependent variable is from period 2.

Constants are free to vary across time periods

LR test of model vs. saturated: chi2(75) = 86.90, Prob > chi2 = 0.1639

IC Measures: BIC = 26513.70 AIC = 25473.99

Wald test of all coeff = 0: chi2(8) = 117.49, Prob > chi2 = 0.0000

----------------------------------------------------------------------------

Fit statistic | Value Description

---------------------+------------------------------------------------------

Likelihood ratio |

chi2\_ms(75) | 86.904 model vs. saturated

p > chi2 | 0.164

chi2\_bs(110) | 446.772 baseline vs. saturated

p > chi2 | 0.000

---------------------+------------------------------------------------------

Population error |

RMSEA | 0.022 Root mean squared error of approximation

90% CI, lower bound | 0.000

upper bound | 0.040

pclose | 0.997 Probability RMSEA <= 0.05

---------------------+------------------------------------------------------

Information criteria |

AIC | 25473.994 Akaike's information criterion

BIC | 26513.699 Bayesian information criterion

---------------------+------------------------------------------------------

Baseline comparison |

CFI | 0.965 Comparative fit index

TLI | 0.948 Tucker-Lewis index

---------------------+------------------------------------------------------

Size of residuals |

CD | 0.213 Coefficient of determination

----------------------------------------------------------------------------

Note: SRMR is not reported because of missing values.

.

. \*Family-risk interaction - NOT CLEARED.

. xtset Code\_ wave

panel variable: Code\_ (strongly balanced)

time variable: wave, 1 to 6

delta: 1 unit

. xtdpdml convictionsln l.isc l.isc\_youthfamrgmc, pre(exposure) inv(youth\_custody\_ln ycrna\_final\_indr ycrna\_final\_famr ycrna\_final\_is

> c) fiml gof

convergence not achieved

convergence not achieved

--Break--

r(1);

end of do-file

--Break--

r(1);

. do "C:\Users\ecm2\AppData\Local\Temp\STD3d84\_000000.tmp"

. \*Won't converge - STD RESULTS IN CLEARED.

. xtdpdml convictionsln l.isc l.isc\_youthfamrgmc, pre(exposure) inv(youth\_custody\_ln ycrna\_final\_indr ycrna\_final\_famr ycrna\_final\_is

> c) fiml gof std

Highlights: Dynamic Panel Data Model using ML for outcome variable convictionsln

----------------------------------------------------------------------------------

| OIM

convictionsln | Coef. Std. Err. z P>|z| [95% Conf. Interval]

-----------------+----------------------------------------------------------------

convictionsln |

convictionsln |

L1. | .0161207 .0314399 0.51 0.608 -.0455004 .0777419

|

isc |

L1. | .0368852 .0437952 0.84 0.400 -.0489519 .1227222

|

isc\_youthfamrgmc |

L1. | .2509376 .1832145 1.37 0.171 -.1081562 .6100314

|

exposure | -.4432677 .0477853 -9.28 0.000 -.5369252 -.3496101

youth\_custody\_ln | .0045093 .031384 0.14 0.886 -.0570022 .0660207

ycrna\_final\_indr | .1004102 .0354129 2.84 0.005 .0310022 .1698182

ycrna\_final\_famr | -.2882439 .1785283 -1.61 0.106 -.6381531 .0616652

ycrna\_final\_isc | -.0282307 .0323088 -0.87 0.382 -.0915548 .0350935

----------------------------------------------------------------------------------

# of units = 324. # of periods = 6. First dependent variable is from period 2.

Constants are free to vary across time periods

LR test of model vs. saturated: chi2(75) = 91.79, Prob > chi2 = 0.0911

IC Measures: BIC = 15567.95 AIC = 14528.25

Wald test of all coeff = 0: chi2(8) = 116.87, Prob > chi2 = 0.0000

----------------------------------------------------------------------------

Fit statistic | Value Description

---------------------+------------------------------------------------------

Likelihood ratio |

chi2\_ms(75) | 91.791 model vs. saturated

p > chi2 | 0.091

chi2\_bs(110) | 452.403 baseline vs. saturated

p > chi2 | 0.000

---------------------+------------------------------------------------------

Population error |

RMSEA | 0.026 Root mean squared error of approximation

90% CI, lower bound | 0.000

upper bound | 0.043

pclose | 0.992 Probability RMSEA <= 0.05

---------------------+------------------------------------------------------

Information criteria |

AIC | 14528.250 Akaike's information criterion

BIC | 15567.955 Bayesian information criterion

---------------------+------------------------------------------------------

Baseline comparison |

CFI | 0.951 Comparative fit index

TLI | 0.928 Tucker-Lewis index

---------------------+------------------------------------------------------

Size of residuals |

CD | 0.214 Coefficient of determination

----------------------------------------------------------------------------

Note: SRMR is not reported because of missing values.

.

. \*ISC interaction - CLEARED.

. xtset Code\_ wave

panel variable: Code\_ (strongly balanced)

time variable: wave, 1 to 6

delta: 1 unit

. xtdpdml convictionsln l.isc l.isc\_youthiscgmc, pre(exposure) inv(youth\_custody\_ln ycrna\_final\_indr ycrna\_final\_famr ycrna\_final\_isc

> ) fiml gof

Highlights: Dynamic Panel Data Model using ML for outcome variable convictionsln

----------------------------------------------------------------------------------

| OIM

convictionsln | Coef. Std. Err. z P>|z| [95% Conf. Interval]

-----------------+----------------------------------------------------------------

convictionsln |

convictionsln |

L1. | .0082804 .031014 0.27 0.789 -.052506 .0690667

|

isc |

L1. | .0138864 .0452586 0.31 0.759 -.0748188 .1025915

|

isc\_youthiscgmc |

L1. | -.0074236 .0167172 -0.44 0.657 -.0401888 .0253416

|

exposure | -3.851625 .4282627 -8.99 0.000 -4.691004 -3.012246

youth\_custody\_ln | .0087216 .0517362 0.17 0.866 -.0926795 .1101226

ycrna\_final\_indr | .0510247 .0174772 2.92 0.004 .01677 .0852794

ycrna\_final\_famr | -.0682209 .0403686 -1.69 0.091 -.1473419 .0109001

ycrna\_final\_isc | .0482805 .1621729 0.30 0.766 -.2695725 .3661335

----------------------------------------------------------------------------------

# of units = 324. # of periods = 6. First dependent variable is from period 2.

Constants are free to vary across time periods

LR test of model vs. saturated: chi2(75) = 97.56, Prob > chi2 = 0.0411

IC Measures: BIC = 26014.80 AIC = 24975.09

Wald test of all coeff = 0: chi2(8) = 116.05, Prob > chi2 = 0.0000

----------------------------------------------------------------------------

Fit statistic | Value Description

---------------------+------------------------------------------------------

Likelihood ratio |

chi2\_ms(75) | 97.561 model vs. saturated

p > chi2 | 0.041

chi2\_bs(110) | 456.939 baseline vs. saturated

p > chi2 | 0.000

---------------------+------------------------------------------------------

Population error |

RMSEA | 0.031 Root mean squared error of approximation

90% CI, lower bound | 0.007

upper bound | 0.046

pclose | 0.981 Probability RMSEA <= 0.05

---------------------+------------------------------------------------------

Information criteria |

AIC | 24975.091 Akaike's information criterion

BIC | 26014.796 Bayesian information criterion

---------------------+------------------------------------------------------

Baseline comparison |

CFI | 0.935 Comparative fit index

TLI | 0.905 Tucker-Lewis index

---------------------+------------------------------------------------------

Size of residuals |

CD | 0.213 Coefficient of determination

----------------------------------------------------------------------------

Note: SRMR is not reported because of missing values.

.

end of do-file

.