. // Model SP.C.SSV.1

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

note: sp75\_1727\_ss omitted because of collinearity

note: sp77\_606\_ss omitted because of collinearity

note: sp77\_704\_8\_ss omitted because of collinearity

note: sp77\_901\_1\_ss omitted because of collinearity

Iteration 0: log pseudolikelihood = -9220.1123

Iteration 1: log pseudolikelihood = -8641.2074

Iteration 2: log pseudolikelihood = -8635.9412

Iteration 3: log pseudolikelihood = -8635.5561

Iteration 4: log pseudolikelihood = -8635.4811

Iteration 5: log pseudolikelihood = -8635.4648

Iteration 6: log pseudolikelihood = -8635.461

Iteration 7: log pseudolikelihood = -8635.4602

Iteration 8: log pseudolikelihood = -8635.46

Iteration 9: log pseudolikelihood = -8635.4599

Generalized linear models No. of obs = 6,253

Optimization : ML Residual df = 5,951

Scale parameter = 1

Deviance = 7696.054184 (1/df) Deviance = 1.293237

Pearson = 8482.844258 (1/df) Pearson = 1.425449

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

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

AIC = 2.858615

Log pseudolikelihood = -8635.459939 BIC = -44320.55

(Std. Err. adjusted for 1,238 clusters in mineid)

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| Robust

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

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

sp47\_41\_ss | .681371 .2213638 -1.18 0.238 .3604502 1.288018

sp47\_44\_ss | .36817 .1916229 -1.92 0.055 .1327456 1.02112

sp48\_11\_ss | .9801953 .0540908 -0.36 0.717 .8797112 1.092157

sp48\_25\_ss | .8972517 .0734999 -1.32 0.186 .7641642 1.053518

sp48\_26\_ss | 1.179123 .1153676 1.68 0.092 .9733659 1.428376

sp48\_27\_ss | 1.059382 .077136 0.79 0.428 .9184902 1.221885

sp48\_28\_ss | 1.000306 .0915084 0.00 0.997 .836112 1.196744

sp48\_4\_ss | 1.64331 1.490035 0.55 0.584 .2779145 9.716895

sp48\_5\_ss | 1.003613 .1010144 0.04 0.971 .8239337 1.222476

sp48\_6\_ss | .961158 .0875125 -0.44 0.663 .8040697 1.148936

sp48\_7\_ss | 1.070451 .0576004 1.27 0.206 .9633054 1.189514

sp48\_8\_ss | .9820055 .129936 -0.14 0.891 .7576795 1.272748

sp71\_701\_ss | 2.497806 .5125256 4.46 0.000 1.670707 3.734367

sp72\_503\_ss | .8493354 .148003 -0.94 0.349 .6036025 1.195109

sp72\_610\_ss | .6812439 .1682393 -1.55 0.120 .4198467 1.105388

sp72\_620\_ss | 1.756705 .3520863 2.81 0.005 1.186035 2.601958

sp72\_630\_ss | 1.01596 .009768 1.65 0.100 .9969939 1.035286

sp75\_100\_ss | .8139918 .2127532 -0.79 0.431 .4876872 1.358622

sp75\_1001\_1\_ss | 1.31182 .7381581 0.48 0.630 .4354164 3.952241

sp75\_1001\_ss | 1.506236 .6285455 0.98 0.326 .6647989 3.41268

sp75\_1003\_1\_ss | .4471741 .086543 -4.16 0.000 .3060138 .6534499

sp75\_1100\_2\_ss | 1.019527 .014703 1.34 0.180 .9911131 1.048756

sp75\_1101\_20\_ss | .6951058 .0864467 -2.92 0.003 .5447426 .8869731

sp75\_1102\_ss | .9621968 .0515591 -0.72 0.472 .8662683 1.068748

sp75\_1103\_4\_ss | 1.072897 .0307762 2.45 0.014 1.014241 1.134945

sp75\_1104\_ss | 1.05782 .1403357 0.42 0.672 .815619 1.371944

sp75\_1106\_2\_ss | .935174 .0541664 -1.16 0.247 .8348143 1.047599

sp75\_1106\_3\_ss | 1.051459 .0224219 2.35 0.019 1.008419 1.096337

sp75\_1106\_4\_ss | 1.153205 .2004913 0.82 0.412 .8202008 1.62141

sp75\_1106\_5\_ss | .9900035 .076539 -0.13 0.897 .8508025 1.151979

sp75\_1106\_6\_ss | .6178644 .2896352 -1.03 0.304 .2465341 1.548494

sp75\_1106\_ss | 1.034563 .0836379 0.42 0.674 .8829632 1.212191

sp75\_1107\_14\_ss | 2.111042 .5250661 3.00 0.003 1.296531 3.437248

sp75\_1400\_1\_ss | .8257 .1451941 -1.09 0.276 .5849839 1.165469

sp75\_1400\_2\_ss | .5029878 .1813396 -1.91 0.057 .2481293 1.019616

sp75\_1400\_3\_ss | .9977724 .1249314 -0.02 0.986 .7806427 1.275295

sp75\_1400\_4\_ss | .8192327 .1523583 -1.07 0.284 .5689885 1.179536

sp75\_1400\_ss | 1.064055 .0498181 1.33 0.185 .9707595 1.166317

sp75\_1401\_ss | .8911489 .1965448 -0.52 0.601 .5783835 1.373045

sp75\_1403\_10\_ss | 1.016595 .0151572 1.10 0.270 .9873175 1.046741

sp75\_1403\_11\_ss | .7470264 .314451 -0.69 0.488 .3273661 1.704661

sp75\_1403\_3\_ss | 1.46756 .6924945 0.81 0.416 .5820246 3.700416

sp75\_1403\_4\_ss | 1.450002 .4319892 1.25 0.212 .8086786 2.599928

sp75\_1403\_5\_ss | .9823843 .0100184 -1.74 0.081 .9629436 1.002217

sp75\_1403\_6\_ss | .9930782 .0118709 -0.58 0.561 .9700821 1.016619

sp75\_1403\_7\_ss | 1.061285 .0419813 1.50 0.133 .9821118 1.14684

sp75\_1403\_8\_ss | .9826062 .014338 -1.20 0.229 .9549022 1.011114

sp75\_1403\_9\_ss | .9330998 .0943889 -0.68 0.494 .7652859 1.137712

sp75\_1404\_1\_ss | .5752717 .1793929 -1.77 0.076 .3122008 1.060015

sp75\_1404\_ss | 1.51906 .6279928 1.01 0.312 .6755863 3.415617

sp75\_1405\_1\_ss | 1.744315 .5034376 1.93 0.054 .9907275 3.071111

sp75\_1405\_ss | .9822561 .0149868 -1.17 0.241 .9533173 1.012073

sp75\_1431\_ss | 1.755896 .556843 1.78 0.076 .9431034 3.269176

sp75\_1432\_ss | 2.07e-06 1.51e-06 -17.91 0.000 4.94e-07 8.67e-06

sp75\_1433\_ss | 1.048423 .1210575 0.41 0.682 .8360869 1.314685

sp75\_1434\_ss | 1.193054 .1071514 1.97 0.049 1.000487 1.422685

sp75\_1435\_ss | .3422658 .1465193 -2.50 0.012 .1479026 .7920477

sp75\_1437\_ss | 1.091577 .2697162 0.35 0.723 .6725619 1.771645

sp75\_150\_ss | 1.296775 .31489 1.07 0.285 .8056964 2.087172

sp75\_151\_ss | .8566359 .1706085 -0.78 0.437 .5797891 1.265676

sp75\_153\_ss | .7512718 .5996102 -0.36 0.720 .1571919 3.590574

sp75\_155\_ss | 1.530891 .2210456 2.95 0.003 1.153557 2.031652

sp75\_156\_ss | 1.64718 .5051442 1.63 0.104 .9030285 3.00456

sp75\_1600\_2\_ss | .8379411 .1128795 -1.31 0.189 .6434987 1.091137

sp75\_1712\_10\_ss | 1.014076 .1485144 0.10 0.924 .7610433 1.351236

sp75\_1712\_6\_ss | .8528793 .2890301 -0.47 0.639 .4389611 1.657101

sp75\_1720\_ss | 1.025027 .0388079 0.65 0.514 .9517188 1.103983

sp75\_1721\_ss | 1.75e-06 1.82e-06 -12.75 0.000 2.29e-07 .0000134

sp75\_1725\_ss | .9984431 .0040132 -0.39 0.698 .9906083 1.00634

sp75\_1726\_ss | 1.063611 .1107707 0.59 0.554 .867229 1.304464

sp75\_1727\_ss | 1 (omitted)

sp75\_1728\_ss | 1.580922 .2460273 2.94 0.003 1.165317 2.14475

sp75\_1729\_ss | 1.147034 .2043424 0.77 0.441 .8089769 1.62636

sp75\_1730\_ss | .9079169 .1438305 -0.61 0.542 .6655801 1.238488

sp75\_1731\_ss | 1.002938 .0043108 0.68 0.495 .9945242 1.011423

sp75\_1903\_ss | .9785917 .1461357 -0.14 0.885 .7302798 1.311335

sp75\_1909\_ss | 1.014549 .0130404 1.12 0.261 .9893091 1.040432

sp75\_1910\_ss | 1.040542 .0255529 1.62 0.106 .9916458 1.09185

sp75\_1911\_ss | .9195413 .036981 -2.09 0.037 .8498428 .9949559

sp75\_1912\_ss | 1.062705 .3651401 0.18 0.860 .5419312 2.083921

sp75\_1913\_ss | 1.207982 .0668709 3.41 0.001 1.083777 1.346421

sp75\_1914\_ss | 1.010692 .0116214 0.92 0.355 .9881695 1.033728

sp75\_1915\_ss | 1.355554 .2003825 2.06 0.040 1.014587 1.811107

sp75\_202\_ss | 1.001966 .0030059 0.65 0.513 .9960916 1.007874

sp75\_208\_ss | 1.012623 .0183894 0.69 0.490 .9772147 1.049315

sp75\_211\_ss | 1.013113 .0242994 0.54 0.587 .9665894 1.061876

sp75\_212\_ss | .9804374 .044322 -0.44 0.662 .897305 1.071272

sp75\_214\_ss | .9871981 .1505714 -0.08 0.933 .7321089 1.331168

sp75\_312\_ss | 1.148376 .2114524 0.75 0.452 .8004808 1.647469

sp75\_320\_ss | 1.003764 .0528383 0.07 0.943 .905366 1.112856

sp75\_324\_ss | .9703626 .0662957 -0.44 0.660 .8487495 1.109401

sp75\_337\_ss | 1.069521 .0275046 2.61 0.009 1.016949 1.124811

sp75\_340\_ss | 1.001102 .0158134 0.07 0.944 .9705831 1.03258

sp75\_342\_ss | 1.007207 .0091259 0.79 0.428 .9894784 1.025253

sp75\_344\_ss | .8620279 .0691874 -1.85 0.064 .736551 1.008881

sp75\_352\_ss | .9467294 .0531488 -0.98 0.330 .8480861 1.056846

sp75\_382\_ss | 1.072068 .1249731 0.60 0.551 .8530927 1.347251

sp75\_503\_ss | .9924643 .0047307 -1.59 0.113 .9832354 1.00178

sp75\_504\_ss | .6005691 .1274004 -2.40 0.016 .3962736 .9101872

sp75\_505\_ss | 1.018067 .2042377 0.09 0.929 .6870903 1.508476

sp75\_506\_1\_ss | 1.275101 .3464338 0.89 0.371 .748653 2.171744

sp75\_506\_ss | .9528422 .1558334 -0.30 0.768 .6915291 1.3129

sp75\_507\_ss | 1.042658 .0890065 0.49 0.625 .8820212 1.23255

sp75\_511\_1\_ss | .3939276 .1228077 -2.99 0.003 .2138221 .7257386

sp75\_511\_ss | 1.133562 .0582145 2.44 0.015 1.025018 1.253601

sp75\_512\_1\_ss | 2.088375 .6820314 2.25 0.024 1.10108 3.960937

sp75\_512\_2\_ss | .9976187 .0394197 -0.06 0.952 .9232735 1.07795

sp75\_512\_ss | 1.002756 .0073194 0.38 0.706 .9885127 1.017205

sp75\_513\_1\_ss | 1.460136 .4431517 1.25 0.212 .8054776 2.646874

sp75\_513\_ss | .7994906 .0857289 -2.09 0.037 .647947 .9864776

sp75\_514\_ss | 1.05708 .0244229 2.40 0.016 1.010279 1.106048

sp75\_515\_ss | .920154 .0296238 -2.58 0.010 .8638864 .9800864

sp75\_516\_1\_ss | .7973478 .213678 -0.85 0.398 .4715608 1.348211

sp75\_516\_2\_ss | .9750327 .2009807 -0.12 0.902 .6509737 1.460411

sp75\_516\_ss | 1.125089 .0384455 3.45 0.001 1.052205 1.203021

sp75\_517\_1\_ss | .7884241 .1621238 -1.16 0.248 .5268987 1.179757

sp75\_517\_ss | 1.002686 .0045794 0.59 0.557 .9937503 1.011701

sp75\_518\_1\_ss | .8608913 .0673548 -1.91 0.056 .738502 1.003564

sp75\_518\_ss | 1.033164 .0210687 1.60 0.110 .9926845 1.075294

sp75\_519\_ss | 1.201156 .6533213 0.34 0.736 .4136392 3.488003

sp75\_520\_ss | .9941014 .0378275 -0.16 0.876 .9226581 1.071077

sp75\_523\_1\_ss | .9856331 .0319396 -0.45 0.655 .9249792 1.050264

sp75\_523\_2\_ss | .9956501 .0274561 -0.16 0.874 .9432656 1.050944

sp75\_523\_ss | .9398792 .0410075 -1.42 0.155 .8628467 1.023789

sp75\_600\_1\_ss | .741745 .1211004 -1.83 0.067 .5386217 1.021469

sp75\_600\_ss | .5460029 .0828058 -3.99 0.000 .405605 .7349988

sp75\_601\_1\_ss | 1.024624 .0234113 1.06 0.287 .9797506 1.071552

sp75\_601\_2\_ss | .8362073 .347252 -0.43 0.667 .3705402 1.88709

sp75\_601\_3\_ss | .8737437 .2589531 -0.46 0.649 .4887782 1.561911

sp75\_601\_ss | .9783381 .0224178 -0.96 0.339 .9353721 1.023278

sp75\_602\_ss | 1.054203 .0584021 0.95 0.341 .9457329 1.175115

sp75\_603\_ss | .973038 .0601354 -0.44 0.658 .8620336 1.098337

sp75\_604\_ss | 1.019451 .0060663 3.24 0.001 1.007631 1.031411

sp75\_605\_ss | 1.020222 .0329125 0.62 0.535 .9577113 1.086812

sp75\_606\_ss | .9795145 .0175018 -1.16 0.247 .9458053 1.014425

sp75\_607\_ss | .9545237 .0564565 -0.79 0.431 .8500439 1.071845

sp75\_700\_1\_ss | .4895509 .1239786 -2.82 0.005 .2980104 .8042004

sp75\_700\_ss | .9486313 .053385 -0.94 0.349 .8495626 1.059253

sp75\_701\_1\_ss | .9745881 .0575949 -0.44 0.663 .8679963 1.094269

sp75\_701\_2\_ss | 1.093001 .0959673 1.01 0.311 .9202031 1.298248

sp75\_701\_3\_ss | 1.082559 .1237396 0.69 0.488 .8652807 1.354399

sp75\_701\_4\_ss | 2.16914 1.15785 1.45 0.147 .7619577 6.175105

sp75\_701\_5\_ss | .8575891 .0798211 -1.65 0.099 .7145829 1.029214

sp75\_701\_ss | 1.027307 .0208431 1.33 0.184 .987257 1.068982

sp75\_703\_2\_ss | .9208191 .1799907 -0.42 0.673 .6277571 1.350694

sp75\_703\_3\_ss | 1.08522 .1043537 0.85 0.395 .8988082 1.310293

sp75\_703\_ss | .9992403 .0498348 -0.02 0.988 .9061879 1.101848

sp75\_704\_ss | 1.499947 .6087954 1.00 0.318 .6770049 3.323226

sp75\_705\_1\_ss | .8750751 .0784575 -1.49 0.137 .7340546 1.043187

sp75\_705\_8\_ss | 2.53e-06 2.14e-06 -15.27 0.000 4.84e-07 .0000132

sp75\_705\_ss | 1.090436 .1220068 0.77 0.439 .8757108 1.357811

sp75\_706\_ss | .8474061 .1073822 -1.31 0.191 .6610411 1.086312

sp75\_800\_2\_ss | 7.13e-07 7.15e-07 -14.12 0.000 9.99e-08 5.08e-06

sp75\_800\_3\_ss | .6087972 .3505567 -0.86 0.389 .1969405 1.881959

sp75\_800\_4\_ss | 3.945281 1.600756 3.38 0.001 1.781196 8.738644

sp75\_800\_ss | .9092681 .0810503 -1.07 0.286 .763515 1.082845

sp75\_801\_ss | .6760678 .1651099 -1.60 0.109 .4188987 1.091117

sp75\_802\_ss | .6851079 .1977147 -1.31 0.190 .3891451 1.206164

sp75\_803\_2\_ss | 1.219114 .3522754 0.69 0.493 .6919603 2.147869

sp75\_803\_ss | 1.184134 .0889051 2.25 0.024 1.022098 1.371858

sp75\_804\_ss | .9074455 .05827 -1.51 0.130 .800133 1.029151

sp75\_805\_ss | .5170037 .0898472 -3.80 0.000 .3677631 .7268071

sp75\_806\_ss | .6345212 .0938333 -3.08 0.002 .4748648 .8478563

sp75\_807\_ss | 1.039583 .0238252 1.69 0.090 .9939193 1.087344

sp75\_808\_ss | 1.177931 .1495686 1.29 0.197 .9184129 1.510782

sp75\_809\_ss | .986599 .060586 -0.22 0.826 .8747204 1.112787

sp75\_810\_ss | 1.181989 .1360675 1.45 0.146 .9432469 1.481159

sp75\_811\_ss | .999122 .1140127 -0.01 0.994 .7988872 1.249544

sp75\_812\_ss | .7507801 .1403846 -1.53 0.125 .5204162 1.083115

sp75\_814\_ss | .9074171 .094445 -0.93 0.351 .739968 1.112759

sp75\_815\_ss | 1.822291 .6871385 1.59 0.112 .8702658 3.815783

sp75\_816\_ss | 1.152633 .0766945 2.13 0.033 1.011703 1.313193

sp75\_818\_ss | 1.373897 .2629669 1.66 0.097 .9441309 1.999291

sp75\_819\_ss | .9831397 .3839011 -0.04 0.965 .4573346 2.113472

sp75\_820\_ss | 1.016401 .080732 0.20 0.838 .8698709 1.187614

sp75\_821\_ss | 1.984995 .5210755 2.61 0.009 1.186623 3.320519

sp75\_825\_ss | 1.060367 .1524391 0.41 0.683 .7999946 1.405483

sp75\_827\_ss | 1.231042 .4083036 0.63 0.531 .6426167 2.35827

sp75\_831\_ss | .7994565 .1277608 -1.40 0.161 .5844733 1.093516

sp75\_900\_2\_ss | .907004 .1846304 -0.48 0.632 .6086085 1.3517

sp75\_900\_3\_ss | 1.03037 .1249983 0.25 0.805 .8123262 1.30694

sp75\_900\_4\_ss | 1.139375 .1495341 0.99 0.320 .8809539 1.473603

sp75\_900\_ss | .9677594 .0281921 -1.12 0.261 .9140517 1.024623

sp75\_901\_ss | .9398355 .1010487 -0.58 0.564 .7612597 1.160301

sp75\_902\_1\_ss | 1.148138 .2250273 0.70 0.481 .781924 1.685869

sp75\_902\_2\_ss | 1.140402 .1231819 1.22 0.224 .9228146 1.409294

sp75\_902\_4\_ss | 1.065938 .0781227 0.87 0.384 .9233099 1.2306

sp75\_902\_ss | 1.057211 .0353882 1.66 0.097 .9900773 1.128896

sp75\_903\_ss | 1.028075 .0449708 0.63 0.527 .9436065 1.120105

sp75\_904\_ss | 1.014204 .012005 1.19 0.233 .9909453 1.038008

sp75\_905\_ss | .4624445 .0815173 -4.38 0.000 .3273515 .6532885

sp75\_907\_ss | .7586784 .1312116 -1.60 0.110 .5405607 1.064807

sp77\_103\_ss | .9478592 .0998362 -0.51 0.611 .7710604 1.165197

sp77\_1103\_ss | .9513902 .0731789 -0.65 0.517 .8182501 1.106194

sp77\_1104\_ss | 1.01371 .0125323 1.10 0.271 .9894422 1.038573

sp77\_1106\_ss | 3.09e-07 3.15e-07 -14.72 0.000 4.20e-08 2.27e-06

sp77\_1111\_ss | 1.021495 .291843 0.07 0.941 .5835071 1.788241

sp77\_1112\_ss | 1.099021 .0882579 1.18 0.240 .9389646 1.28636

sp77\_1403\_ss | .8746506 .19093 -0.61 0.540 .570195 1.34167

sp77\_1433\_ss | .7184445 .1711502 -1.39 0.165 .4504195 1.145959

sp77\_1434\_ss | 1.227858 .2227578 1.13 0.258 .8604453 1.752157

sp77\_1437\_ss | .7077421 .1010674 -2.42 0.015 .53496 .9363297

sp77\_1438\_ss | .1270072 .1132855 -2.31 0.021 .02211 .72957

sp77\_1605\_ss | 1.007913 .0193372 0.41 0.681 .9707161 1.046534

sp77\_1606\_ss | 1.027536 .0243021 1.15 0.251 .9809921 1.076289

sp77\_1710\_ss | .9352856 .0288752 -2.17 0.030 .8803695 .9936273

sp77\_1802\_ss | .7590509 .2346422 -0.89 0.372 .4141356 1.391231

sp77\_1906\_ss | 3.411122 2.363001 1.77 0.077 .8774876 13.26031

sp77\_1915\_ss | 1.087154 .2361918 0.38 0.701 .7101686 1.664258

sp77\_1916\_ss | 1.299743 .1606054 2.12 0.034 1.02018 1.655914

sp77\_200\_ss | .9908319 .0182818 -0.50 0.618 .9556404 1.027319

sp77\_202\_ss | .9685042 .0218582 -1.42 0.156 .9265966 1.012307

sp77\_203\_ss | .8624303 .1438024 -0.89 0.375 .622005 1.195788

sp77\_204\_ss | .9879713 .0247493 -0.48 0.629 .9406351 1.03769

sp77\_205\_ss | 1.006844 .0103478 0.66 0.507 .9867657 1.027331

sp77\_206\_ss | 1.027007 .0555687 0.49 0.622 .9236708 1.141905

sp77\_207\_ss | 1.157069 .0541185 3.12 0.002 1.055715 1.268153

sp77\_208\_ss | 1.073348 .0347439 2.19 0.029 1.007366 1.143651

sp77\_210\_ss | 1.019723 .0881374 0.23 0.821 .8608162 1.207963

sp77\_216\_ss | 1.40728 .2496891 1.93 0.054 .9939271 1.992537

sp77\_315\_ss | .6523884 .3034862 -0.92 0.359 .2621402 1.623599

sp77\_400\_ss | 1.003041 .009996 0.30 0.761 .9836394 1.022825

sp77\_401\_ss | 1.008917 .0846856 0.11 0.916 .8558706 1.189332

sp77\_402\_ss | 1.029923 .0628857 0.48 0.629 .9137589 1.160855

sp77\_403\_1\_ss | 1.366708 .2500504 1.71 0.088 .9548635 1.956185

sp77\_403\_ss | 2.131187 .5529666 2.92 0.004 1.281638 3.54387

sp77\_404\_ss | .9755369 .0100564 -2.40 0.016 .9560245 .9954475

sp77\_405\_ss | 1.07556 .0879443 0.89 0.373 .9162952 1.262508

sp77\_408\_ss | .876261 .1000526 -1.16 0.247 .7005549 1.096036

sp77\_409\_ss | .5368663 .2679648 -1.25 0.213 .2018403 1.427988

sp77\_410\_ss | 1.020157 .0200055 1.02 0.309 .9816904 1.06013

sp77\_411\_ss | .6246058 .054705 -5.37 0.000 .5260839 .7415783

sp77\_412\_ss | .9648788 .0855712 -0.40 0.687 .8109296 1.148054

sp77\_413\_ss | 1.916115 .4270196 2.92 0.004 1.238013 2.965635

sp77\_500\_ss | .8525926 .1471304 -0.92 0.355 .6079266 1.195727

sp77\_501\_ss | .9527902 .0743569 -0.62 0.535 .8176519 1.110264

sp77\_502\_1\_ss | 1.352142 .4102831 0.99 0.320 .7460027 2.450778

sp77\_502\_2\_ss | 1.017347 .0900411 0.19 0.846 .8553285 1.210056

sp77\_502\_ss | .9853888 .0167189 -0.87 0.386 .9531591 1.018708

sp77\_503\_1\_ss | 1.252452 .206729 1.36 0.173 .9062798 1.730852

sp77\_503\_ss | .9409977 .1611004 -0.36 0.722 .6727619 1.316181

sp77\_504\_ss | .9222812 .056917 -1.31 0.190 .8172087 1.040863

sp77\_505\_ss | .9209343 .0439908 -1.72 0.085 .838627 1.01132

sp77\_506\_1\_ss | 1.33756 .3676149 1.06 0.290 .7804929 2.292226

sp77\_506\_ss | 1.091868 .1058972 0.91 0.365 .9028475 1.320462

sp77\_507\_ss | 1.011056 .1188347 0.09 0.925 .8030254 1.27298

sp77\_508\_1\_ss | 1.447204 .6944211 0.77 0.441 .5650568 3.706527

sp77\_508\_ss | 1.274855 .1897634 1.63 0.103 .9522663 1.706722

sp77\_509\_ss | .8516535 .0697536 -1.96 0.050 .7253479 .9999528

sp77\_510\_ss | .7887306 .1638869 -1.14 0.253 .5248814 1.185212

sp77\_511\_ss | 1.332168 .5061169 0.75 0.450 .6326602 2.805093

sp77\_512\_ss | .9832055 .0327767 -0.51 0.611 .921018 1.049592

sp77\_513\_ss | 1.008096 .059598 0.14 0.892 .8977997 1.131943

sp77\_514\_ss | .5787902 .1496025 -2.12 0.034 .3487445 .9605832

sp77\_515\_ss | 2.158472 1.118254 1.49 0.138 .7819135 5.958459

sp77\_516\_ss | .9465538 .0337229 -1.54 0.123 .882713 1.015012

sp77\_600\_ss | 1.023716 .1689951 0.14 0.887 .7407349 1.414802

sp77\_601\_ss | 1.129326 .1524718 0.90 0.368 .8667572 1.471435

sp77\_602\_ss | .9022842 .2384623 -0.39 0.697 .5375038 1.514625

sp77\_603\_ss | 3.006599 1.086151 3.05 0.002 1.481065 6.10347

sp77\_604\_ss | .8727522 .1054739 -1.13 0.260 .6886863 1.106013

sp77\_605\_ss | .384482 .375269 -0.98 0.327 .0567638 2.604239

sp77\_606\_ss | 1 (omitted)

sp77\_700\_1\_ss | 1.455706 .5107638 1.07 0.285 .7318341 2.895576

sp77\_700\_ss | .9970614 .1691355 -0.02 0.986 .7150381 1.39032

sp77\_701\_1\_ss | .8591578 .419453 -0.31 0.756 .3299926 2.236875

sp77\_701\_2\_ss | .6863885 .2471485 -1.05 0.296 .3389043 1.390154

sp77\_701\_3\_ss | 1.380895 .2317866 1.92 0.055 .9937666 1.918832

sp77\_701\_4\_ss | .7599067 .2074737 -1.01 0.315 .4450009 1.297657

sp77\_701\_ss | .955261 .0443046 -0.99 0.324 .8722554 1.046166

sp77\_704\_1\_ss | 1.248749 .2169263 1.28 0.201 .8884001 1.75526

sp77\_704\_8\_ss | 1 (omitted)

sp77\_704\_9\_ss | 2.407792 .8188141 2.58 0.010 1.236381 4.68906

sp77\_704\_ss | 1.325265 .3104495 1.20 0.229 .8373455 2.097493

sp77\_705\_ss | .7973459 .1518931 -1.19 0.235 .5489012 1.158242

sp77\_800\_1\_ss | 1.141734 .5380559 0.28 0.779 .4533422 2.875437

sp77\_800\_2\_ss | .9627163 .3778578 -0.10 0.923 .4460763 2.077722

sp77\_800\_ss | 1.257776 .3355344 0.86 0.390 .7456416 2.121664

sp77\_801\_1\_ss | 6.10e-06 6.12e-06 -11.97 0.000 8.54e-07 .0000436

sp77\_802\_ss | .8950896 .1594801 -0.62 0.534 .6312567 1.269191

sp77\_803\_ss | 3.09764 2.769875 1.26 0.206 .5369033 17.8717

sp77\_804\_ss | 1.068745 .1211943 0.59 0.558 .8557542 1.334748

sp77\_805\_ss | .8769315 .1906625 -0.60 0.546 .5726607 1.34287

sp77\_807\_1\_ss | .648902 .2175234 -1.29 0.197 .3363886 1.251748

sp77\_807\_2\_ss | 1.325025 .1899642 1.96 0.050 1.000438 1.754922

sp77\_807\_3\_ss | 1.362327 .0947806 4.44 0.000 1.188669 1.561355

sp77\_807\_ss | 1.027557 .2302021 0.12 0.903 .6623878 1.59404

sp77\_808\_ss | 1.660951 .7325955 1.15 0.250 .6997087 3.942722

sp77\_809\_ss | .8090446 .1109116 -1.55 0.122 .6184172 1.058433

sp77\_810\_ss | 1.172091 .3125016 0.60 0.551 .6950484 1.97655

sp77\_900\_1\_ss | 2.196995 .56614 3.05 0.002 1.32582 3.640607

sp77\_900\_2\_ss | 8.59e-07 8.70e-07 -13.79 0.000 1.18e-07 6.25e-06

sp77\_900\_ss | .7870886 .2214 -0.85 0.395 .4535126 1.366023

sp77\_901\_1\_ss | 1 (omitted)

sp77\_901\_ss | .8817241 .1011782 -1.10 0.273 .7041366 1.1041

sp77\_902\_3\_ss | 1.43e-06 1.21e-06 -15.81 0.000 2.69e-07 7.57e-06

sp77\_902\_ss | 1.159469 .1472568 1.17 0.244 .9039683 1.487184

sp77\_903\_ss | .9865451 .142652 -0.09 0.925 .7430796 1.309781

sp77\_904\_ss | .98162 .0591132 -0.31 0.758 .8723364 1.104594

mine\_time | .9965726 .0064177 -0.53 0.594 .9840731 1.009231

onsite\_insp\_hours | .999888 .0000397 -2.82 0.005 .9998102 .9999658

|

state |

1 | 1.151842 .1047023 1.56 0.120 .963871 1.376471

2 | 1.88458 .1667515 7.16 0.000 1.584523 2.241458

3 | .7100908 .1127583 -2.16 0.031 .5201732 .9693481

4 | 1.103443 .0851707 1.28 0.202 .948525 1.283663

5 | .9071327 .1472238 -0.60 0.548 .6599704 1.246859

6 | .9463694 .0546065 -0.96 0.339 .8451728 1.059683

7 | 1.068624 .2517076 0.28 0.778 .6734878 1.695587

8 | .9087165 .0639323 -1.36 0.174 .7916669 1.043072

9 | .8829615 .0548217 -2.00 0.045 .7817934 .9972213

10 | 1.111051 .1228063 0.95 0.341 .8946419 1.379808

11 | .8542169 .2518421 -0.53 0.593 .4793084 1.522374

12 | .9850329 .0836082 -0.18 0.859 .834069 1.163321

13 | 1.314649 .2004475 1.79 0.073 .9750459 1.772533

14 | .6265571 .0823811 -3.56 0.000 .4842202 .8107342

15 | .7037336 .0464551 -5.32 0.000 .6183274 .8009365

17 | 1.052687 .079785 0.68 0.498 .9073721 1.221275

|

time |

2000 | 1.08682 .0745961 1.21 0.225 .9500221 1.243316

2002 | 1.012651 .0668959 0.19 0.849 .8896705 1.152631

2003 | .8672241 .0635757 -1.94 0.052 .7511562 1.001227

2004 | .9041919 .0654395 -1.39 0.164 .7846142 1.041994

2005 | .7741916 .0568691 -3.48 0.000 .6703823 .894076

2006 | .7783413 .0606244 -3.22 0.001 .6681449 .9067124

2007 | .710513 .0582111 -4.17 0.000 .6051104 .8342755

2008 | .6717774 .0546893 -4.89 0.000 .5727027 .7879915

2009 | .5712108 .049161 -6.51 0.000 .4825454 .6761681

2010 | .5447757 .0474342 -6.98 0.000 .4593065 .6461492

2011 | .5564998 .0490129 -6.65 0.000 .4682703 .661353

2012 | .6069918 .0553573 -5.47 0.000 .5076375 .7257915

2013 | .5468652 .0541675 -6.09 0.000 .4503685 .6640375

2014 | .5345193 .0552339 -6.06 0.000 .4365214 .6545174

2015 | .5466849 .0576904 -5.72 0.000 .4445409 .6722989

|

\_cons | .0000161 1.10e-06 -162.41 0.000 .0000141 .0000184

ln(hours) | 1 (exposure)

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

**. estat gof**

Deviance goodness-of-fit = 7696.054

Prob > chi2(5956) = 0.0000

Pearson goodness-of-fit = 8482.908

Prob > chi2(5956) = 0.0000

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

note: sp75\_1727\_ss omitted because of collinearity

note: sp77\_606\_ss omitted because of collinearity

note: sp77\_704\_8\_ss omitted because of collinearity

note: sp77\_901\_1\_ss omitted because of collinearity

Iteration 0: log pseudolikelihood = -9160.143

Iteration 1: log pseudolikelihood = -9003.2473

Iteration 2: log pseudolikelihood = -9001.2756

Iteration 3: log pseudolikelihood = -9001.0264

Iteration 4: log pseudolikelihood = -9000.9825

Iteration 5: log pseudolikelihood = -9000.9782

Iteration 6: log pseudolikelihood = -9000.9773

Iteration 7: log pseudolikelihood = -9000.9771

Iteration 8: log pseudolikelihood = -9000.9771

Iteration 9: log pseudolikelihood = -9000.9771

Generalized linear models No. of obs = 6,253

Optimization : ML Residual df = 5,952

Scale parameter = 1

Deviance = 3688.191777 (1/df) Deviance = .6196559

Pearson = 3928.958088 (1/df) Pearson = .6601072

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

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

AIC = 2.975205

Log pseudolikelihood = -9000.977063 BIC = -48337.15

(Std. Err. adjusted for 1,238 clusters in mineid)

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

| Robust

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

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

sp47\_41\_ss | .6755557 .2015555 -1.31 0.189 .3764443 1.212332

sp47\_44\_ss | .7724891 .5425531 -0.37 0.713 .1950096 3.060051

sp48\_11\_ss | .964732 .0756334 -0.46 0.647 .8273207 1.124966

sp48\_25\_ss | 1.026588 .1586755 0.17 0.865 .7582797 1.389834

sp48\_26\_ss | 1.175113 .0995189 1.91 0.057 .9953883 1.387289

sp48\_27\_ss | 1.073253 .1003862 0.76 0.450 .8934812 1.289196

sp48\_28\_ss | .9113578 .1072135 -0.79 0.430 .7236895 1.147693

sp48\_4\_ss | 1.352375 1.116563 0.37 0.715 .2681134 6.821435

sp48\_5\_ss | .9178539 .1085579 -0.72 0.469 .7279456 1.157306

sp48\_6\_ss | .9127058 .1171099 -0.71 0.477 .7097617 1.173678

sp48\_7\_ss | 1.141873 .0788966 1.92 0.055 .9972522 1.307467

sp48\_8\_ss | 1.13776 .1767264 0.83 0.406 .8391414 1.542647

sp71\_701\_ss | 2.814267 .6606373 4.41 0.000 1.776435 4.458423

sp72\_503\_ss | .8897981 .1700671 -0.61 0.541 .6117886 1.294141

sp72\_610\_ss | .5252713 .1652793 -2.05 0.041 .2834973 .9732368

sp72\_620\_ss | 1.179772 .2829458 0.69 0.491 .7373159 1.887741

sp72\_630\_ss | 1.0158 .0118137 1.35 0.178 .9929077 1.03922

sp75\_100\_ss | 1.064113 .3647365 0.18 0.856 .5435367 2.083274

sp75\_1001\_1\_ss | 1.015983 .9239434 0.02 0.986 .1709216 6.039154

sp75\_1001\_ss | 1.363365 .955531 0.44 0.658 .345173 5.385018

sp75\_1003\_1\_ss | .4564573 .1095229 -3.27 0.001 .2852081 .7305307

sp75\_1100\_2\_ss | 1.002766 .0167936 0.16 0.869 .9703859 1.036227

sp75\_1101\_20\_ss | .660446 .0985635 -2.78 0.005 .4929534 .8848481

sp75\_1102\_ss | .9966839 .0716746 -0.05 0.963 .8656552 1.147546

sp75\_1103\_4\_ss | 1.062076 .0396756 1.61 0.107 .9870916 1.142756

sp75\_1104\_ss | .8638412 .1393284 -0.91 0.364 .6297151 1.185015

sp75\_1106\_2\_ss | .857962 .0542568 -2.42 0.015 .7579468 .9711747

sp75\_1106\_3\_ss | 1.092059 .0298894 3.22 0.001 1.03502 1.15224

sp75\_1106\_4\_ss | 1.180124 .2316029 0.84 0.399 .8032977 1.733718

sp75\_1106\_5\_ss | .9188042 .0783594 -0.99 0.321 .7773722 1.085968

sp75\_1106\_6\_ss | .6647771 .3649493 -0.74 0.457 .2266645 1.949704

sp75\_1106\_ss | .9801056 .0930551 -0.21 0.832 .8136853 1.180563

sp75\_1107\_14\_ss | 1.812523 .5024473 2.15 0.032 1.052745 3.120643

sp75\_1400\_1\_ss | .8553313 .1927134 -0.69 0.488 .5499857 1.330201

sp75\_1400\_2\_ss | .325653 .1580525 -2.31 0.021 .1257862 .8430966

sp75\_1400\_3\_ss | .962108 .1520928 -0.24 0.807 .7057704 1.311548

sp75\_1400\_4\_ss | .7075304 .1480284 -1.65 0.098 .4695243 1.066184

sp75\_1400\_ss | 1.058149 .0686988 0.87 0.384 .9317167 1.201738

sp75\_1401\_ss | 1.016999 .3646761 0.05 0.963 .503612 2.053737

sp75\_1403\_10\_ss | 1.01262 .0196803 0.65 0.519 .9747727 1.051937

sp75\_1403\_11\_ss | .6057775 .7224142 -0.42 0.674 .0585087 6.271992

sp75\_1403\_3\_ss | 1.208816 .7091482 0.32 0.746 .3828298 3.816937

sp75\_1403\_4\_ss | 2.344225 2.606799 0.77 0.444 .265128 20.72731

sp75\_1403\_5\_ss | .970825 .0127208 -2.26 0.024 .9462101 .9960802

sp75\_1403\_6\_ss | .9928438 .0154352 -0.46 0.644 .9630476 1.023562

sp75\_1403\_7\_ss | 1.058293 .0461999 1.30 0.194 .971509 1.15283

sp75\_1403\_8\_ss | .9909105 .0186465 -0.49 0.628 .9550298 1.028139

sp75\_1403\_9\_ss | .8749189 .1266364 -0.92 0.356 .6588162 1.161907

sp75\_1404\_1\_ss | .4985959 .1195208 -2.90 0.004 .3116759 .7976168

sp75\_1404\_ss | 1.798363 .8834221 1.19 0.232 .6866507 4.709978

sp75\_1405\_1\_ss | 2.805389 1.34928 2.14 0.032 1.092947 7.200904

sp75\_1405\_ss | .9702724 .0213611 -1.37 0.170 .9292959 1.013056

sp75\_1431\_ss | 1.746312 .7133317 1.36 0.172 .7841944 3.888837

sp75\_1432\_ss | 1.19e-06 8.69e-07 -18.68 0.000 2.84e-07 4.98e-06

sp75\_1433\_ss | 1.220068 .2065763 1.17 0.240 .8755128 1.700222

sp75\_1434\_ss | 1.153272 .1120076 1.47 0.142 .9533707 1.395089

sp75\_1435\_ss | .1413496 .1701527 -1.63 0.104 .0133549 1.496053

sp75\_1437\_ss | 1.230416 .3735903 0.68 0.495 .6785822 2.231011

sp75\_150\_ss | 1.236719 .2662031 0.99 0.324 .8110551 1.885783

sp75\_151\_ss | .8932411 .2139855 -0.47 0.637 .5585399 1.42851

sp75\_153\_ss | .8584873 .8434188 -0.16 0.877 .1251621 5.888366

sp75\_155\_ss | 1.381206 .2169767 2.06 0.040 1.015176 1.879211

sp75\_156\_ss | 1.687593 .5179969 1.70 0.088 .9246899 3.079917

sp75\_1600\_2\_ss | .9950733 .1682083 -0.03 0.977 .7144421 1.385936

sp75\_1712\_10\_ss | .9393001 .1040834 -0.57 0.572 .7559328 1.167147

sp75\_1712\_6\_ss | 1.10746 .3704983 0.31 0.760 .5748577 2.133515

sp75\_1720\_ss | 1.033286 .0445614 0.76 0.448 .9495369 1.124422

sp75\_1721\_ss | 1.29e-06 1.35e-06 -12.91 0.000 1.64e-07 .0000101

sp75\_1725\_ss | 1.005029 .0054045 0.93 0.351 .9944919 1.015678

sp75\_1726\_ss | 1.129951 .1184564 1.17 0.244 .9200796 1.387694

sp75\_1727\_ss | 1 (omitted)

sp75\_1728\_ss | 1.813768 .3039063 3.55 0.000 1.306046 2.518865

sp75\_1729\_ss | 1.079764 .1779075 0.47 0.641 .781773 1.491342

sp75\_1730\_ss | .7845143 .1480465 -1.29 0.198 .5419632 1.135617

sp75\_1731\_ss | .9991378 .0052239 -0.16 0.869 .9889515 1.009429

sp75\_1903\_ss | 1.109834 .1685681 0.69 0.493 .824086 1.494664

sp75\_1909\_ss | 1.017135 .0176079 0.98 0.326 .9832027 1.052238

sp75\_1910\_ss | 1.033339 .0294663 1.15 0.250 .9771701 1.092736

sp75\_1911\_ss | .9355916 .0426119 -1.46 0.144 .855693 1.022951

sp75\_1912\_ss | .9615674 .3285555 -0.11 0.909 .4921924 1.878558

sp75\_1913\_ss | 1.219205 .0875241 2.76 0.006 1.059182 1.403403

sp75\_1914\_ss | 1.002706 .0155695 0.17 0.862 .9726495 1.03369

sp75\_1915\_ss | 1.47648 .3218911 1.79 0.074 .9630636 2.263603

sp75\_202\_ss | 1.00296 .0031572 0.94 0.348 .9967908 1.009167

sp75\_208\_ss | 1.007697 .0214194 0.36 0.718 .9665785 1.050565

sp75\_211\_ss | 1.001792 .0216272 0.08 0.934 .9602876 1.04509

sp75\_212\_ss | .9560626 .0445664 -0.96 0.335 .8725855 1.047526

sp75\_214\_ss | 1.146743 .1720891 0.91 0.362 .8545323 1.538878

sp75\_312\_ss | 1.031044 .1627375 0.19 0.846 .7567032 1.404846

sp75\_320\_ss | 1.025868 .0552246 0.47 0.635 .9231444 1.140023

sp75\_324\_ss | .9688378 .0853401 -0.36 0.719 .8152165 1.151408

sp75\_337\_ss | 1.062332 .0462454 1.39 0.165 .9754521 1.156951

sp75\_340\_ss | .9972988 .0189911 -0.14 0.887 .960763 1.035224

sp75\_342\_ss | 1.000944 .0115722 0.08 0.935 .9785177 1.023884

sp75\_344\_ss | .8610076 .0910512 -1.42 0.157 .6998304 1.059305

sp75\_352\_ss | .9284857 .0819159 -0.84 0.400 .781048 1.103755

sp75\_382\_ss | 1.115664 .1463925 0.83 0.404 .8626657 1.44286

sp75\_503\_ss | .9986815 .0066666 -0.20 0.843 .9857003 1.011834

sp75\_504\_ss | .5252717 .1726447 -1.96 0.050 .2758124 1.000356

sp75\_505\_ss | 1.115735 .2988593 0.41 0.683 .6600234 1.886092

sp75\_506\_1\_ss | 1.389581 .3315299 1.38 0.168 .8705665 2.218022

sp75\_506\_ss | .8841232 .1808597 -0.60 0.547 .5920899 1.320194

sp75\_507\_ss | 1.059872 .09564 0.64 0.519 .8880618 1.264921

sp75\_511\_1\_ss | .3045824 .1245009 -2.91 0.004 .1366999 .6786429

sp75\_511\_ss | 1.109553 .0659948 1.75 0.080 .9874602 1.246741

sp75\_512\_1\_ss | 1.276841 .3389187 0.92 0.357 .758923 2.148205

sp75\_512\_2\_ss | .9927766 .0495552 -0.15 0.885 .9002501 1.094813

sp75\_512\_ss | 1.01724 .0090512 1.92 0.055 .9996542 1.035136

sp75\_513\_1\_ss | 1.453671 .5465536 0.99 0.320 .6957126 3.037402

sp75\_513\_ss | .6732909 .1057346 -2.52 0.012 .4949128 .9159605

sp75\_514\_ss | 1.026096 .0334404 0.79 0.429 .9626031 1.093776

sp75\_515\_ss | .950284 .0274725 -1.76 0.078 .8979359 1.005684

sp75\_516\_1\_ss | .5949321 .1502123 -2.06 0.040 .3627024 .9758527

sp75\_516\_2\_ss | .9876701 .2236635 -0.05 0.956 .6336544 1.53947

sp75\_516\_ss | 1.09782 .0420979 2.43 0.015 1.018334 1.18351

sp75\_517\_1\_ss | 1.010608 .231027 0.05 0.963 .6456484 1.581864

sp75\_517\_ss | 1.000617 .0048197 0.13 0.898 .9912153 1.010108

sp75\_518\_1\_ss | .8784237 .0701979 -1.62 0.105 .7510719 1.027369

sp75\_518\_ss | 1.048346 .0305573 1.62 0.105 .9901334 1.109981

sp75\_519\_ss | .9253536 .6686221 -0.11 0.914 .2245251 3.813736

sp75\_520\_ss | .9699949 .0438395 -0.67 0.500 .8877668 1.059839

sp75\_523\_1\_ss | .9966142 .0364561 -0.09 0.926 .9276629 1.070691

sp75\_523\_2\_ss | 1.040997 .0315279 1.33 0.185 .9810021 1.104662

sp75\_523\_ss | .9057015 .0321973 -2.79 0.005 .8447442 .9710575

sp75\_600\_1\_ss | .759431 .1268521 -1.65 0.099 .5474032 1.053584

sp75\_600\_ss | .5411571 .0916936 -3.62 0.000 .388236 .7543118

sp75\_601\_1\_ss | 1.00225 .0283812 0.08 0.937 .9481391 1.059448

sp75\_601\_2\_ss | .9862597 .2934506 -0.05 0.963 .55046 1.767083

sp75\_601\_3\_ss | 1.160405 .4509653 0.38 0.702 .541763 2.485478

sp75\_601\_ss | .9946165 .0289061 -0.19 0.853 .9395449 1.052916

sp75\_602\_ss | 1.019175 .0684791 0.28 0.777 .8934206 1.16263

sp75\_603\_ss | 1.005004 .1165492 0.04 0.966 .8006725 1.261481

sp75\_604\_ss | 1.020303 .0075233 2.73 0.006 1.005664 1.035156

sp75\_605\_ss | 1.011728 .0354599 0.33 0.739 .9445615 1.083671

sp75\_606\_ss | .988408 .0211033 -0.55 0.585 .9478997 1.030647

sp75\_607\_ss | .9908889 .0699176 -0.13 0.897 .8629067 1.137853

sp75\_700\_1\_ss | .397424 .1003146 -3.66 0.000 .2423264 .6517899

sp75\_700\_ss | .9754287 .076862 -0.32 0.752 .8358386 1.138331

sp75\_701\_1\_ss | .9572505 .0712473 -0.59 0.557 .827316 1.107592

sp75\_701\_2\_ss | 1.168929 .1580949 1.15 0.248 .8967372 1.523741

sp75\_701\_3\_ss | 1.084761 .1830262 0.48 0.630 .779319 1.509917

sp75\_701\_4\_ss | 3.784376 1.522801 3.31 0.001 1.7198 8.327423

sp75\_701\_5\_ss | .7747662 .087093 -2.27 0.023 .6215633 .9657305

sp75\_701\_ss | 1.053033 .0252571 2.15 0.031 1.004675 1.103718

sp75\_703\_2\_ss | 1.074401 .3037354 0.25 0.800 .6173474 1.869833

sp75\_703\_3\_ss | 1.003574 .1086121 0.03 0.974 .8117601 1.240711

sp75\_703\_ss | .9899923 .0566543 -0.18 0.860 .8849528 1.107499

sp75\_704\_ss | 1.73109 .7228761 1.31 0.189 .7636091 3.924353

sp75\_705\_1\_ss | 1.058645 .1422292 0.42 0.671 .8135627 1.377556

sp75\_705\_8\_ss | 1.33e-06 1.13e-06 -16.02 0.000 2.55e-07 6.98e-06

sp75\_705\_ss | 1.218855 .2291907 1.05 0.293 .8431292 1.762017

sp75\_706\_ss | .7814301 .1081578 -1.78 0.075 .5957654 1.024955

sp75\_800\_2\_ss | 4.52e-07 4.54e-07 -14.57 0.000 6.34e-08 3.23e-06

sp75\_800\_3\_ss | .6098503 .2622532 -1.15 0.250 .2625319 1.416656

sp75\_800\_4\_ss | 3.851619 1.252757 4.15 0.000 2.036038 7.286192

sp75\_800\_ss | .9336589 .0950234 -0.67 0.500 .7648161 1.139776

sp75\_801\_ss | .4275456 .1212226 -3.00 0.003 .2452676 .7452891

sp75\_802\_ss | .7402627 .1940449 -1.15 0.251 .4428541 1.237403

sp75\_803\_2\_ss | 1.376366 .2518258 1.75 0.081 .9615999 1.970032

sp75\_803\_ss | 1.133815 .1147529 1.24 0.215 .9298064 1.382585

sp75\_804\_ss | .9464579 .0652219 -0.80 0.425 .8268822 1.083325

sp75\_805\_ss | .5295568 .1350592 -2.49 0.013 .3212332 .8729808

sp75\_806\_ss | .5267104 .1248854 -2.70 0.007 .3309391 .8382926

sp75\_807\_ss | 1.04504 .0283335 1.62 0.104 .9909569 1.102074

sp75\_808\_ss | 1.125447 .1648434 0.81 0.420 .8445978 1.499684

sp75\_809\_ss | .99634 .061795 -0.06 0.953 .882296 1.125125

sp75\_810\_ss | 1.107268 .1131451 1.00 0.319 .9063037 1.352795

sp75\_811\_ss | .9355865 .1440925 -0.43 0.666 .6918116 1.265261

sp75\_812\_ss | .6644489 .1602778 -1.69 0.090 .4141289 1.066075

sp75\_814\_ss | .7343557 .099647 -2.28 0.023 .5628651 .9580952

sp75\_815\_ss | 1.705832 .7658041 1.19 0.234 .7076263 4.112147

sp75\_816\_ss | 1.10952 .1021628 1.13 0.259 .9263138 1.328962

sp75\_818\_ss | 2.478982 1.787115 1.26 0.208 .603443 10.18381

sp75\_819\_ss | 1.533649 .6030589 1.09 0.277 .7096072 3.314622

sp75\_820\_ss | .9814894 .0915853 -0.20 0.841 .8174435 1.178456

sp75\_821\_ss | 1.059085 .4185928 0.15 0.885 .4880924 2.298052

sp75\_825\_ss | .7759214 .2251457 -0.87 0.382 .4393678 1.370273

sp75\_827\_ss | 1.560037 .9640027 0.72 0.472 .4646723 5.237485

sp75\_831\_ss | .7946623 .1551337 -1.18 0.239 .5420151 1.165075

sp75\_900\_2\_ss | .8036512 .2421076 -0.73 0.468 .4452819 1.450441

sp75\_900\_3\_ss | .8476302 .1288326 -1.09 0.277 .6292612 1.141779

sp75\_900\_4\_ss | 1.254919 .282199 1.01 0.313 .8076112 1.949975

sp75\_900\_ss | .9784611 .0307459 -0.69 0.488 .9200183 1.040616

sp75\_901\_ss | .9425787 .1316189 -0.42 0.672 .7168996 1.239301

sp75\_902\_1\_ss | .9292919 .1850676 -0.37 0.713 .6289791 1.372992

sp75\_902\_2\_ss | 1.191003 .1164546 1.79 0.074 .9832949 1.442588

sp75\_902\_4\_ss | 1.038415 .1078035 0.36 0.717 .8472333 1.272737

sp75\_902\_ss | 1.052323 .037697 1.42 0.155 .9809721 1.128863

sp75\_903\_ss | 1.068949 .0513324 1.39 0.165 .9729288 1.174446

sp75\_904\_ss | 1.014139 .0155996 0.91 0.361 .984021 1.04518

sp75\_905\_ss | .4343164 .1061648 -3.41 0.001 .2689908 .7012534

sp75\_907\_ss | .8958218 .1838658 -0.54 0.592 .5991202 1.339458

sp77\_103\_ss | .9469121 .107703 -0.48 0.632 .7576923 1.183386

sp77\_1103\_ss | .9112133 .0811001 -1.04 0.296 .7653518 1.084873

sp77\_1104\_ss | 1.021463 .0170129 1.27 0.202 .9886564 1.055357

sp77\_1106\_ss | 3.33e-07 3.42e-07 -14.54 0.000 4.47e-08 2.49e-06

sp77\_1111\_ss | .9121553 .3413051 -0.25 0.806 .4380978 1.899182

sp77\_1112\_ss | 1.086884 .1417598 0.64 0.523 .8417112 1.403472

sp77\_1403\_ss | .7755788 .1790185 -1.10 0.271 .4933468 1.219269

sp77\_1433\_ss | .5842443 .2130647 -1.47 0.141 .285874 1.194027

sp77\_1434\_ss | 1.347513 .336106 1.20 0.232 .8264569 2.197078

sp77\_1437\_ss | .5518287 .1504498 -2.18 0.029 .3233954 .9416177

sp77\_1438\_ss | .2073764 .2083187 -1.57 0.117 .0289528 1.485349

sp77\_1605\_ss | 1.003538 .0211257 0.17 0.867 .9629747 1.04581

sp77\_1606\_ss | 1.022202 .0225142 1.00 0.319 .9790142 1.067296

sp77\_1710\_ss | .9194477 .0244798 -3.15 0.002 .8726985 .9687011

sp77\_1802\_ss | .3498177 .1742005 -2.11 0.035 .131815 .9283653

sp77\_1906\_ss | 2.653844 2.074842 1.25 0.212 .5733034 12.28475

sp77\_1915\_ss | 1.210056 .3086658 0.75 0.455 .7339685 1.994956

sp77\_1916\_ss | 1.287048 .2366504 1.37 0.170 .8976018 1.845465

sp77\_200\_ss | .9726949 .0212104 -1.27 0.204 .9319992 1.015168

sp77\_202\_ss | .9334412 .0298922 -2.15 0.031 .8766543 .9939064

sp77\_203\_ss | .7527159 .1414085 -1.51 0.131 .5208596 1.087781

sp77\_204\_ss | .9804696 .0336932 -0.57 0.566 .916607 1.048782

sp77\_205\_ss | 1.014402 .0145768 1.00 0.320 .9862311 1.043379

sp77\_206\_ss | .9496316 .0654976 -0.75 0.454 .8295574 1.087086

sp77\_207\_ss | 1.152915 .0751151 2.18 0.029 1.014704 1.309951

sp77\_208\_ss | 1.073394 .0399094 1.90 0.057 .9979547 1.154535

sp77\_210\_ss | .9575695 .0835842 -0.50 0.619 .8069949 1.136239

sp77\_216\_ss | 1.311234 .3915955 0.91 0.364 .7302506 2.354445

sp77\_315\_ss | .5737544 .3300262 -0.97 0.334 .1858279 1.7715

sp77\_400\_ss | 1.018011 .0155642 1.17 0.243 .9879581 1.048978

sp77\_401\_ss | 1.047486 .0982415 0.49 0.621 .8715968 1.258869

sp77\_402\_ss | 1.041398 .0818566 0.52 0.606 .8927093 1.214852

sp77\_403\_1\_ss | 1.129351 .2200017 0.62 0.532 .7709245 1.654422

sp77\_403\_ss | 2.248126 .6543401 2.78 0.005 1.270779 3.977147

sp77\_404\_ss | .983398 .0111572 -1.48 0.140 .9617715 1.005511

sp77\_405\_ss | 1.102837 .1162606 0.93 0.353 .8969704 1.355953

sp77\_408\_ss | .8381241 .1182157 -1.25 0.211 .635694 1.105016

sp77\_409\_ss | 1.238751 1.571039 0.17 0.866 .103146 14.877

sp77\_410\_ss | 1.006564 .0267795 0.25 0.806 .9554222 1.060444

sp77\_411\_ss | .7483165 .0778937 -2.79 0.005 .6102139 .9176743

sp77\_412\_ss | 1.001024 .103106 0.01 0.992 .8180323 1.224951

sp77\_413\_ss | 1.793116 .5218577 2.01 0.045 1.01363 3.172027

sp77\_500\_ss | .9272563 .1613573 -0.43 0.664 .6592911 1.304134

sp77\_501\_ss | .922085 .1046838 -0.71 0.475 .7381329 1.15188

sp77\_502\_1\_ss | 1.057754 .4249122 0.14 0.889 .4813346 2.324462

sp77\_502\_2\_ss | 1.010114 .1297414 0.08 0.938 .7853077 1.299273

sp77\_502\_ss | .9819878 .0200735 -0.89 0.374 .9434221 1.02213

sp77\_503\_1\_ss | .9812299 .380781 -0.05 0.961 .458616 2.099386

sp77\_503\_ss | .7510315 .1740029 -1.24 0.217 .476922 1.182685

sp77\_504\_ss | .940975 .0618204 -0.93 0.354 .8272859 1.070288

sp77\_505\_ss | .9126557 .0523392 -1.59 0.111 .815628 1.021226

sp77\_506\_1\_ss | 1.307984 .2890146 1.22 0.224 .8482409 2.016905

sp77\_506\_ss | 1.056625 .1139897 0.51 0.610 .8552489 1.305417

sp77\_507\_ss | 1.061269 .1691623 0.37 0.709 .7765104 1.450454

sp77\_508\_1\_ss | 1.700112 .568836 1.59 0.113 .882422 3.275509

sp77\_508\_ss | 1.309855 .2810454 1.26 0.208 .860176 1.994614

sp77\_509\_ss | .884841 .0819031 -1.32 0.186 .7380332 1.060851

sp77\_510\_ss | .5944998 .1343257 -2.30 0.021 .3817902 .9257177

sp77\_511\_ss | 1.00501 .4820459 0.01 0.992 .3925523 2.57302

sp77\_512\_ss | .9986688 .0425862 -0.03 0.975 .9185942 1.085723

sp77\_513\_ss | 1.001603 .0739958 0.02 0.983 .8665846 1.157657

sp77\_514\_ss | .7030725 .1949633 -1.27 0.204 .4082822 1.210709

sp77\_515\_ss | 1.491908 .8630021 0.69 0.489 .4801313 4.635794

sp77\_516\_ss | .9514445 .0386247 -1.23 0.220 .8786749 1.030241

sp77\_600\_ss | .980149 .1854315 -0.11 0.916 .6764813 1.420131

sp77\_601\_ss | .9755062 .2098966 -0.12 0.908 .6398522 1.487238

sp77\_602\_ss | 1.208873 .4087262 0.56 0.575 .6231392 2.345181

sp77\_603\_ss | 4.428716 2.47441 2.66 0.008 1.481476 13.23917

sp77\_604\_ss | .9427938 .1654409 -0.34 0.737 .6684183 1.329796

sp77\_605\_ss | .335798 .2699734 -1.36 0.175 .0694597 1.623392

sp77\_606\_ss | 1 (omitted)

sp77\_700\_1\_ss | 1.355581 .585265 0.70 0.481 .5815987 3.159565

sp77\_700\_ss | .9539711 .1638861 -0.27 0.784 .6812465 1.335876

sp77\_701\_1\_ss | .7434332 .2293596 -0.96 0.337 .4061012 1.360973

sp77\_701\_2\_ss | .8122437 .2996706 -0.56 0.573 .3941328 1.673902

sp77\_701\_3\_ss | 1.454632 .298227 1.83 0.068 .9732869 2.17403

sp77\_701\_4\_ss | .6139845 .1508842 -1.98 0.047 .3792958 .9938865

sp77\_701\_ss | .9507107 .0520866 -0.92 0.356 .853913 1.058481

sp77\_704\_1\_ss | 1.189577 .2685231 0.77 0.442 .7642767 1.851544

sp77\_704\_8\_ss | 1 (omitted)

sp77\_704\_9\_ss | 2.061984 .5964266 2.50 0.012 1.169704 3.634916

sp77\_704\_ss | 1.271617 .34563 0.88 0.377 .7464436 2.166287

sp77\_705\_ss | .7653141 .1150746 -1.78 0.075 .5699685 1.027611

sp77\_800\_1\_ss | 1.702624 .5612586 1.61 0.106 .892331 3.248716

sp77\_800\_2\_ss | .8471366 .3209063 -0.44 0.661 .4031878 1.779916

sp77\_800\_ss | 1.973745 .8660497 1.55 0.121 .8352115 4.66429

sp77\_801\_1\_ss | 4.34e-06 4.36e-06 -12.30 0.000 6.07e-07 .0000311

sp77\_802\_ss | .8189985 .1503438 -1.09 0.277 .5715151 1.17365

sp77\_803\_ss | 6.222621 4.776757 2.38 0.017 1.382146 28.01515

sp77\_804\_ss | .9811163 .1239246 -0.15 0.880 .7659588 1.256712

sp77\_805\_ss | .7997607 .255889 -0.70 0.485 .4271813 1.497297

sp77\_807\_1\_ss | .429587 .1690237 -2.15 0.032 .1986738 .9288847

sp77\_807\_2\_ss | 1.429789 .2982644 1.71 0.087 .9499593 2.151983

sp77\_807\_3\_ss | 1.345188 .1391905 2.87 0.004 1.098264 1.647628

sp77\_807\_ss | .9968196 .2979112 -0.01 0.991 .5549132 1.790639

sp77\_808\_ss | 1.158879 .6344421 0.27 0.788 .3963123 3.388742

sp77\_809\_ss | .7369098 .089725 -2.51 0.012 .5804614 .9355249

sp77\_810\_ss | 1.027213 .2378043 0.12 0.908 .6525347 1.617027

sp77\_900\_1\_ss | 1.481811 .547194 1.06 0.287 .7185658 3.05576

sp77\_900\_2\_ss | 5.48e-07 5.60e-07 -14.10 0.000 7.38e-08 4.06e-06

sp77\_900\_ss | .9593453 .2824645 -0.14 0.888 .5387059 1.708434

sp77\_901\_1\_ss | 1 (omitted)

sp77\_901\_ss | .9015842 .1525078 -0.61 0.540 .6471739 1.256006

sp77\_902\_3\_ss | 7.15e-07 6.18e-07 -16.36 0.000 1.31e-07 3.89e-06

sp77\_902\_ss | .9990664 .1561464 -0.01 0.995 .7354583 1.357159

sp77\_903\_ss | 1.003508 .1928862 0.02 0.985 .6885094 1.462622

sp77\_904\_ss | 1.01344 .0817639 0.17 0.869 .8652135 1.187059

mine\_time | .9996901 .0066244 -0.05 0.963 .9867905 1.012758

onsite\_insp\_hours | .9998956 .0000433 -2.41 0.016 .9998107 .9999806

|

state |

1 | 1.109872 .1232214 0.94 0.348 .8928323 1.379672

2 | 1.597358 .1690741 4.42 0.000 1.298093 1.965616

3 | .7341634 .1227688 -1.85 0.065 .5289962 1.018903

4 | 1.060322 .0965161 0.64 0.520 .8870678 1.267414

5 | .9063731 .1555727 -0.57 0.567 .6474469 1.268849

6 | .8261291 .0435116 -3.63 0.000 .7451021 .9159674

7 | .9615063 .2255803 -0.17 0.867 .6070865 1.522838

8 | 1.181233 .0765699 2.57 0.010 1.040301 1.341257

9 | .8849844 .0872795 -1.24 0.215 .7294371 1.073701

10 | .8373503 .1406503 -1.06 0.291 .6024628 1.163815

11 | .8490592 .2502768 -0.56 0.579 .4764636 1.513026

12 | .9960577 .090201 -0.04 0.965 .8340678 1.189509

13 | 1.365824 .2346455 1.81 0.070 .9753493 1.912623

14 | .6389288 .09584 -2.99 0.003 .4761801 .8573015

15 | .6548068 .0428225 -6.47 0.000 .5760326 .7443536

17 | 1.117946 .0824036 1.51 0.130 .9675618 1.291703

|

time |

2000 | 1.02895 .071717 0.41 0.682 .8975657 1.179566

2002 | .9485785 .0685332 -0.73 0.465 .8233327 1.092877

2003 | .8633763 .0696047 -1.82 0.068 .7371858 1.011168

2004 | .824455 .0626957 -2.54 0.011 .7102926 .9569663

2005 | .6995544 .0538456 -4.64 0.000 .6015939 .8134664

2006 | .7015205 .0546333 -4.55 0.000 .602213 .8172042

2007 | .6492248 .053054 -5.29 0.000 .5531409 .761999

2008 | .5757615 .0473588 -6.71 0.000 .4900358 .6764839

2009 | .4739462 .0404911 -8.74 0.000 .4008737 .5603385

2010 | .4955189 .0434172 -8.01 0.000 .4173287 .5883588

2011 | .5320545 .0470109 -7.14 0.000 .4474518 .6326537

2012 | .5516839 .0496971 -6.60 0.000 .4623937 .6582165

2013 | .4640821 .044899 -7.93 0.000 .3839218 .5609794

2014 | .4384111 .0461012 -7.84 0.000 .3567577 .5387531

2015 | .4854311 .0511134 -6.86 0.000 .3949121 .5966982

|

\_cons | .0000177 1.23e-06 -157.35 0.000 .0000154 .0000203

ln(hours) | 1 (exposure)

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

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

note: sp75\_1727\_ss omitted because of collinearity

note: sp77\_606\_ss omitted because of collinearity

note: sp77\_704\_8\_ss omitted because of collinearity

note: sp77\_901\_1\_ss omitted because of collinearity

Fitting Poisson model:

Iteration 0: log pseudolikelihood = -111587.66

Iteration 1: log pseudolikelihood = -59437.808 (backed up)

Iteration 2: log pseudolikelihood = -47832.857 (backed up)

Iteration 3: log pseudolikelihood = -41732.924

Iteration 4: log pseudolikelihood = -11690.869

Iteration 5: log pseudolikelihood = -9041.7313

Iteration 6: log pseudolikelihood = -8659.1433

Iteration 7: log pseudolikelihood = -8635.8261

Iteration 8: log pseudolikelihood = -8635.4603

Iteration 9: log pseudolikelihood = -8635.4599

Fitting constant-only model:

Iteration 0: log pseudolikelihood = -9249.9658

Iteration 1: log pseudolikelihood = -8971.6355

Iteration 2: log pseudolikelihood = -8961.958

Iteration 3: log pseudolikelihood = -8961.9317

Iteration 4: log pseudolikelihood = -8961.9317

Fitting full model:

Iteration 0: log pseudolikelihood = -8575.4234

Iteration 1: log pseudolikelihood = -8493.5053

Iteration 2: log pseudolikelihood = -8487.2375

Iteration 3: log pseudolikelihood = -8487.2093

Iteration 4: log pseudolikelihood = -8487.2093

Negative binomial regression Number of obs = 6,253

Wald chi2(296) = .

Dispersion = mean Prob > chi2 = .

Log pseudolikelihood = -8487.2093 Pseudo R2 = 0.0530

(Std. Err. adjusted for 1,238 clusters in mineid)

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

| Robust

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

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

sp47\_41\_ss | .7113316 .2177769 -1.11 0.266 .3903673 1.296196

sp47\_44\_ss | .5268322 .3087179 -1.09 0.274 .167062 1.661373

sp48\_11\_ss | .968696 .0598464 -0.51 0.607 .8582227 1.09339

sp48\_25\_ss | .915865 .0918846 -0.88 0.381 .7523747 1.114881

sp48\_26\_ss | 1.190925 .1076645 1.93 0.053 .9975447 1.421793

sp48\_27\_ss | 1.076829 .0869332 0.92 0.359 .9192388 1.261435

sp48\_28\_ss | .9574249 .0967954 -0.43 0.667 .7853233 1.167242

sp48\_4\_ss | 1.480786 1.316862 0.44 0.659 .2591307 8.461854

sp48\_5\_ss | .9528464 .0974684 -0.47 0.637 .7797439 1.164378

sp48\_6\_ss | .9476144 .0935171 -0.55 0.586 .7809609 1.149831

sp48\_7\_ss | 1.103802 .065753 1.66 0.097 .9821673 1.2405

sp48\_8\_ss | 1.049761 .1403732 0.36 0.716 .8077345 1.364308

sp71\_701\_ss | 2.592107 .5488742 4.50 0.000 1.71164 3.925486

sp72\_503\_ss | .8777633 .1550879 -0.74 0.461 .6208441 1.241001

sp72\_610\_ss | .6313957 .1657075 -1.75 0.080 .3774912 1.056079

sp72\_620\_ss | 1.506042 .3264924 1.89 0.059 .9847061 2.303391

sp72\_630\_ss | 1.015897 .0100437 1.60 0.111 .9964015 1.035775

sp75\_100\_ss | .8927048 .2383424 -0.43 0.671 .5289886 1.506501

sp75\_1001\_1\_ss | 1.17517 .8098546 0.23 0.815 .3044423 4.536243

sp75\_1001\_ss | 1.428628 .7518314 0.68 0.498 .5092895 4.007499

sp75\_1003\_1\_ss | .4465299 .0892356 -4.03 0.000 .3018175 .6606277

sp75\_1100\_2\_ss | 1.011531 .0149504 0.78 0.438 .9826491 1.041262

sp75\_1101\_20\_ss | .6964993 .0916618 -2.75 0.006 .5381452 .9014506

sp75\_1102\_ss | .9648439 .0575661 -0.60 0.549 .8583637 1.084533

sp75\_1103\_4\_ss | 1.072329 .0336097 2.23 0.026 1.008438 1.140268

sp75\_1104\_ss | .9978517 .1408321 -0.02 0.988 .7567133 1.315833

sp75\_1106\_2\_ss | .8972918 .0511339 -1.90 0.057 .8024654 1.003324

sp75\_1106\_3\_ss | 1.070868 .0254829 2.88 0.004 1.02207 1.121997

sp75\_1106\_4\_ss | 1.190717 .2123303 0.98 0.328 .8395012 1.688869

sp75\_1106\_5\_ss | .950011 .0743628 -0.66 0.512 .8148923 1.107534

sp75\_1106\_6\_ss | .6654434 .3165058 -0.86 0.392 .2619708 1.690322

sp75\_1106\_ss | 1.001564 .0937656 0.02 0.987 .833662 1.203282

sp75\_1107\_14\_ss | 1.993964 .4980423 2.76 0.006 1.222105 3.253316

sp75\_1400\_1\_ss | .8259664 .1530959 -1.03 0.302 .5743664 1.187779

sp75\_1400\_2\_ss | .4120115 .164975 -2.21 0.027 .1879649 .9031128

sp75\_1400\_3\_ss | .9715302 .1259858 -0.22 0.824 .7534847 1.252674

sp75\_1400\_4\_ss | .7736581 .1510751 -1.31 0.189 .5276328 1.1344

sp75\_1400\_ss | 1.053147 .0542056 1.01 0.314 .952089 1.164931

sp75\_1401\_ss | .9527136 .2842601 -0.16 0.871 .5308726 1.709757

sp75\_1403\_10\_ss | 1.014808 .0163362 0.91 0.361 .9832892 1.047336

sp75\_1403\_11\_ss | .7618804 .441505 -0.47 0.639 .2446926 2.372209

sp75\_1403\_3\_ss | 1.366147 .6877758 0.62 0.535 .5092916 3.664612

sp75\_1403\_4\_ss | 1.559604 .6966867 0.99 0.320 .6497947 3.743281

sp75\_1403\_5\_ss | .9792907 .0105842 -1.94 0.053 .9587643 1.000257

sp75\_1403\_6\_ss | .9959861 .0130218 -0.31 0.758 .970788 1.021838

sp75\_1403\_7\_ss | 1.067251 .0426274 1.63 0.103 .9868896 1.154157

sp75\_1403\_8\_ss | .9825326 .0155258 -1.12 0.265 .9525691 1.013439

sp75\_1403\_9\_ss | .9197683 .107797 -0.71 0.475 .7310002 1.157282

sp75\_1404\_1\_ss | .5457463 .1542842 -2.14 0.032 .3135837 .9497911

sp75\_1404\_ss | 1.603472 .7306855 1.04 0.300 .6564138 3.916924

sp75\_1405\_1\_ss | 2.150588 .8754435 1.88 0.060 .9684053 4.775922

sp75\_1405\_ss | .9775035 .0166933 -1.33 0.183 .9453267 1.010776

sp75\_1431\_ss | 1.734154 .5999079 1.59 0.112 .8802899 3.41625

sp75\_1432\_ss | 4.00e-09 2.91e-09 -26.61 0.000 9.63e-10 1.66e-08

sp75\_1433\_ss | 1.135478 .1442797 1.00 0.317 .8851578 1.456588

sp75\_1434\_ss | 1.183128 .1033437 1.93 0.054 .996968 1.404049

sp75\_1435\_ss | .2758355 .1649565 -2.15 0.031 .08543 .890615

sp75\_1437\_ss | 1.194104 .3247396 0.65 0.514 .7007381 2.034832

sp75\_150\_ss | 1.275823 .29887 1.04 0.298 .8061034 2.01925

sp75\_151\_ss | .8779979 .1771543 -0.64 0.519 .5912156 1.30389

sp75\_153\_ss | .7101004 .6034888 -0.40 0.687 .13425 3.755998

sp75\_155\_ss | 1.497489 .2165067 2.79 0.005 1.127968 1.988063

sp75\_156\_ss | 1.663592 .4970527 1.70 0.088 .9262374 2.987935

sp75\_1600\_2\_ss | .8980553 .1341982 -0.72 0.472 .6700487 1.203649

sp75\_1712\_10\_ss | 1.01603 .136533 0.12 0.906 .7807701 1.322179

sp75\_1712\_6\_ss | .9550324 .346235 -0.13 0.899 .4692731 1.943616

sp75\_1720\_ss | 1.028494 .0402964 0.72 0.473 .9524704 1.110585

sp75\_1721\_ss | 6.61e-10 6.88e-10 -20.33 0.000 8.61e-11 5.07e-09

sp75\_1725\_ss | 1.001169 .0044746 0.26 0.794 .9924378 1.009978

sp75\_1726\_ss | 1.081988 .1094705 0.78 0.436 .8873643 1.319299

sp75\_1727\_ss | 1 (omitted)

sp75\_1728\_ss | 1.665215 .2682903 3.17 0.002 1.214309 2.283554

sp75\_1729\_ss | 1.112928 .1936247 0.61 0.539 .7913656 1.565155

sp75\_1730\_ss | .8520354 .1379824 -0.99 0.323 .6203122 1.170321

sp75\_1731\_ss | 1.001754 .004568 0.38 0.701 .9928406 1.010747

sp75\_1903\_ss | 1.05294 .1691988 0.32 0.748 .7684627 1.442729

sp75\_1909\_ss | 1.016305 .0145697 1.13 0.259 .9881465 1.045266

sp75\_1910\_ss | 1.040189 .0262073 1.56 0.118 .9900714 1.092844

sp75\_1911\_ss | .9225122 .0383225 -1.94 0.052 .8503779 1.000765

sp75\_1912\_ss | 1.076651 .3676292 0.22 0.829 .5513493 2.102437

sp75\_1913\_ss | 1.2215 .0668663 3.66 0.000 1.09723 1.359844

sp75\_1914\_ss | 1.006223 .0135022 0.46 0.644 .9801038 1.033037

sp75\_1915\_ss | 1.410416 .2500361 1.94 0.052 .9964318 1.996396

sp75\_202\_ss | 1.002081 .0030244 0.69 0.491 .9961706 1.008026

sp75\_208\_ss | 1.013833 .0190889 0.73 0.466 .9771015 1.051945

sp75\_211\_ss | 1.010165 .0229594 0.44 0.656 .9661528 1.056182

sp75\_212\_ss | .9661056 .0427497 -0.78 0.436 .8858483 1.053634

sp75\_214\_ss | 1.052535 .1606841 0.34 0.737 .780349 1.41966

sp75\_312\_ss | 1.104624 .1793878 0.61 0.540 .8034925 1.518613

sp75\_320\_ss | 1.00983 .0514728 0.19 0.848 .9138208 1.115926

sp75\_324\_ss | .9417217 .0672573 -0.84 0.400 .8187102 1.083216

sp75\_337\_ss | 1.067612 .0341072 2.05 0.041 1.002813 1.136598

sp75\_340\_ss | .9964744 .0163936 -0.21 0.830 .9648561 1.029129

sp75\_342\_ss | 1.004548 .0097712 0.47 0.641 .9855782 1.023883

sp75\_344\_ss | .8730712 .0792913 -1.49 0.135 .730709 1.043169

sp75\_352\_ss | .9426526 .0610053 -0.91 0.361 .8303568 1.070135

sp75\_382\_ss | 1.094868 .1349041 0.74 0.462 .8599658 1.393935

sp75\_503\_ss | .994854 .0051648 -0.99 0.320 .9847825 1.005028

sp75\_504\_ss | .5567897 .1291414 -2.52 0.012 .353398 .8772398

sp75\_505\_ss | 1.050165 .229451 0.22 0.823 .6843502 1.611525

sp75\_506\_1\_ss | 1.276856 .3163574 0.99 0.324 .7856799 2.075095

sp75\_506\_ss | .9094293 .1533284 -0.56 0.573 .6535182 1.265553

sp75\_507\_ss | 1.057487 .0882512 0.67 0.503 .8979228 1.245406

sp75\_511\_1\_ss | .3418775 .1168406 -3.14 0.002 .1749696 .6680031

sp75\_511\_ss | 1.132974 .0610033 2.32 0.020 1.019502 1.259075

sp75\_512\_1\_ss | 1.681292 .5081334 1.72 0.086 .9297927 3.040185

sp75\_512\_2\_ss | .9968564 .0413047 -0.08 0.939 .9191008 1.08119

sp75\_512\_ss | 1.008243 .00753 1.10 0.272 .9935918 1.02311

sp75\_513\_1\_ss | 1.406928 .4914488 0.98 0.328 .7094827 2.789985

sp75\_513\_ss | .7481256 .0900226 -2.41 0.016 .5909473 .9471097

sp75\_514\_ss | 1.037979 .0280348 1.38 0.168 .9844607 1.094406

sp75\_515\_ss | .9356256 .0281105 -2.21 0.027 .8821208 .9923758

sp75\_516\_1\_ss | .6798657 .1736276 -1.51 0.131 .4121344 1.121521

sp75\_516\_2\_ss | .9816612 .2073621 -0.09 0.930 .6488694 1.485135

sp75\_516\_ss | 1.111685 .0371583 3.17 0.002 1.04119 1.186952

sp75\_517\_1\_ss | .8613698 .1838071 -0.70 0.484 .5669599 1.30866

sp75\_517\_ss | 1.002443 .0045122 0.54 0.588 .9936384 1.011326

sp75\_518\_1\_ss | .8645754 .0661114 -1.90 0.057 .744242 1.004365

sp75\_518\_ss | 1.03852 .0230163 1.71 0.088 .9943743 1.084625

sp75\_519\_ss | 1.228759 .7494864 0.34 0.736 .371769 4.061257

sp75\_520\_ss | .9857335 .0385902 -0.37 0.714 .9129271 1.064346

sp75\_523\_1\_ss | .9861929 .0329251 -0.42 0.677 .923727 1.052883

sp75\_523\_2\_ss | 1.012456 .0288487 0.43 0.664 .9574637 1.070607

sp75\_523\_ss | .9305371 .0345402 -1.94 0.052 .8652434 1.000758

sp75\_600\_1\_ss | .7582578 .1232837 -1.70 0.089 .5513427 1.042827

sp75\_600\_ss | .5377846 .0817584 -4.08 0.000 .3992102 .724461

sp75\_601\_1\_ss | 1.014945 .0239478 0.63 0.530 .9690769 1.062984

sp75\_601\_2\_ss | .9270916 .3120268 -0.22 0.822 .4793336 1.793112

sp75\_601\_3\_ss | 1.040188 .3782355 0.11 0.914 .5100301 2.121424

sp75\_601\_ss | .9874049 .0242003 -0.52 0.605 .9410943 1.035994

sp75\_602\_ss | 1.048329 .0634811 0.78 0.436 .9310082 1.180434

sp75\_603\_ss | .977686 .0741692 -0.30 0.766 .8426081 1.134418

sp75\_604\_ss | 1.019304 .0065948 2.96 0.003 1.00646 1.032312

sp75\_605\_ss | 1.01258 .0316376 0.40 0.689 .9524319 1.076526

sp75\_606\_ss | .9855417 .0189314 -0.76 0.448 .9491266 1.023354

sp75\_607\_ss | .9744209 .0615157 -0.41 0.681 .8610132 1.102766

sp75\_700\_1\_ss | .4500678 .1114759 -3.22 0.001 .2769787 .7313232

sp75\_700\_ss | .9552444 .0594618 -0.74 0.462 .8455302 1.079195

sp75\_701\_1\_ss | .9757427 .0585082 -0.41 0.682 .867551 1.097427

sp75\_701\_2\_ss | 1.125741 .1152575 1.16 0.247 .9210629 1.375902

sp75\_701\_3\_ss | 1.075964 .1502517 0.52 0.600 .8183376 1.414694

sp75\_701\_4\_ss | 2.953303 1.267301 2.52 0.012 1.273639 6.848093

sp75\_701\_5\_ss | .8245642 .0823928 -1.93 0.054 .6779067 1.002949

sp75\_701\_ss | 1.039435 .0220752 1.82 0.069 .9970563 1.083614

sp75\_703\_2\_ss | .9758141 .2155095 -0.11 0.912 .6329631 1.504374

sp75\_703\_3\_ss | 1.051581 .0934099 0.57 0.571 .8835517 1.251564

sp75\_703\_ss | .9946161 .0517807 -0.10 0.917 .8981339 1.101463

sp75\_704\_ss | 1.620954 .657417 1.19 0.234 .7320576 3.589186

sp75\_705\_1\_ss | .9285723 .09797 -0.70 0.482 .7551076 1.141886

sp75\_705\_8\_ss | 3.99e-09 3.36e-09 -22.95 0.000 7.64e-10 2.08e-08

sp75\_705\_ss | 1.130778 .1538774 0.90 0.366 .866054 1.476419

sp75\_706\_ss | .8217518 .1052965 -1.53 0.126 .6392497 1.056357

sp75\_800\_2\_ss | 2.49e-10 2.49e-10 -22.06 0.000 3.49e-11 1.77e-09

sp75\_800\_3\_ss | .6173744 .2899445 -1.03 0.304 .2459174 1.549915

sp75\_800\_4\_ss | 3.867156 1.438309 3.64 0.000 1.865541 8.016386

sp75\_800\_ss | .9359132 .0879608 -0.70 0.481 .7784601 1.125213

sp75\_801\_ss | .5584816 .1380478 -2.36 0.018 .3440372 .906593

sp75\_802\_ss | .7007945 .2005833 -1.24 0.214 .3999056 1.228072

sp75\_803\_2\_ss | 1.286815 .3104145 1.05 0.296 .8020162 2.064661

sp75\_803\_ss | 1.140769 .0976656 1.54 0.124 .9645463 1.349187

sp75\_804\_ss | .9239768 .0572898 -1.28 0.202 .8182455 1.04337

sp75\_805\_ss | .5215465 .0992507 -3.42 0.001 .3591771 .7573164

sp75\_806\_ss | .5871851 .098549 -3.17 0.002 .4225862 .8158957

sp75\_807\_ss | 1.044232 .0255523 1.77 0.077 .9953327 1.095534

sp75\_808\_ss | 1.133252 .1508349 0.94 0.347 .8730367 1.471028

sp75\_809\_ss | .9942598 .0598925 -0.10 0.924 .8835374 1.118858

sp75\_810\_ss | 1.169539 .1222911 1.50 0.134 .9528184 1.435554

sp75\_811\_ss | .9721689 .1204594 -0.23 0.820 .7625549 1.239402

sp75\_812\_ss | .7212208 .1496019 -1.58 0.115 .4802911 1.083009

sp75\_814\_ss | .8625568 .0948663 -1.34 0.179 .6952969 1.070053

sp75\_815\_ss | 1.749214 .7065775 1.38 0.166 .7925167 3.8608

sp75\_816\_ss | 1.13984 .0826043 1.81 0.071 .9889106 1.313803

sp75\_818\_ss | 1.554793 .4527662 1.52 0.130 .8786113 2.751365

sp75\_819\_ss | 1.160913 .4424197 0.39 0.695 .5500594 2.450132

sp75\_820\_ss | 1.000865 .0838743 0.01 0.992 .8492652 1.179527

sp75\_821\_ss | 1.468615 .4558742 1.24 0.216 .7992554 2.698549

sp75\_825\_ss | .9572259 .1744211 -0.24 0.810 .6697497 1.368095

sp75\_827\_ss | 1.275078 .5084749 0.61 0.542 .5835727 2.785983

sp75\_831\_ss | .8346501 .1402537 -1.08 0.282 .6004398 1.160218

sp75\_900\_2\_ss | .8586783 .2001813 -0.65 0.513 .5437412 1.356028

sp75\_900\_3\_ss | .9572293 .1181017 -0.35 0.723 .7516156 1.219091

sp75\_900\_4\_ss | 1.179003 .1995649 0.97 0.331 .8461266 1.642836

sp75\_900\_ss | .9747154 .027776 -0.90 0.369 .9217678 1.030704

sp75\_901\_ss | .9249192 .1060221 -0.68 0.496 .7388084 1.157912

sp75\_902\_1\_ss | 1.035036 .1990745 0.18 0.858 .7099684 1.50894

sp75\_902\_2\_ss | 1.172045 .11708 1.59 0.112 .9636393 1.425522

sp75\_902\_4\_ss | 1.03764 .0852188 0.45 0.653 .8833641 1.21886

sp75\_902\_ss | 1.054977 .0346635 1.63 0.103 .9891788 1.125151

sp75\_903\_ss | 1.044005 .0461411 0.97 0.330 .9573767 1.138473

sp75\_904\_ss | 1.012756 .013086 0.98 0.327 .9874304 1.038732

sp75\_905\_ss | .4543497 .0895287 -4.00 0.000 .3087896 .6685252

sp75\_907\_ss | .8052594 .1484484 -1.17 0.240 .5610713 1.155722

sp77\_103\_ss | .9556194 .1026792 -0.42 0.673 .7741502 1.179627

sp77\_1103\_ss | .9257389 .0726628 -0.98 0.326 .7937363 1.079694

sp77\_1104\_ss | 1.017107 .0139706 1.23 0.217 .9900901 1.04486

sp77\_1106\_ss | 1.40e-10 1.43e-10 -22.26 0.000 1.90e-11 1.03e-09

sp77\_1111\_ss | 1.001355 .3374299 0.00 0.997 .5173159 1.938297

sp77\_1112\_ss | 1.078206 .0922217 0.88 0.379 .9117931 1.274991

sp77\_1403\_ss | .8250033 .1712314 -0.93 0.354 .5492712 1.239152

sp77\_1433\_ss | .6518836 .1900993 -1.47 0.142 .3680837 1.154499

sp77\_1434\_ss | 1.228529 .2576 0.98 0.326 .8145244 1.852963

sp77\_1437\_ss | .6548642 .112795 -2.46 0.014 .4672386 .9178332

sp77\_1438\_ss | .1534795 .1328887 -2.16 0.030 .028122 .8376347

sp77\_1605\_ss | 1.00655 .0194146 0.34 0.735 .9692086 1.04533

sp77\_1606\_ss | 1.027096 .0224517 1.22 0.221 .9840206 1.072057

sp77\_1710\_ss | .9292529 .0254669 -2.68 0.007 .8806556 .980532

sp77\_1802\_ss | .5519594 .2163105 -1.52 0.129 .2560501 1.189842

sp77\_1906\_ss | 3.602994 2.409817 1.92 0.055 .971288 13.36531

sp77\_1915\_ss | 1.156909 .2671392 0.63 0.528 .7357842 1.819065

sp77\_1916\_ss | 1.294033 .1805501 1.85 0.065 .9844225 1.70102

sp77\_200\_ss | .9875244 .0190027 -0.65 0.514 .9509734 1.02548

sp77\_202\_ss | .9541957 .0248582 -1.80 0.072 .9066975 1.004182

sp77\_203\_ss | .8188844 .1389968 -1.18 0.239 .5871382 1.142102

sp77\_204\_ss | .9882774 .0272892 -0.43 0.669 .9362131 1.043237

sp77\_205\_ss | 1.009305 .0118343 0.79 0.430 .9863741 1.032768

sp77\_206\_ss | .9981895 .0571722 -0.03 0.975 .8921948 1.116777

sp77\_207\_ss | 1.163075 .0619318 2.84 0.005 1.04781 1.291019

sp77\_208\_ss | 1.07702 .0358342 2.23 0.026 1.009027 1.149594

sp77\_210\_ss | .9958201 .0830076 -0.05 0.960 .8457229 1.172556

sp77\_216\_ss | 1.357153 .3199386 1.30 0.195 .8549963 2.154235

sp77\_315\_ss | .6163731 .2994862 -1.00 0.319 .2378253 1.597458

sp77\_400\_ss | 1.006633 .0113687 0.59 0.558 .9845952 1.029163

sp77\_401\_ss | 1.041383 .0907414 0.47 0.642 .8778914 1.235323

sp77\_402\_ss | 1.034635 .064399 0.55 0.584 .9158107 1.168877

sp77\_403\_1\_ss | 1.235606 .2188804 1.19 0.232 .8731617 1.748499

sp77\_403\_ss | 2.195485 .5773476 2.99 0.003 1.311263 3.675965

sp77\_404\_ss | .9766864 .0103267 -2.23 0.026 .9566547 .9971376

sp77\_405\_ss | 1.081328 .0928705 0.91 0.363 .913801 1.279568

sp77\_408\_ss | .8528385 .096821 -1.40 0.161 .6827028 1.065374

sp77\_409\_ss | .606774 .4149393 -0.73 0.465 .1588317 2.318018

sp77\_410\_ss | 1.010639 .0218864 0.49 0.625 .9686401 1.054459

sp77\_411\_ss | .6898493 .0638544 -4.01 0.000 .5753929 .8270731

sp77\_412\_ss | .9984918 .0866933 -0.02 0.986 .8422472 1.183721

sp77\_413\_ss | 1.868538 .4393815 2.66 0.008 1.17854 2.962508

sp77\_500\_ss | .9024746 .156 -0.59 0.553 .6431287 1.266403

sp77\_501\_ss | .952318 .0897671 -0.52 0.604 .7916738 1.14556

sp77\_502\_1\_ss | 1.228531 .3989083 0.63 0.526 .650127 2.32153

sp77\_502\_2\_ss | 1.019601 .1048167 0.19 0.850 .8335377 1.247197

sp77\_502\_ss | .9812916 .0173472 -1.07 0.285 .947874 1.015887

sp77\_503\_1\_ss | 1.161574 .2936093 0.59 0.553 .7077669 1.906355

sp77\_503\_ss | .8511619 .1677147 -0.82 0.413 .5784817 1.252376

sp77\_504\_ss | .9330654 .0559204 -1.16 0.248 .8296558 1.049364

sp77\_505\_ss | .914024 .0461223 -1.78 0.075 .8279523 1.009044

sp77\_506\_1\_ss | 1.363955 .3285982 1.29 0.198 .850613 2.187096

sp77\_506\_ss | 1.071368 .106714 0.69 0.489 .8813619 1.302335

sp77\_507\_ss | 1.031721 .1422253 0.23 0.821 .7874479 1.351769

sp77\_508\_1\_ss | 1.564475 .6770448 1.03 0.301 .6698863 3.653726

sp77\_508\_ss | 1.332387 .2074062 1.84 0.065 .9820375 1.807727

sp77\_509\_ss | .8612925 .0711846 -1.81 0.071 .7324872 1.012748

sp77\_510\_ss | .7062367 .1370422 -1.79 0.073 .4828123 1.033052

sp77\_511\_ss | 1.170194 .5125639 0.36 0.720 .495927 2.7612

sp77\_512\_ss | .9871719 .0360561 -0.35 0.724 .9189735 1.060431

sp77\_513\_ss | .9961241 .06358 -0.06 0.951 .8789891 1.128869

sp77\_514\_ss | .6127515 .1525551 -1.97 0.049 .3761517 .9981727

sp77\_515\_ss | 1.942156 1.046599 1.23 0.218 .6754358 5.584498

sp77\_516\_ss | .9602275 .035369 -1.10 0.271 .8933486 1.032113

sp77\_600\_ss | 1.015165 .1651776 0.09 0.926 .7379678 1.396483

sp77\_601\_ss | 1.083549 .1764732 0.49 0.622 .7874388 1.491009

sp77\_602\_ss | 1.003755 .2959924 0.01 0.990 .5631463 1.789099

sp77\_603\_ss | 3.371385 1.488295 2.75 0.006 1.419209 8.008856

sp77\_604\_ss | .887935 .1188443 -0.89 0.375 .6830514 1.154274

sp77\_605\_ss | .3769613 .3510061 -1.05 0.295 .060772 2.338245

sp77\_606\_ss | 1 (omitted)

sp77\_700\_1\_ss | 1.369396 .4970327 0.87 0.386 .6723249 2.789197

sp77\_700\_ss | .9860646 .1610713 -0.09 0.932 .7159186 1.358148

sp77\_701\_1\_ss | .8067221 .2974914 -0.58 0.560 .3915886 1.66195

sp77\_701\_2\_ss | .7220607 .2632255 -0.89 0.372 .3534031 1.475289

sp77\_701\_3\_ss | 1.429151 .2570723 1.99 0.047 1.004537 2.033247

sp77\_701\_4\_ss | .6685755 .1738099 -1.55 0.121 .4016642 1.112853

sp77\_701\_ss | .9588153 .0458235 -0.88 0.379 .873081 1.052968

sp77\_704\_1\_ss | 1.183598 .239885 0.83 0.406 .7955862 1.760844

sp77\_704\_8\_ss | 1 (omitted)

sp77\_704\_9\_ss | 2.206775 .6777376 2.58 0.010 1.20876 4.028806

sp77\_704\_ss | 1.276386 .3046284 1.02 0.307 .7995211 2.03767

sp77\_705\_ss | .7880969 .1239815 -1.51 0.130 .5789895 1.072725

sp77\_800\_1\_ss | 1.442634 .6436545 0.82 0.411 .601698 3.458864

sp77\_800\_2\_ss | .911227 .3426142 -0.25 0.805 .4360954 1.904021

sp77\_800\_ss | 1.559834 .5834162 1.19 0.235 .7493906 3.246749

sp77\_801\_1\_ss | 2.27e-09 2.28e-09 -19.84 0.000 3.18e-10 1.62e-08

sp77\_802\_ss | .894294 .1542402 -0.65 0.517 .6377821 1.253973

sp77\_803\_ss | 4.633299 4.564004 1.56 0.120 .6720772 31.94195

sp77\_804\_ss | 1.030852 .117755 0.27 0.790 .8240681 1.289525

sp77\_805\_ss | .8596743 .2092125 -0.62 0.534 .5335601 1.385111

sp77\_807\_1\_ss | .5757132 .1984471 -1.60 0.109 .2929537 1.131393

sp77\_807\_2\_ss | 1.340484 .2187583 1.80 0.073 .9735334 1.845747

sp77\_807\_3\_ss | 1.357222 .0973922 4.26 0.000 1.179153 1.562183

sp77\_807\_ss | 1.002924 .2414203 0.01 0.990 .6257056 1.607557

sp77\_808\_ss | 1.522194 .7129177 0.90 0.370 .6078701 3.811792

sp77\_809\_ss | .781928 .0988841 -1.95 0.052 .6102703 1.00187

sp77\_810\_ss | 1.123549 .2826757 0.46 0.643 .686178 1.839702

sp77\_900\_1\_ss | 1.878646 .5644788 2.10 0.036 1.042518 3.385372

sp77\_900\_2\_ss | 3.00e-10 3.05e-10 -21.59 0.000 4.10e-11 2.20e-09

sp77\_900\_ss | .8702938 .255148 -0.47 0.636 .4899088 1.546025

sp77\_901\_1\_ss | 1 (omitted)

sp77\_901\_ss | .8664476 .1133308 -1.10 0.273 .6705106 1.119641

sp77\_902\_3\_ss | 5.89e-10 5.07e-10 -24.68 0.000 1.09e-10 3.19e-09

sp77\_902\_ss | 1.111946 .1540392 0.77 0.444 .847551 1.45882

sp77\_903\_ss | .9987568 .168915 -0.01 0.994 .7169685 1.391296

sp77\_904\_ss | .9920827 .0688681 -0.11 0.909 .8658833 1.136675

mine\_time | .9975058 .0063055 -0.40 0.693 .9852235 1.009941

onsite\_insp\_hours | .9998871 .0000402 -2.81 0.005 .9998084 .9999658

|

state |

1 | 1.127035 .1075865 1.25 0.210 .9347209 1.358917

2 | 1.777317 .1661971 6.15 0.000 1.479684 2.134818

3 | .7227557 .1187283 -1.98 0.048 .5237973 .9972862

4 | 1.074882 .0825235 0.94 0.347 .9247203 1.249429

5 | .9112196 .1525784 -0.56 0.579 .6562877 1.265179

6 | .8839994 .0472013 -2.31 0.021 .7961629 .9815265

7 | 1.032613 .242058 0.14 0.891 .652236 1.634821

8 | .9659961 .0674573 -0.50 0.620 .842431 1.107685

9 | .8906527 .0668641 -1.54 0.123 .768787 1.031836

10 | .9778222 .1322111 -0.17 0.868 .7501862 1.274532

11 | .8535465 .2452461 -0.55 0.582 .4860208 1.498992

12 | .9993256 .0864054 -0.01 0.994 .8435464 1.183873

13 | 1.314567 .2086259 1.72 0.085 .9631507 1.7942

14 | .6196067 .0856185 -3.46 0.001 .4726018 .812338

15 | .681984 .0435597 -5.99 0.000 .6017363 .7729335

17 | 1.061257 .0775157 0.81 0.416 .9197027 1.224598

|

time |

2000 | 1.066472 .0682207 1.01 0.314 .9408043 1.208926

2002 | .9984468 .0653058 -0.02 0.981 .8783146 1.13501

2003 | .8685491 .0616107 -1.99 0.047 .7558128 .998101

2004 | .8827524 .0623622 -1.77 0.078 .7686092 1.013846

2005 | .7518189 .0538924 -3.98 0.000 .6532762 .8652261

2006 | .7529717 .0561444 -3.81 0.000 .6505937 .8714599

2007 | .6912943 .0536751 -4.75 0.000 .5937067 .8049223

2008 | .6359806 .0490277 -5.87 0.000 .5467954 .7397124

2009 | .537219 .0436172 -7.65 0.000 .4581858 .6298847

2010 | .525123 .0427843 -7.91 0.000 .4476201 .6160451

2011 | .5497698 .0460099 -7.15 0.000 .4665996 .6477649

2012 | .580313 .0493444 -6.40 0.000 .4912292 .6855522

2013 | .5101957 .0474754 -7.23 0.000 .4251378 .6122714

2014 | .4925454 .0486382 -7.17 0.000 .405874 .5977248

2015 | .526762 .0534201 -6.32 0.000 .4318095 .642594

|

\_cons | .0000168 1.10e-06 -167.66 0.000 .0000148 .0000192

ln(hours) | 1 (exposure)

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

/lnalpha | -1.886298 .1357067 -2.152279 -1.620318

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

alpha | .151632 .0205775 .116219 .1978357

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

(est1 stored)

**. lrtest pois nbin, stats force**

Likelihood-ratio test LR chi2(1) = 296.50

(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 | 6,253 -9569.622 -8635.46 297 17864.92 19866.94

nbin | 6,253 -8961.932 -8487.209 298 17570.42 19579.18

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

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

**. summ MR spcssv1\_yhat**

Variable | Obs Mean Std. Dev. Min Max

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

MR | 6,253 1.881017 3.268911 0 37

spcssv1\_yhat | 6,253 1.90392 2.921076 5.54e-11 44.15797