**. 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)

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| 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\_sigsub\_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 = -19335.997

Iteration 1: log pseudolikelihood = -18742.338

Iteration 2: log pseudolikelihood = -18732.372

Iteration 3: log pseudolikelihood = -18732.366

Iteration 4: log pseudolikelihood = -18732.366

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 = -18616.929

Iteration 1: log pseudolikelihood = -18589.656

Iteration 2: log pseudolikelihood = -18588.877

Iteration 3: log pseudolikelihood = -18588.876

Negative binomial regression Number of obs = 26,110

Wald chi2(84) = .

Dispersion = mean Prob > chi2 = .

Log pseudolikelihood = -18588.876 Pseudo R2 = 0.0243

(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 | 1.331239 .3543183 1.07 0.282 .790138 2.242896

p48\_ss\_1lag | .9934412 .0447131 -0.15 0.884 .9095593 1.085059

p71\_ss\_1lag | .910952 .2044211 -0.42 0.678 .5867899 1.414192

p72\_ss\_1lag | 1.051661 .1999248 0.26 0.791 .7245344 1.526485

p75\_ss\_1lag | 1.005681 .0018983 3.00 0.003 1.001967 1.009409

p77\_ss\_1lag | 1.048539 .0295363 1.68 0.092 .992218 1.108057

mine\_time | .998531 .0019092 -0.77 0.442 .994796 1.00228

onsite\_insp\_hours | .9996888 .0001439 -2.16 0.031 .9994068 .9999709

|

state |

AL | 1.077503 .0895958 0.90 0.369 .9154615 1.268227

AR | 1.986124 .114127 11.94 0.000 1.774575 2.222891

CO | .7013602 .1149489 -2.16 0.030 .5086676 .9670482

IL | 1.201088 .098992 2.22 0.026 1.021927 1.411658

IN | .9264356 .1449102 -0.49 0.625 .681825 1.258802

MD | 1.005883 .1674215 0.04 0.972 .7258909 1.393873

MT | .8487129 .0404999 -3.44 0.001 .7729335 .9319218

NM | .7929796 .0368312 -4.99 0.000 .72398 .8685553

OH | 1.064691 .1452028 0.46 0.646 .8149604 1.390947

OK | .8731476 .2350563 -0.50 0.614 .5151567 1.479912

PA | .9308895 .0897678 -0.74 0.458 .7705749 1.124557

TN | 1.211429 .1652613 1.41 0.160 .9272102 1.582769

UT | .6033329 .079001 -3.86 0.000 .4667667 .7798557

VA | .6814378 .0597659 -4.37 0.000 .5738139 .8092475

WV | 1.0132 .0560322 0.24 0.813 .9091211 1.129194

WY | 1.052843 .0455941 1.19 0.234 .9671672 1.146107

|

time |

2000.25 | 1.004136 .1100776 0.04 0.970 .8099909 1.244815

2000.5 | 1.191934 .1200866 1.74 0.081 .9783504 1.452146

2000.75 | .8855335 .0928986 -1.16 0.247 .7209547 1.087682

2001 | .8847583 .0858217 -1.26 0.207 .7315735 1.070019

2001.25 | .8145868 .0843299 -1.98 0.048 .6649929 .9978328

2001.75 | .8464185 .0789346 -1.79 0.074 .7050249 1.016169

2002 | .8838465 .0823927 -1.32 0.185 .7362535 1.061027

2002.25 | .8057617 .0858101 -2.03 0.043 .6539694 .9927865

2002.5 | 1.003568 .0969901 0.04 0.971 .8303904 1.212862

2002.75 | .9211049 .0957882 -0.79 0.429 .7512602 1.129348

2003 | .7411824 .0804041 -2.76 0.006 .5992197 .9167779

2003.25 | .8391354 .090809 -1.62 0.105 .6787617 1.037401

2003.5 | .9199427 .0970702 -0.79 0.429 .748073 1.131299

2003.75 | .6632189 .0690684 -3.94 0.000 .5407689 .813396

2004 | .8628253 .0970749 -1.31 0.190 .6920791 1.075697

2004.25 | .8083002 .0823486 -2.09 0.037 .6619929 .986943

2004.5 | .8088874 .0851244 -2.02 0.044 .6581284 .9941811

2004.75 | .7212504 .0839606 -2.81 0.005 .5741137 .906096

2005 | .6354881 .0656412 -4.39 0.000 .5190206 .7780907

2005.25 | .8088141 .0827927 -2.07 0.038 .6617853 .9885083

2005.5 | .7104861 .0759763 -3.20 0.001 .576145 .8761519

2005.75 | .6633585 .0740608 -3.68 0.000 .5329859 .8256213

2006 | .6922968 .0754602 -3.37 0.001 .5591284 .8571822

2006.25 | .688116 .0824233 -3.12 0.002 .5441313 .8702009

2006.5 | .7472718 .0846754 -2.57 0.010 .5984483 .9331052

2006.75 | .613025 .0730248 -4.11 0.000 .4853794 .774239

2007 | .6339563 .0698406 -4.14 0.000 .5108409 .7867433

2007.25 | .6171558 .0749674 -3.97 0.000 .4864041 .7830551

2007.5 | .6714169 .0718696 -3.72 0.000 .54435 .8281448

2007.75 | .6676546 .0747748 -3.61 0.000 .5360687 .8315402

2008 | .5597327 .0654313 -4.96 0.000 .4451204 .7038561

2008.25 | .5820741 .0644262 -4.89 0.000 .4685586 .7230904

2008.5 | .6755552 .0752939 -3.52 0.000 .5429881 .8404877

2008.75 | .5356309 .0614348 -5.44 0.000 .4277953 .6706489

2009 | .5335898 .0623458 -5.38 0.000 .4243766 .6709092

2009.25 | .5024896 .0600685 -5.76 0.000 .3975328 .6351571

2009.5 | .6177512 .0757327 -3.93 0.000 .4858042 .7855356

2009.75 | .4591821 .0533422 -6.70 0.000 .3656813 .5765902

2010 | .4930572 .0629207 -5.54 0.000 .3839481 .6331725

2010.25 | .5131594 .0641781 -5.33 0.000 .4016031 .6557034

2010.5 | .6086781 .0738751 -4.09 0.000 .4798192 .772143

2010.75 | .4727634 .0593036 -5.97 0.000 .3697164 .6045315

2011 | .5598162 .0672006 -4.83 0.000 .4424528 .7083112

2011.25 | .5407946 .0635285 -5.23 0.000 .4295757 .6808087

2011.5 | .6089896 .069935 -4.32 0.000 .4862502 .762711

2011.75 | .4946044 .0608844 -5.72 0.000 .3885773 .629562

2012 | .6165864 .0715739 -4.17 0.000 .4911177 .7741092

2012.25 | .5342762 .0582053 -5.75 0.000 .4315529 .661451

2012.5 | .6033362 .0711524 -4.28 0.000 .4788239 .7602264

2012.75 | .4950599 .0607111 -5.73 0.000 .3892886 .6295697

2013 | .5240647 .0646187 -5.24 0.000 .4115563 .6673298

2013.25 | .4498172 .0620368 -5.79 0.000 .3432749 .5894271

2013.5 | .590168 .075103 -4.14 0.000 .4598904 .7573506

2013.75 | .4781771 .0627311 -5.62 0.000 .3697613 .618381

2014 | .4501413 .0626833 -5.73 0.000 .3426233 .5913992

2014.25 | .5061304 .068563 -5.03 0.000 .3881095 .6600404

2014.5 | .5265282 .0668016 -5.06 0.000 .4106087 .6751732

2014.75 | .5238487 .0675047 -5.02 0.000 .4069278 .6743639

2015 | .4871817 .0677623 -5.17 0.000 .3709344 .6398599

2015.25 | .5190181 .0771634 -4.41 0.000 .3878223 .6945961

2015.5 | .6696438 .0937848 -2.86 0.004 .5088989 .8811629

2015.75 | .4002305 .0621011 -5.90 0.000 .2952805 .5424821

2016 | .5595736 .0801696 -4.05 0.000 .4225774 .7409828

|

\_cons | .0000179 1.41e-06 -138.60 0.000 .0000154 .0000209

ln(hours) | 1 (exposure)

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

/lnalpha | -1.45024 .123291 -1.691886 -1.208594

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

alpha | .2345139 .0289135 .1841718 .2986167

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

**. lrtest pois nbin, stats force**

Likelihood-ratio test LR chi2(1) = 286.98

(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 -18588.88 86 37349.75 38052.38

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

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