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

Iteration 0: log pseudolikelihood = -21008.107

Iteration 1: log pseudolikelihood = -19508.469

Iteration 2: log pseudolikelihood = -19496.324

Iteration 3: log pseudolikelihood = -19496.316

Iteration 4: log pseudolikelihood = -19496.316

Generalized linear models No. of obs = 28,337

Optimization : ML Residual df = 28,251

Scale parameter = 1

Deviance = 22079.88801 (1/df) Deviance = .7815613

Pearson = 372540.4747 (1/df) Pearson = 13.18681

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

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

AIC = 1.382102

Log pseudolikelihood = -19496.31614 BIC = -267547.2

(Std. Err. adjusted for 1,544 clusters in mineid)

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| Robust

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

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

p47\_ss | .6961905 .2436263 -1.03 0.301 .3506363 1.38229

p48\_ss | .9799536 .036367 -0.55 0.585 .9112062 1.053888

p71\_ss | .4905725 .1120956 -3.12 0.002 .3134759 .7677191

p72\_ss | 1.091361 .1549477 0.62 0.538 .8262617 1.441515

p75\_ss | 1.006846 .0021529 3.19 0.001 1.002635 1.011074

p77\_ss | 1.016141 .0259991 0.63 0.531 .9664407 1.068398

mine\_time | .9985803 .0020843 -0.68 0.496 .9945035 1.002674

onsite\_insp\_hours | .9996472 .0001579 -2.23 0.025 .9993377 .9999567

|

state |

AL | 1.052434 .081948 0.66 0.512 .903474 1.225953

AR | 1.953449 .1184876 11.04 0.000 1.734491 2.200049

CO | .693801 .11073 -2.29 0.022 .5074391 .9486062

IL | 1.205279 .1177677 1.91 0.056 .9952147 1.459682

IN | .9139633 .141423 -0.58 0.561 .6748655 1.237771

MD | .9755835 .16193 -0.15 0.882 .7046602 1.35067

MT | .8091312 .0407588 -4.20 0.000 .7330624 .8930936

NM | .7746173 .0376749 -5.25 0.000 .7041861 .8520929

OH | 1.126198 .1442906 0.93 0.354 .8761068 1.447679

OK | .8339471 .2248832 -0.67 0.501 .4915893 1.414733

PA | .8914498 .0859922 -1.19 0.234 .7378825 1.076977

TN | 1.271129 .1692316 1.80 0.072 .9791855 1.650115

UT | .5958958 .0772158 -4.00 0.000 .462245 .7681896

VA | .6622779 .0639082 -4.27 0.000 .5481526 .8001642

WV | .9643492 .0563581 -0.62 0.534 .8599808 1.081384

WY | 1.062657 .053266 1.21 0.225 .9632218 1.172357

|

time |

2000 | 1.139072 .1221867 1.21 0.225 .9230893 1.405589

2000.25 | 1.239234 .1408337 1.89 0.059 .9917858 1.54842

2000.5 | 1.445807 .1385989 3.85 0.000 1.198152 1.744652

2000.75 | 1.078784 .1142872 0.72 0.474 .8765111 1.327735

2001 | 1.088241 .1041209 0.88 0.377 .9021607 1.312703

2001.5 | 1.258247 .1296479 2.23 0.026 1.028157 1.539829

2001.75 | 1.026426 .0977099 0.27 0.784 .8517225 1.236964

2002 | 1.106737 .1174751 0.96 0.339 .898862 1.362685

2002.25 | 1.010834 .1117783 0.10 0.922 .8138675 1.255469

2002.5 | 1.226468 .1245743 2.01 0.044 1.005075 1.496629

2002.75 | 1.108632 .1141287 1.00 0.316 .9060665 1.356484

2003 | .8985737 .0977828 -0.98 0.326 .7259821 1.112196

2003.25 | 1.030373 .1121282 0.27 0.783 .8324613 1.275336

2003.5 | 1.129484 .1238305 1.11 0.267 .9110855 1.400236

2003.75 | .8396848 .0892112 -1.64 0.100 .6818385 1.034073

2004 | 1.032496 .1119875 0.29 0.768 .8347653 1.277062

2004.25 | 1.00115 .1064152 0.01 0.991 .812873 1.233037

2004.5 | .9818022 .1061476 -0.17 0.865 .7943214 1.213533

2004.75 | .87848 .0928034 -1.23 0.220 .7141841 1.080572

2005 | .7635112 .0797601 -2.58 0.010 .6221495 .9369923

2005.25 | .9916596 .0935351 -0.09 0.929 .8242819 1.193025

2005.5 | .9170651 .1041676 -0.76 0.446 .7340301 1.145741

2005.75 | .8067431 .08722 -1.99 0.047 .6526925 .9971531

2006 | .8176309 .0861673 -1.91 0.056 .6650467 1.005223

2006.25 | .8247768 .096314 -1.65 0.099 .6560496 1.036898

2006.5 | .912578 .097845 -0.85 0.394 .739615 1.125989

2006.75 | .7532599 .0849699 -2.51 0.012 .603847 .9396429

2007 | .7940705 .0857264 -2.14 0.033 .6426357 .9811903

2007.25 | .7517364 .0932174 -2.30 0.021 .5895413 .9585548

2007.5 | .8253207 .0874973 -1.81 0.070 .6704735 1.01593

2007.75 | .8118009 .0950553 -1.78 0.075 .6453283 1.021218

2008 | .7006097 .0830079 -3.00 0.003 .555426 .8837432

2008.25 | .7232927 .079432 -2.95 0.003 .5832236 .8970014

2008.5 | .8141084 .0945772 -1.77 0.077 .6483296 1.022277

2008.75 | .6787478 .0812551 -3.24 0.001 .5367948 .8582396

2009 | .6752644 .0800425 -3.31 0.001 .5352746 .8518656

2009.25 | .6331642 .0769012 -3.76 0.000 .4990377 .8033399

2009.5 | .7627981 .092138 -2.24 0.025 .6019957 .9665535

2009.75 | .5745087 .0669788 -4.75 0.000 .4571511 .7219939

2010 | .6254413 .0786497 -3.73 0.000 .4888181 .8002502

2010.25 | .6327858 .0780972 -3.71 0.000 .4968246 .8059543

2010.5 | .7356538 .0893155 -2.53 0.011 .5798682 .9332922

2010.75 | .6066004 .076901 -3.94 0.000 .4731433 .7777011

2011 | .6785015 .0836589 -3.15 0.002 .5328415 .8639798

2011.25 | .6801248 .0792803 -3.31 0.001 .5412106 .8546945

2011.5 | .7470245 .0943529 -2.31 0.021 .5832086 .9568543

2011.75 | .6252824 .0776014 -3.78 0.000 .4902717 .7974723

2012 | .7745681 .091138 -2.17 0.030 .6150419 .9754714

2012.25 | .6700111 .080801 -3.32 0.001 .5289688 .8486603

2012.5 | .7302931 .0878012 -2.61 0.009 .5769784 .9243468

2012.75 | .6245741 .0793661 -3.70 0.000 .4868776 .8012133

2013 | .6700061 .0892476 -3.01 0.003 .5160541 .8698861

2013.25 | .5805081 .0810123 -3.90 0.000 .4415904 .7631272

2013.5 | .7653286 .1040257 -1.97 0.049 .5863408 .9989546

2013.75 | .6082293 .0836969 -3.61 0.000 .4644465 .7965243

2014 | .5813123 .0837448 -3.77 0.000 .4383127 .7709655

2014.25 | .6571519 .0953558 -2.89 0.004 .4944843 .8733314

2014.5 | .6723689 .0865598 -3.08 0.002 .5224265 .8653465

2014.75 | .6781743 .0923734 -2.85 0.004 .5192782 .8856917

2015 | .6296031 .0918048 -3.17 0.002 .4730967 .8378837

2015.25 | .6670725 .104621 -2.58 0.010 .4905395 .9071355

2015.5 | .8442311 .1261797 -1.13 0.257 .629854 1.131574

2015.75 | .5232109 .088186 -3.84 0.000 .3760181 .7280226

2016 | .7107479 .1061597 -2.29 0.022 .5303679 .9524757

|

\_cons | .0000147 1.28e-06 -127.56 0.000 .0000124 .0000174

ln(hours) | 1 (exposure)

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

. estat gof

Deviance goodness-of-fit = 22079.89

Prob > chi2(28251) = 1.0000

Pearson goodness-of-fit = 372540.5

Prob > chi2(28251) = 0.0000

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

Iteration 0: log pseudolikelihood = -20004.876

Iteration 1: log pseudolikelihood = -19752.467

Iteration 2: log pseudolikelihood = -19752.135

Iteration 3: log pseudolikelihood = -19752.135

Generalized linear models No. of obs = 28,337

Optimization : ML Residual df = 28,251

Scale parameter = 1

Deviance = 15221.13266 (1/df) Deviance = .5387821

Pearson = 347299.1654 (1/df) Pearson = 12.29334

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

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

AIC = 1.400158

Log pseudolikelihood = -19752.13496 BIC = -274406

(Std. Err. adjusted for 1,544 clusters in mineid)

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| Robust

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

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

p47\_ss | .8719068 .3364902 -0.36 0.722 .4092328 1.857675

p48\_ss | .9910912 .0458646 -0.19 0.847 .9051545 1.085187

p71\_ss | .4299988 .1075368 -3.37 0.001 .2633865 .7020063

p72\_ss | 1.038235 .1765554 0.22 0.825 .7439533 1.448923

p75\_ss | 1.009583 .0022683 4.25 0.000 1.005147 1.014039

p77\_ss | 1.049794 .0324514 1.57 0.116 .9880785 1.115364

mine\_time | .9989154 .0017276 -0.63 0.530 .9955352 1.002307

onsite\_insp\_hours | .9996262 .0001556 -2.40 0.016 .9993212 .9999313

|

state |

AL | 1.11827 .1007016 1.24 0.214 .9373357 1.334131

AR | 1.894061 .1026554 11.78 0.000 1.703178 2.106337

CO | .7526024 .1243298 -1.72 0.085 .5444365 1.040361

IL | 1.229771 .100645 2.53 0.011 1.047518 1.443733

IN | .9623966 .1507389 -0.24 0.807 .7079971 1.308208

MD | 1.031236 .1732037 0.18 0.855 .7419802 1.433255

MT | .9336943 .0404916 -1.58 0.114 .8576115 1.016527

NM | .8282041 .0363888 -4.29 0.000 .759868 .9026858

OH | 1.010308 .1473179 0.07 0.944 .7591646 1.344533

OK | .8725705 .2290701 -0.52 0.604 .5216033 1.45969

PA | 1.012495 .0868206 0.14 0.885 .8558606 1.197795

TN | 1.376525 .1839468 2.39 0.017 1.059344 1.788674

UT | .6363827 .0864766 -3.33 0.001 .4875852 .830589

VA | .7181977 .0540284 -4.40 0.000 .6197407 .8322965

WV | 1.082514 .0534806 1.60 0.109 .9826092 1.192577

WY | 1.169422 .0578036 3.17 0.002 1.061444 1.288385

|

time |

2000 | 1.067512 .1272165 0.55 0.584 .8451506 1.348377

2000.25 | 1.111406 .1294094 0.91 0.364 .8846283 1.396319

2000.5 | 1.406798 .161235 2.98 0.003 1.123762 1.76112

2000.75 | .9874787 .1178138 -0.11 0.916 .781579 1.247621

2001 | .9925026 .1129184 -0.07 0.947 .7941257 1.240435

2001.5 | 1.155028 .1321153 1.26 0.208 .9230596 1.445291

2001.75 | .9928347 .109785 -0.07 0.948 .7993801 1.233106

2002 | 1.009497 .1225806 0.08 0.938 .7956933 1.280749

2002.25 | .9219623 .1087421 -0.69 0.491 .7316731 1.161741

2002.5 | 1.151826 .1350187 1.21 0.228 .9153939 1.449326

2002.75 | 1.077433 .1313519 0.61 0.541 .8484357 1.368239

2003 | .8809391 .1103806 -1.01 0.312 .6891145 1.126161

2003.25 | .9766334 .1261988 -0.18 0.855 .7581251 1.258121

2003.5 | 1.069206 .1319016 0.54 0.588 .8395639 1.361662

2003.75 | .7429805 .0911009 -2.42 0.015 .5842611 .9448173

2004 | .9938334 .1264831 -0.05 0.961 .7744313 1.275394

2004.25 | .8955525 .1091372 -0.91 0.365 .7052753 1.137165

2004.5 | .9156297 .1164565 -0.69 0.488 .7136049 1.174849

2004.75 | .8156666 .0998301 -1.66 0.096 .641702 1.036793

2005 | .719277 .0898441 -2.64 0.008 .5630844 .9187955

2005.25 | .9390427 .1053132 -0.56 0.575 .7537433 1.169896

2005.5 | .7913837 .0970467 -1.91 0.056 .6223074 1.006397

2005.75 | .7507127 .0977209 -2.20 0.028 .5816639 .968892

2006 | .7960991 .0964123 -1.88 0.060 .6278872 1.009375

2006.25 | .8028058 .1050678 -1.68 0.093 .6211677 1.037557

2006.5 | .8622165 .1049501 -1.22 0.223 .6792145 1.094525

2006.75 | .7073234 .0889571 -2.75 0.006 .5527974 .9050448

2007 | .7157588 .0886299 -2.70 0.007 .5615202 .9123636

2007.25 | .6905745 .0914119 -2.80 0.005 .5327657 .8951272

2007.5 | .7764995 .0952088 -2.06 0.039 .6106227 .987437

2007.75 | .7487668 .0947985 -2.29 0.022 .5842238 .9596524

2008 | .6304395 .0791727 -3.67 0.000 .4928861 .8063808

2008.25 | .6888419 .0867773 -2.96 0.003 .5381321 .8817597

2008.5 | .7476782 .0946522 -2.30 0.022 .5833873 .9582359

2008.75 | .6075299 .079258 -3.82 0.000 .4704575 .7845397

2009 | .592075 .0747185 -4.15 0.000 .4623353 .758222

2009.25 | .5756084 .0747513 -4.25 0.000 .446258 .7424518

2009.5 | .6823671 .0915907 -2.85 0.004 .5245242 .887709

2009.75 | .5212078 .0683208 -4.97 0.000 .4031196 .6738883

2010 | .5626216 .0763691 -4.24 0.000 .4311973 .7341025

2010.25 | .5760442 .0746003 -4.26 0.000 .4469115 .7424892

2010.5 | .7179416 .0973343 -2.44 0.015 .5504124 .9364616

2010.75 | .5586634 .0758264 -4.29 0.000 .4281719 .728924

2011 | .6593983 .0857537 -3.20 0.001 .5110347 .8508348

2011.25 | .6323148 .0804568 -3.60 0.000 .4927481 .8114126

2011.5 | .6970085 .0904923 -2.78 0.005 .5404144 .8989784

2011.75 | .5618794 .0748178 -4.33 0.000 .4328128 .7294341

2012 | .6965189 .0883271 -2.85 0.004 .543238 .8930499

2012.25 | .601231 .07754 -3.94 0.000 .466942 .7741405

2012.5 | .7059662 .0941918 -2.61 0.009 .5435187 .9169663

2012.75 | .5566052 .0764023 -4.27 0.000 .4253116 .7284291

2013 | .5743455 .0785843 -4.05 0.000 .4392466 .7509967

2013.25 | .4973204 .0714131 -4.86 0.000 .3753248 .6589694

2013.5 | .6314414 .0873453 -3.32 0.001 .481492 .8280892

2013.75 | .5435476 .0775945 -4.27 0.000 .4108883 .7190372

2014 | .4846399 .0724541 -4.85 0.000 .3615462 .6496426

2014.25 | .5562646 .0786238 -4.15 0.000 .4216678 .7338248

2014.5 | .5690147 .0783365 -4.10 0.000 .4344484 .7452616

2014.75 | .582698 .083243 -3.78 0.000 .4403953 .7709822

2015 | .5524514 .0811876 -4.04 0.000 .4141928 .7368611

2015.25 | .5957696 .0930266 -3.32 0.001 .4386996 .8090762

2015.5 | .7499022 .1070489 -2.02 0.044 .5668853 .9920054

2015.75 | .4591277 .0759848 -4.70 0.000 .3319412 .6350467

2016 | .6352487 .0997574 -2.89 0.004 .4669537 .864199

|

\_cons | .000015 1.41e-06 -118.04 0.000 .0000125 .000018

ln(hours) | 1 (exposure)

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

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

Fitting Poisson model:

Iteration 0: log pseudolikelihood = -20376.079

Iteration 1: log pseudolikelihood = -19512.288

Iteration 2: log pseudolikelihood = -19496.333

Iteration 3: log pseudolikelihood = -19496.316

Iteration 4: log pseudolikelihood = -19496.316

Fitting constant-only model:

Iteration 0: log pseudolikelihood = -20107.698

Iteration 1: log pseudolikelihood = -19847.991

Iteration 2: log pseudolikelihood = -19841.286

Iteration 3: log pseudolikelihood = -19841.282

Iteration 4: log pseudolikelihood = -19841.282

Fitting full model:

Iteration 0: log pseudolikelihood = -19381.32

Iteration 1: log pseudolikelihood = -19352.241

Iteration 2: log pseudolikelihood = -19351.346

Iteration 3: log pseudolikelihood = -19351.345

Negative binomial regression Number of obs = 28,337

Wald chi2(85) = .

Dispersion = mean Prob > chi2 = .

Log pseudolikelihood = -19351.345 Pseudo R2 = 0.0247

(Std. Err. adjusted for 1,544 clusters in mineid)

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| Robust

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

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

p47\_ss | .7382304 .2742914 -0.82 0.414 .3563903 1.529178

p48\_ss | .9799893 .0392347 -0.50 0.614 .9060303 1.059986

p71\_ss | .4698318 .1115932 -3.18 0.001 .2949628 .7483719

p72\_ss | 1.065473 .1677568 0.40 0.687 .7825679 1.450649

p75\_ss | 1.007907 .0021791 3.64 0.000 1.003645 1.012188

p77\_ss | 1.02829 .0287592 1.00 0.319 .9734404 1.086231

mine\_time | .9987055 .001902 -0.68 0.496 .9949846 1.00244

onsite\_insp\_hours | .9996315 .0001565 -2.35 0.019 .9993248 .9999384

|

state |

AL | 1.082209 .0908173 0.94 0.346 .9180783 1.275683

AR | 1.945917 .1106352 11.71 0.000 1.740721 2.175301

CO | .71561 .1159735 -2.06 0.039 .5208692 .98316

IL | 1.203207 .1050591 2.12 0.034 1.013951 1.427789

IN | .9366235 .145086 -0.42 0.673 .6913711 1.268875

MD | .9980585 .1671768 -0.01 0.991 .7187503 1.385907

MT | .8518736 .0403622 -3.38 0.001 .7763272 .9347717

NM | .7971506 .0368049 -4.91 0.000 .7281821 .8726514

OH | 1.0808 .1453211 0.58 0.563 .8304156 1.40668

OK | .8504874 .2251753 -0.61 0.541 .5061783 1.429

PA | .9398212 .0865963 -0.67 0.501 .7845389 1.125838

TN | 1.308442 .1730097 2.03 0.042 1.009726 1.695529

UT | .6110764 .079959 -3.76 0.000 .4728422 .7897228

VA | .6854156 .0601836 -4.30 0.000 .57705 .8141316

WV | 1.015371 .055092 0.28 0.779 .9129356 1.1293

WY | 1.102102 .0541304 1.98 0.048 1.000954 1.21347

|

time |

2000 | 1.108389 .1219119 0.94 0.349 .8934467 1.375043

2000.25 | 1.189383 .1328541 1.55 0.120 .9555264 1.480475

2000.5 | 1.432423 .1482491 3.47 0.001 1.169434 1.754553

2000.75 | 1.04508 .115318 0.40 0.689 .8418309 1.297401

2001 | 1.050052 .1071946 0.48 0.632 .8596385 1.282643

2001.5 | 1.202131 .1254884 1.76 0.078 .9797075 1.475052

2001.75 | 1.006129 .1003706 0.06 0.951 .8274437 1.223401

2002 | 1.070108 .118961 0.61 0.542 .8606005 1.330617

2002.25 | .9773639 .1105348 -0.20 0.840 .7830505 1.219896

2002.5 | 1.192184 .1270025 1.65 0.099 .967532 1.468998

2002.75 | 1.102422 .1207178 0.89 0.373 .889486 1.366332

2003 | .8928223 .101943 -0.99 0.321 .7137964 1.116749

2003.25 | .999743 .1135619 -0.00 0.998 .8002017 1.249043

2003.5 | 1.098649 .1244985 0.83 0.406 .8798345 1.371882

2003.75 | .7986036 .0894872 -2.01 0.045 .641136 .9947462

2004 | 1.018164 .1153291 0.16 0.874 .8154567 1.271261

2004.25 | .9649633 .1081982 -0.32 0.750 .7745836 1.202135

2004.5 | .9575611 .1096222 -0.38 0.705 .7651039 1.19843

2004.75 | .8569041 .0961013 -1.38 0.169 .6878131 1.067564

2005 | .7500352 .0834216 -2.59 0.010 .6031258 .9327287

2005.25 | .9729229 .0977931 -0.27 0.785 .7989509 1.184777

2005.5 | .8620161 .0999383 -1.28 0.200 .6868009 1.081932

2005.75 | .7876932 .0919212 -2.05 0.041 .6266494 .9901239

2006 | .812039 .0900884 -1.88 0.061 .6533468 1.009276

2006.25 | .8185819 .0980379 -1.67 0.095 .6473178 1.035158

2006.5 | .8991389 .101015 -0.95 0.344 .7214353 1.120614

2006.75 | .7363671 .0862074 -2.61 0.009 .585387 .9262871

2007 | .7638392 .0868733 -2.37 0.018 .6112132 .9545775

2007.25 | .7289474 .092321 -2.50 0.013 .5687111 .9343308

2007.5 | .8039252 .0896826 -1.96 0.050 .6460395 1.000397

2007.75 | .7897274 .0944788 -1.97 0.048 .6246604 .9984134

2008 | .6755187 .08086 -3.28 0.001 .5342543 .8541354

2008.25 | .7058115 .0810741 -3.03 0.002 .5635262 .8840224

2008.5 | .7926204 .0944577 -1.95 0.051 .6275182 1.001162

2008.75 | .6479212 .0791997 -3.55 0.000 .5098873 .8233229

2009 | .6416214 .0771778 -3.69 0.000 .5068641 .8122059

2009.25 | .6142978 .0752067 -3.98 0.000 .4832467 .7808885

2009.5 | .7338299 .0919088 -2.47 0.013 .5740985 .9380035

2009.75 | .5552829 .0674501 -4.84 0.000 .437642 .7045463

2010 | .6007723 .0766376 -3.99 0.000 .4678711 .7714247

2010.25 | .61333 .0764372 -3.92 0.000 .4804098 .7830266

2010.5 | .7291965 .0915564 -2.52 0.012 .5701242 .9326522

2010.75 | .5871946 .0750903 -4.16 0.000 .4570152 .7544553

2011 | .6743243 .0837697 -3.17 0.002 .5285986 .8602239

2011.25 | .6609772 .0789283 -3.47 0.001 .52305 .8352756

2011.5 | .7321202 .0921938 -2.48 0.013 .571996 .9370695

2011.75 | .5967045 .0746033 -4.13 0.000 .4670221 .762397

2012 | .7465921 .0889037 -2.45 0.014 .5911843 .9428528

2012.25 | .6388947 .0777121 -3.68 0.000 .5033768 .8108964

2012.5 | .7224848 .0894123 -2.63 0.009 .5668744 .9208111

2012.75 | .5984305 .0772989 -3.97 0.000 .4645843 .7708377

2013 | .6336209 .0839265 -3.44 0.001 .488746 .8214398

2013.25 | .5476734 .0763033 -4.32 0.000 .4168021 .7196367

2013.5 | .7089255 .0959732 -2.54 0.011 .5437087 .9243468

2013.75 | .5805269 .0795982 -3.97 0.000 .4437219 .7595105

2014 | .5435293 .0788044 -4.21 0.000 .4090819 .7221636

2014.25 | .6120167 .0848498 -3.54 0.000 .4663941 .8031072

2014.5 | .6315646 .0822517 -3.53 0.000 .4892847 .8152183

2014.75 | .6402119 .0877426 -3.25 0.001 .4894006 .8374966

2015 | .5953322 .0851585 -3.63 0.000 .4497802 .7879856

2015.25 | .6333547 .0956894 -3.02 0.003 .4710256 .8516272

2015.5 | .802178 .1142501 -1.55 0.122 .60679 1.060481

2015.75 | .4969394 .0816821 -4.25 0.000 .3600735 .6858287

2016 | .6844746 .1038165 -2.50 0.012 .5084553 .921429

|

\_cons | .0000148 1.31e-06 -126.04 0.000 .0000124 .0000176

ln(hours) | 1 (exposure)

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

/lnalpha | -1.458271 .1245269 -1.702339 -1.214203

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

alpha | .2326382 .0289697 .1822567 .2969467

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

. lrtest pois nbin, stats force

Likelihood-ratio test LR chi2(1) = 289.94

(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 | 28,337 -20154.17 -19496.32 86 39164.63 39874.3

nbin | 28,337 -19841.28 -19351.35 87 38876.69 39594.61

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

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

. summ MR pcssv1\_yhat

Variable | Obs Mean Std. Dev. Min Max

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

MR | 30,289 .4096207 .9550592 0 14

pcssv1\_yhat | 28,337 .4405485 .6855834 .0000147 9.24613