. // Model SP.C.V.3

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

note: sp77\_801\_1\_c\_4lag omitted because of collinearity

note: sp77\_606\_c\_4lag omitted because of collinearity

Iteration 0: log pseudolikelihood = -17606.322

Iteration 1: log pseudolikelihood = -16486.347

Iteration 2: log pseudolikelihood = -16474.432

Iteration 3: log pseudolikelihood = -16474.304

Iteration 4: log pseudolikelihood = -16474.279

Iteration 5: log pseudolikelihood = -16474.273

Iteration 6: log pseudolikelihood = -16474.272

Iteration 7: log pseudolikelihood = -16474.272

Iteration 8: log pseudolikelihood = -16474.272

Iteration 9: log pseudolikelihood = -16474.272

Generalized linear models No. of obs = 22,446

Optimization : ML Residual df = 22,053

Scale parameter = 1

Deviance = 17996.01723 (1/df) Deviance = .8160349

Pearson = 241890.1696 (1/df) Pearson = 10.96858

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

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

AIC = 1.50292

Log pseudolikelihood = -16474.27151 BIC = -202950.1

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

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| Robust

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

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

sp47\_41\_c\_4lag | .9578247 .0333719 -1.24 0.216 .8946002 1.025517

sp48\_11\_c\_4lag | 1.027847 .0377811 0.75 0.455 .9564023 1.10463

sp71\_701\_c\_4lag | 2.163051 .7455929 2.24 0.025 1.100682 4.25081

sp75\_1001\_1\_c\_4lag | .9372482 .1139487 -0.53 0.594 .7385285 1.189438

sp75\_1001\_c\_4lag | .7117616 .1584235 -1.53 0.127 .4601237 1.101018

sp75\_1003\_1\_c\_4lag | .6633405 .1663265 -1.64 0.102 .405794 1.084345

sp75\_1400\_1\_c\_4lag | 1.26037 .1837683 1.59 0.112 .9470841 1.677288

sp75\_1401\_1\_c\_4lag | .9965763 .3462379 -0.01 0.992 .5044054 1.96898

sp75\_1401\_c\_4lag | .8518775 .0898092 -1.52 0.128 .69285 1.047406

sp75\_1403\_11\_c\_4lag | 1.09087 .337202 0.28 0.778 .59519 1.999357

sp75\_1404\_1\_c\_4lag | .7129742 .2053941 -1.17 0.240 .405377 1.253974

sp75\_1405\_1\_c\_4lag | .9358793 .0811614 -0.76 0.445 .7895904 1.109271

sp75\_1431\_c\_4lag | .5333138 .1026376 -3.27 0.001 .3657353 .7776762

sp75\_151\_c\_4lag | 1.443167 .3254317 1.63 0.104 .9276245 2.245232

sp75\_1721\_c\_4lag | .7933115 .623166 -0.29 0.768 .1701389 3.698995

sp75\_1731\_c\_4lag | 1.001425 .0021601 0.66 0.509 .9972006 1.005668

sp75\_1911\_c\_4lag | .9886308 .008148 -1.39 0.165 .9727894 1.00473

sp75\_211\_c\_4lag | 1.003998 .0149895 0.27 0.789 .9750448 1.033811

sp75\_341\_c\_4lag | 1.138068 .250591 0.59 0.557 .7391663 1.752242

sp75\_506\_1\_c\_4lag | 1.184078 .0799191 2.50 0.012 1.037358 1.35155

sp75\_510\_1\_c\_4lag | 1.403866 .7617046 0.63 0.532 .4847122 4.066002

sp75\_511\_1\_c\_4lag | .208883 .0523908 -6.24 0.000 .1277644 .3415045

sp75\_511\_c\_4lag | 1.047168 .0372306 1.30 0.195 .976682 1.122741

sp75\_512\_1\_c\_4lag | 1.291394 .3802189 0.87 0.385 .7251764 2.299715

sp75\_513\_1\_c\_4lag | 1.006475 .0950014 0.07 0.945 .8364849 1.211011

sp75\_516\_1\_c\_4lag | 1.018617 .143784 0.13 0.896 .7724293 1.34327

sp75\_517\_1\_c\_4lag | 1.00858 .1030449 0.08 0.933 .8255517 1.232185

sp75\_518\_1\_c\_4lag | .9916026 .0161605 -0.52 0.605 .9604292 1.023788

sp75\_523\_1\_c\_4lag | .9860959 .0274714 -0.50 0.615 .9336965 1.041436

sp75\_600\_1\_c\_4lag | .8582978 .1049504 -1.25 0.211 .675391 1.090739

sp75\_601\_1\_c\_4lag | 1.01418 .0106935 1.34 0.182 .9934364 1.035357

sp75\_601\_c\_4lag | 1.009117 .0128795 0.71 0.477 .9841872 1.034679

sp75\_700\_1\_c\_4lag | .8317499 .0943376 -1.62 0.104 .6659612 1.038811

sp75\_701\_1\_c\_4lag | .9600058 .0300521 -1.30 0.192 .9028753 1.020751

sp75\_701\_c\_4lag | 1.018018 .0108261 1.68 0.093 .9970185 1.039459

sp75\_702\_1\_c\_4lag | .6884421 .1259895 -2.04 0.041 .480941 .9854691

sp75\_703\_1\_c\_4lag | .9592854 .1732818 -0.23 0.818 .673271 1.366803

sp75\_705\_1\_c\_4lag | .853382 .0866676 -1.56 0.118 .6993544 1.041333

sp75\_801\_c\_4lag | 1.101321 .2638881 0.40 0.687 .6885845 1.761452

sp75\_811\_c\_4lag | 1.025286 .0336595 0.76 0.447 .9613927 1.093427

sp75\_821\_c\_4lag | 1.065946 .0463173 1.47 0.142 .9789235 1.160704

sp75\_831\_c\_4lag | .6863843 .1178171 -2.19 0.028 .4902974 .9608932

sp75\_901\_c\_4lag | .9343821 .0641094 -0.99 0.323 .8168122 1.068875

sp75\_902\_1\_c\_4lag | 1.346188 .1533996 2.61 0.009 1.076738 1.683065

sp77\_1111\_c\_4lag | .8757552 .112454 -1.03 0.302 .6808974 1.126377

sp77\_401\_c\_4lag | 1.030983 .0614583 0.51 0.609 .9172976 1.158758

sp77\_403\_1\_c\_4lag | 1.101565 .1119842 0.95 0.341 .9025629 1.344443

sp77\_411\_c\_4lag | .8515982 .2957899 -0.46 0.644 .4311046 1.682236

sp77\_501\_c\_4lag | .9714569 .0546334 -0.51 0.607 .8700679 1.084661

sp77\_502\_1\_c\_4lag | 1.258169 .4242106 0.68 0.496 .6497458 2.43632

sp77\_503\_1\_c\_4lag | 1.027711 .1916447 0.15 0.883 .7130853 1.481156

sp77\_506\_1\_c\_4lag | .9972642 .021937 -0.12 0.901 .955182 1.0412

sp77\_508\_1\_c\_4lag | .968716 .1099161 -0.28 0.779 .7755579 1.209982

sp77\_511\_c\_4lag | .9069311 .1360275 -0.65 0.515 .6759359 1.216867

sp77\_601\_c\_4lag | .930326 .1578255 -0.43 0.670 .6671642 1.297292

sp77\_606\_1\_c\_4lag | .7744019 .1518416 -1.30 0.192 .5273102 1.137278

sp77\_700\_1\_c\_4lag | .9610518 .1194909 -0.32 0.749 .7532063 1.226252

sp77\_701\_1\_c\_4lag | .8644771 .1478896 -0.85 0.395 .6182085 1.208849

sp77\_701\_c\_4lag | 1.019778 .026692 0.75 0.454 .968782 1.073459

sp77\_704\_1\_c\_4lag | 1.201269 .2519179 0.87 0.382 .7964071 1.811948

sp77\_800\_1\_c\_4lag | 1.031231 .1285585 0.25 0.805 .8076828 1.316652

sp77\_801\_1\_c\_4lag | 1 (omitted)

sp77\_801\_c\_4lag | .6166877 .1627314 -1.83 0.067 .3676635 1.03438

sp77\_807\_1\_c\_4lag | 1.097896 .3623387 0.28 0.777 .5749617 2.096444

sp77\_900\_1\_c\_4lag | 1.425966 .2900047 1.74 0.081 .9571872 2.124328

sp77\_901\_1\_c\_4lag | .4745439 .1027342 -3.44 0.001 .3104555 .7253595

sp77\_901\_c\_4lag | 1.138064 .1039486 1.42 0.157 .9515235 1.361174

sp47\_42\_c\_4lag | .9219262 .101521 -0.74 0.460 .7429562 1.144008

sp75\_1100\_2\_c\_4lag | 1.007797 .0049155 1.59 0.111 .9982092 1.017478

sp75\_1102\_c\_4lag | .912474 .0382309 -2.19 0.029 .8405369 .9905678

sp75\_1106\_2\_c\_4lag | 1.046157 .0274708 1.72 0.086 .9936771 1.101408

sp75\_1400\_2\_c\_4lag | 1.062258 .1070667 0.60 0.549 .8718389 1.294268

sp75\_1402\_2\_c\_4lag | 1.452862 .3496658 1.55 0.121 .9064887 2.328554

sp75\_1432\_c\_4lag | 1.014772 .0907554 0.16 0.870 .8516119 1.209191

sp75\_1600\_2\_c\_4lag | .9925878 .0159812 -0.46 0.644 .9617542 1.02441

sp75\_1912\_c\_4lag | 1.00999 .0483276 0.21 0.835 .9195759 1.109295

sp75\_202\_c\_4lag | .9997213 .0017259 -0.16 0.872 .9963444 1.00311

sp75\_212\_c\_4lag | .9466323 .0212153 -2.45 0.014 .9059512 .9891402

sp75\_312\_c\_4lag | 1.043176 .0237333 1.86 0.063 .9976812 1.090745

sp75\_342\_c\_4lag | .9989542 .0053775 -0.19 0.846 .9884699 1.00955

sp75\_352\_c\_4lag | .938479 .0300334 -1.98 0.047 .8814228 .9992287

sp75\_382\_c\_4lag | 1.015535 .0373074 0.42 0.675 .944984 1.091353

sp75\_512\_2\_c\_4lag | 1.021261 .0111523 1.93 0.054 .9996347 1.043354

sp75\_512\_c\_4lag | .9987276 .0032991 -0.39 0.700 .9922825 1.005215

sp75\_516\_2\_c\_4lag | 1.03917 .0192807 2.07 0.038 1.002059 1.077655

sp75\_523\_2\_c\_4lag | .9915389 .0181516 -0.46 0.643 .956593 1.027761

sp75\_601\_2\_c\_4lag | .9842543 .1037467 -0.15 0.880 .8005441 1.210123

sp75\_602\_c\_4lag | 1.022442 .0250306 0.91 0.365 .9745412 1.072697

sp75\_701\_2\_c\_4lag | .9533507 .0451507 -1.01 0.313 .8688399 1.046082

sp75\_702\_c\_4lag | .8124771 .1415498 -1.19 0.233 .5774505 1.143161

sp75\_703\_2\_c\_4lag | .9602019 .1473215 -0.26 0.791 .7108283 1.297061

sp75\_705\_2\_c\_4lag | 1.220418 .1916033 1.27 0.205 .8971632 1.660143

sp75\_800\_2\_c\_4lag | .7675227 .2232894 -0.91 0.363 .4339681 1.357453

sp75\_802\_c\_4lag | 1.088261 .1226323 0.75 0.453 .8725981 1.357226

sp75\_803\_2\_c\_4lag | 1.496033 .3480196 1.73 0.083 .9482605 2.360232

sp75\_812\_c\_4lag | 1.110738 .1816355 0.64 0.521 .806153 1.530404

sp75\_832\_c\_4lag | .6746916 .5000167 -0.53 0.595 .1578615 2.883595

sp75\_900\_2\_c\_4lag | .8016896 .1505309 -1.18 0.239 .5548539 1.158334

sp75\_902\_2\_c\_4lag | .9995792 .0456592 -0.01 0.993 .9139779 1.093198

sp75\_902\_c\_4lag | .9969752 .0189381 -0.16 0.873 .9605396 1.034793

sp77\_1112\_c\_4lag | .9562698 .0562755 -0.76 0.447 .8520951 1.073181

sp77\_1432\_c\_4lag | .9822948 .2071181 -0.08 0.932 .6497779 1.484974

sp77\_1802\_c\_4lag | .7909207 .0993576 -1.87 0.062 .618305 1.011727

sp77\_202\_c\_4lag | .9746209 .0109976 -2.28 0.023 .9533025 .996416

sp77\_402\_c\_4lag | 1.008168 .0205123 0.40 0.689 .968756 1.049184

sp77\_403\_2\_c\_4lag | 1.453836 .3441713 1.58 0.114 .9141298 2.312188

sp77\_412\_c\_4lag | 1.090259 .0576753 1.63 0.102 .9828807 1.209369

sp77\_502\_2\_c\_4lag | .9383148 .0423252 -1.41 0.158 .8589202 1.025048

sp77\_502\_c\_4lag | .9886001 .006162 -1.84 0.066 .9765963 1.000751

sp77\_512\_c\_4lag | .9981 .016841 -0.11 0.910 .9656321 1.03166

sp77\_602\_c\_4lag | 1.198984 .1254265 1.73 0.083 .9767164 1.471831

sp77\_701\_2\_c\_4lag | .9729521 .1030983 -0.26 0.796 .7904863 1.197536

sp77\_702\_c\_4lag | .6893647 .1552771 -1.65 0.099 .4433214 1.071962

sp77\_800\_2\_c\_4lag | .9405951 .0822667 -0.70 0.484 .7924185 1.11648

sp77\_802\_c\_4lag | .8054674 .1428826 -1.22 0.223 .5689217 1.140364

sp77\_807\_2\_c\_4lag | .8856178 .105099 -1.02 0.306 .7018296 1.117535

sp77\_900\_2\_c\_4lag | 1.095888 .1037083 0.97 0.333 .9103603 1.319224

sp77\_902\_2\_c\_4lag | .000725 .0003699 -14.17 0.000 .0002667 .0019707

sp77\_902\_c\_4lag | 1.144 .0795676 1.93 0.053 .9982128 1.311079

sp47\_43\_c\_4lag | 1.981728 .5321093 2.55 0.011 1.170819 3.354272

sp72\_503\_c\_4lag | .9643358 .0422732 -0.83 0.407 .8849413 1.050853

sp75\_1106\_3\_c\_4lag | 1.011997 .010665 1.13 0.258 .9913088 1.033118

sp75\_1400\_3\_c\_4lag | 1.069945 .0399011 1.81 0.070 .9945303 1.151079

sp75\_1403\_3\_c\_4lag | .8360915 .1037741 -1.44 0.149 .6555477 1.066359

sp75\_1433\_c\_4lag | 1.01051 .0644189 0.16 0.870 .8918207 1.144996

sp75\_153\_c\_4lag | 1.238288 .1675294 1.58 0.114 .9498641 1.61429

sp75\_1903\_c\_4lag | .9821827 .0229715 -0.77 0.442 .9381757 1.028254

sp75\_1913\_c\_4lag | 1.047524 .0375115 1.30 0.195 .9765236 1.123687

sp75\_503\_c\_4lag | .9973906 .0027954 -0.93 0.351 .9919267 1.002885

sp75\_513\_c\_4lag | .9781703 .0496389 -0.43 0.664 .8855616 1.080464

sp75\_523\_c\_4lag | .9881799 .0233979 -0.50 0.616 .9433688 1.03512

sp75\_601\_3\_c\_4lag | .9330341 .1156747 -0.56 0.576 .7317591 1.189671

sp75\_603\_c\_4lag | .9543111 .0423833 -1.05 0.292 .8747542 1.041104

sp75\_701\_3\_c\_4lag | 1.05983 .0466301 1.32 0.187 .9722666 1.15528

sp75\_703\_3\_c\_4lag | 1.06044 .0640652 0.97 0.331 .942024 1.193742

sp75\_703\_c\_4lag | 1.038897 .0216574 1.83 0.067 .9973049 1.082224

sp75\_705\_3\_c\_4lag | 2.271416 .3823443 4.87 0.000 1.633109 3.159208

sp75\_800\_3\_c\_4lag | .9953749 .0846088 -0.05 0.957 .8426223 1.175819

sp75\_803\_c\_4lag | .9468124 .0568329 -0.91 0.363 .8417248 1.06502

sp75\_900\_3\_c\_4lag | 1.087576 .0523515 1.74 0.081 .9896602 1.195179

sp75\_903\_c\_4lag | 1.016905 .0320211 0.53 0.594 .9560426 1.081643

sp77\_103\_c\_4lag | .4731448 .2049032 -1.73 0.084 .202473 1.105658

sp77\_1103\_c\_4lag | .9933006 .0155535 -0.43 0.668 .9632793 1.024258

sp77\_1403\_c\_4lag | 1.019157 .0713417 0.27 0.786 .8884983 1.169031

sp77\_1433\_c\_4lag | 1.096267 .1555882 0.65 0.517 .8300596 1.44785

sp77\_203\_c\_4lag | 1.139094 .1034883 1.43 0.152 .9532937 1.361108

sp77\_403\_c\_4lag | 1.471513 .2243255 2.53 0.011 1.091446 1.983928

sp77\_413\_c\_4lag | .9564854 .062111 -0.69 0.493 .8421784 1.086307

sp77\_503\_c\_4lag | 1.036423 .1008129 0.37 0.713 .8565266 1.254104

sp77\_513\_c\_4lag | .9610987 .0262484 -1.45 0.146 .9110054 1.013947

sp77\_603\_c\_4lag | 1.195864 .1986722 1.08 0.282 .8635138 1.656129

sp77\_701\_3\_c\_4lag | .9077386 .2198169 -0.40 0.689 .5647222 1.459106

sp77\_703\_c\_4lag | .9153845 .2407574 -0.34 0.737 .5466723 1.532781

sp77\_803\_c\_4lag | .8599191 .1546499 -0.84 0.401 .604471 1.223319

sp77\_807\_3\_c\_4lag | 1.11587 .1403085 0.87 0.383 .8721359 1.427719

sp77\_902\_3\_c\_4lag | 1.102567 .2159639 0.50 0.618 .7510643 1.618576

sp77\_903\_c\_4lag | 1.101399 .1487789 0.71 0.475 .8452066 1.435246

sp47\_44\_c\_4lag | .9575033 .0442543 -0.94 0.347 .8745792 1.04829

sp48\_24\_c\_4lag | .0718774 .0144201 -13.12 0.000 .0485091 .1065029

sp48\_4\_c\_4lag | 1.364096 .9006817 0.47 0.638 .3739517 4.975928

sp75\_1103\_4\_c\_4lag | 1.012331 .0112136 1.11 0.269 .9905898 1.03455

sp75\_1104\_c\_4lag | .9979898 .0222987 -0.09 0.928 .9552283 1.042666

sp75\_1106\_4\_c\_4lag | .9856606 .0643694 -0.22 0.825 .8672394 1.120252

sp75\_1107\_14\_c\_4lag | 1.431211 .3438655 1.49 0.136 .8937008 2.292002

sp75\_1400\_4\_c\_4lag | .928013 .0572336 -1.21 0.226 .8223519 1.04725

sp75\_1403\_4\_c\_4lag | 1.111205 .140999 0.83 0.406 .8665361 1.424957

sp75\_1404\_c\_4lag | .9164711 .234811 -0.34 0.734 .5546648 1.514283

sp75\_1434\_c\_4lag | .9264908 .0576725 -1.23 0.220 .8200782 1.046712

sp75\_1914\_c\_4lag | .9992495 .0038239 -0.20 0.844 .9917829 1.006772

sp75\_214\_c\_4lag | .9789654 .0254522 -0.82 0.414 .9303297 1.030144

sp75\_324\_c\_4lag | .975735 .0370632 -0.65 0.518 .9057307 1.05115

sp75\_344\_c\_4lag | 1.027749 .0664702 0.42 0.672 .9053891 1.166646

sp75\_504\_c\_4lag | .9659722 .0779381 -0.43 0.668 .8246823 1.131469

sp75\_514\_c\_4lag | 1.01164 .0123376 0.95 0.343 .9877455 1.036113

sp75\_604\_c\_4lag | 1.016931 .0043479 3.93 0.000 1.008445 1.025488

sp75\_701\_4\_c\_4lag | 1.424037 .2091129 2.41 0.016 1.067889 1.898961

sp75\_703\_4\_c\_4lag | .9787691 .3425448 -0.06 0.951 .4929251 1.943478

sp75\_704\_c\_4lag | .7610417 .1208324 -1.72 0.085 .5575208 1.038857

sp75\_800\_4\_c\_4lag | 1.073052 .0560324 1.35 0.177 .9686639 1.18869

sp75\_804\_c\_4lag | .9707627 .0436925 -0.66 0.510 .8887955 1.060289

sp75\_814\_c\_4lag | .9974386 .0614159 -0.04 0.967 .8840456 1.125376

sp75\_834\_c\_4lag | 3.21e-06 3.99e-06 -10.17 0.000 2.80e-07 .0000368

sp75\_900\_4\_c\_4lag | .9882809 .0128298 -0.91 0.364 .9634522 1.013749

sp75\_902\_4\_c\_4lag | 1.006942 .0337621 0.21 0.837 .9428968 1.075337

sp75\_904\_c\_4lag | .9882327 .0078659 -1.49 0.137 .9729355 1.00377

sp77\_104\_c\_4lag | 1.271396 .4846863 0.63 0.529 .6022578 2.683978

sp77\_1104\_c\_4lag | 1.007479 .0059197 1.27 0.205 .9959431 1.019148

sp77\_1434\_c\_4lag | .9896699 .0998901 -0.10 0.918 .8120378 1.206159

sp77\_204\_c\_4lag | .9674262 .02165 -1.48 0.139 .9259101 1.010804

sp77\_314\_c\_4lag | .6534087 .2660387 -1.05 0.296 .2941805 1.451296

sp77\_404\_c\_4lag | .9776715 .0080213 -2.75 0.006 .9620758 .99352

sp77\_504\_c\_4lag | .9530228 .0256129 -1.79 0.073 .9041216 1.004569

sp77\_514\_c\_4lag | .9371148 .0678717 -0.90 0.370 .8130992 1.080046

sp77\_604\_c\_4lag | 1.010502 .1124123 0.09 0.925 .8125423 1.25669

sp77\_701\_4\_c\_4lag | 1.23509 .1376681 1.89 0.058 .992705 1.536657

sp77\_704\_c\_4lag | 1.374813 .3853485 1.14 0.256 .793705 2.381378

sp77\_804\_c\_4lag | 1.596892 .3094962 2.42 0.016 1.092201 2.334792

sp77\_904\_c\_4lag | .9946722 .0248005 -0.21 0.830 .9472327 1.044488

sp48\_25\_c\_4lag | .9905491 .0589627 -0.16 0.873 .881471 1.113125

sp48\_5\_c\_4lag | 1.076342 .1024269 0.77 0.439 .8931989 1.297037

sp75\_1106\_5\_c\_4lag | .9861722 .0376835 -0.36 0.716 .915012 1.062867

sp75\_1403\_5\_c\_4lag | .9971353 .00648 -0.44 0.659 .9845152 1.009917

sp75\_1405\_c\_4lag | .9915185 .0103486 -0.82 0.414 .9714416 1.01201

sp75\_1435\_c\_4lag | 1.197638 .1394891 1.55 0.122 .9532045 1.504753

sp75\_155\_c\_4lag | .6995255 .0933752 -2.68 0.007 .5384954 .9087095

sp75\_1725\_c\_4lag | 1.003298 .0032476 1.02 0.309 .9969528 1.009683

sp75\_1915\_c\_4lag | 1.020297 .0701256 0.29 0.770 .891709 1.167429

sp75\_505\_c\_4lag | .8623937 .1337054 -0.95 0.340 .6364077 1.168627

sp75\_515\_c\_4lag | .978192 .0083574 -2.58 0.010 .9619483 .99471

sp75\_605\_c\_4lag | 1.011708 .0136359 0.86 0.388 .9853323 1.03879

sp75\_705\_c\_4lag | 1.292263 .2030872 1.63 0.103 .949684 1.758419

sp75\_805\_c\_4lag | 1.270646 .1470562 2.07 0.038 1.012773 1.594178

sp75\_815\_c\_4lag | 1.156038 .081971 2.04 0.041 1.006042 1.328397

sp75\_825\_c\_4lag | 1.101237 .1295449 0.82 0.412 .8744788 1.386796

sp75\_905\_c\_4lag | 1.198785 .191601 1.13 0.257 .8763834 1.63979

sp77\_1605\_c\_4lag | .9942659 .0079685 -0.72 0.473 .9787699 1.010007

sp77\_1915\_c\_4lag | .9782647 .0954245 -0.23 0.822 .8080277 1.184368

sp77\_205\_c\_4lag | 1.00041 .0049477 0.08 0.934 .9907597 1.010155

sp77\_305\_c\_4lag | 1.624019 .7113617 1.11 0.268 .6882451 3.83212

sp77\_315\_c\_4lag | .2419868 .138099 -2.49 0.013 .0790717 .7405637

sp77\_405\_c\_4lag | .8857112 .0690428 -1.56 0.119 .7602203 1.031917

sp77\_505\_c\_4lag | 1.002664 .0186033 0.14 0.886 .9668575 1.039797

sp77\_515\_c\_4lag | .8266185 .1672297 -0.94 0.347 .556035 1.228876

sp77\_605\_c\_4lag | .7509662 .1802273 -1.19 0.233 .4691776 1.201997

sp77\_705\_c\_4lag | 1.10499 .0695016 1.59 0.112 .9768313 1.249963

sp77\_805\_c\_4lag | 1.040091 .1289684 0.32 0.751 .815689 1.326227

sp48\_26\_c\_4lag | 1.151818 .0588643 2.77 0.006 1.042036 1.273166

sp48\_6\_c\_4lag | 1.003173 .0505153 0.06 0.950 .9088938 1.107232

sp75\_1106\_6\_c\_4lag | .694791 .2603413 -0.97 0.331 .3333536 1.448116

sp75\_1106\_c\_4lag | 1.060849 .0747496 0.84 0.402 .9240091 1.217954

sp75\_1403\_6\_c\_4lag | .9963473 .0062301 -0.59 0.558 .9842109 1.008633

sp75\_1436\_c\_4lag | 1.515514 .4977543 1.27 0.206 .7961446 2.884881

sp75\_156\_c\_4lag | 1.297989 .2391002 1.42 0.157 .904634 1.862385

sp75\_1712\_6\_c\_4lag | .9983747 .0204326 -0.08 0.937 .9591201 1.039236

sp75\_1726\_c\_4lag | 1.045391 .06792 0.68 0.494 .9203971 1.187359

sp75\_506\_c\_4lag | 1.023426 .0325085 0.73 0.466 .9616539 1.089167

sp75\_516\_c\_4lag | .990427 .0111737 -0.85 0.394 .9687673 1.012571

sp75\_606\_c\_4lag | .9905474 .0073062 -1.29 0.198 .9763305 1.004971

sp75\_706\_c\_4lag | .9654349 .0495135 -0.69 0.493 .8731081 1.067525

sp75\_806\_c\_4lag | 1.176727 .2303229 0.83 0.406 .8018049 1.726963

sp75\_816\_c\_4lag | 1.011503 .0241295 0.48 0.632 .9652984 1.059919

sp77\_1106\_c\_4lag | 1.425376 .6730601 0.75 0.453 .5649289 3.596378

sp77\_1606\_c\_4lag | 1.023866 .0124837 1.93 0.053 .9996885 1.048628

sp77\_1906\_c\_4lag | .9209891 .1259867 -0.60 0.547 .704392 1.204189

sp77\_1916\_c\_4lag | 1.19742 .1644103 1.31 0.189 .9148989 1.567183

sp77\_206\_c\_4lag | 1.051487 .0359395 1.47 0.142 .9833544 1.12434

sp77\_216\_c\_4lag | 1.004253 .0287789 0.15 0.882 .949402 1.062273

sp77\_506\_c\_4lag | .9748264 .0240171 -1.03 0.301 .9288722 1.023054

sp77\_516\_c\_4lag | .9798936 .0091213 -2.18 0.029 .9621782 .9979352

sp77\_606\_c\_4lag | 1 (omitted)

sp77\_906\_c\_4lag | .6428531 .204657 -1.39 0.165 .3444494 1.19977

sp48\_27\_c\_4lag | 1.055854 .0724713 0.79 0.428 .9229526 1.207893

sp48\_7\_c\_4lag | 1.068973 .0377682 1.89 0.059 .9974541 1.145621

sp75\_1403\_7\_c\_4lag | .9829272 .0245682 -0.69 0.491 .9359348 1.032279

sp75\_1437\_c\_4lag | 1.10672 .2012036 0.56 0.577 .7749753 1.580475

sp75\_1727\_c\_4lag | 1.069227 .6922191 0.10 0.918 .3006083 3.803111

sp75\_337\_c\_4lag | 1.010292 .0268252 0.39 0.700 .9590602 1.064261

sp75\_507\_c\_4lag | .9859929 .0402469 -0.35 0.730 .9101834 1.068117

sp75\_517\_c\_4lag | .9981905 .00324 -0.56 0.577 .9918603 1.004561

sp75\_607\_c\_4lag | 1.021222 .0396271 0.54 0.588 .9464338 1.101919

sp75\_807\_c\_4lag | 1.011676 .0070002 1.68 0.093 .9980489 1.02549

sp75\_827\_c\_4lag | 1.176487 .0929244 2.06 0.040 1.007756 1.373469

sp75\_907\_c\_4lag | 1.001352 .0620945 0.02 0.983 .8867538 1.130759

sp77\_1437\_c\_4lag | .7036782 .0564742 -4.38 0.000 .6012572 .823546

sp77\_207\_c\_4lag | 1.062692 .0242228 2.67 0.008 1.016261 1.111244

sp77\_507\_c\_4lag | .9026671 .0639345 -1.45 0.148 .7856667 1.037091

sp77\_807\_c\_4lag | 1.077161 .0752574 1.06 0.287 .9393123 1.235239

sp48\_28\_c\_4lag | .9491281 .066139 -0.75 0.454 .8279608 1.088028

sp48\_8\_c\_4lag | 1.049667 .067992 0.75 0.454 .9245176 1.191758

sp75\_1403\_8\_c\_4lag | .9939642 .0054846 -1.10 0.273 .9832725 1.004772

sp75\_1438\_c\_4lag | 1.46e-06 1.53e-06 -12.82 0.000 1.87e-07 .0000114

sp75\_1728\_c\_4lag | 1.35016 .2933758 1.38 0.167 .8819172 2.06701

sp75\_208\_c\_4lag | .9922381 .0131131 -0.59 0.555 .9668669 1.018275

sp75\_518\_c\_4lag | 1.00928 .0097689 0.95 0.340 .9903141 1.02861

sp75\_705\_8\_c\_4lag | 1.129309 .1899311 0.72 0.470 .8121844 1.570257

sp75\_808\_c\_4lag | 1.009447 .070621 0.13 0.893 .8801031 1.157801

sp75\_818\_c\_4lag | 1.1115 .0849604 1.38 0.167 .9568541 1.29114

sp77\_1438\_c\_4lag | .4159393 .1608814 -2.27 0.023 .1948916 .8877009

sp77\_208\_c\_4lag | 1.007575 .0153559 0.50 0.620 .9779232 1.038126

sp77\_408\_c\_4lag | .9684331 .0779054 -0.40 0.690 .8271702 1.133821

sp77\_508\_c\_4lag | .9268206 .0822148 -0.86 0.392 .7789127 1.102815

sp77\_704\_8\_c\_4lag | .8268245 .1143018 -1.38 0.169 .6305821 1.084139

sp77\_808\_c\_4lag | 1.624917 .4155376 1.90 0.058 .9843616 2.682302

sp75\_1403\_9\_c\_4lag | .9138282 .024487 -3.36 0.001 .867073 .9631045

sp75\_1729\_c\_4lag | .8915186 .0859767 -1.19 0.234 .7379753 1.077008

sp75\_1909\_c\_4lag | 1.009174 .0039366 2.34 0.019 1.001488 1.016919

sp75\_519\_c\_4lag | .9036683 .2136505 -0.43 0.668 .5685426 1.436333

sp75\_809\_c\_4lag | .9743839 .0283535 -0.89 0.373 .920367 1.031571

sp75\_819\_c\_4lag | .9830832 .253664 -0.07 0.947 .5928646 1.63014

sp77\_309\_c\_4lag | .9402898 .2040229 -0.28 0.777 .6145668 1.438647

sp77\_409\_c\_4lag | .991474 .1220015 -0.07 0.945 .7790054 1.261892

sp77\_509\_c\_4lag | .9376919 .0347949 -1.73 0.083 .8719161 1.00843

sp77\_704\_9\_c\_4lag | .5387469 .1346339 -2.48 0.013 .330117 .8792285

sp77\_809\_c\_4lag | .9193697 .0398944 -1.94 0.053 .8444109 1.000983

sp72\_610\_c\_4lag | .973321 .1899523 -0.14 0.890 .6639517 1.426841

sp72\_620\_c\_4lag | 1.371838 .1552324 2.79 0.005 1.098965 1.712466

sp72\_630\_c\_4lag | 1.011259 .0065296 1.73 0.083 .9985414 1.024138

sp75\_100\_c\_4lag | 1.187208 .0929714 2.19 0.028 1.018283 1.384157

sp75\_1101\_20\_c\_4lag | .9965595 .1175631 -0.03 0.977 .7908386 1.255795

sp75\_1400\_c\_4lag | .9640504 .0340156 -1.04 0.299 .8996341 1.033079

sp75\_1403\_10\_c\_4lag | 1.005562 .0099227 0.56 0.574 .9863009 1.0252

sp75\_150\_c\_4lag | 1.068203 .1195561 0.59 0.556 .8577985 1.330217

sp75\_160\_c\_4lag | .9584859 .2784863 -0.15 0.884 .5423388 1.693951

sp75\_1712\_10\_c\_4lag | .9104595 .0510651 -1.67 0.094 .8156788 1.016254

sp75\_1720\_c\_4lag | 1.032428 .0281162 1.17 0.241 .9787657 1.089032

sp75\_1730\_c\_4lag | .9774177 .0472625 -0.47 0.637 .8890389 1.074582

sp75\_1910\_c\_4lag | .9994299 .006852 -0.08 0.934 .9860901 1.01295

sp75\_320\_c\_4lag | .97318 .0199218 -1.33 0.184 .9349069 1.01302

sp75\_340\_c\_4lag | 1.000344 .0089603 0.04 0.969 .9829352 1.018061

sp75\_520\_c\_4lag | 1.026564 .0235411 1.14 0.253 .9814457 1.073756

sp75\_600\_c\_4lag | 1.132821 .2505101 0.56 0.573 .7343927 1.747409

sp75\_700\_c\_4lag | .9667829 .0234774 -1.39 0.164 .921846 1.01391

sp75\_800\_c\_4lag | 1.045357 .0591386 0.78 0.433 .9356421 1.167936

sp75\_810\_c\_4lag | 1.066267 .0344805 1.98 0.047 1.000783 1.136035

sp75\_820\_c\_4lag | 1.029848 .1005999 0.30 0.763 .8504021 1.24716

sp75\_900\_c\_4lag | .9915063 .0191634 -0.44 0.659 .9546493 1.029786

sp77\_1710\_c\_4lag | 1.000338 .0208814 0.02 0.987 .9602366 1.042113

sp77\_200\_c\_4lag | 1.005546 .0083297 0.67 0.504 .9893518 1.022005

sp77\_210\_c\_4lag | 1.007324 .0587733 0.13 0.900 .8984727 1.129362

sp77\_400\_c\_4lag | 1.010496 .0083498 1.26 0.206 .9942628 1.026995

sp77\_410\_c\_4lag | 1.01548 .0125513 1.24 0.214 .9911754 1.040381

sp77\_500\_c\_4lag | .8881816 .1073481 -0.98 0.327 .7008469 1.12559

sp77\_510\_c\_4lag | .8208597 .1233441 -1.31 0.189 .6114566 1.101976

sp77\_600\_c\_4lag | 1.239296 .1342464 1.98 0.048 1.002233 1.532432

sp77\_700\_c\_4lag | .8938092 .0791969 -1.27 0.205 .751317 1.063326

sp77\_810\_c\_4lag | .9896223 .1181491 -0.09 0.930 .7831523 1.250526

sp77\_900\_c\_4lag | .7771803 .1050819 -1.86 0.062 .5962544 1.013006

mine\_time | .9982931 .001764 -0.97 0.334 .9948416 1.001757

onsite\_insp\_hours | .999784 .0001116 -1.93 0.053 .9995653 1.000003

|

state |

AL | 1.235398 .1395614 1.87 0.061 .9900285 1.54158

AR | 2.404477 .1650356 12.78 0.000 2.101826 2.750707

CO | .8100927 .1440324 -1.18 0.236 .5717331 1.147826

IL | 1.136671 .1008352 1.44 0.149 .9552651 1.352527

IN | .9165997 .1502271 -0.53 0.595 .6647695 1.263829

MD | 1.141874 .2232017 0.68 0.497 .7784565 1.674952

MT | 1.008967 .1045364 0.09 0.931 .8235428 1.23614

NM | .9568065 .0656748 -0.64 0.520 .8363691 1.094587

OH | 1.168088 .1313957 1.38 0.167 .9369702 1.456215

OK | .8298802 .2594172 -0.60 0.551 .4497107 1.531431

PA | 1.002717 .0912165 0.03 0.976 .8389673 1.198427

TN | 1.294014 .2003662 1.66 0.096 .955297 1.75283

UT | .6016156 .0724723 -4.22 0.000 .4750956 .7618284

VA | .7247752 .0548411 -4.25 0.000 .6248791 .8406412

WV | 1.042731 .0592788 0.74 0.462 .9327861 1.165636

WY | 1.195472 .1284899 1.66 0.097 .9683933 1.475798

|

time |

2000.75 | 1.632301 .2047463 3.91 0.000 1.276529 2.087229

2001 | 1.679935 .2122915 4.11 0.000 1.311376 2.152078

2001.25 | 1.476515 .189835 3.03 0.002 1.147623 1.899663

2001.5 | 1.934871 .2395427 5.33 0.000 1.517997 2.466228

2001.75 | 1.612902 .2040882 3.78 0.000 1.25864 2.066877

2002 | 1.729888 .2102037 4.51 0.000 1.363283 2.195078

2002.25 | 1.530299 .2001929 3.25 0.001 1.184194 1.977562

2002.5 | 1.854531 .2355452 4.86 0.000 1.445847 2.378734

2002.75 | 1.736478 .2136909 4.48 0.000 1.364333 2.210131

2003 | 1.405367 .1780796 2.69 0.007 1.096303 1.801561

2003.25 | 1.615956 .2055493 3.77 0.000 1.25938 2.073491

2003.5 | 1.680655 .1861969 4.69 0.000 1.352619 2.088247

2003.75 | 1.270435 .153262 1.98 0.047 1.002919 1.609309

2004 | 1.511507 .180282 3.46 0.001 1.196423 1.90957

2004.25 | 1.540919 .1766832 3.77 0.000 1.23078 1.92921

2004.5 | 1.547738 .1822362 3.71 0.000 1.22878 1.94949

2004.75 | 1.439628 .1710985 3.07 0.002 1.140475 1.817251

2005 | 1.220112 .1477854 1.64 0.100 .9622733 1.547038

2005.25 | 1.520011 .1779433 3.58 0.000 1.208368 1.912029

2005.5 | 1.408777 .1744251 2.77 0.006 1.105229 1.795693

2005.75 | 1.239098 .1574614 1.69 0.092 .9659106 1.58955

2006 | 1.213792 .1428704 1.65 0.100 .9637244 1.528747

2006.25 | 1.209019 .1491783 1.54 0.124 .9493037 1.539788

2006.5 | 1.378909 .1626866 2.72 0.006 1.094231 1.737649

2006.75 | 1.113214 .1359387 0.88 0.380 .8762641 1.414236

2007 | 1.213871 .1444724 1.63 0.103 .9613121 1.532784

2007.25 | 1.080616 .1368623 0.61 0.540 .843073 1.38509

2007.5 | 1.163741 .1353652 1.30 0.192 .9264999 1.46173

2007.75 | 1.210468 .1429922 1.62 0.106 .9602874 1.525828

2008 | .975581 .1140097 -0.21 0.832 .7758701 1.226698

2008.25 | 1.023148 .1205991 0.19 0.846 .8120952 1.289051

2008.5 | 1.251735 .1309801 2.15 0.032 1.019633 1.536672

2009 | .9654555 .1020477 -0.33 0.739 .7848039 1.187691

2009.25 | .9143507 .1033169 -0.79 0.428 .7327088 1.141022

2009.5 | 1.117462 .1309792 0.95 0.343 .8881011 1.406058

2009.75 | .8404728 .1042929 -1.40 0.161 .6590213 1.071884

2010 | .8742508 .1120838 -1.05 0.295 .6799973 1.123996

2010.25 | .9179089 .1170895 -0.67 0.502 .7148573 1.178636

2010.5 | 1.031428 .121233 0.26 0.792 .8191997 1.298639

2010.75 | .7983084 .0993801 -1.81 0.070 .6254694 1.018909

2011 | .8993896 .1057956 -0.90 0.367 .7142013 1.132596

2011.25 | .8867708 .1035707 -1.03 0.304 .7053343 1.114879

2011.5 | 1.014959 .1219855 0.12 0.902 .801945 1.284554

2011.75 | .8428062 .1049555 -1.37 0.170 .6602779 1.075793

2012 | 1.049442 .1251704 0.40 0.686 .8306785 1.325819

2012.25 | .9292405 .1141886 -0.60 0.550 .730347 1.182298

2012.5 | 1.021807 .1255565 0.18 0.861 .8031112 1.300055

2012.75 | .8543529 .1148174 -1.17 0.241 .6565131 1.111812

2013 | .894203 .1089595 -0.92 0.359 .7042331 1.135418

2013.25 | .767644 .1012592 -2.00 0.045 .5927596 .9941252

2013.5 | 1.042215 .1279496 0.34 0.736 .8193285 1.325736

2013.75 | .8215583 .1033219 -1.56 0.118 .642079 1.051207

2014 | .7905859 .1104242 -1.68 0.093 .6012546 1.039536

2014.25 | .8433848 .1083829 -1.33 0.185 .655599 1.084959

2014.5 | .8821922 .113523 -0.97 0.330 .6855327 1.135268

2014.75 | .8369203 .1061074 -1.40 0.160 .6527788 1.073006

2015 | .765712 .097671 -2.09 0.036 .5963342 .9831984

2015.25 | .8379799 .1102289 -1.34 0.179 .6475384 1.08443

2015.5 | 1.090938 .1453735 0.65 0.514 .840181 1.416535

2015.75 | .6918966 .1056008 -2.41 0.016 .5130108 .9331595

2016 | .9316556 .12454 -0.53 0.596 .7169191 1.210711

|

\_cons | 9.14e-06 9.59e-07 -110.60 0.000 7.44e-06 .0000112

ln(hours) | 1 (exposure)

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

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

. est store pois

**. estat gof**

Deviance goodness-of-fit = 17996.02

Prob > chi2(22059) = 1.0000

Pearson goodness-of-fit = 241877.5

Prob > chi2(22059) = 0.0000

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

note: sp77\_801\_1\_c\_4lag omitted because of collinearity

note: sp77\_606\_c\_4lag omitted because of collinearity

Iteration 0: log pseudolikelihood = -17125.422

Iteration 1: log pseudolikelihood = -16912.592

Iteration 2: log pseudolikelihood = -16911.794

Iteration 3: log pseudolikelihood = -16911.706

Iteration 4: log pseudolikelihood = -16911.689

Iteration 5: log pseudolikelihood = -16911.685

Iteration 6: log pseudolikelihood = -16911.685

Iteration 7: log pseudolikelihood = -16911.684

Iteration 8: log pseudolikelihood = -16911.684

Iteration 9: log pseudolikelihood = -16911.684

Generalized linear models No. of obs = 22,446

Optimization : ML Residual df = 22,058

Scale parameter = 1

Deviance = 12326.31086 (1/df) Deviance = .5588136

Pearson = 204125.6081 (1/df) Pearson = 9.25404

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

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

AIC = 1.541449

Log pseudolikelihood = -16911.68437 BIC = -208669.9

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

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| Robust

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

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

sp47\_41\_c\_4lag | .9656886 .036036 -0.94 0.349 .8975804 1.038965

sp48\_11\_c\_4lag | 1.074343 .0476967 1.62 0.106 .9848107 1.172015

sp71\_701\_c\_4lag | 2.308871 .8856635 2.18 0.029 1.088644 4.896812

sp75\_1001\_1\_c\_4lag | .8849621 .1307674 -0.83 0.408 .662439 1.182234

sp75\_1001\_c\_4lag | .7034771 .1726008 -1.43 0.152 .434915 1.137878

sp75\_1003\_1\_c\_4lag | .6634319 .1772361 -1.54 0.125 .3930046 1.119941

sp75\_1400\_1\_c\_4lag | 1.11334 .1802288 0.66 0.507 .8106512 1.529048

sp75\_1401\_1\_c\_4lag | .8770923 .2971265 -0.39 0.699 .4515331 1.703731

sp75\_1401\_c\_4lag | .8743601 .1099336 -1.07 0.286 .6833897 1.118696

sp75\_1403\_11\_c\_4lag | 1.146971 .3701576 0.42 0.671 .609323 2.159024

sp75\_1404\_1\_c\_4lag | .6951041 .2658521 -0.95 0.342 .3284703 1.470969

sp75\_1405\_1\_c\_4lag | .9894432 .1329176 -0.08 0.937 .7604035 1.287472

sp75\_1431\_c\_4lag | .4976251 .1030214 -3.37 0.001 .331651 .7466606

sp75\_151\_c\_4lag | 1.679961 .533946 1.63 0.103 .9010724 3.132121

sp75\_1721\_c\_4lag | .7609946 .5653362 -0.37 0.713 .1774318 3.263862

sp75\_1731\_c\_4lag | 1.000737 .0025747 0.29 0.775 .9957029 1.005796

sp75\_1911\_c\_4lag | .9901198 .0094454 -1.04 0.298 .9717792 1.008807

sp75\_211\_c\_4lag | 1.001954 .0147964 0.13 0.895 .9733695 1.031379

sp75\_341\_c\_4lag | 1.08159 .264453 0.32 0.748 .6697931 1.746565

sp75\_506\_1\_c\_4lag | 1.216534 .0763414 3.12 0.002 1.075743 1.375751

sp75\_510\_1\_c\_4lag | 1.382984 .7920703 0.57 0.571 .4501033 4.249345

sp75\_511\_1\_c\_4lag | .2383481 .0651859 -5.24 0.000 .1394493 .4073867

sp75\_511\_c\_4lag | 1.053425 .038498 1.42 0.154 .9806089 1.131647

sp75\_512\_1\_c\_4lag | 1.195682 .3194272 0.67 0.504 .7082992 2.018435

sp75\_513\_1\_c\_4lag | 1.016012 .11215 0.14 0.886 .8183533 1.261411

sp75\_516\_1\_c\_4lag | 1.093152 .2044395 0.48 0.634 .7576877 1.577142

sp75\_517\_1\_c\_4lag | 1.063678 .1213026 0.54 0.588 .8506261 1.330093

sp75\_518\_1\_c\_4lag | .9961679 .0178153 -0.21 0.830 .9618553 1.031704

sp75\_523\_1\_c\_4lag | .9838098 .0279012 -0.58 0.565 .9306165 1.040044

sp75\_600\_1\_c\_4lag | .8878548 .1421211 -0.74 0.457 .6487659 1.215055

sp75\_601\_1\_c\_4lag | 1.010063 .0112081 0.90 0.367 .9883329 1.032271

sp75\_601\_c\_4lag | 1.010266 .014049 0.73 0.463 .9831026 1.03818

sp75\_700\_1\_c\_4lag | .7860202 .1090554 -1.74 0.083 .5988731 1.03165

sp75\_701\_1\_c\_4lag | .9807992 .0370762 -0.51 0.608 .910758 1.056227

sp75\_701\_c\_4lag | 1.020727 .0104539 2.00 0.045 1.000442 1.041424

sp75\_702\_1\_c\_4lag | .8131751 .1656973 -1.01 0.310 .545429 1.212355

sp75\_703\_1\_c\_4lag | 1.192319 .3043919 0.69 0.491 .7229131 1.966524

sp75\_705\_1\_c\_4lag | .8698539 .1062553 -1.14 0.254 .6846514 1.105155

sp75\_801\_c\_4lag | 1.008584 .2121346 0.04 0.968 .667851 1.523157

sp75\_811\_c\_4lag | 1.041771 .0345675 1.23 0.217 .9761759 1.111774

sp75\_821\_c\_4lag | 1.05912 .0470927 1.29 0.196 .9707272 1.155561

sp75\_831\_c\_4lag | .7613834 .1425669 -1.46 0.145 .5274949 1.098977

sp75\_901\_c\_4lag | .9351182 .0722733 -0.87 0.385 .8036722 1.088063

sp75\_902\_1\_c\_4lag | 1.43583 .1922639 2.70 0.007 1.104392 1.866735

sp77\_1111\_c\_4lag | .8500558 .1150407 -1.20 0.230 .6520061 1.108264

sp77\_401\_c\_4lag | .9731555 .0593723 -0.45 0.656 .8634762 1.096766

sp77\_403\_1\_c\_4lag | 1.028115 .0994828 0.29 0.774 .8505059 1.242813

sp77\_411\_c\_4lag | .7580047 .3339385 -0.63 0.529 .3196507 1.797497

sp77\_501\_c\_4lag | 1.007627 .0781348 0.10 0.922 .8655555 1.173019

sp77\_502\_1\_c\_4lag | 1.368203 .6000276 0.71 0.475 .5792346 3.231814

sp77\_503\_1\_c\_4lag | 1.196549 .270365 0.79 0.427 .7684195 1.863215

sp77\_506\_1\_c\_4lag | 1.008028 .0268256 0.30 0.764 .9567987 1.062001

sp77\_508\_1\_c\_4lag | 1.04425 .1463609 0.31 0.757 .7934165 1.374384

sp77\_511\_c\_4lag | .8104477 .117666 -1.45 0.148 .6097363 1.077229

sp77\_601\_c\_4lag | .9872788 .1839375 -0.07 0.945 .6852586 1.422411

sp77\_606\_1\_c\_4lag | .6901492 .1532205 -1.67 0.095 .4466498 1.066397

sp77\_700\_1\_c\_4lag | .9764625 .157367 -0.15 0.883 .7119929 1.339169

sp77\_701\_1\_c\_4lag | .8938331 .1282572 -0.78 0.434 .674709 1.184122

sp77\_701\_c\_4lag | 1.013067 .0270982 0.49 0.627 .9613234 1.067595

sp77\_704\_1\_c\_4lag | 1.205208 .2630532 0.86 0.392 .7857343 1.848624

sp77\_800\_1\_c\_4lag | 1.066986 .1610913 0.43 0.668 .7936815 1.434404

sp77\_801\_1\_c\_4lag | 1 (omitted)

sp77\_801\_c\_4lag | .5367072 .1731102 -1.93 0.054 .2852265 1.009915

sp77\_807\_1\_c\_4lag | 1.094277 .3455831 0.29 0.775 .5892639 2.032099

sp77\_900\_1\_c\_4lag | 1.640264 .3720291 2.18 0.029 1.051604 2.55844

sp77\_901\_1\_c\_4lag | .4349102 .1093467 -3.31 0.001 .2656975 .7118881

sp77\_901\_c\_4lag | 1.127855 .1192415 1.14 0.255 .9167704 1.387541

sp47\_42\_c\_4lag | .8840338 .110744 -0.98 0.325 .6915726 1.130056

sp75\_1100\_2\_c\_4lag | 1.009141 .005274 1.74 0.082 .9988573 1.019531

sp75\_1102\_c\_4lag | .9138892 .0419258 -1.96 0.050 .8353021 .9998699

sp75\_1106\_2\_c\_4lag | 1.014969 .0281401 0.54 0.592 .961287 1.071648

sp75\_1400\_2\_c\_4lag | 1.090928 .1177458 0.81 0.420 .8829266 1.347932

sp75\_1402\_2\_c\_4lag | 1.376012 .4704487 0.93 0.351 .7040486 2.689317

sp75\_1432\_c\_4lag | 1.057542 .1136295 0.52 0.603 .8567195 1.305439

sp75\_1600\_2\_c\_4lag | .9915444 .0179745 -0.47 0.639 .9569336 1.027407

sp75\_1912\_c\_4lag | 1.026766 .0632674 0.43 0.668 .9099593 1.158566

sp75\_202\_c\_4lag | .999636 .0019786 -0.18 0.854 .9957656 1.003521

sp75\_212\_c\_4lag | .9248797 .0231675 -3.12 0.002 .880569 .9714202

sp75\_312\_c\_4lag | 1.040845 .0235392 1.77 0.077 .9957166 1.088019

sp75\_342\_c\_4lag | .9970506 .0055604 -0.53 0.596 .9862117 1.008009

sp75\_352\_c\_4lag | .925039 .0307905 -2.34 0.019 .8666171 .9873992

sp75\_382\_c\_4lag | 1.031846 .0494105 0.65 0.513 .9394091 1.133379

sp75\_512\_2\_c\_4lag | 1.021292 .0123413 1.74 0.081 .9973882 1.04577

sp75\_512\_c\_4lag | .9994694 .0034396 -0.15 0.877 .9927506 1.006234

sp75\_516\_2\_c\_4lag | 1.031037 .0208831 1.51 0.131 .9909084 1.07279

sp75\_523\_2\_c\_4lag | 1.01397 .0218825 0.64 0.520 .971976 1.057779

sp75\_601\_2\_c\_4lag | .9073564 .1087639 -0.81 0.417 .7173734 1.147653

sp75\_602\_c\_4lag | 1.020182 .0275928 0.74 0.460 .9675098 1.075722

sp75\_701\_2\_c\_4lag | .9702635 .0498809 -0.59 0.557 .8772629 1.073123

sp75\_702\_c\_4lag | .821781 .122176 -1.32 0.187 .6140533 1.099781

sp75\_703\_2\_c\_4lag | .8755096 .1212113 -0.96 0.337 .6674443 1.148436

sp75\_705\_2\_c\_4lag | 1.29741 .2094192 1.61 0.107 .9455449 1.780216

sp75\_800\_2\_c\_4lag | .7263577 .1664289 -1.40 0.163 .4635712 1.138111

sp75\_802\_c\_4lag | .9413359 .0995327 -0.57 0.567 .7651425 1.158102

sp75\_803\_2\_c\_4lag | 1.7914 .6987587 1.49 0.135 .8340086 3.84782

sp75\_812\_c\_4lag | 1.046185 .2068742 0.23 0.819 .7100529 1.541439

sp75\_832\_c\_4lag | .6293216 .4618357 -0.63 0.528 .1493508 2.651782

sp75\_900\_2\_c\_4lag | .7234237 .1553681 -1.51 0.132 .4748779 1.102055

sp75\_902\_2\_c\_4lag | 1.031999 .0433723 0.75 0.454 .9503982 1.120607

sp75\_902\_c\_4lag | .9992243 .0205246 -0.04 0.970 .9597958 1.040272

sp77\_1112\_c\_4lag | .9610665 .058086 -0.66 0.511 .8537045 1.08193

sp77\_1432\_c\_4lag | .9494023 .2152346 -0.23 0.819 .6088052 1.480547

sp77\_1802\_c\_4lag | .8505274 .1585449 -0.87 0.385 .5902252 1.225629

sp77\_202\_c\_4lag | .9609743 .0118086 -3.24 0.001 .9381064 .9843997

sp77\_402\_c\_4lag | 1.006894 .0246082 0.28 0.779 .9597998 1.056299

sp77\_403\_2\_c\_4lag | 1.820798 .4657082 2.34 0.019 1.102932 3.005902

sp77\_412\_c\_4lag | 1.140661 .0646969 2.32 0.020 1.020652 1.274782

sp77\_502\_2\_c\_4lag | .9430037 .0419549 -1.32 0.187 .8642568 1.028926

sp77\_502\_c\_4lag | .9890681 .0072031 -1.51 0.131 .9750506 1.003287

sp77\_512\_c\_4lag | .9870444 .018197 -0.71 0.479 .9520156 1.023362

sp77\_602\_c\_4lag | 1.118071 .1211968 1.03 0.303 .9040677 1.382732

sp77\_701\_2\_c\_4lag | .903594 .1036795 -0.88 0.377 .7216148 1.131465

sp77\_702\_c\_4lag | .5855964 .1786977 -1.75 0.079 .3219956 1.064993

sp77\_800\_2\_c\_4lag | .9618107 .0876683 -0.43 0.669 .8044577 1.149942

sp77\_802\_c\_4lag | .7341465 .1653284 -1.37 0.170 .472165 1.141489

sp77\_807\_2\_c\_4lag | .821416 .0967318 -1.67 0.095 .6521144 1.034672

sp77\_900\_2\_c\_4lag | 1.093568 .0994495 0.98 0.325 .915034 1.306936

sp77\_902\_2\_c\_4lag | .0004512 .0002268 -15.32 0.000 .0001684 .0012085

sp77\_902\_c\_4lag | 1.228938 .1130391 2.24 0.025 1.026208 1.471717

sp47\_43\_c\_4lag | 2.257225 .6233393 2.95 0.003 1.313751 3.878258

sp72\_503\_c\_4lag | .9560359 .0417877 -1.03 0.304 .8775437 1.041549

sp75\_1106\_3\_c\_4lag | 1.016874 .0117552 1.45 0.148 .994093 1.040176

sp75\_1400\_3\_c\_4lag | 1.058773 .0443429 1.36 0.173 .9753342 1.149351

sp75\_1403\_3\_c\_4lag | .7912312 .128208 -1.45 0.148 .5759411 1.086998

sp75\_1433\_c\_4lag | 1.003002 .062536 0.05 0.962 .8876265 1.133374

sp75\_153\_c\_4lag | 1.040792 .1528783 0.27 0.785 .78043 1.388014

sp75\_1903\_c\_4lag | .9773084 .0241748 -0.93 0.353 .9310569 1.025858

sp75\_1913\_c\_4lag | 1.046308 .0469667 1.01 0.313 .9581881 1.142532

sp75\_503\_c\_4lag | .9993815 .0028348 -0.22 0.827 .9938409 1.004953

sp75\_513\_c\_4lag | .9644113 .0518752 -0.67 0.501 .8679137 1.071638

sp75\_523\_c\_4lag | .9664591 .0243138 -1.36 0.175 .9199606 1.015308

sp75\_601\_3\_c\_4lag | .9787584 .1678109 -0.13 0.900 .6994145 1.369671

sp75\_603\_c\_4lag | .9519466 .0470181 -1.00 0.319 .8641127 1.048708

sp75\_701\_3\_c\_4lag | 1.041631 .0507762 0.84 0.403 .9467178 1.14606

sp75\_703\_3\_c\_4lag | 1.016279 .0585693 0.28 0.779 .9077314 1.137807

sp75\_703\_c\_4lag | 1.043601 .026004 1.71 0.087 .9938591 1.095833

sp75\_705\_3\_c\_4lag | 2.047217 .3534541 4.15 0.000 1.459497 2.871605

sp75\_800\_3\_c\_4lag | 1.032951 .0973739 0.34 0.731 .858695 1.242569

sp75\_803\_c\_4lag | 1.00015 .0700303 0.00 0.998 .8718955 1.147272

sp75\_900\_3\_c\_4lag | 1.099651 .064118 1.63 0.103 .9808967 1.232782

sp75\_903\_c\_4lag | 1.032902 .0329116 1.02 0.310 .970369 1.099464

sp77\_103\_c\_4lag | .6913544 .3047752 -0.84 0.402 .2913795 1.640373

sp77\_1103\_c\_4lag | .9974029 .0165114 -0.16 0.875 .9655606 1.030295

sp77\_1403\_c\_4lag | .9981864 .0700198 -0.03 0.979 .8699662 1.145304

sp77\_1433\_c\_4lag | 1.111391 .1563838 0.75 0.453 .8435179 1.464331

sp77\_203\_c\_4lag | 1.177034 .111966 1.71 0.087 .976828 1.418274

sp77\_403\_c\_4lag | 1.49174 .2570666 2.32 0.020 1.064164 2.091115

sp77\_413\_c\_4lag | .910517 .0917993 -0.93 0.352 .7472552 1.109448

sp77\_503\_c\_4lag | .9560873 .1006027 -0.43 0.670 .7779135 1.17507

sp77\_513\_c\_4lag | .9644786 .030404 -1.15 0.251 .9066914 1.025949

sp77\_603\_c\_4lag | 1.378876 .2241087 1.98 0.048 1.002719 1.896142

sp77\_701\_3\_c\_4lag | 1.086474 .3316274 0.27 0.786 .5973168 1.976213

sp77\_703\_c\_4lag | .8797959 .2395852 -0.47 0.638 .5159214 1.500308

sp77\_803\_c\_4lag | .8740522 .154657 -0.76 0.447 .6179078 1.236377

sp77\_807\_3\_c\_4lag | 1.062037 .1497923 0.43 0.670 .8055347 1.400217

sp77\_902\_3\_c\_4lag | 1.183048 .2887512 0.69 0.491 .7332403 1.908791

sp77\_903\_c\_4lag | 1.101755 .1588764 0.67 0.502 .8304994 1.461608

sp47\_44\_c\_4lag | .9599546 .0529854 -0.74 0.459 .8615253 1.069629

sp48\_24\_c\_4lag | .056749 .0113774 -14.31 0.000 .0383093 .0840644

sp48\_4\_c\_4lag | 1.26777 .7957368 0.38 0.705 .3704843 4.338216

sp75\_1103\_4\_c\_4lag | 1.012632 .0116883 1.09 0.277 .9899805 1.035802

sp75\_1104\_c\_4lag | .9984023 .0247406 -0.06 0.949 .9510702 1.04809

sp75\_1106\_4\_c\_4lag | .9752284 .0757895 -0.32 0.747 .8374436 1.135683

sp75\_1107\_14\_c\_4lag | 1.31816 .3719298 0.98 0.328 .758219 2.291615

sp75\_1400\_4\_c\_4lag | .8992486 .0576248 -1.66 0.097 .7931108 1.01959

sp75\_1403\_4\_c\_4lag | 1.163866 .2737544 0.65 0.519 .7339906 1.845504

sp75\_1404\_c\_4lag | .9680942 .3020354 -0.10 0.917 .5252324 1.784365

sp75\_1434\_c\_4lag | .8975854 .0562073 -1.73 0.084 .7939133 1.014795

sp75\_1914\_c\_4lag | 1.000064 .0044709 0.01 0.989 .9913393 1.008865

sp75\_214\_c\_4lag | .9898247 .0277704 -0.36 0.715 .9368652 1.045778

sp75\_324\_c\_4lag | .931932 .0395861 -1.66 0.097 .8574866 1.012841

sp75\_344\_c\_4lag | .9877297 .0666927 -0.18 0.855 .8652945 1.127489

sp75\_504\_c\_4lag | .9108963 .0750068 -1.13 0.257 .7751356 1.070435

sp75\_514\_c\_4lag | 1.009045 .0130043 0.70 0.485 .9838758 1.034857

sp75\_604\_c\_4lag | 1.016756 .0047578 3.55 0.000 1.007474 1.026124

sp75\_701\_4\_c\_4lag | 1.604606 .2953617 2.57 0.010 1.118631 2.301708

sp75\_703\_4\_c\_4lag | 1.01831 .4033698 0.05 0.963 .4684948 2.213377

sp75\_704\_c\_4lag | .8701358 .1399869 -0.86 0.387 .6348136 1.192691

sp75\_800\_4\_c\_4lag | 1.070258 .0617139 1.18 0.239 .9558856 1.198315

sp75\_804\_c\_4lag | .9428471 .0449973 -1.23 0.218 .8586532 1.035297

sp75\_814\_c\_4lag | .9925466 .0742807 -0.10 0.920 .8571331 1.149353

sp75\_834\_c\_4lag | 1.04e-06 1.29e-06 -11.10 0.000 9.14e-08 .0000118

sp75\_900\_4\_c\_4lag | .9954631 .0184766 -0.24 0.806 .9599003 1.032343

sp75\_902\_4\_c\_4lag | 1.006754 .0371164 0.18 0.855 .936573 1.082193

sp75\_904\_c\_4lag | .990974 .0082432 -1.09 0.276 .9749486 1.007263

sp77\_104\_c\_4lag | 1.509327 .6865104 0.91 0.365 .6188968 3.680852

sp77\_1104\_c\_4lag | 1.005917 .0062586 0.95 0.343 .9937249 1.018259

sp77\_1434\_c\_4lag | 1.00879 .1301036 0.07 0.946 .7834685 1.298914

sp77\_204\_c\_4lag | .9671548 .0264277 -1.22 0.222 .9167201 1.020364

sp77\_314\_c\_4lag | .6441068 .3058056 -0.93 0.354 .2539972 1.633378

sp77\_404\_c\_4lag | .9818319 .0083017 -2.17 0.030 .9656949 .9982385

sp77\_504\_c\_4lag | .9551271 .0283965 -1.54 0.123 .9010615 1.012437

sp77\_514\_c\_4lag | .8060171 .078939 -2.20 0.028 .6652426 .9765815

sp77\_604\_c\_4lag | .9903444 .1101572 -0.09 0.930 .7963539 1.231591

sp77\_701\_4\_c\_4lag | 1.189961 .1293981 1.60 0.110 .9615502 1.47263

sp77\_704\_c\_4lag | 1.250589 .413143 0.68 0.498 .6545049 2.389552

sp77\_804\_c\_4lag | 1.602905 .3538081 2.14 0.033 1.039974 2.470546

sp77\_904\_c\_4lag | .9872721 .0277391 -0.46 0.648 .9343744 1.043165

sp48\_25\_c\_4lag | .9368597 .0527621 -1.16 0.247 .8389509 1.046195

sp48\_5\_c\_4lag | 1.073304 .0942226 0.81 0.420 .9036454 1.274816

sp75\_1106\_5\_c\_4lag | .9514845 .0399417 -1.18 0.236 .8763341 1.033079

sp75\_1403\_5\_c\_4lag | .9983058 .0080964 -0.21 0.834 .9825625 1.014301

sp75\_1405\_c\_4lag | .9886607 .0112178 -1.01 0.315 .9669168 1.010893

sp75\_1435\_c\_4lag | 1.00711 .1303637 0.05 0.956 .7814383 1.297954

sp75\_155\_c\_4lag | .6950095 .1320768 -1.91 0.056 .4788857 1.008671

sp75\_1725\_c\_4lag | 1.003264 .0035315 0.93 0.355 .9963661 1.01021

sp75\_1915\_c\_4lag | 1.036079 .0844663 0.43 0.664 .8830774 1.21559

sp75\_505\_c\_4lag | .970063 .133224 -0.22 0.825 .7411393 1.269697

sp75\_515\_c\_4lag | .9750604 .0080173 -3.07 0.002 .9594727 .9909013

sp75\_605\_c\_4lag | 1.011076 .0156188 0.71 0.476 .980922 1.042156

sp75\_705\_c\_4lag | 1.458591 .2382016 2.31 0.021 1.059069 2.008828

sp75\_805\_c\_4lag | 1.326582 .1957697 1.91 0.055 .9933864 1.771535

sp75\_815\_c\_4lag | 1.184641 .0811525 2.47 0.013 1.035801 1.354869

sp75\_825\_c\_4lag | 1.071385 .138182 0.53 0.593 .8320734 1.379524

sp75\_905\_c\_4lag | 1.236647 .2132701 1.23 0.218 .8819603 1.733974

sp77\_1605\_c\_4lag | .9930657 .008685 -0.80 0.426 .9761884 1.010235

sp77\_1915\_c\_4lag | .9711261 .0969599 -0.29 0.769 .7985265 1.181033

sp77\_205\_c\_4lag | 1.002501 .0056059 0.45 0.655 .9915733 1.013548

sp77\_305\_c\_4lag | 1.704891 .843784 1.08 0.281 .6462796 4.497519

sp77\_315\_c\_4lag | .3256942 .1970716 -1.85 0.064 .0994864 1.066244

sp77\_405\_c\_4lag | .9752134 .0821716 -0.30 0.766 .8267559 1.150329

sp77\_505\_c\_4lag | 1.01062 .0195712 0.55 0.585 .9729801 1.049716

sp77\_515\_c\_4lag | .9513697 .3318375 -0.14 0.886 .4802313 1.884726

sp77\_605\_c\_4lag | .7852903 .2124486 -0.89 0.372 .4621153 1.334474

sp77\_705\_c\_4lag | 1.102289 .0708289 1.52 0.130 .9718527 1.250231

sp77\_805\_c\_4lag | 1.149448 .2145827 0.75 0.456 .797231 1.657274

sp48\_26\_c\_4lag | 1.146744 .0656682 2.39 0.017 1.024997 1.282952

sp48\_6\_c\_4lag | .9820931 .0487287 -0.36 0.716 .8910836 1.082398

sp75\_1106\_6\_c\_4lag | .5853824 .2092905 -1.50 0.134 .2904767 1.17969

sp75\_1106\_c\_4lag | 1.134864 .0981999 1.46 0.144 .9578316 1.344616

sp75\_1403\_6\_c\_4lag | .9953191 .00724 -0.65 0.519 .9812295 1.009611

sp75\_1436\_c\_4lag | 1.566049 .5780114 1.22 0.224 .7596894 3.228304

sp75\_156\_c\_4lag | 1.257801 .2318232 1.24 0.213 .8764524 1.805076

sp75\_1712\_6\_c\_4lag | .9922194 .0240602 -0.32 0.747 .9461653 1.040515

sp75\_1726\_c\_4lag | 1.104388 .0897783 1.22 0.222 .9417285 1.295144

sp75\_506\_c\_4lag | 1.01358 .0353412 0.39 0.699 .9466262 1.085269

sp75\_516\_c\_4lag | .990699 .0118709 -0.78 0.435 .9677035 1.014241

sp75\_606\_c\_4lag | .9922683 .0079939 -0.96 0.335 .9767236 1.00806

sp75\_706\_c\_4lag | .9187995 .0519862 -1.50 0.134 .8223549 1.026555

sp75\_806\_c\_4lag | 1.069375 .2576846 0.28 0.781 .6668348 1.714913

sp75\_816\_c\_4lag | 1.016591 .0262523 0.64 0.524 .9664179 1.069369

sp77\_1106\_c\_4lag | 1.627447 .9824811 0.81 0.420 .4984725 5.313402

sp77\_1606\_c\_4lag | 1.025616 .0137744 1.88 0.060 .9989708 1.052972

sp77\_1906\_c\_4lag | .9236101 .1416676 -0.52 0.604 .6837974 1.247527

sp77\_1916\_c\_4lag | 1.109801 .1661702 0.70 0.487 .8275514 1.488317

sp77\_206\_c\_4lag | 1.036902 .0390567 0.96 0.336 .9631096 1.116348

sp77\_216\_c\_4lag | 1.002442 .0335603 0.07 0.942 .9387765 1.070425

sp77\_506\_c\_4lag | .9803756 .0219026 -0.89 0.375 .9383737 1.024258

sp77\_516\_c\_4lag | .9795102 .0098898 -2.05 0.040 .9603172 .9990868

sp77\_606\_c\_4lag | 1 (omitted)

sp77\_906\_c\_4lag | .6534587 .3501674 -0.79 0.427 .2286056 1.867883

sp48\_27\_c\_4lag | 1.07077 .0759363 0.96 0.335 .9318178 1.230442

sp48\_7\_c\_4lag | 1.037559 .0465087 0.82 0.411 .950293 1.132839

sp75\_1403\_7\_c\_4lag | .9655712 .0285822 -1.18 0.237 .9111452 1.023248

sp75\_1437\_c\_4lag | .9529293 .1624846 -0.28 0.777 .6822158 1.331066

sp75\_1727\_c\_4lag | 1.031493 .6870777 0.05 0.963 .2795637 3.805851

sp75\_337\_c\_4lag | 1.00803 .0307121 0.26 0.793 .9495975 1.070058

sp75\_507\_c\_4lag | .9923829 .0403611 -0.19 0.851 .9163474 1.074728

sp75\_517\_c\_4lag | .9978472 .0032632 -0.66 0.510 .9914719 1.004264

sp75\_607\_c\_4lag | 1.033331 .0416593 0.81 0.416 .9548231 1.118294

sp75\_807\_c\_4lag | 1.016348 .0077985 2.11 0.035 1.001178 1.031748

sp75\_827\_c\_4lag | 1.08425 .136757 0.64 0.521 .8467727 1.388327

sp75\_907\_c\_4lag | 1.008938 .0683854 0.13 0.896 .8834262 1.152281

sp77\_1437\_c\_4lag | .7562116 .0656169 -3.22 0.001 .6379462 .8964015

sp77\_207\_c\_4lag | 1.060928 .0283315 2.21 0.027 1.006828 1.117936

sp77\_507\_c\_4lag | .8824396 .0689016 -1.60 0.109 .7572207 1.028365

sp77\_807\_c\_4lag | 1.063896 .0847398 0.78 0.437 .9101237 1.243649

sp48\_28\_c\_4lag | .9429706 .0737943 -0.75 0.453 .8088826 1.099286

sp48\_8\_c\_4lag | 1.08588 .0800081 1.12 0.263 .9398637 1.254581

sp75\_1403\_8\_c\_4lag | .9936146 .0058353 -1.09 0.275 .9822432 1.005118

sp75\_1438\_c\_4lag | 3.88e-07 4.12e-07 -13.89 0.000 4.82e-08 3.11e-06

sp75\_1728\_c\_4lag | 1.45179 .3286847 1.65 0.100 .9315198 2.26264

sp75\_208\_c\_4lag | .9939271 .0145231 -0.42 0.677 .9658661 1.022803

sp75\_518\_c\_4lag | 1.013535 .0116648 1.17 0.243 .9909282 1.036657

sp75\_705\_8\_c\_4lag | 1.030404 .2148623 0.14 0.886 .6847201 1.550609

sp75\_808\_c\_4lag | 1.07948 .0825002 1.00 0.317 .9293103 1.253916

sp75\_818\_c\_4lag | 1.04585 .0957842 0.49 0.624 .8740009 1.251488

sp77\_1438\_c\_4lag | .446359 .1625157 -2.22 0.027 .2186597 .911171

sp77\_208\_c\_4lag | 1.01513 .0159248 0.96 0.338 .9843931 1.046827

sp77\_408\_c\_4lag | 1.009757 .0945552 0.10 0.917 .8404444 1.213179

sp77\_508\_c\_4lag | .9642763 .0979176 -0.36 0.720 .790253 1.176622

sp77\_704\_8\_c\_4lag | .8789793 .1590309 -0.71 0.476 .6165574 1.253094

sp77\_808\_c\_4lag | 1.473949 .3925223 1.46 0.145 .874585 2.484065

sp75\_1403\_9\_c\_4lag | .9252111 .0262468 -2.74 0.006 .8751723 .9781109

sp75\_1729\_c\_4lag | .8783828 .0965493 -1.18 0.238 .708145 1.089546

sp75\_1909\_c\_4lag | 1.005766 .0048675 1.19 0.235 .9962714 1.015352

sp75\_519\_c\_4lag | .8963117 .221636 -0.44 0.658 .5520491 1.45526

sp75\_809\_c\_4lag | .9905251 .0310449 -0.30 0.761 .9315093 1.05328

sp75\_819\_c\_4lag | 1.128131 .3239204 0.42 0.675 .6426191 1.980455

sp77\_309\_c\_4lag | 1.025215 .2383514 0.11 0.915 .6500097 1.617

sp77\_409\_c\_4lag | .9393491 .1515152 -0.39 0.698 .6847465 1.288618

sp77\_509\_c\_4lag | .9252177 .0393711 -1.83 0.068 .8511821 1.005693

sp77\_704\_9\_c\_4lag | .5270758 .1625734 -2.08 0.038 .2879552 .9647643

sp77\_809\_c\_4lag | .8968928 .0440194 -2.22 0.027 .8146362 .9874552

sp72\_610\_c\_4lag | .949897 .2292729 -0.21 0.831 .5918687 1.524501

sp72\_620\_c\_4lag | 1.239424 .1661457 1.60 0.109 .9530497 1.611848

sp72\_630\_c\_4lag | 1.012928 .0071959 1.81 0.071 .9989224 1.027131

sp75\_100\_c\_4lag | 1.153614 .10157 1.62 0.105 .9707701 1.370896

sp75\_1101\_20\_c\_4lag | .9833439 .1562937 -0.11 0.916 .7201361 1.342754

sp75\_1400\_c\_4lag | .9698721 .0384434 -0.77 0.440 .8973768 1.048224

sp75\_1403\_10\_c\_4lag | 1.009461 .0117526 0.81 0.419 .9866876 1.032761

sp75\_150\_c\_4lag | 1.055156 .115935 0.49 0.625 .8507285 1.308706

sp75\_160\_c\_4lag | .9214429 .202201 -0.37 0.709 .599351 1.416627

sp75\_1712\_10\_c\_4lag | .9149201 .0617456 -1.32 0.188 .8015631 1.044308

sp75\_1720\_c\_4lag | 1.028214 .0305998 0.93 0.350 .9699554 1.089972

sp75\_1730\_c\_4lag | .9459087 .0467282 -1.13 0.260 .8586173 1.042075

sp75\_1910\_c\_4lag | 1.000883 .0069821 0.13 0.899 .987291 1.014661

sp75\_320\_c\_4lag | .971394 .0190932 -1.48 0.140 .9346835 1.009546

sp75\_340\_c\_4lag | 1.00053 .0096492 0.05 0.956 .9817955 1.019622

sp75\_520\_c\_4lag | 1.029108 .0238432 1.24 0.216 .9834214 1.076917

sp75\_600\_c\_4lag | 1.133071 .3352609 0.42 0.673 .6344505 2.023562

sp75\_700\_c\_4lag | .9657656 .0267974 -1.26 0.209 .9146464 1.019742

sp75\_800\_c\_4lag | 1.019696 .0744829 0.27 0.789 .8836811 1.176647

sp75\_810\_c\_4lag | 1.043002 .0350203 1.25 0.210 .976573 1.113949

sp75\_820\_c\_4lag | 1.021244 .1144598 0.19 0.851 .8198375 1.272129

sp75\_900\_c\_4lag | .9797555 .0195894 -1.02 0.306 .9421036 1.018912

sp77\_1710\_c\_4lag | 1.004611 .0189404 0.24 0.807 .9681663 1.042428

sp77\_200\_c\_4lag | 1.009861 .0085403 1.16 0.246 .9932608 1.02674

sp77\_210\_c\_4lag | .9857162 .0609402 -0.23 0.816 .8732284 1.112694

sp77\_400\_c\_4lag | 1.008405 .0091204 0.93 0.355 .9906864 1.02644

sp77\_410\_c\_4lag | 1.012007 .0132871 0.91 0.363 .9862972 1.038388

sp77\_500\_c\_4lag | .8662117 .088585 -1.40 0.160 .7088822 1.058459

sp77\_510\_c\_4lag | .7571991 .1383475 -1.52 0.128 .5292823 1.08326

sp77\_600\_c\_4lag | 1.31046 .1686103 2.10 0.036 1.018366 1.686333

sp77\_700\_c\_4lag | .9174419 .0860976 -0.92 0.359 .7633036 1.102706

sp77\_810\_c\_4lag | .9449016 .1113106 -0.48 0.630 .7500909 1.190308

sp77\_900\_c\_4lag | .6905956 .0893802 -2.86 0.004 .5358673 .8900008

mine\_time | .9988006 .0017381 -0.69 0.490 .9953997 1.002213

onsite\_insp\_hours | .9997693 .0001271 -1.82 0.069 .9995202 1.000018

|

state |

AL | 1.358742 .1797267 2.32 0.020 1.048443 1.760877

AR | 2.335739 .1828792 10.83 0.000 2.003451 2.723141

CO | .8721348 .1611718 -0.74 0.459 .6071281 1.252815

IL | 1.216948 .1051522 2.27 0.023 1.02736 1.441522

IN | .9456229 .1456672 -0.36 0.717 .699191 1.27891

MD | 1.182547 .2307964 0.86 0.390 .8066594 1.73359

MT | 1.110279 .1289007 0.90 0.368 .8843204 1.393974

NM | 1.059677 .0846163 0.73 0.468 .906159 1.239204

OH | 1.049437 .1559064 0.32 0.745 .7843326 1.404147

OK | .8888506 .2840486 -0.37 0.712 .4751291 1.662823

PA | 1.096021 .1014263 0.99 0.322 .914215 1.313982

TN | 1.399416 .2249453 2.09 0.037 1.021228 1.917657

UT | .6592254 .08797 -3.12 0.002 .5075113 .8562924

VA | .7623867 .0545832 -3.79 0.000 .6625725 .8772375

WV | 1.139863 .0635691 2.35 0.019 1.021838 1.271521

WY | 1.279718 .1421302 2.22 0.026 1.029382 1.590933

|

time |

2000.75 | 1.692734 .2338741 3.81 0.000 1.291171 2.219186

2001 | 1.754303 .2294726 4.30 0.000 1.357571 2.266974

2001.25 | 1.67692 .2354627 3.68 0.000 1.273479 2.208171

2001.5 | 1.890386 .2365374 5.09 0.000 1.479253 2.415785

2001.75 | 1.822567 .2383875 4.59 0.000 1.410419 2.35515

2002 | 1.726228 .2224142 4.24 0.000 1.340992 2.222135

2002.25 | 1.517686 .2013683 3.14 0.002 1.170156 1.968432

2002.5 | 1.917083 .255838 4.88 0.000 1.475865 2.490206

2002.75 | 1.866639 .240725 4.84 0.000 1.449732 2.403437

2003 | 1.572823 .204703 3.48 0.001 1.218698 2.02985

2003.25 | 1.766507 .2463223 4.08 0.000 1.344075 2.321706

2003.5 | 1.811629 .2200599 4.89 0.000 1.427819 2.29861

2003.75 | 1.285913 .163779 1.97 0.048 1.001842 1.650532

2004 | 1.651685 .2225428 3.72 0.000 1.26835 2.150877

2004.25 | 1.559791 .1923485 3.60 0.000 1.224895 1.986249

2004.5 | 1.543402 .192396 3.48 0.000 1.208846 1.97055

2004.75 | 1.447796 .1895005 2.83 0.005 1.120197 1.8712

2005 | 1.236689 .1662643 1.58 0.114 .9502157 1.609528

2005.25 | 1.580568 .1993901 3.63 0.000 1.234336 2.023919

2005.5 | 1.359431 .1749552 2.39 0.017 1.056355 1.749462

2005.75 | 1.27879 .174629 1.80 0.072 .9785001 1.671235

2006 | 1.320856 .1672461 2.20 0.028 1.030568 1.692911

2006.25 | 1.286792 .1770127 1.83 0.067 .9826888 1.685003

2006.5 | 1.474003 .1843166 3.10 0.002 1.153612 1.883375

2006.75 | 1.123984 .1359178 0.97 0.334 .8868055 1.424595

2007 | 1.188806 .1439196 1.43 0.153 .9376975 1.507161

2007.25 | 1.102681 .1379565 0.78 0.435 .8628914 1.409107

2007.5 | 1.229846 .1529397 1.66 0.096 .9638249 1.569291

2007.75 | 1.210618 .1474487 1.57 0.117 .9535294 1.537023

2008 | .9560494 .1135233 -0.38 0.705 .7575424 1.206573

2008.25 | 1.059407 .1366906 0.45 0.655 .82269 1.364237

2008.5 | 1.269429 .1389248 2.18 0.029 1.024363 1.573124

2009 | .9094837 .1019237 -0.85 0.397 .7301343 1.132888

2009.25 | .8678915 .1040405 -1.18 0.237 .6861604 1.097754

2009.5 | 1.049526 .1303128 0.39 0.697 .8228202 1.338694

2009.75 | .8006379 .1043146 -1.71 0.088 .6202028 1.033567

2010 | .8608776 .1139521 -1.13 0.258 .6641561 1.115868

2010.25 | .9143333 .1160164 -0.71 0.480 .7130151 1.172493

2010.5 | 1.10871 .1472051 0.78 0.437 .8546781 1.438246

2010.75 | .7967043 .1061377 -1.71 0.088 .6136197 1.034415

2011 | .9613513 .1196718 -0.32 0.752 .7532205 1.226993

2011.25 | .9247557 .1156746 -0.63 0.532 .7236908 1.181683

2011.5 | 1.05021 .1279172 0.40 0.688 .8271772 1.33338

2011.75 | .8334879 .1058138 -1.43 0.151 .6498852 1.068961

2012 | 1.032615 .1220521 0.27 0.786 .8190845 1.301811

2012.25 | .9266923 .1186474 -0.59 0.552 .7210302 1.191016

2012.5 | 1.110521 .1449364 0.80 0.422 .8598741 1.43423

2012.75 | .8436573 .1168413 -1.23 0.220 .6431021 1.106757

2013 | .8463221 .1081188 -1.31 0.192 .6588605 1.087121

2013.25 | .731019 .1006854 -2.27 0.023 .5580719 .9575626

2013.5 | .9612749 .1216639 -0.31 0.755 .7500931 1.231913

2013.75 | .8359941 .111966 -1.34 0.181 .6429844 1.086941

2014 | .7245771 .0992562 -2.35 0.019 .5539657 .9477339

2014.25 | .8131652 .109563 -1.54 0.125 .6244402 1.058929

2014.5 | .8750401 .119156 -0.98 0.327 .6700668 1.142715

2014.75 | .8356527 .1133351 -1.32 0.186 .6405925 1.090109

2015 | .7732629 .1076509 -1.85 0.065 .5886077 1.015847

2015.25 | .854991 .1280562 -1.05 0.296 .6374892 1.146701

2015.5 | 1.127264 .1555419 0.87 0.385 .8601519 1.477324

2015.75 | .6950552 .1129757 -2.24 0.025 .5054326 .9558183

2016 | .9260867 .1353799 -0.53 0.599 .6953747 1.233345

|

\_cons | 8.47e-06 9.23e-07 -107.23 0.000 6.85e-06 .0000105

ln(hours) | 1 (exposure)

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

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

note: sp77\_801\_1\_c\_4lag omitted because of collinearity

note: sp77\_606\_c\_4lag omitted because of collinearity

Fitting Poisson model:

Iteration 0: log pseudolikelihood = -97223.371

Iteration 1: log pseudolikelihood = -52649.105 (backed up)

Iteration 2: log pseudolikelihood = -44043.916

Iteration 3: log pseudolikelihood = -29505.447

Iteration 4: log pseudolikelihood = -17482.861

Iteration 5: log pseudolikelihood = -16629.019

Iteration 6: log pseudolikelihood = -16482.81

Iteration 7: log pseudolikelihood = -16474.391

Iteration 8: log pseudolikelihood = -16474.272

Iteration 9: log pseudolikelihood = -16474.272

Fitting constant-only model:

Iteration 0: log pseudolikelihood = -17369.994

Iteration 1: log pseudolikelihood = -17118.971

Iteration 2: log pseudolikelihood = -17112.665

Iteration 3: log pseudolikelihood = -17112.657

Iteration 4: log pseudolikelihood = -17112.657

Fitting full model:

Iteration 0: log pseudolikelihood = -16500.109

Iteration 1: log pseudolikelihood = -16432.873

Iteration 2: log pseudolikelihood = -16426.648

Iteration 3: log pseudolikelihood = -16426.481

Iteration 4: log pseudolikelihood = -16426.481

Negative binomial regression Number of obs = 22,446

Wald chi2(386) = .

Dispersion = mean Prob > chi2 = .

Log pseudolikelihood = -16426.481 Pseudo R2 = 0.0401

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

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| Robust

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

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

sp47\_41\_c\_4lag | .9608567 .0334569 -1.15 0.251 .89747 1.02872

sp48\_11\_c\_4lag | 1.039332 .0396686 1.01 0.312 .9644201 1.120063

sp71\_701\_c\_4lag | 2.212044 .7739611 2.27 0.023 1.11422 4.391536

sp75\_1001\_1\_c\_4lag | .9207478 .1185619 -0.64 0.521 .7153754 1.185079

sp75\_1001\_c\_4lag | .7163082 .1643031 -1.45 0.146 .4569364 1.122908

sp75\_1003\_1\_c\_4lag | .6644274 .1717925 -1.58 0.114 .4002794 1.102889

sp75\_1400\_1\_c\_4lag | 1.222897 .1820034 1.35 0.176 .9134946 1.637096

sp75\_1401\_1\_c\_4lag | .9678603 .3327636 -0.10 0.924 .4933532 1.898748

sp75\_1401\_c\_4lag | .8634205 .0947642 -1.34 0.181 .6963045 1.070645

sp75\_1403\_11\_c\_4lag | 1.112645 .3504789 0.34 0.735 .600111 2.062917

sp75\_1404\_1\_c\_4lag | .69495 .215536 -1.17 0.241 .3784049 1.276293

sp75\_1405\_1\_c\_4lag | .9392474 .0825618 -0.71 0.476 .7906015 1.115841

sp75\_1431\_c\_4lag | .5245744 .100496 -3.37 0.001 .3603603 .7636198

sp75\_151\_c\_4lag | 1.458873 .3544581 1.55 0.120 .9061576 2.348721

sp75\_1721\_c\_4lag | .7904747 .6151929 -0.30 0.763 .1719626 3.633641

sp75\_1731\_c\_4lag | 1.001271 .002267 0.56 0.575 .9968371 1.005724

sp75\_1911\_c\_4lag | .9891838 .0084169 -1.28 0.201 .9728239 1.005819

sp75\_211\_c\_4lag | 1.002968 .014743 0.20 0.840 .9744841 1.032284

sp75\_341\_c\_4lag | 1.129526 .2478294 0.56 0.579 .7347402 1.736434

sp75\_506\_1\_c\_4lag | 1.198192 .0794871 2.73 0.006 1.052103 1.364565

sp75\_510\_1\_c\_4lag | 1.402732 .7704835 0.62 0.538 .4780049 4.116396

sp75\_511\_1\_c\_4lag | .2154331 .0544976 -6.07 0.000 .1312158 .353703

sp75\_511\_c\_4lag | 1.051567 .0364988 1.45 0.147 .9824096 1.125593

sp75\_512\_1\_c\_4lag | 1.261553 .3534298 0.83 0.407 .7285131 2.184608

sp75\_513\_1\_c\_4lag | 1.006153 .0985655 0.06 0.950 .8303816 1.21913

sp75\_516\_1\_c\_4lag | 1.02571 .1533551 0.17 0.865 .7651746 1.374956

sp75\_517\_1\_c\_4lag | 1.016739 .1048215 0.16 0.872 .8307188 1.244413

sp75\_518\_1\_c\_4lag | .992971 .016292 -0.43 0.667 .9615473 1.025422

sp75\_523\_1\_c\_4lag | .984621 .0269191 -0.57 0.571 .9332492 1.038821

sp75\_600\_1\_c\_4lag | .8597536 .1098475 -1.18 0.237 .6692975 1.104406

sp75\_601\_1\_c\_4lag | 1.012561 .0106431 1.19 0.235 .9919147 1.033638

sp75\_601\_c\_4lag | 1.009554 .0128922 0.74 0.457 .9845989 1.035141

sp75\_700\_1\_c\_4lag | .8204462 .0973332 -1.67 0.095 .6502319 1.035218

sp75\_701\_1\_c\_4lag | .9645774 .0311818 -1.12 0.265 .9053579 1.02767

sp75\_701\_c\_4lag | 1.018674 .0105475 1.79 0.074 .9982092 1.039558

sp75\_702\_1\_c\_4lag | .7196707 .1350534 -1.75 0.080 .4981927 1.03961

sp75\_703\_1\_c\_4lag | 1.024038 .1932278 0.13 0.900 .7074584 1.482282

sp75\_705\_1\_c\_4lag | .8564002 .0907376 -1.46 0.143 .6958089 1.054056

sp75\_801\_c\_4lag | 1.054701 .2353568 0.24 0.811 .6810572 1.633335

sp75\_811\_c\_4lag | 1.028651 .0326248 0.89 0.373 .9666546 1.094624

sp75\_821\_c\_4lag | 1.062744 .0454753 1.42 0.155 .9772492 1.155718

sp75\_831\_c\_4lag | .7118033 .1205353 -2.01 0.045 .5107628 .991975

sp75\_901\_c\_4lag | .9338485 .0650594 -0.98 0.326 .814657 1.070479

sp75\_902\_1\_c\_4lag | 1.368746 .160449 2.68 0.007 1.087783 1.722279

sp77\_1111\_c\_4lag | .8679231 .1114239 -1.10 0.270 .6748451 1.116242

sp77\_401\_c\_4lag | 1.017845 .0598716 0.30 0.764 .9070105 1.142223

sp77\_403\_1\_c\_4lag | 1.082825 .1064325 0.81 0.418 .893084 1.312877

sp77\_411\_c\_4lag | .827516 .3032282 -0.52 0.605 .4035237 1.697008

sp77\_501\_c\_4lag | .9816914 .0617335 -0.29 0.769 .8678554 1.110459

sp77\_502\_1\_c\_4lag | 1.249206 .4451876 0.62 0.532 .621278 2.511784

sp77\_503\_1\_c\_4lag | 1.063207 .206707 0.32 0.753 .7263209 1.556349

sp77\_506\_1\_c\_4lag | 1.000136 .0225469 0.01 0.995 .9569074 1.045318

sp77\_508\_1\_c\_4lag | .9845526 .115772 -0.13 0.895 .7818933 1.239739

sp77\_511\_c\_4lag | .8768487 .1285317 -0.90 0.370 .6578887 1.168684

sp77\_601\_c\_4lag | .9570457 .1696925 -0.25 0.804 .6760942 1.354747

sp77\_606\_1\_c\_4lag | .7386007 .146295 -1.53 0.126 .50097 1.088949

sp77\_700\_1\_c\_4lag | .9789193 .125741 -0.17 0.868 .7610463 1.259165

sp77\_701\_1\_c\_4lag | .8776532 .1387994 -0.83 0.409 .6437346 1.196573

sp77\_701\_c\_4lag | 1.017071 .0261565 0.66 0.510 .9670756 1.069651

sp77\_704\_1\_c\_4lag | 1.212865 .2478221 0.94 0.345 .8126219 1.810242

sp77\_800\_1\_c\_4lag | 1.03952 .1331905 0.30 0.762 .8086693 1.336271

sp77\_801\_1\_c\_4lag | 1 (omitted)

sp77\_801\_c\_4lag | .6084912 .1649391 -1.83 0.067 .3577054 1.035102

sp77\_807\_1\_c\_4lag | 1.100258 .351168 0.30 0.765 .5885963 2.056703

sp77\_900\_1\_c\_4lag | 1.496667 .3116506 1.94 0.053 .9951294 2.250975

sp77\_901\_1\_c\_4lag | .4668361 .105373 -3.37 0.001 .2999394 .7266001

sp77\_901\_c\_4lag | 1.138376 .1058707 1.39 0.163 .9486869 1.365994

sp47\_42\_c\_4lag | .9107608 .1024408 -0.83 0.406 .7305714 1.135392

sp75\_1100\_2\_c\_4lag | 1.008145 .0048951 1.67 0.095 .9985966 1.017785

sp75\_1102\_c\_4lag | .9127037 .0385622 -2.16 0.031 .8401678 .9915019

sp75\_1106\_2\_c\_4lag | 1.036031 .0273365 1.34 0.180 .9838147 1.09102

sp75\_1400\_2\_c\_4lag | 1.063155 .1077864 0.60 0.546 .8715629 1.296864

sp75\_1402\_2\_c\_4lag | 1.41863 .3719528 1.33 0.182 .848577 2.37163

sp75\_1432\_c\_4lag | 1.023159 .0958193 0.24 0.807 .8515844 1.229302

sp75\_1600\_2\_c\_4lag | .9908805 .0160302 -0.57 0.571 .9599548 1.022803

sp75\_1912\_c\_4lag | 1.011298 .0503188 0.23 0.821 .9173313 1.11489

sp75\_202\_c\_4lag | .9996321 .0017725 -0.21 0.836 .9961641 1.003112

sp75\_212\_c\_4lag | .940965 .021399 -2.68 0.007 .8999447 .9838551

sp75\_312\_c\_4lag | 1.043098 .0234995 1.87 0.061 .998042 1.090188

sp75\_342\_c\_4lag | .9988543 .0053805 -0.21 0.831 .9883643 1.009456

sp75\_352\_c\_4lag | .9354165 .0297941 -2.10 0.036 .8788067 .9956731

sp75\_382\_c\_4lag | 1.018779 .0405595 0.47 0.640 .9423058 1.101457

sp75\_512\_2\_c\_4lag | 1.021555 .0113496 1.92 0.055 .9995508 1.044044

sp75\_512\_c\_4lag | .9989872 .0032879 -0.31 0.758 .9925637 1.005452

sp75\_516\_2\_c\_4lag | 1.036889 .0195401 1.92 0.055 .99929 1.075903

sp75\_523\_2\_c\_4lag | .9957557 .0189658 -0.22 0.823 .9592687 1.033631

sp75\_601\_2\_c\_4lag | .967275 .1028568 -0.31 0.754 .7853008 1.191417

sp75\_602\_c\_4lag | 1.021588 .0252671 0.86 0.388 .9732469 1.072331

sp75\_701\_2\_c\_4lag | .9557068 .0447965 -0.97 0.334 .8718197 1.047666

sp75\_702\_c\_4lag | .8089323 .1366408 -1.26 0.209 .5809403 1.126401

sp75\_703\_2\_c\_4lag | .9393385 .1362838 -0.43 0.666 .7068474 1.248299

sp75\_705\_2\_c\_4lag | 1.236109 .1931039 1.36 0.175 .9100868 1.678923

sp75\_800\_2\_c\_4lag | .7685042 .2001978 -1.01 0.312 .4612172 1.280522

sp75\_802\_c\_4lag | 1.040613 .1148246 0.36 0.718 .8382335 1.291855

sp75\_803\_2\_c\_4lag | 1.525981 .3752236 1.72 0.086 .9424259 2.470877

sp75\_812\_c\_4lag | 1.080137 .1860434 0.45 0.654 .7706686 1.513876

sp75\_832\_c\_4lag | .6632452 .487052 -0.56 0.576 .1572523 2.797379

sp75\_900\_2\_c\_4lag | .7858987 .1529534 -1.24 0.216 .5366656 1.150878

sp75\_902\_2\_c\_4lag | 1.008632 .0446018 0.19 0.846 .9248951 1.09995

sp75\_902\_c\_4lag | .9960788 .0192521 -0.20 0.839 .9590511 1.034536

sp77\_1112\_c\_4lag | .9588983 .0565515 -0.71 0.477 .8542255 1.076397

sp77\_1432\_c\_4lag | .970146 .209025 -0.14 0.888 .6359742 1.479908

sp77\_1802\_c\_4lag | .8060111 .1109097 -1.57 0.117 .6154786 1.055526

sp77\_202\_c\_4lag | .970914 .0110815 -2.59 0.010 .9494358 .9928781

sp77\_402\_c\_4lag | 1.008015 .0211971 0.38 0.704 .9673136 1.050428

sp77\_403\_2\_c\_4lag | 1.582152 .3801219 1.91 0.056 .9879656 2.533697

sp77\_412\_c\_4lag | 1.103842 .0589329 1.85 0.064 .9941731 1.225608

sp77\_502\_2\_c\_4lag | .9368962 .0407474 -1.50 0.134 .860342 1.020262

sp77\_502\_c\_4lag | .9886584 .0064002 -1.76 0.078 .9761935 1.001283

sp77\_512\_c\_4lag | .9949139 .0171298 -0.30 0.767 .9619002 1.029061

sp77\_602\_c\_4lag | 1.180092 .1222973 1.60 0.110 .9631699 1.44587

sp77\_701\_2\_c\_4lag | .9558675 .1013316 -0.43 0.670 .7765363 1.176613

sp77\_702\_c\_4lag | .673587 .159999 -1.66 0.096 .4228686 1.072956

sp77\_800\_2\_c\_4lag | .946103 .0819985 -0.64 0.523 .798298 1.121274

sp77\_802\_c\_4lag | .7872973 .1463589 -1.29 0.198 .54689 1.133385

sp77\_807\_2\_c\_4lag | .8649822 .099464 -1.26 0.207 .6904429 1.083644

sp77\_900\_2\_c\_4lag | 1.098687 .1008644 1.03 0.305 .9177619 1.31528

sp77\_902\_2\_c\_4lag | .000013 6.56e-06 -22.22 0.000 4.80e-06 .000035

sp77\_902\_c\_4lag | 1.176394 .0874298 2.19 0.029 1.01693 1.360862

sp47\_43\_c\_4lag | 2.044249 .5382335 2.72 0.007 1.220168 3.4249

sp72\_503\_c\_4lag | .9622844 .0415606 -0.89 0.373 .8841796 1.047289

sp75\_1106\_3\_c\_4lag | 1.014287 .0107909 1.33 0.182 .9933559 1.035658

sp75\_1400\_3\_c\_4lag | 1.067021 .0404998 1.71 0.087 .9905239 1.149427

sp75\_1403\_3\_c\_4lag | .8208809 .1104136 -1.47 0.142 .6306498 1.068494

sp75\_1433\_c\_4lag | 1.0083 .0627614 0.13 0.894 .8924974 1.139128

sp75\_153\_c\_4lag | 1.193556 .1639234 1.29 0.198 .9118814 1.562237

sp75\_1903\_c\_4lag | .9809419 .0228063 -0.83 0.408 .9372456 1.026675

sp75\_1913\_c\_4lag | 1.045802 .0390433 1.20 0.230 .9720114 1.125195

sp75\_503\_c\_4lag | .9980164 .0027749 -0.71 0.475 .9925924 1.00347

sp75\_513\_c\_4lag | .9717325 .0494378 -0.56 0.573 .8795106 1.073624

sp75\_523\_c\_4lag | .9824799 .0235582 -0.74 0.461 .9373749 1.029755

sp75\_601\_3\_c\_4lag | .9433987 .1292276 -0.43 0.671 .7212685 1.233939

sp75\_603\_c\_4lag | .9565496 .0425778 -1.00 0.318 .8766353 1.043749

sp75\_701\_3\_c\_4lag | 1.056469 .0477454 1.22 0.224 .9669144 1.154318

sp75\_703\_3\_c\_4lag | 1.04763 .060603 0.80 0.421 .935336 1.173405

sp75\_703\_c\_4lag | 1.037849 .0224781 1.72 0.086 .9947151 1.082854

sp75\_705\_3\_c\_4lag | 2.224974 .373373 4.77 0.000 1.601344 3.09147

sp75\_800\_3\_c\_4lag | 1.000634 .0869309 0.01 0.994 .8439689 1.186381

sp75\_803\_c\_4lag | .9577033 .0597272 -0.69 0.488 .8475118 1.082222

sp75\_900\_3\_c\_4lag | 1.092044 .0549965 1.75 0.080 .9894021 1.205335

sp75\_903\_c\_4lag | 1.021778 .0319578 0.69 0.491 .9610228 1.086373

sp77\_103\_c\_4lag | .5086059 .2345443 -1.47 0.143 .2059912 1.255782

sp77\_1103\_c\_4lag | .9949217 .0155255 -0.33 0.744 .9649529 1.025821

sp77\_1403\_c\_4lag | 1.014932 .071484 0.21 0.833 .884066 1.165169

sp77\_1433\_c\_4lag | 1.092379 .1517512 0.64 0.525 .8320049 1.434236

sp77\_203\_c\_4lag | 1.1512 .1049564 1.54 0.122 .9628211 1.376435

sp77\_403\_c\_4lag | 1.461985 .2304281 2.41 0.016 1.073452 1.991148

sp77\_413\_c\_4lag | .9485792 .0663614 -0.75 0.450 .8270365 1.087984

sp77\_503\_c\_4lag | 1.015718 .1003367 0.16 0.875 .8369284 1.232703

sp77\_513\_c\_4lag | .9625615 .0272228 -1.35 0.177 .9106576 1.017424

sp77\_603\_c\_4lag | 1.254712 .2065766 1.38 0.168 .9086603 1.732552

sp77\_701\_3\_c\_4lag | .9327727 .2411924 -0.27 0.788 .5619216 1.548374

sp77\_703\_c\_4lag | .9159255 .2375113 -0.34 0.735 .5509759 1.522606

sp77\_803\_c\_4lag | .850823 .1502024 -0.92 0.360 .6019633 1.202565

sp77\_807\_3\_c\_4lag | 1.085777 .1355692 0.66 0.510 .8500811 1.386823

sp77\_902\_3\_c\_4lag | 1.129477 .2336258 0.59 0.556 .7530285 1.694118

sp77\_903\_c\_4lag | 1.103596 .1494961 0.73 0.467 .8462601 1.439183

sp47\_44\_c\_4lag | .9574465 .0462833 -0.90 0.368 .8708977 1.052597

sp48\_24\_c\_4lag | .014408 .0028897 -21.14 0.000 .0097248 .0213464

sp48\_4\_c\_4lag | 1.337884 .8785427 0.44 0.658 .3693714 4.845889

sp75\_1103\_4\_c\_4lag | 1.012332 .0112513 1.10 0.270 .9905181 1.034626

sp75\_1104\_c\_4lag | .9970531 .0225441 -0.13 0.896 .9538322 1.042232

sp75\_1106\_4\_c\_4lag | .9811507 .0661126 -0.28 0.778 .8597643 1.119675

sp75\_1107\_14\_c\_4lag | 1.39652 .3442312 1.35 0.175 .8614555 2.263923

sp75\_1400\_4\_c\_4lag | .9197142 .0559893 -1.37 0.169 .8162711 1.036266

sp75\_1403\_4\_c\_4lag | 1.128917 .1741465 0.79 0.432 .834365 1.527455

sp75\_1404\_c\_4lag | .9341882 .2519093 -0.25 0.801 .5506846 1.584769

sp75\_1434\_c\_4lag | .9149042 .0547652 -1.49 0.137 .8136237 1.028792

sp75\_1914\_c\_4lag | .9996441 .0039324 -0.09 0.928 .9919663 1.007381

sp75\_214\_c\_4lag | .9812824 .0256462 -0.72 0.470 .9322825 1.032858

sp75\_324\_c\_4lag | .9615545 .0384252 -0.98 0.327 .8891162 1.039894

sp75\_344\_c\_4lag | 1.01277 .0656387 0.20 0.845 .8919563 1.149948

sp75\_504\_c\_4lag | .9510101 .0763216 -0.63 0.531 .8125938 1.113004

sp75\_514\_c\_4lag | 1.010514 .0123419 0.86 0.392 .9866111 1.034995

sp75\_604\_c\_4lag | 1.016532 .0043936 3.79 0.000 1.007957 1.02518

sp75\_701\_4\_c\_4lag | 1.476679 .2293324 2.51 0.012 1.089161 2.002073

sp75\_703\_4\_c\_4lag | .9812876 .3492253 -0.05 0.958 .4885023 1.971178

sp75\_704\_c\_4lag | .787193 .1270221 -1.48 0.138 .5737605 1.08002

sp75\_800\_4\_c\_4lag | 1.074955 .0569224 1.36 0.172 .9689834 1.192516

sp75\_804\_c\_4lag | .9640653 .0434936 -0.81 0.417 .8824797 1.053194

sp75\_814\_c\_4lag | .9951306 .0646364 -0.08 0.940 .8761779 1.130233

sp75\_834\_c\_4lag | 1.10e-09 1.36e-09 -16.64 0.000 9.64e-11 1.25e-08

sp75\_900\_4\_c\_4lag | .9893121 .0137607 -0.77 0.440 .9627059 1.016654

sp75\_902\_4\_c\_4lag | 1.005768 .0341745 0.17 0.866 .9409691 1.07503

sp75\_904\_c\_4lag | .9889237 .0078441 -1.40 0.160 .9736685 1.004418

sp77\_104\_c\_4lag | 1.312712 .5191865 0.69 0.491 .6046633 2.849873

sp77\_1104\_c\_4lag | 1.006612 .0058867 1.13 0.260 .9951404 1.018216

sp77\_1434\_c\_4lag | .9936981 .1069604 -0.06 0.953 .8046966 1.227091

sp77\_204\_c\_4lag | .966698 .0224897 -1.46 0.145 .9236087 1.011797

sp77\_314\_c\_4lag | .6472059 .2749127 -1.02 0.306 .2815003 1.488011

sp77\_404\_c\_4lag | .9787246 .0080834 -2.60 0.009 .963009 .9946968

sp77\_504\_c\_4lag | .9528915 .0257293 -1.79 0.074 .9037742 1.004678

sp77\_514\_c\_4lag | .9047673 .0732133 -1.24 0.216 .7720727 1.060268

sp77\_604\_c\_4lag | 1.006826 .1123142 0.06 0.951 .809097 1.252877

sp77\_701\_4\_c\_4lag | 1.223996 .1358238 1.82 0.069 .9847458 1.521373

sp77\_704\_c\_4lag | 1.330648 .3971307 0.96 0.338 .7413491 2.38838

sp77\_804\_c\_4lag | 1.575777 .3121867 2.30 0.022 1.068706 2.32344

sp77\_904\_c\_4lag | .9920697 .025572 -0.31 0.757 .9431946 1.043478

sp48\_25\_c\_4lag | .9709148 .0548344 -0.52 0.601 .8691761 1.084562

sp48\_5\_c\_4lag | 1.085976 .0995367 0.90 0.368 .907407 1.299686

sp75\_1106\_5\_c\_4lag | .9785022 .0381749 -0.56 0.577 .9064698 1.056259

sp75\_1403\_5\_c\_4lag | .9970686 .0068716 -0.43 0.670 .983691 1.010628

sp75\_1405\_c\_4lag | .9927893 .0104041 -0.69 0.490 .9726056 1.013392

sp75\_1435\_c\_4lag | 1.138274 .1325169 1.11 0.266 .9060468 1.430023

sp75\_155\_c\_4lag | .6951332 .1011733 -2.50 0.012 .5226125 .9246051

sp75\_1725\_c\_4lag | 1.002984 .0032449 0.92 0.357 .9966443 1.009364

sp75\_1915\_c\_4lag | 1.026955 .0747943 0.37 0.715 .8903428 1.184528

sp75\_505\_c\_4lag | .8919971 .1364234 -0.75 0.455 .6609664 1.203781

sp75\_515\_c\_4lag | .9775607 .0081317 -2.73 0.006 .9617522 .9936291

sp75\_605\_c\_4lag | 1.012108 .0138714 0.88 0.380 .9852821 1.039664

sp75\_705\_c\_4lag | 1.342614 .2121674 1.86 0.062 .985008 1.83005

sp75\_805\_c\_4lag | 1.284415 .1567292 2.05 0.040 1.011203 1.631444

sp75\_815\_c\_4lag | 1.171461 .080522 2.30 0.021 1.023809 1.340406

sp75\_825\_c\_4lag | 1.095904 .1331282 0.75 0.451 .8637146 1.390512

sp75\_905\_c\_4lag | 1.209661 .196492 1.17 0.241 .879829 1.663141

sp77\_1605\_c\_4lag | .9937466 .008033 -0.78 0.438 .9781264 1.009616

sp77\_1915\_c\_4lag | .9818232 .0947781 -0.19 0.849 .8125769 1.186321

sp77\_205\_c\_4lag | 1.001055 .0050714 0.21 0.835 .9911642 1.011044

sp77\_305\_c\_4lag | 1.644134 .7333536 1.11 0.265 .6859071 3.941026

sp77\_315\_c\_4lag | .2690526 .1548115 -2.28 0.023 .0871084 .8310255

sp77\_405\_c\_4lag | .9123644 .0720732 -1.16 0.246 .781496 1.065148

sp77\_505\_c\_4lag | 1.005349 .0185933 0.29 0.773 .9695591 1.042459

sp77\_515\_c\_4lag | .8454262 .1870546 -0.76 0.448 .5479529 1.304392

sp77\_605\_c\_4lag | .7660343 .1839448 -1.11 0.267 .4784676 1.226433

sp77\_705\_c\_4lag | 1.10241 .0691445 1.55 0.120 .9748882 1.246613

sp77\_805\_c\_4lag | 1.093978 .1546206 0.64 0.525 .829281 1.443164

sp48\_26\_c\_4lag | 1.148725 .060367 2.64 0.008 1.036297 1.27335

sp48\_6\_c\_4lag | 1.000996 .0496964 0.02 0.984 .9081817 1.103296

sp75\_1106\_6\_c\_4lag | .6648453 .2421397 -1.12 0.262 .3256185 1.357476

sp75\_1106\_c\_4lag | 1.07209 .0797863 0.94 0.350 .926582 1.240449

sp75\_1403\_6\_c\_4lag | .9960361 .0064814 -0.61 0.542 .9834134 1.008821

sp75\_1436\_c\_4lag | 1.515817 .5010107 1.26 0.208 .7930597 2.89726

sp75\_156\_c\_4lag | 1.280671 .2314251 1.37 0.171 .8987117 1.824967

sp75\_1712\_6\_c\_4lag | .9955257 .0205579 -0.22 0.828 .9560375 1.036645

sp75\_1726\_c\_4lag | 1.063638 .0715785 0.92 0.359 .9322048 1.213602

sp75\_506\_c\_4lag | 1.019348 .0327393 0.60 0.551 .9571585 1.085579

sp75\_516\_c\_4lag | .9909946 .0111702 -0.80 0.422 .9693415 1.013131

sp75\_606\_c\_4lag | .991338 .0074048 -1.16 0.244 .9769306 1.005958

sp75\_706\_c\_4lag | .9567744 .0495531 -0.85 0.394 .8644189 1.058997

sp75\_806\_c\_4lag | 1.148574 .2349931 0.68 0.498 .7691428 1.715185

sp75\_816\_c\_4lag | 1.012558 .024385 0.52 0.604 .9658749 1.061498

sp77\_1106\_c\_4lag | 1.460315 .7223541 0.77 0.444 .5538526 3.850337

sp77\_1606\_c\_4lag | 1.02443 .0128166 1.93 0.054 .9996155 1.049861

sp77\_1906\_c\_4lag | .9350801 .1306666 -0.48 0.631 .7110551 1.229686

sp77\_1916\_c\_4lag | 1.17043 .1632529 1.13 0.259 .8904693 1.53841

sp77\_206\_c\_4lag | 1.046816 .0362923 1.32 0.187 .9780474 1.12042

sp77\_216\_c\_4lag | 1.003496 .0301348 0.12 0.907 .9461378 1.064332

sp77\_506\_c\_4lag | .9772622 .023004 -0.98 0.329 .9331995 1.023405

sp77\_516\_c\_4lag | .9797834 .0091401 -2.19 0.029 .9620318 .9978625

sp77\_606\_c\_4lag | 1 (omitted)

sp77\_906\_c\_4lag | .649977 .2398381 -1.17 0.243 .3153618 1.339636

sp48\_27\_c\_4lag | 1.059196 .0731594 0.83 0.405 .9250883 1.212745

sp48\_7\_c\_4lag | 1.055969 .0395447 1.45 0.146 .9812388 1.13639

sp75\_1403\_7\_c\_4lag | .9784904 .0253208 -0.84 0.401 .9300999 1.029398

sp75\_1437\_c\_4lag | 1.05906 .1868511 0.33 0.745 .7494496 1.496577

sp75\_1727\_c\_4lag | 1.063119 .6921618 0.09 0.925 .296751 3.808652

sp75\_337\_c\_4lag | 1.009293 .0275317 0.34 0.735 .9567494 1.064723

sp75\_507\_c\_4lag | .9905161 .0392364 -0.24 0.810 .9165237 1.070482

sp75\_517\_c\_4lag | .9980752 .0031827 -0.60 0.546 .9918567 1.004333

sp75\_607\_c\_4lag | 1.023357 .0396417 0.60 0.551 .9485369 1.104079

sp75\_807\_c\_4lag | 1.012991 .0071275 1.83 0.067 .999117 1.027057

sp75\_827\_c\_4lag | 1.14803 .1016075 1.56 0.119 .9651988 1.365493

sp75\_907\_c\_4lag | 1.003655 .0636182 0.06 0.954 .8863996 1.136421

sp77\_1437\_c\_4lag | .7194295 .057125 -4.15 0.000 .615744 .8405747

sp77\_207\_c\_4lag | 1.061655 .0251691 2.52 0.012 1.013453 1.11215

sp77\_507\_c\_4lag | .8976747 .0642861 -1.51 0.132 .7801193 1.032944

sp77\_807\_c\_4lag | 1.075388 .0751668 1.04 0.298 .9377098 1.233281

sp48\_28\_c\_4lag | .9461669 .0696993 -0.75 0.453 .8189626 1.093129

sp48\_8\_c\_4lag | 1.058303 .0712184 0.84 0.400 .927531 1.207512

sp75\_1403\_8\_c\_4lag | .9941428 .0054266 -1.08 0.282 .9835635 1.004836

sp75\_1438\_c\_4lag | 5.41e-10 5.68e-10 -20.32 0.000 6.90e-11 4.24e-09

sp75\_1728\_c\_4lag | 1.368204 .3085976 1.39 0.165 .879352 2.128819

sp75\_208\_c\_4lag | .9942303 .0133021 -0.43 0.665 .9684975 1.020647

sp75\_518\_c\_4lag | 1.010558 .0102517 1.04 0.301 .9906634 1.030852

sp75\_705\_8\_c\_4lag | 1.118147 .2014324 0.62 0.535 .7855187 1.591628

sp75\_808\_c\_4lag | 1.022877 .0733668 0.32 0.752 .8887308 1.177272

sp75\_818\_c\_4lag | 1.092767 .0850225 1.14 0.254 .9382101 1.272785

sp77\_1438\_c\_4lag | .422426 .1572393 -2.32 0.021 .2036613 .8761787

sp77\_208\_c\_4lag | 1.009774 .0154204 0.64 0.524 .9799989 1.040455

sp77\_408\_c\_4lag | .9803186 .0817469 -0.24 0.812 .8325057 1.154376

sp77\_508\_c\_4lag | .9348673 .0866783 -0.73 0.468 .7795229 1.121169

sp77\_704\_8\_c\_4lag | .837107 .1233974 -1.21 0.228 .6270554 1.117522

sp77\_808\_c\_4lag | 1.577489 .4009407 1.79 0.073 .958565 2.596038

sp75\_1403\_9\_c\_4lag | .9182372 .0247178 -3.17 0.002 .8710471 .967984

sp75\_1729\_c\_4lag | .8863772 .0883954 -1.21 0.226 .729006 1.07772

sp75\_1909\_c\_4lag | 1.008286 .0040974 2.03 0.042 1.000287 1.016348

sp75\_519\_c\_4lag | .9001969 .2110772 -0.45 0.654 .5685239 1.425366

sp75\_809\_c\_4lag | .9795987 .0292479 -0.69 0.490 .923919 1.038634

sp75\_819\_c\_4lag | 1.023008 .270738 0.09 0.932 .608989 1.718497

sp77\_309\_c\_4lag | .9730464 .2114287 -0.13 0.900 .6355942 1.48966

sp77\_409\_c\_4lag | .972669 .1307873 -0.21 0.837 .7473268 1.265959

sp77\_509\_c\_4lag | .9339728 .0353807 -1.80 0.071 .8671397 1.005957

sp77\_704\_9\_c\_4lag | .536132 .1393968 -2.40 0.017 .3220739 .8924585

sp77\_809\_c\_4lag | .913364 .040104 -2.06 0.039 .8380488 .9954478

sp72\_610\_c\_4lag | .978929 .2033707 -0.10 0.918 .6515019 1.470912

sp72\_620\_c\_4lag | 1.343741 .1574334 2.52 0.012 1.068042 1.690608

sp72\_630\_c\_4lag | 1.011762 .0066408 1.78 0.075 .9988297 1.024862

sp75\_100\_c\_4lag | 1.17345 .0929894 2.02 0.044 1.004643 1.370622

sp75\_1101\_20\_c\_4lag | .9911333 .1237191 -0.07 0.943 .7760327 1.265855

sp75\_1400\_c\_4lag | .9679261 .034473 -0.92 0.360 .9026646 1.037906

sp75\_1403\_10\_c\_4lag | 1.007414 .0103591 0.72 0.473 .9873141 1.027924

sp75\_150\_c\_4lag | 1.068845 .1174398 0.61 0.545 .8617649 1.325687

sp75\_160\_c\_4lag | .9586327 .2582365 -0.16 0.875 .5653997 1.625358

sp75\_1712\_10\_c\_4lag | .9155821 .0543577 -1.49 0.137 .8150079 1.028567

sp75\_1720\_c\_4lag | 1.031678 .0284323 1.13 0.258 .9774299 1.088937

sp75\_1730\_c\_4lag | .968138 .046501 -0.67 0.500 .8811561 1.063706

sp75\_1910\_c\_4lag | .9992833 .0065397 -0.11 0.913 .9865477 1.012183

sp75\_320\_c\_4lag | .9724268 .0194109 -1.40 0.161 .9351168 1.011225

sp75\_340\_c\_4lag | 1.000079 .0090648 0.01 0.993 .9824694 1.018005

sp75\_520\_c\_4lag | 1.024925 .0229615 1.10 0.272 .9808953 1.070931

sp75\_600\_c\_4lag | 1.127501 .2639429 0.51 0.608 .7126139 1.783936

sp75\_700\_c\_4lag | .966258 .0237695 -1.40 0.163 .920776 1.013987

sp75\_800\_c\_4lag | 1.042763 .063834 0.68 0.494 .9248653 1.175691

sp75\_810\_c\_4lag | 1.060573 .0341277 1.83 0.068 .9957499 1.129617

sp75\_820\_c\_4lag | 1.032526 .103583 0.32 0.750 .8482198 1.256879

sp75\_900\_c\_4lag | .9892554 .0193138 -0.55 0.580 .9521162 1.027843

sp77\_1710\_c\_4lag | 1.002566 .0194758 0.13 0.895 .9651112 1.041473

sp77\_200\_c\_4lag | 1.007247 .008168 0.89 0.373 .9913648 1.023384

sp77\_210\_c\_4lag | .9986525 .0584824 -0.02 0.982 .8903626 1.120113

sp77\_400\_c\_4lag | 1.010258 .0084738 1.22 0.224 .9937856 1.027004

sp77\_410\_c\_4lag | 1.015111 .0125849 1.21 0.226 .9907427 1.040079

sp77\_500\_c\_4lag | .8827527 .1009183 -1.09 0.275 .70555 1.104461

sp77\_510\_c\_4lag | .7936914 .1214793 -1.51 0.131 .5879901 1.071355

sp77\_600\_c\_4lag | 1.262908 .143304 2.06 0.040 1.011078 1.577461

sp77\_700\_c\_4lag | .8967054 .0795858 -1.23 0.219 .7535336 1.06708

sp77\_810\_c\_4lag | .9867808 .1138325 -0.12 0.908 .7870971 1.237124

sp77\_900\_c\_4lag | .7557475 .100334 -2.11 0.035 .5825995 .980355

mine\_time | .9984758 .0017404 -0.88 0.382 .9950705 1.001893

onsite\_insp\_hours | .9997757 .0001152 -1.95 0.052 .99955 1.000002

|

state |

AL | 1.265398 .1477605 2.02 0.044 1.006543 1.590824

AR | 2.389442 .167172 12.45 0.000 2.083263 2.74062

CO | .8273873 .1485562 -1.06 0.291 .5819381 1.176362

IL | 1.153922 .0973251 1.70 0.090 .9781012 1.361348

IN | .9250884 .1489029 -0.48 0.629 .6747972 1.268216

MD | 1.15363 .2267271 0.73 0.467 .7848324 1.695729

MT | 1.040476 .110017 0.38 0.707 .8457232 1.280076

NM | .9856344 .0694378 -0.21 0.837 .8585169 1.131574

OH | 1.143586 .1390846 1.10 0.270 .9010404 1.45142

OK | .8433446 .2639744 -0.54 0.586 .4566373 1.557538

PA | 1.029092 .0945408 0.31 0.755 .8595193 1.232118

TN | 1.320421 .20563 1.78 0.074 .9730927 1.791722

UT | .6187168 .0760663 -3.91 0.000 .486232 .7873002

VA | .7370102 .0547725 -4.11 0.000 .6371102 .8525747

WV | 1.071016 .0610753 1.20 0.229 .9577579 1.197667

WY | 1.2113 .13171 1.76 0.078 .978806 1.499017

|

time |

2000.75 | 1.648499 .211816 3.89 0.000 1.281497 2.120605

2001 | 1.707854 .2151083 4.25 0.000 1.334258 2.186057

2001.25 | 1.526544 .1989502 3.25 0.001 1.182428 1.970807

2001.5 | 1.895516 .2303684 5.26 0.000 1.493751 2.405342

2001.75 | 1.661081 .2082225 4.05 0.000 1.299241 2.123695

2002 | 1.726039 .2107681 4.47 0.000 1.358657 2.192762

2002.25 | 1.520258 .1964217 3.24 0.001 1.180156 1.958371

2002.5 | 1.861684 .2364502 4.89 0.000 1.451429 2.3879

2002.75 | 1.774897 .2187707 4.65 0.000 1.393977 2.259908

2003 | 1.453246 .1832322 2.96 0.003 1.135051 1.860641

2003.25 | 1.639179 .2094498 3.87 0.000 1.276034 2.105671

2003.5 | 1.719476 .1926164 4.84 0.000 1.380524 2.141648

2003.75 | 1.277532 .1556448 2.01 0.044 1.006162 1.622093

2004 | 1.551268 .1901282 3.58 0.000 1.220004 1.972481

2004.25 | 1.561672 .1814057 3.84 0.000 1.243693 1.96095

2004.5 | 1.549028 .1844794 3.67 0.000 1.226554 1.956284

2004.75 | 1.438983 .1749562 2.99 0.003 1.133871 1.826196

2005 | 1.225532 .1521202 1.64 0.101 .9608791 1.563079

2005.25 | 1.533049 .1812826 3.61 0.000 1.21591 1.932904

2005.5 | 1.389657 .1738883 2.63 0.009 1.087418 1.775901

2005.75 | 1.252578 .1620283 1.74 0.082 .9720689 1.614034

2006 | 1.248276 .1494665 1.85 0.064 .9871637 1.578455

2006.25 | 1.228104 .1551223 1.63 0.104 .9587816 1.57308

2006.5 | 1.410953 .1689655 2.87 0.004 1.11578 1.784211

2006.75 | 1.118016 .1342992 0.93 0.353 .8834857 1.414806

2007 | 1.214842 .1450637 1.63 0.103 .9613423 1.535187

2007.25 | 1.088792 .1373014 0.67 0.500 .850364 1.394072

2007.5 | 1.181141 .1387112 1.42 0.156 .9382917 1.486844

2007.75 | 1.21326 .1427768 1.64 0.100 .9633499 1.528

2008 | .97587 .1134055 -0.21 0.834 .7770951 1.22549

2008.25 | 1.034282 .124595 0.28 0.780 .8167677 1.309722

2008.5 | 1.266098 .1328982 2.25 0.025 1.03067 1.555303

2009 | .9516636 .1024281 -0.46 0.645 .7706695 1.175165

2009.25 | .9098291 .103727 -0.83 0.407 .7276404 1.137635

2009.5 | 1.105362 .1312987 0.84 0.399 .8757815 1.395125

2009.75 | .8294688 .1036649 -1.50 0.135 .6492606 1.059695

2010 | .8691237 .111245 -1.10 0.273 .6762863 1.116947

2010.25 | .9199893 .1156648 -0.66 0.507 .7190619 1.177062

2010.5 | 1.049489 .1274172 0.40 0.691 .8272459 1.331439

2010.75 | .7936484 .0996982 -1.84 0.066 .6204405 1.015211

2011 | .9181614 .1089704 -0.72 0.472 .727605 1.158624

2011.25 | .8958416 .1059553 -0.93 0.352 .7104863 1.129553

2011.5 | 1.026983 .1225256 0.22 0.823 .8128478 1.297529

2011.75 | .8381189 .1041095 -1.42 0.155 .6570085 1.069154

2012 | 1.049829 .1229921 0.42 0.678 .8344432 1.320811

2012.25 | .9225739 .1132116 -0.66 0.511 .7253505 1.173423

2012.5 | 1.043998 .1286959 0.35 0.727 .8199174 1.329318

2012.75 | .8503835 .1137228 -1.21 0.226 .6543086 1.105216

2013 | .8803114 .1071416 -1.05 0.295 .693486 1.117468

2013.25 | .7573391 .1000604 -2.10 0.035 .5845595 .9811875

2013.5 | 1.017354 .1255085 0.14 0.889 .7988435 1.295636

2013.75 | .8237906 .1044356 -1.53 0.126 .642549 1.056154

2014 | .7721497 .1057059 -1.89 0.059 .590437 1.009786

2014.25 | .8288154 .1059896 -1.47 0.142 .6450679 1.064903

2014.5 | .8809961 .1131775 -0.99 0.324 .6848951 1.133245

2014.75 | .8383904 .1070107 -1.38 0.167 .6528304 1.076694

2015 | .7644168 .098911 -2.08 0.038 .5931844 .9850781

2015.25 | .8345338 .1117088 -1.35 0.177 .6419542 1.084885

2015.5 | 1.093581 .1461534 0.67 0.503 .8415709 1.421056

2015.75 | .6914663 .1067445 -2.39 0.017 .5109372 .9357818

2016 | .9346951 .1270316 -0.50 0.619 .7161198 1.219984

|

\_cons | 8.94e-06 9.43e-07 -110.25 0.000 7.27e-06 .000011

ln(hours) | 1 (exposure)

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

/lnalpha | -2.000244 .2009919 -2.394181 -1.606307

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

alpha | .1353023 .0271947 .0912474 .2006272

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(est1 stored)

**. lrtest pois nbin, stats force**

Likelihood-ratio test LR chi2(1) = 95.58

(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 | 22,446 -17381.19 -16474.27 387 33722.54 36825.84

nbin | 22,446 -17112.66 -16426.48 388 33628.96 36740.28

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

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

**. summ MR spcv3\_yhat**

Variable | Obs Mean Std. Dev. Min Max

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

MR | 30,289 .4096207 .9550592 0 14

spcv3\_yhat | 22,446 .4955523 .757196 2.62e-11 14.68553