. // Model C.SSV.3

.

. // poisson model

. glm dv `ss\_lag\_4\_vars' `covariates' ib(freq).state ib(freq).time, family(poisson) link(log) vce(cl mineid) exposure(hours) iter(50) eform

Iteration 0: log pseudolikelihood = -44898.614

Iteration 1: log pseudolikelihood = -41830.951

Iteration 2: log pseudolikelihood = -41817.716

Iteration 3: log pseudolikelihood = -41817.712

Iteration 4: log pseudolikelihood = -41817.712

Generalized linear models No. of obs = 22,446

Optimization : ML Residual df = 22,368

Scale parameter = 1

Deviance = 42551.59184 (1/df) Deviance = 1.902342

Pearson = 1109863.141 (1/df) Pearson = 49.61834

Variance function: V(u) = u [Poisson]

Link function : g(u) = ln(u) [Log]

AIC = 3.733023

Log pseudolikelihood = -41817.71156 BIC = -181550.4

(Std. Err. adjusted for 1,293 clusters in mineid)

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

| Robust

dv | IRR Std. Err. z P>|z| [95% Conf. Interval]

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

p48\_ss\_c\_4lag | 1.008375 .019855 0.42 0.672 .9702007 1.04805

p75\_ss\_c\_4lag | 1.000453 .0004631 0.98 0.328 .999546 1.001361

mine\_time | 1.00068 .0016653 0.41 0.683 .9974211 1.003949

onsite\_insp\_hours | .9994592 .0001272 -4.25 0.000 .99921 .9997085

|

state |

AL | .9533842 .082526 -0.55 0.581 .8046128 1.129663

AR | 1.828895 .1015841 10.87 0.000 1.640248 2.039238

CO | .6648701 .0698149 -3.89 0.000 .5411979 .8168033

IL | 1.29071 .1062809 3.10 0.002 1.098343 1.516768

IN | 1.09433 .13316 0.74 0.459 .8621293 1.389069

MD | 1.138718 .1409114 1.05 0.294 .8934781 1.451272

MT | .5108795 .0262739 -13.06 0.000 .4618939 .5650603

NM | .6818546 .0320592 -8.14 0.000 .621828 .7476757

OH | .8963946 .0591766 -1.66 0.098 .7876008 1.020216

OK | 1.518544 .2823066 2.25 0.025 1.054833 2.186105

PA | .9944113 .0999651 -0.06 0.956 .8165774 1.210974

TN | 1.493091 .1745589 3.43 0.001 1.18733 1.877592

UT | .4362673 .0688443 -5.26 0.000 .3202068 .5943945

VA | .8219506 .0682361 -2.36 0.018 .6985239 .9671865

WV | 1.025986 .0563959 0.47 0.641 .9211976 1.142693

WY | .6887614 .0326433 -7.87 0.000 .6276633 .7558068

|

time |

2000.75 | 1.424562 .1084019 4.65 0.000 1.227182 1.653687

2001 | 1.414116 .10984 4.46 0.000 1.21442 1.64665

2001.25 | 1.491795 .1186781 5.03 0.000 1.276418 1.743514

2001.5 | 1.839424 .1532744 7.31 0.000 1.562261 2.16576

2001.75 | 1.444909 .1195687 4.45 0.000 1.228576 1.699335

2002 | 1.505037 .1036174 5.94 0.000 1.315056 1.722463

2002.25 | 1.500156 .1111689 5.47 0.000 1.297354 1.734661

2002.5 | 1.610503 .132144 5.81 0.000 1.371259 1.891489

2002.75 | 1.45132 .1091415 4.95 0.000 1.252424 1.681802

2003 | 1.254082 .0861783 3.29 0.001 1.096056 1.434891

2003.25 | 1.377515 .11128 3.96 0.000 1.1758 1.613835

2003.5 | 1.495224 .1015418 5.92 0.000 1.308882 1.708095

2003.75 | 1.180376 .0883431 2.22 0.027 1.019328 1.36687

2004 | 1.188176 .0849746 2.41 0.016 1.032774 1.36696

2004.25 | 1.29712 .0838086 4.03 0.000 1.142833 1.472235

2004.5 | 1.431656 .0986464 5.21 0.000 1.2508 1.638663

2004.75 | 1.144351 .0878695 1.76 0.079 .9844629 1.330207

2005 | 1.097235 .075727 1.34 0.179 .9584138 1.256164

2005.25 | 1.229779 .0848476 3.00 0.003 1.074235 1.407846

2005.5 | 1.343254 .1044609 3.79 0.000 1.153354 1.564421

2005.75 | 1.128677 .0815335 1.68 0.094 .9796719 1.300346

2006 | 1.126718 .0735004 1.83 0.067 .9914895 1.280391

2006.25 | 1.082845 .0730197 1.18 0.238 .9487833 1.235849

2006.5 | 1.350329 .0803227 5.05 0.000 1.20173 1.517303

2006.75 | 1.027582 .0662909 0.42 0.673 .9055327 1.166081

2007 | 1.06089 .0675245 0.93 0.353 .9364663 1.201844

2007.25 | 1.09355 .0855759 1.14 0.253 .9380533 1.274822

2007.5 | 1.290719 .0771208 4.27 0.000 1.14808 1.451079

2007.75 | 1.170342 .0684045 2.69 0.007 1.043666 1.312394

2008 | 1.070415 .0624303 1.17 0.243 .9547888 1.200044

2008.25 | 1.054522 .0694364 0.81 0.420 .9268452 1.199787

2008.5 | 1.262479 .0697869 4.22 0.000 1.132848 1.406943

2009 | .9907412 .0502212 -0.18 0.854 .8970411 1.094229

2009.25 | .9231872 .0526166 -1.40 0.161 .825612 1.032294

2009.5 | 1.058386 .0529613 1.13 0.257 .9595118 1.167449

2009.75 | .9129687 .0533886 -1.56 0.119 .8141029 1.023841

2010 | .9203784 .0674207 -1.13 0.257 .7972842 1.062477

2010.25 | .9129428 .0656468 -1.27 0.205 .7929328 1.051116

2010.5 | 1.079601 .0635711 1.30 0.193 .9619247 1.211672

2010.75 | .8689092 .0500856 -2.44 0.015 .7760854 .9728352

2011 | .8839712 .0520582 -2.09 0.036 .7876074 .9921251

2011.25 | .8326469 .0489115 -3.12 0.002 .7420948 .9342484

2011.5 | .965909 .0525116 -0.64 0.523 .8682818 1.074513

2011.75 | .7472835 .0430557 -5.06 0.000 .6674862 .8366205

2012 | .8248212 .0509755 -3.12 0.002 .730725 .9310342

2012.25 | .7334976 .0419472 -5.42 0.000 .6557228 .8204972

2012.5 | .846415 .0557169 -2.53 0.011 .7439631 .9629758

2012.75 | .6768905 .0504257 -5.24 0.000 .5849345 .7833027

2013 | .7413223 .0534626 -4.15 0.000 .6436061 .8538743

2013.25 | .7328477 .0587528 -3.88 0.000 .6262857 .8575412

2013.5 | .8474273 .0695398 -2.02 0.044 .7215276 .9952953

2013.75 | .6396611 .0536305 -5.33 0.000 .5427295 .7539048

2014 | .7350687 .0582668 -3.88 0.000 .6292969 .8586186

2014.25 | .7703648 .0691061 -2.91 0.004 .6461582 .9184468

2014.5 | .8362081 .0622119 -2.40 0.016 .7227481 .9674794

2014.75 | .7715238 .0585817 -3.42 0.001 .6648409 .8953256

2015 | .7198103 .0586708 -4.03 0.000 .6135327 .8444975

2015.25 | .6612499 .0493896 -5.54 0.000 .5712002 .7654961

2015.5 | .8811242 .0731293 -1.52 0.127 .7488439 1.036771

2015.75 | .6652409 .0634162 -4.28 0.000 .5518684 .8019041

2016 | .7385836 .0698882 -3.20 0.001 .6135571 .8890871

|

\_cons | .0000594 4.25e-06 -135.92 0.000 .0000516 .0000683

ln(hours) | 1 (exposure)

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

.

. quietly poisson dv `ss\_lag\_4\_vars' `covariates' ib(freq).state ib(freq).time, vce(cl mineid) exposure(hours) iter(50) irr

. est store pois

. estat gof

Deviance goodness-of-fit = 42551.59

Prob > chi2(22367) = 0.0000

Pearson goodness-of-fit = 1109863

Prob > chi2(22367) = 0.0000

.

. pause "next"

.

. // negative binomial model

. glm dv `ss\_lag\_4\_vars' `covariates' ib(freq).state ib(freq).time, family(nbinomial) link(log) vce(cl mineid) exposure(hours) iter(50) eform

Iteration 0: log pseudolikelihood = -40195.358

Iteration 1: log pseudolikelihood = -39822.042

Iteration 2: log pseudolikelihood = -39819.492

Iteration 3: log pseudolikelihood = -39819.491

Generalized linear models No. of obs = 22,446

Optimization : ML Residual df = 22,368

Scale parameter = 1

Deviance = 17460.42605 (1/df) Deviance = .7805984

Pearson = 798542.2591 (1/df) Pearson = 35.70021

Variance function: V(u) = u+(1)u^2 [Neg. Binomial]

Link function : g(u) = ln(u) [Log]

AIC = 3.554976

Log pseudolikelihood = -39819.49056 BIC = -206641.6

(Std. Err. adjusted for 1,293 clusters in mineid)

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

| Robust

dv | IRR Std. Err. z P>|z| [95% Conf. Interval]

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

p48\_ss\_c\_4lag | 1.018956 .0257029 0.74 0.457 .9698044 1.070599

p75\_ss\_c\_4lag | 1.002106 .0005816 3.62 0.000 1.000966 1.003246

mine\_time | 1.000576 .0014484 0.40 0.691 .9977416 1.003419

onsite\_insp\_hours | .9992882 .0001292 -5.51 0.000 .9990351 .9995414

|

state |

AL | 1.011262 .108555 0.10 0.917 .8193898 1.248064

AR | 1.767521 .0863361 11.66 0.000 1.606153 1.945101

CO | .815103 .1054214 -1.58 0.114 .6325899 1.050274

IL | 1.327168 .0810629 4.63 0.000 1.177429 1.49595

IN | 1.100026 .0970042 1.08 0.280 .9254242 1.30757

MD | 1.345318 .2510481 1.59 0.112 .9332181 1.939396

MT | .6182597 .0273357 -10.88 0.000 .5669384 .6742267

NM | .760585 .0320822 -6.49 0.000 .7002341 .8261373

OH | .9439653 .0910101 -0.60 0.550 .781429 1.140309

OK | 1.64057 .2975204 2.73 0.006 1.149814 2.340786

PA | 1.372989 .113438 3.84 0.000 1.167722 1.614337

TN | 1.721995 .2160743 4.33 0.000 1.346554 2.202114

UT | .5363491 .1034795 -3.23 0.001 .3674705 .7828393

VA | .9168772 .0487642 -1.63 0.103 .8261138 1.017613

WV | 1.274363 .0644059 4.80 0.000 1.15418 1.40706

WY | .8001244 .0329549 -5.41 0.000 .7380724 .8673934

|

time |

2000.75 | 1.432443 .1156533 4.45 0.000 1.222792 1.678039

2001 | 1.517093 .1248068 5.07 0.000 1.291178 1.782535

2001.25 | 1.761491 .2039142 4.89 0.000 1.403924 2.210128

2001.5 | 1.970863 .1770891 7.55 0.000 1.65262 2.35039

2001.75 | 1.602947 .1424706 5.31 0.000 1.346679 1.907982

2002 | 1.813869 .2382791 4.53 0.000 1.402128 2.346519

2002.25 | 1.713381 .1609283 5.73 0.000 1.425297 2.059693

2002.5 | 1.808316 .1722059 6.22 0.000 1.500426 2.179387

2002.75 | 1.455939 .1154051 4.74 0.000 1.246444 1.700645

2003 | 1.413628 .1186559 4.12 0.000 1.199189 1.666413

2003.25 | 1.600526 .1587482 4.74 0.000 1.31776 1.943968

2003.5 | 1.704018 .1375035 6.61 0.000 1.454748 1.996001

2003.75 | 1.256119 .1056486 2.71 0.007 1.065218 1.481232

2004 | 1.316382 .1115823 3.24 0.001 1.114885 1.554295

2004.25 | 1.35999 .1084968 3.85 0.000 1.163132 1.590166

2004.5 | 1.493843 .1149111 5.22 0.000 1.284778 1.736929

2004.75 | 1.212645 .0990731 2.36 0.018 1.033214 1.423235

2005 | 1.215595 .095929 2.47 0.013 1.041396 1.418932

2005.25 | 1.288135 .0959065 3.40 0.001 1.113234 1.490516

2005.5 | 1.416571 .1060016 4.65 0.000 1.223329 1.640339

2005.75 | 1.14813 .0919049 1.73 0.084 .9814196 1.34316

2006 | 1.268165 .0991785 3.04 0.002 1.087944 1.478241

2006.25 | 1.218025 .0944824 2.54 0.011 1.046233 1.418026

2006.5 | 1.432084 .1032406 4.98 0.000 1.243381 1.649425

2006.75 | 1.117486 .0879356 1.41 0.158 .9577688 1.303838

2007 | 1.068525 .0764317 0.93 0.354 .928749 1.229338

2007.25 | 1.132245 .0847121 1.66 0.097 .9778117 1.311068

2007.5 | 1.433127 .1214417 4.25 0.000 1.213821 1.692056

2007.75 | 1.211933 .0875994 2.66 0.008 1.051848 1.396381

2008 | 1.095127 .0768068 1.30 0.195 .954477 1.256503

2008.25 | 1.092927 .0781309 1.24 0.214 .9500371 1.257308

2008.5 | 1.202083 .0770708 2.87 0.004 1.060132 1.36304

2009 | .9883569 .0645215 -0.18 0.858 .8696531 1.123263

2009.25 | .9779973 .0740632 -0.29 0.769 .8430952 1.134485

2009.5 | 1.110469 .0743753 1.56 0.118 .9738586 1.266242

2009.75 | .935115 .0669835 -0.94 0.349 .812629 1.076063

2010 | .9408695 .0731008 -0.78 0.433 .8079702 1.095629

2010.25 | .936458 .0904038 -0.68 0.496 .7750237 1.131518

2010.5 | 1.197375 .0879622 2.45 0.014 1.036809 1.382807

2010.75 | .9276712 .073017 -0.95 0.340 .7950528 1.082411

2011 | .9252742 .0671096 -1.07 0.284 .8026631 1.066615

2011.25 | .8833826 .0643392 -1.70 0.089 .7658671 1.01893

2011.5 | 1.004864 .0660112 0.07 0.941 .8834674 1.142942

2011.75 | .7864196 .0568407 -3.32 0.001 .6825451 .9061025

2012 | .8849939 .0690207 -1.57 0.117 .7595477 1.031159

2012.25 | .7830503 .056586 -3.38 0.001 .6796398 .9021952

2012.5 | .9305377 .0784958 -0.85 0.393 .788734 1.097836

2012.75 | .6992415 .0600657 -4.16 0.000 .5908918 .8274588

2013 | .8116348 .0696399 -2.43 0.015 .6860028 .9602746

2013.25 | .7610475 .0640504 -3.24 0.001 .6453182 .8975313

2013.5 | .9035456 .0775459 -1.18 0.237 .7636539 1.069064

2013.75 | .6509768 .059255 -4.72 0.000 .5446093 .7781189

2014 | .7613775 .0640569 -3.24 0.001 .6456334 .8978712

2014.25 | .792963 .0693492 -2.65 0.008 .6680522 .9412293

2014.5 | .8393385 .0728371 -2.02 0.044 .7080609 .9949556

2014.75 | .837621 .0743815 -2.00 0.046 .7038175 .9968621

2015 | .7291789 .0618644 -3.72 0.000 .6174718 .861095

2015.25 | .690576 .0597933 -4.28 0.000 .5827878 .8183

2015.5 | .9152183 .082075 -0.99 0.323 .7676984 1.091085

2015.75 | .7355455 .0733529 -3.08 0.002 .6049546 .894327

2016 | .7491022 .07614 -2.84 0.004 .6137952 .9142367

|

\_cons | .0000508 3.58e-06 -140.22 0.000 .0000442 .0000583

ln(hours) | 1 (exposure)

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

.

. pause "next"

.

. eststo clear

. eststo: nbreg dv `ss\_lag\_4\_vars' `covariates' ib(freq).state ib(freq).time, vce(cl mineid) exposure(hours) iter(50) irr

Fitting Poisson model:

Iteration 0: log pseudolikelihood = -42743.54

Iteration 1: log pseudolikelihood = -41822.137

Iteration 2: log pseudolikelihood = -41817.714

Iteration 3: log pseudolikelihood = -41817.712

Fitting constant-only model:

Iteration 0: log pseudolikelihood = -40773.93

Iteration 1: log pseudolikelihood = -40071.319

Iteration 2: log pseudolikelihood = -40040.125

Iteration 3: log pseudolikelihood = -40040.039

Iteration 4: log pseudolikelihood = -40040.039

Fitting full model:

Iteration 0: log pseudolikelihood = -38919.067

Iteration 1: log pseudolikelihood = -38712.249

Iteration 2: log pseudolikelihood = -38707.116

Iteration 3: log pseudolikelihood = -38707.113

Negative binomial regression Number of obs = 22,446

Wald chi2(77) = .

Dispersion = mean Prob > chi2 = .

Log pseudolikelihood = -38707.113 Pseudo R2 = 0.0333

(Std. Err. adjusted for 1,293 clusters in mineid)

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

| Robust

dv | IRR Std. Err. z P>|z| [95% Conf. Interval]

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

p48\_ss\_c\_4lag | 1.012757 .023369 0.55 0.583 .9679747 1.059611

p75\_ss\_c\_4lag | 1.001508 .0005157 2.93 0.003 1.000498 1.002519

mine\_time | 1.000426 .0014174 0.30 0.764 .9976514 1.003207

onsite\_insp\_hours | .9993548 .0001252 -5.15 0.000 .9991094 .9996003

|

state |

AL | 1.003497 .0974824 0.04 0.971 .8295225 1.213959

AR | 1.830892 .0867549 12.76 0.000 1.668513 2.009075

CO | .759938 .0926251 -2.25 0.024 .598452 .9649992

IL | 1.302623 .0795181 4.33 0.000 1.155733 1.468183

IN | 1.099356 .1040608 1.00 0.317 .9132022 1.323457

MD | 1.261567 .1929299 1.52 0.129 .9348393 1.702485

MT | .5795319 .0260806 -12.12 0.000 .5306045 .632971

NM | .7464651 .0308699 -7.07 0.000 .6883482 .8094887

OH | .9352816 .0774969 -0.81 0.419 .7950827 1.100202

OK | 1.604382 .2865679 2.65 0.008 1.130498 2.276909

PA | 1.286896 .1122219 2.89 0.004 1.084715 1.526762

TN | 1.64151 .1949924 4.17 0.000 1.30056 2.071841

UT | .4963081 .0884414 -3.93 0.000 .3500003 .7037759

VA | .8994315 .0509454 -1.87 0.061 .8049234 1.005036

WV | 1.200842 .0597385 3.68 0.000 1.089284 1.323826

WY | .7700495 .0318213 -6.32 0.000 .7101399 .8350134

|

time |

2000.75 | 1.439361 .1106921 4.74 0.000 1.237968 1.673517

2001 | 1.473449 .1125985 5.07 0.000 1.268492 1.711522

2001.25 | 1.646044 .1537833 5.33 0.000 1.37062 1.976814

2001.5 | 1.903783 .1552276 7.90 0.000 1.622608 2.233682

2001.75 | 1.532379 .1248958 5.24 0.000 1.306139 1.797807

2002 | 1.666583 .1552571 5.48 0.000 1.388449 2.000433

2002.25 | 1.62924 .1351165 5.89 0.000 1.384819 1.916801

2002.5 | 1.725835 .1449151 6.50 0.000 1.463948 2.034572

2002.75 | 1.449548 .107366 5.01 0.000 1.253676 1.676022

2003 | 1.341075 .1007848 3.91 0.000 1.1574 1.553899

2003.25 | 1.480561 .1210986 4.80 0.000 1.26126 1.737994

2003.5 | 1.614536 .1185035 6.53 0.000 1.398207 1.864336

2003.75 | 1.227391 .0962489 2.61 0.009 1.052529 1.431304

2004 | 1.281577 .1020262 3.12 0.002 1.09643 1.49799

2004.25 | 1.345004 .0973551 4.09 0.000 1.167108 1.550015

2004.5 | 1.485189 .1074288 5.47 0.000 1.288877 1.711402

2004.75 | 1.20517 .0950502 2.37 0.018 1.032559 1.406635

2005 | 1.171007 .0857292 2.16 0.031 1.014479 1.351686

2005.25 | 1.264372 .0876752 3.38 0.001 1.103697 1.448437

2005.5 | 1.3881 .0977031 4.66 0.000 1.209228 1.593433

2005.75 | 1.15027 .0880294 1.83 0.067 .9900521 1.336416

2006 | 1.215058 .0871342 2.72 0.007 1.055737 1.398422

2006.25 | 1.182468 .0867052 2.29 0.022 1.024175 1.365225

2006.5 | 1.412034 .0947401 5.14 0.000 1.238038 1.610484

2006.75 | 1.085054 .0780291 1.14 0.256 .9424083 1.249291

2007 | 1.074102 .0730058 1.05 0.293 .9401342 1.227159

2007.25 | 1.127652 .0859322 1.58 0.115 .9712026 1.309304

2007.5 | 1.379557 .0994539 4.46 0.000 1.197776 1.588927

2007.75 | 1.19259 .0770318 2.73 0.006 1.050777 1.353543

2008 | 1.082067 .0682897 1.25 0.211 .9561681 1.224542

2008.25 | 1.071434 .0721614 1.02 0.306 .9389377 1.222627

2008.5 | 1.219494 .0724555 3.34 0.001 1.08544 1.370103

2009 | .9748778 .0556988 -0.45 0.656 .8716006 1.090392

2009.25 | .9504995 .0642956 -0.75 0.453 .8324789 1.085252

2009.5 | 1.088545 .0653869 1.41 0.158 .9676455 1.22455

2009.75 | .9232515 .0608887 -1.21 0.226 .8113029 1.050647

2010 | .924478 .0684815 -1.06 0.289 .7995453 1.068932

2010.25 | .926615 .0837154 -0.84 0.399 .7762421 1.106118

2010.5 | 1.154647 .0781331 2.12 0.034 1.011229 1.318404

2010.75 | .9055386 .0645277 -1.39 0.164 .7875013 1.041268

2011 | .9092589 .0596668 -1.45 0.147 .7995222 1.034057

2011.25 | .8595255 .0577162 -2.25 0.024 .7535317 .9804287

2011.5 | .9957174 .0608008 -0.07 0.944 .8834048 1.122309

2011.75 | .7717548 .0508087 -3.94 0.000 .6783288 .8780483

2012 | .8607544 .0605005 -2.13 0.033 .7499809 .9878895

2012.25 | .7572792 .0492696 -4.27 0.000 .666616 .860273

2012.5 | .8878613 .0660724 -1.60 0.110 .767363 1.027281

2012.75 | .6881013 .0541698 -4.75 0.000 .5897158 .802901

2013 | .7746677 .0575651 -3.44 0.001 .6696734 .8961233

2013.25 | .7435688 .0582628 -3.78 0.000 .6377122 .8669969

2013.5 | .8681669 .0692615 -1.77 0.076 .7424978 1.015106

2013.75 | .641585 .0543178 -5.24 0.000 .5434878 .7573883

2014 | .7414623 .0586961 -3.78 0.000 .6349007 .8659093

2014.25 | .7716771 .0640243 -3.12 0.002 .6558633 .9079415

2014.5 | .8249304 .0651903 -2.44 0.015 .706563 .9631273

2014.75 | .7989791 .0636543 -2.82 0.005 .6834718 .9340072

2015 | .7183699 .0579003 -4.10 0.000 .613397 .8413073

2015.25 | .6745416 .0546584 -4.86 0.000 .575487 .7906458

2015.5 | .8996306 .0752403 -1.26 0.206 .7636147 1.059874

2015.75 | .7058487 .0672495 -3.66 0.000 .585617 .850765

2016 | .7457023 .0723697 -3.02 0.002 .6165342 .9019318

|

\_cons | .0000535 3.65e-06 -144.24 0.000 .0000468 .0000612

ln(hours) | 1 (exposure)

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

/lnalpha | -1.050923 .0714488 -1.19096 -.9108861

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

alpha | .3496148 .0249796 .3039292 .4021677

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

(est1 stored)

. esttab using `"`directory'Model.`injury\_label'.`time\_label'.`violation\_level\_label'.C.SSV.3.csv"', replace plain wide p eform

(note: file C:\Users\jbodson\Dropbox (Stanford Law School)\R-code\Injury-Classification\PS Model Summaries 10-10\Estout\Model.PS.Q.P.C.SSV.3.csv not found)

(output written to C:\Users\jbodson\Dropbox (Stanford Law School)\R-code\Injury-Classification\PS Model Summaries 10-10\Estout\Model.PS.Q.P.C.SSV.3.csv)

. est store nbin

.

. pause "next"

.

. // test for over-dispersion

. lrtest pois nbin, stats force

Likelihood-ratio test LR chi2(0) = -6221.20

(Assumption: nbin nested in pois) Prob > chi2 = .

Akaike's information criterion and Bayesian information criterion

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

Model | Obs ll(null) ll(model) df AIC BIC

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

nbin | 22,446 -40040.04 -38707.11 79 77572.23 78205.72

pois | 22,446 -45450.16 -41817.71 79 83793.42 84426.91

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

Note: N=Obs used in calculating BIC; see [R] BIC note.

.

. pause "next"

.

. // final model + diagnostics/assessment

. quietly nbreg dv `ss\_lag\_4\_vars' `covariates' ib(freq).state ib(freq).time, vce(cl mineid) exposure(hours) iter(50) irr

. predict cssv3\_yhat

(option n assumed; predicted number of events)

(7,843 missing values generated)

. gen cssv3\_res = dv - cssv3\_yhat

(7,843 missing values generated)

.

. summ dv cssv3\_yhat

Variable | Obs Mean Std. Dev. Min Max

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

dv | 30,289 2.177721 3.851734 0 71

cssv3\_yhat | 22,446 2.753487 3.960626 .0000977 39.80851

. /\*

> pause "next"

>

> scatter dv cssv3\_yhat

>

> pause "next"

>

> scatter cssv3\_res dv

>

> pause "next"

>

> scatter cssv3\_res cssv3\_yhat

> \*/

. pause "complete: C.SSV.3"