. glm MR `part\_sigsub\_lag\_1\_vars' `covariates' ib(freq).state ib(freq).time, family(poisson) link(log) vce(cl mineid) exposure(hours) iter(50) eform

Iteration 0: log pseudolikelihood = -20063.954

Iteration 1: log pseudolikelihood = -18745.216

Iteration 2: log pseudolikelihood = -18732.375

Iteration 3: log pseudolikelihood = -18732.366

Iteration 4: log pseudolikelihood = -18732.366

Generalized linear models No. of obs = 26,110

Optimization : ML Residual df = 26,025

Scale parameter = 1

Deviance = 21112.34492 (1/df) Deviance = .8112332

Pearson = 347668.0788 (1/df) Pearson = 13.359

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

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

AIC = 1.441392

Log pseudolikelihood = -18732.36644 BIC = -243563.8

(Std. Err. adjusted for 1,475 clusters in mineid)

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

| Robust

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

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

p47\_ss\_1lag | 1.233148 .3434804 0.75 0.452 .7143683 2.128671

p48\_ss\_1lag | .9832012 .0382151 -0.44 0.663 .9110829 1.061028

p71\_ss\_1lag | .8524279 .180226 -0.76 0.450 .5632368 1.290103

p72\_ss\_1lag | 1.105562 .1869258 0.59 0.553 .7937136 1.539934

p75\_ss\_1lag | 1.005034 .0018929 2.67 0.008 1.001331 1.008751

p77\_ss\_1lag | 1.052548 .029839 1.81 0.071 .9956596 1.112687

mine\_time | .9984548 .0021039 -0.73 0.463 .9943398 1.002587

onsite\_insp\_hours | .9996918 .0001465 -2.10 0.035 .9994047 .999979

|

state |

AL | 1.044632 .0802367 0.57 0.570 .8986362 1.214348

AR | 1.980566 .1224908 11.05 0.000 1.754469 2.2358

CO | .6785386 .1089963 -2.41 0.016 .4952708 .9296219

IL | 1.203849 .1114819 2.00 0.045 1.00403 1.443434

IN | .9052457 .1411329 -0.64 0.523 .666898 1.228778

MD | .9813861 .1616659 -0.11 0.909 .7105908 1.355377

MT | .8052639 .0412059 -4.23 0.000 .7284196 .8902148

NM | .7690931 .0377027 -5.36 0.000 .6986362 .8466555

OH | 1.110626 .1433582 0.81 0.416 .8623743 1.430342

OK | .8547169 .2346657 -0.57 0.567 .4990243 1.463938

PA | .8790813 .0875751 -1.29 0.196 .723155 1.068628

TN | 1.176174 .1614601 1.18 0.237 .8987159 1.539292

UT | .5872622 .0756348 -4.13 0.000 .4562511 .7558927

VA | .6565929 .0637404 -4.33 0.000 .5428297 .7941979

WV | .9602149 .0567772 -0.69 0.492 .8551399 1.078201

WY | 1.022884 .0470421 0.49 0.623 .9347159 1.119368

|

time |

2000.25 | .9917702 .1192979 -0.07 0.945 .783469 1.255452

2000.5 | 1.146216 .1166155 1.34 0.180 .9389999 1.39916

2000.75 | .866401 .0889595 -1.40 0.163 .7084677 1.059541

2001 | .8698264 .0872678 -1.39 0.165 .7145512 1.058844

2001.25 | .778829 .0806956 -2.41 0.016 .6356938 .9541932

2001.75 | .8187121 .0734842 -2.23 0.026 .6866428 .9761837

2002 | .8707385 .0807907 -1.49 0.136 .7259551 1.044397

2002.25 | .7941999 .084836 -2.16 0.031 .6441766 .9791623

2002.5 | .9849938 .0958837 -0.16 0.877 .813905 1.192047

2002.75 | .8814688 .0958921 -1.16 0.246 .7122091 1.090954

2003 | .7130205 .07984 -3.02 0.003 .5725182 .8880037

2003.25 | .8221659 .0876439 -1.84 0.066 .6671452 1.013208

2003.5 | .8896732 .0954004 -1.09 0.276 .7210336 1.097755

2003.75 | .6666756 .0683764 -3.95 0.000 .5452712 .8151107

2004 | .8354766 .0980794 -1.53 0.126 .6637567 1.051622

2004.25 | .7985581 .0848403 -2.12 0.034 .6484453 .9834216

2004.5 | .7918187 .0823612 -2.24 0.025 .6457849 .9708757

2004.75 | .7096214 .0846038 -2.88 0.004 .5617501 .8964174

2005 | .6124171 .0644896 -4.66 0.000 .4982105 .7528037

2005.25 | .786431 .0838565 -2.25 0.024 .6381132 .9692227

2005.5 | .7178562 .0768198 -3.10 0.002 .5820335 .8853744

2005.75 | .64401 .0729206 -3.89 0.000 .5158364 .8040318

2006 | .6623361 .0751381 -3.63 0.000 .5302916 .8272603

2006.25 | .6554695 .0784467 -3.53 0.000 .5184186 .8287518

2006.5 | .7262627 .0861241 -2.70 0.007 .5756437 .9162916

2006.75 | .5962669 .0749108 -4.12 0.000 .4661242 .7627457

2007 | .6261827 .0687832 -4.26 0.000 .5048945 .7766074

2007.25 | .6034372 .0731893 -4.16 0.000 .4757646 .7653712

2007.5 | .656245 .0709394 -3.90 0.000 .530948 .8111104

2007.75 | .6530503 .0743271 -3.74 0.000 .5224765 .816256

2008 | .5517197 .067898 -4.83 0.000 .4334754 .7022189

2008.25 | .5706741 .0635908 -5.03 0.000 .4587097 .7099673

2008.5 | .6626672 .0768073 -3.55 0.000 .5280024 .8316777

2008.75 | .5332031 .0622815 -5.38 0.000 .4240987 .670376

2009 | .5341253 .0643169 -5.21 0.000 .4218378 .6763023

2009.25 | .4957986 .0632285 -5.50 0.000 .3861471 .636587

2009.5 | .6109796 .0782228 -3.85 0.000 .4753885 .7852443

2009.75 | .4522167 .0534081 -6.72 0.000 .358771 .5700014

2010 | .488362 .0668517 -5.24 0.000 .3734403 .6386494

2010.25 | .5023111 .0653398 -5.29 0.000 .3892691 .6481799

2010.5 | .5821692 .0741511 -4.25 0.000 .4535565 .7472518

2010.75 | .4651157 .0608968 -5.85 0.000 .3598444 .6011838

2011 | .5371269 .0677498 -4.93 0.000 .4194804 .6877683

2011.25 | .5312372 .0657896 -5.11 0.000 .4167483 .6771785

2011.5 | .5915244 .0724443 -4.29 0.000 .4652919 .7520033

2011.75 | .4939198 .0646954 -5.39 0.000 .3820876 .6384838

2012 | .6094399 .0741301 -4.07 0.000 .4801686 .7735136

2012.25 | .5328837 .059646 -5.62 0.000 .4279144 .6636024

2012.5 | .5797437 .0697584 -4.53 0.000 .4579459 .7339356

2012.75 | .4900076 .0612896 -5.70 0.000 .3834736 .6261382

2013 | .5276165 .0689995 -4.89 0.000 .4083211 .6817653

2013.25 | .4553431 .0664694 -5.39 0.000 .342045 .6061697

2013.5 | .6062526 .0807841 -3.76 0.000 .4669062 .7871864

2013.75 | .4767458 .0658794 -5.36 0.000 .3636328 .625044

2014 | .4619807 .0673724 -5.30 0.000 .3471282 .6148339

2014.25 | .5173275 .0763348 -4.47 0.000 .3874054 .690821

2014.5 | .533981 .0714212 -4.69 0.000 .4108427 .6940265

2014.75 | .5291564 .0715892 -4.70 0.000 .4059061 .6898308

2015 | .491635 .0720107 -4.85 0.000 .3689484 .6551186

2015.25 | .5224502 .0827888 -4.10 0.000 .382967 .7127355

2015.5 | .6693268 .1009428 -2.66 0.008 .4980425 .8995182

2015.75 | .4035792 .0654437 -5.60 0.000 .2936969 .5545722

2016 | .5545391 .0807117 -4.05 0.000 .4169098 .7376024

|

\_cons | .0000187 1.55e-06 -131.43 0.000 .0000159 .000022

ln(hours) | 1 (exposure)

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

. estat gof

Deviance goodness-of-fit = 21112.34

Prob > chi2(26025) = 1.0000

Pearson goodness-of-fit = 347668.1

Prob > chi2(26025) = 0.0000

. glm MR `part\_sigsub\_lag\_1\_vars' `covariates' ib(freq).state ib(freq).time, family(nbinomial) link(log) vce(cl mineid) exposure(hours) iter(50) eform

Iteration 0: log pseudolikelihood = -19176.538

Iteration 1: log pseudolikelihood = -18977.724

Iteration 2: log pseudolikelihood = -18977.439

Iteration 3: log pseudolikelihood = -18977.439

Generalized linear models No. of obs = 26,110

Optimization : ML Residual df = 26,025

Scale parameter = 1

Deviance = 14467.22702 (1/df) Deviance = .5558973

Pearson = 322196.5742 (1/df) Pearson = 12.38027

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

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

AIC = 1.460164

Log pseudolikelihood = -18977.43859 BIC = -250208.9

(Std. Err. adjusted for 1,475 clusters in mineid)

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| Robust

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

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

p47\_ss\_1lag | 1.429516 .3121293 1.64 0.102 .9318208 2.193035

p48\_ss\_1lag | 1.014351 .0512783 0.28 0.778 .9186662 1.120002

p71\_ss\_1lag | 1.040949 .2471924 0.17 0.866 .6535763 1.657918

p72\_ss\_1lag | 1.009252 .2132065 0.04 0.965 .6670857 1.526925

p75\_ss\_1lag | 1.006782 .0019585 3.47 0.001 1.002951 1.010628

p77\_ss\_1lag | 1.039711 .0298821 1.35 0.175 .9827627 1.09996

mine\_time | .9986458 .0017336 -0.78 0.435 .9952538 1.002049

onsite\_insp\_hours | .9997043 .0001422 -2.08 0.038 .9994257 .999983

|

state |

AL | 1.115366 .1005461 1.21 0.226 .9347273 1.330915

AR | 1.958107 .1063155 12.38 0.000 1.760436 2.177972

CO | .7376983 .1234661 -1.82 0.069 .5313933 1.024098

IL | 1.222702 .0929783 2.64 0.008 1.053398 1.419217

IN | .9493824 .1506674 -0.33 0.743 .6955929 1.295768

MD | 1.041795 .1749366 0.24 0.807 .7496352 1.447821

MT | .9291705 .0399592 -1.71 0.088 .8540618 1.010885

NM | .824505 .0364102 -4.37 0.000 .7561434 .899047

OH | .9946319 .1486385 -0.04 0.971 .7420929 1.333112

OK | .8962415 .2387819 -0.41 0.681 .531671 1.510801

PA | 1.005419 .0904201 0.06 0.952 .8429386 1.199217

TN | 1.275375 .1759603 1.76 0.078 .9731949 1.671383

UT | .6298336 .0867618 -3.36 0.001 .4808059 .825053

VA | .7153177 .053763 -4.46 0.000 .617338 .8288481

WV | 1.083257 .0546796 1.58 0.113 .9812173 1.195907

WY | 1.099918 .0448216 2.34 0.019 1.015486 1.19137

|

time |

2000.25 | .987008 .1097052 -0.12 0.906 .7937985 1.227244

2000.5 | 1.220975 .1299482 1.88 0.061 .9910911 1.504181

2000.75 | .8838972 .1001692 -1.09 0.276 .7078444 1.103737

2001 | .8789585 .0915856 -1.24 0.216 .7165969 1.078107

2001.25 | .8478778 .0956311 -1.46 0.143 .6797158 1.057643

2001.75 | .8772651 .0914857 -1.26 0.209 .715094 1.076214

2002 | .8719329 .0890336 -1.34 0.180 .7137832 1.065123

2002.25 | .7962868 .0883327 -2.05 0.040 .6406858 .9896781

2002.5 | 1.013952 .1066669 0.13 0.895 .8250335 1.246129

2002.75 | .9445487 .1049 -0.51 0.607 .759786 1.174241

2003 | .761255 .0870791 -2.38 0.017 .6083622 .9525727

2003.25 | .8611466 .1036808 -1.24 0.214 .6801327 1.090337

2003.5 | .9433319 .1055704 -0.52 0.602 .7575384 1.174693

2003.75 | .6426352 .0728975 -3.90 0.000 .5145271 .80264

2004 | .8794325 .1053074 -1.07 0.283 .6954655 1.112063

2004.25 | .7876743 .0848802 -2.21 0.027 .6377064 .9729097

2004.5 | .8085316 .0907548 -1.89 0.058 .6488625 1.007491

2004.75 | .7161856 .0856067 -2.79 0.005 .5666047 .9052552

2005 | .6399403 .0723342 -3.95 0.000 .5127738 .7986437

2005.25 | .8152299 .0864339 -1.93 0.054 .6622658 1.003524

2005.5 | .6844524 .0769896 -3.37 0.001 .5490314 .8532756

2005.75 | .6690153 .0796835 -3.37 0.001 .5297283 .8449265

2006 | .7098574 .0803768 -3.03 0.002 .568578 .8862418

2006.25 | .7138651 .0903118 -2.66 0.008 .5570957 .9147503

2006.5 | .7449098 .0871595 -2.52 0.012 .5922531 .9369146

2006.75 | .6177581 .0742932 -4.01 0.000 .4880347 .781963

2007 | .6227223 .0724903 -4.07 0.000 .4956866 .7823152

2007.25 | .6177593 .0773324 -3.85 0.000 .4833527 .7895406

2007.5 | .6792456 .0769482 -3.41 0.001 .5439996 .8481156

2007.75 | .6626879 .0771504 -3.53 0.000 .5274871 .8325421

2008 | .5483717 .064849 -5.08 0.000 .4349247 .6914104

2008.25 | .5899866 .069162 -4.50 0.000 .468877 .7423785

2008.5 | .6655557 .0768827 -3.52 0.000 .5307091 .8346652

2008.75 | .5270932 .0626846 -5.38 0.000 .4175017 .6654518

2009 | .5175019 .0624646 -5.46 0.000 .4084778 .6556248

2009.25 | .488611 .0595865 -5.87 0.000 .3847322 .6205374

2009.5 | .6010861 .0767007 -3.99 0.000 .4680803 .7718856

2009.75 | .4510509 .0553291 -6.49 0.000 .3546592 .5736406

2010 | .4830231 .0624653 -5.63 0.000 .3748773 .6223671

2010.25 | .5071368 .0649738 -5.30 0.000 .394521 .6518988

2010.5 | .6308737 .0795588 -3.65 0.000 .4927178 .8077677

2010.75 | .4732787 .0611412 -5.79 0.000 .3674119 .6096503

2011 | .5721609 .0701325 -4.56 0.000 .4499687 .7275353

2011.25 | .5394846 .064926 -5.13 0.000 .4261264 .6829984

2011.5 | .6070747 .0699451 -4.33 0.000 .4843614 .7608776

2011.75 | .487867 .061711 -5.67 0.000 .3807429 .6251311

2012 | .6021216 .072222 -4.23 0.000 .4759772 .7616972

2012.25 | .5277912 .0612596 -5.51 0.000 .4204023 .662612

2012.5 | .6168819 .0765468 -3.89 0.000 .4837036 .7867283

2012.75 | .4822442 .0620135 -5.67 0.000 .3748073 .6204774

2013 | .4967488 .062018 -5.60 0.000 .3889253 .6344648

2013.25 | .4258752 .0590506 -6.16 0.000 .3245318 .5588657

2013.5 | .5501875 .0709998 -4.63 0.000 .4272342 .7085253

2013.75 | .4681073 .0624482 -5.69 0.000 .3604045 .6079959

2014 | .4178434 .05919 -6.16 0.000 .3165453 .5515581

2014.25 | .4811934 .0651543 -5.40 0.000 .3690335 .627442

2014.5 | .4975486 .064603 -5.38 0.000 .3857566 .6417379

2014.75 | .499598 .0654849 -5.29 0.000 .3864108 .64594

2015 | .4708915 .066385 -5.34 0.000 .3572077 .6207559

2015.25 | .5101328 .0775382 -4.43 0.000 .3787076 .6871675

2015.5 | .6540173 .0899658 -3.09 0.002 .4994581 .8564055

2015.75 | .383844 .0598748 -6.14 0.000 .2827341 .5211125

2016 | .5418547 .0798697 -4.16 0.000 .4058965 .7233533

|

\_cons | .0000174 1.43e-06 -133.68 0.000 .0000148 .0000204

ln(hours) | 1 (exposure)

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

. nbreg MR `part\_count\_lag\_1\_vars' `covariates' ib(freq).state ib(freq).time, vce(cl mineid) exposure(hours) iter(50) irr

Fitting Poisson model:

Iteration 0: log pseudolikelihood = -19605.342

Iteration 1: log pseudolikelihood = -18745.514

Iteration 2: log pseudolikelihood = -18733.278

Iteration 3: log pseudolikelihood = -18733.264

Iteration 4: log pseudolikelihood = -18733.264

Fitting constant-only model:

Iteration 0: log pseudolikelihood = -19311.72

Iteration 1: log pseudolikelihood = -19057.693

Iteration 2: log pseudolikelihood = -19051.142

Iteration 3: log pseudolikelihood = -19051.138

Iteration 4: log pseudolikelihood = -19051.138

Fitting full model:

Iteration 0: log pseudolikelihood = -18617.086

Iteration 1: log pseudolikelihood = -18590.008

Iteration 2: log pseudolikelihood = -18589.242

Iteration 3: log pseudolikelihood = -18589.242

Negative binomial regression Number of obs = 26,110

Wald chi2(84) = .

Dispersion = mean Prob > chi2 = .

Log pseudolikelihood = -18589.242 Pseudo R2 = 0.0242

(Std. Err. adjusted for 1,475 clusters in mineid)

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| Robust

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

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

p47\_1lag | 1.067887 .1174983 0.60 0.551 .8607337 1.324897

p48\_1lag | .9899784 .0177392 -0.56 0.574 .9558137 1.025364

p71\_1lag | 1.115972 .0713871 1.72 0.086 .984472 1.265038

p72\_1lag | .9902677 .0426695 -0.23 0.820 .9100712 1.077531

p75\_1lag | 1.002345 .0008003 2.93 0.003 1.000777 1.003914

p77\_1lag | .9876103 .0106728 -1.15 0.249 .966912 1.008752

mine\_time | .9983114 .0018938 -0.89 0.373 .9946065 1.00203

onsite\_insp\_hours | .9996355 .0001471 -2.48 0.013 .9993472 .9999239

|

state |

AL | 1.09668 .0924713 1.09 0.274 .929624 1.293757

AR | 2.057238 .1151061 12.89 0.000 1.843565 2.295677

CO | .7044241 .1163605 -2.12 0.034 .5095986 .9737338

IL | 1.17817 .0954021 2.02 0.043 1.005269 1.38081

IN | .9165278 .1445625 -0.55 0.581 .6728015 1.248545

MD | 1.006958 .1675329 0.04 0.967 .7267626 1.39518

MT | .8736034 .0431932 -2.73 0.006 .7929188 .9624982

NM | .7888698 .0366766 -5.10 0.000 .7201629 .8641317

OH | 1.067573 .1437212 0.49 0.627 .819984 1.389921

OK | .8878665 .238284 -0.44 0.658 .5246912 1.502421

PA | .949512 .0920285 -0.53 0.593 .7852364 1.148155

TN | 1.221308 .1676955 1.46 0.145 .9331432 1.598461

UT | .612404 .0779481 -3.85 0.000 .4771943 .7859243

VA | .6910242 .0576785 -4.43 0.000 .5867391 .8138447

WV | 1.012637 .0553301 0.23 0.818 .9097974 1.127102

WY | 1.0595 .046831 1.31 0.191 .9715761 1.15538

|

time |

2000.25 | 1.001295 .1096475 0.01 0.991 .8078872 1.241005

2000.5 | 1.193182 .1202058 1.75 0.080 .9793843 1.45365

2000.75 | .884535 .0931757 -1.16 0.244 .7195329 1.087375

2001 | .8872983 .0863541 -1.23 0.219 .7332103 1.073769

2001.25 | .8150326 .0841847 -1.98 0.048 .665663 .9979195

2001.75 | .8471735 .0790909 -1.78 0.076 .7055137 1.017277

2002 | .892197 .0833336 -1.22 0.222 .7429442 1.071434

2002.25 | .8044514 .0855561 -2.05 0.041 .653088 .9908957

2002.5 | 1.005816 .098393 0.06 0.953 .8303296 1.218391

2002.75 | .9230506 .0964465 -0.77 0.443 .7521185 1.13283

2003 | .7415624 .080141 -2.77 0.006 .6000093 .9165106

2003.25 | .8382383 .0906365 -1.63 0.103 .6781556 1.036109

2003.5 | .9238095 .0971622 -0.75 0.451 .7517213 1.135293

2003.75 | .6652725 .0689479 -3.93 0.000 .5429781 .8151111

2004 | .8683384 .0976196 -1.26 0.209 .69662 1.082386

2004.25 | .8091966 .0825544 -2.08 0.038 .6625434 .9883113

2004.5 | .8168704 .0865181 -1.91 0.056 .6637414 1.005327

2004.75 | .7286676 .0846282 -2.73 0.006 .5803233 .9149322

2005 | .639795 .0653842 -4.37 0.000 .523663 .7816814

2005.25 | .8141426 .0824649 -2.03 0.042 .6675471 .9929309

2005.5 | .7156847 .0758049 -3.16 0.002 .5815178 .8808063

2005.75 | .6674811 .0740538 -3.64 0.000 .5370346 .8296132

2006 | .6990003 .0759896 -3.29 0.001 .5648611 .864994

2006.25 | .6958144 .0820376 -3.08 0.002 .5522496 .8767008

2006.5 | .7578167 .0860733 -2.44 0.015 .6065745 .9467694

2006.75 | .6153284 .0733992 -4.07 0.000 .4870479 .7773958

2007 | .6381739 .0706238 -4.06 0.000 .5137365 .7927524

2007.25 | .6239895 .0761839 -3.86 0.000 .4911936 .7926873

2007.5 | .6670784 .0723056 -3.74 0.000 .5394037 .8249733

2007.75 | .674097 .0752915 -3.53 0.000 .5415638 .8390641

2008 | .5565082 .0658622 -4.95 0.000 .4412988 .7017952

2008.25 | .5745386 .0639609 -4.98 0.000 .4619113 .7146276

2008.5 | .667242 .0744535 -3.63 0.000 .5361705 .8303551

2008.75 | .5321059 .061067 -5.50 0.000 .4249228 .6663249

2009 | .5333944 .0624365 -5.37 0.000 .4240442 .6709433

2009.25 | .4924968 .0588716 -5.93 0.000 .3896309 .6225203

2009.5 | .612054 .0751497 -4.00 0.000 .481146 .778579

2009.75 | .4502775 .0522119 -6.88 0.000 .3587396 .5651727

2010 | .4902292 .0624922 -5.59 0.000 .3818492 .6293705

2010.25 | .5068305 .0628532 -5.48 0.000 .397469 .6462823

2010.5 | .6028597 .0725871 -4.20 0.000 .4761323 .7633168

2010.75 | .4724483 .0593155 -5.97 0.000 .3693912 .6042575

2011 | .5572884 .0662778 -4.92 0.000 .4414153 .7035786

2011.25 | .5345205 .0627904 -5.33 0.000 .4245935 .6729076

2011.5 | .6058004 .0693677 -4.38 0.000 .4840185 .7582234

2011.75 | .4927716 .0604452 -5.77 0.000 .3874665 .6266964

2012 | .6115559 .07083 -4.25 0.000 .4873607 .7674

2012.25 | .5270897 .0577713 -5.84 0.000 .425196 .6534012

2012.5 | .5968536 .0699599 -4.40 0.000 .4743453 .7510019

2012.75 | .4923971 .059914 -5.82 0.000 .3879206 .6250116

2013 | .5194277 .0640922 -5.31 0.000 .4078451 .6615382

2013.25 | .4462328 .0616441 -5.84 0.000 .3403875 .5849914

2013.5 | .5863488 .0755109 -4.15 0.000 .455551 .7547014

2013.75 | .47332 .0621886 -5.69 0.000 .3658619 .6123399

2014 | .453147 .0632129 -5.67 0.000 .3447455 .5956343

2014.25 | .5003546 .0677203 -5.12 0.000 .3837713 .6523541

2014.5 | .5205855 .0657642 -5.17 0.000 .4064078 .6668408

2014.75 | .5222464 .0672963 -5.04 0.000 .4056863 .6722962

2015 | .4793704 .0662497 -5.32 0.000 .3656233 .6285049

2015.25 | .5101923 .0758865 -4.52 0.000 .3811759 .6828768

2015.5 | .6593186 .0904144 -3.04 0.002 .5039268 .8626274

2015.75 | .397703 .0613599 -5.98 0.000 .293921 .5381298

2016 | .5455742 .0767583 -4.31 0.000 .4140911 .718806

|

\_cons | .000018 1.41e-06 -139.27 0.000 .0000155 .000021

ln(hours) | 1 (exposure)

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

/lnalpha | -1.448973 .1249834 -1.693936 -1.20401

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

alpha | .2348114 .0293475 .1837948 .2999889

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

. lrtest pois nbin, stats force

Likelihood-ratio test LR chi2(1) = 286.25

(Assumption: pois nested in nbin) Prob > chi2 = 0.0000

Akaike's information criterion and Bayesian information criterion

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

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

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

pois | 26,110 -19356.43 -18732.37 85 37634.73 38329.19

nbin | 26,110 -19051.14 -18589.24 86 37350.48 38053.11

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

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

. summ MR pcssv2\_yhat

Variable | Obs Mean Std. Dev. Min Max

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

MR | 30,289 .4096207 .9550592 0 14

pcssv2\_yhat | 26,110 .4638711 .6964141 .0000153 8.384231