. // Model SP.C.PP.2

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

Iteration 0: log pseudolikelihood = -20050.959

Iteration 1: log pseudolikelihood = -18575.772

Iteration 2: log pseudolikelihood = -18521.371

Iteration 3: log pseudolikelihood = -18510.355

Iteration 4: log pseudolikelihood = -18509.076

Iteration 5: log pseudolikelihood = -18509.015

Iteration 6: log pseudolikelihood = -18509.006

Iteration 7: log pseudolikelihood = -18509.004

Iteration 8: log pseudolikelihood = -18509.003

Iteration 9: log pseudolikelihood = -18509.003

Iteration 10: log pseudolikelihood = -18509.003

Generalized linear models No. of obs = 26,110

Optimization : ML Residual df = 25,720

Scale parameter = 1

Deviance = 20665.6187 (1/df) Deviance = .8034844

Pearson = 328639.3834 (1/df) Pearson = 12.77758

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

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

AIC = 1.447645

Log pseudolikelihood = -18509.00333 BIC = -240908.7

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

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| Robust

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

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

sp47\_41\_pp\_1lag | .9982992 .0011441 -1.49 0.137 .9960594 1.000544

sp47\_42\_pp\_1lag | .990979 .0043561 -2.06 0.039 .9824779 .9995538

sp47\_44\_pp\_1lag | .9991925 .0017899 -0.45 0.652 .9956905 1.002707

sp48\_11\_pp\_1lag | 1.00136 .0011971 1.14 0.256 .9990166 1.003709

sp48\_24\_pp\_1lag | .9553734 .0027396 -15.92 0.000 .9500189 .960758

sp48\_25\_pp\_1lag | 1.003407 .001348 2.53 0.011 1.000769 1.006053

sp48\_26\_pp\_1lag | 1.001578 .0021392 0.74 0.460 .9973939 1.00578

sp48\_27\_pp\_1lag | 1.001178 .0015251 0.77 0.440 .9981933 1.004172

sp48\_28\_pp\_1lag | .9990956 .0017759 -0.51 0.611 .9956209 1.002582

sp48\_4\_pp\_1lag | .8151012 .0100151 -16.64 0.000 .7957064 .8349688

sp48\_5\_pp\_1lag | .9983803 .0028831 -0.56 0.575 .9927454 1.004047

sp48\_6\_pp\_1lag | 1.000111 .0011287 0.10 0.921 .9979017 1.002326

sp48\_7\_pp\_1lag | 1.001379 .0009207 1.50 0.134 .9995764 1.003186

sp48\_8\_pp\_1lag | 1.000664 .001413 0.47 0.638 .9978985 1.003437

sp71\_701\_pp\_1lag | 1.017686 .005999 2.97 0.003 1.005996 1.029512

sp72\_503\_pp\_1lag | .9966133 .0014717 -2.30 0.022 .993733 .999502

sp72\_610\_pp\_1lag | 1.001888 .0052128 0.36 0.717 .9917229 1.012157

sp72\_620\_pp\_1lag | 1.000513 .0076677 0.07 0.947 .9855968 1.015655

sp72\_630\_pp\_1lag | 1.000454 .0001518 2.99 0.003 1.000156 1.000751

sp75\_100\_pp\_1lag | 1.00115 .0029948 0.38 0.701 .9952977 1.007037

sp75\_1001\_1\_pp\_1lag | .9983308 .0060256 -0.28 0.782 .9865904 1.010211

sp75\_1001\_pp\_1lag | .995089 .0076059 -0.64 0.520 .9802929 1.010108

sp75\_1003\_1\_pp\_1lag | .9931216 .0037057 -1.85 0.064 .985885 1.000411

sp75\_1100\_2\_pp\_1lag | 1.000251 .0002033 1.23 0.218 .9998523 1.000649

sp75\_1101\_20\_pp\_1lag | 1.002311 .00373 0.62 0.535 .9950273 1.009649

sp75\_1102\_pp\_1lag | .9986831 .0013199 -1.00 0.319 .9960996 1.001273

sp75\_1103\_4\_pp\_1lag | 1.00012 .0002896 0.41 0.678 .9995526 1.000688

sp75\_1104\_pp\_1lag | 1.000143 .000877 0.16 0.870 .9984256 1.001863

sp75\_1106\_2\_pp\_1lag | 1.00035 .0007738 0.45 0.651 .998835 1.001868

sp75\_1106\_3\_pp\_1lag | 1.000277 .0002632 1.05 0.292 .9997614 1.000793

sp75\_1106\_4\_pp\_1lag | 1.001235 .0021398 0.58 0.564 .9970497 1.005438

sp75\_1106\_5\_pp\_1lag | 1.000101 .0009522 0.11 0.915 .9982367 1.001969

sp75\_1106\_6\_pp\_1lag | 1.020023 .0207474 0.97 0.330 .9801592 1.061509

sp75\_1106\_pp\_1lag | 1.001559 .0017269 0.90 0.366 .9981805 1.00495

sp75\_1107\_14\_pp\_1lag | 1.003322 .0037783 0.88 0.379 .9959435 1.010754

sp75\_1400\_1\_pp\_1lag | 1.00443 .0038046 1.17 0.243 .9970005 1.011914

sp75\_1400\_2\_pp\_1lag | 1.000922 .0078268 0.12 0.906 .9856989 1.016381

sp75\_1400\_3\_pp\_1lag | 1.00063 .0013517 0.47 0.641 .9979845 1.003283

sp75\_1400\_4\_pp\_1lag | .9992115 .0026844 -0.29 0.769 .9939641 1.004487

sp75\_1400\_pp\_1lag | .9999246 .0014003 -0.05 0.957 .9971838 1.002673

sp75\_1401\_1\_pp\_1lag | 1.001199 .0081817 0.15 0.883 .9852905 1.017364

sp75\_1401\_pp\_1lag | 1.000742 .0055248 0.13 0.893 .9899718 1.011629

sp75\_1403\_10\_pp\_1lag | 1.000246 .0003467 0.71 0.477 .999567 1.000926

sp75\_1403\_11\_pp\_1lag | 1.003056 .0032419 0.94 0.345 .9967218 1.00943

sp75\_1403\_3\_pp\_1lag | 1.001892 .0035613 0.53 0.595 .9949362 1.008896

sp75\_1403\_4\_pp\_1lag | 1.006292 .0031938 1.98 0.048 1.000052 1.012571

sp75\_1403\_5\_pp\_1lag | .9994745 .000291 -1.81 0.071 .9989043 1.000045

sp75\_1403\_6\_pp\_1lag | .9998095 .0001725 -1.10 0.269 .9994715 1.000148

sp75\_1403\_7\_pp\_1lag | .9993907 .000978 -0.62 0.533 .9974757 1.001309

sp75\_1403\_8\_pp\_1lag | .9995243 .0002747 -1.73 0.083 .9989861 1.000063

sp75\_1403\_9\_pp\_1lag | .9992371 .0006904 -1.10 0.269 .9978848 1.000591

sp75\_1404\_1\_pp\_1lag | .9931269 .0098904 -0.69 0.489 .97393 1.012702

sp75\_1404\_pp\_1lag | .9959217 .0079648 -0.51 0.609 .9804326 1.011655

sp75\_1405\_1\_pp\_1lag | 1.001663 .0020291 0.82 0.412 .9976943 1.005648

sp75\_1405\_pp\_1lag | .9996517 .0002914 -1.19 0.232 .9990807 1.000223

sp75\_1431\_pp\_1lag | .6606081 .0155392 -17.63 0.000 .6308433 .6917773

sp75\_1432\_pp\_1lag | .9991234 .0019917 -0.44 0.660 .9952273 1.003035

sp75\_1433\_pp\_1lag | 1.000648 .0017918 0.36 0.717 .9971428 1.004166

sp75\_1434\_pp\_1lag | .996735 .0017456 -1.87 0.062 .9933195 1.000162

sp75\_1435\_pp\_1lag | 1.002717 .006682 0.41 0.684 .989706 1.0159

sp75\_1437\_pp\_1lag | 1.010268 .0041796 2.47 0.014 1.002109 1.018493

sp75\_150\_pp\_1lag | 1.006571 .0038227 1.72 0.085 .9991061 1.014091

sp75\_151\_pp\_1lag | .9982625 .0045192 -0.38 0.701 .9894442 1.007159

sp75\_153\_pp\_1lag | 1.004664 .0042469 1.10 0.271 .9963746 1.013022

sp75\_156\_pp\_1lag | 1.000563 .0040245 0.14 0.889 .992706 1.008482

sp75\_160\_pp\_1lag | 1.011794 .0030658 3.87 0.000 1.005803 1.017821

sp75\_1600\_2\_pp\_1lag | .9992491 .000462 -1.62 0.104 .998344 1.000155

sp75\_1712\_10\_pp\_1lag | .9987137 .0017818 -0.72 0.471 .9952275 1.002212

sp75\_1712\_6\_pp\_1lag | 1.000278 .0010175 0.27 0.785 .9982859 1.002274

sp75\_1720\_pp\_1lag | 1.000033 .0007695 0.04 0.965 .9985263 1.001543

sp75\_1721\_pp\_1lag | 1.021515 .0099484 2.19 0.029 1.002201 1.041201

sp75\_1725\_pp\_1lag | 1.000011 .0000873 0.12 0.904 .9998395 1.000182

sp75\_1726\_pp\_1lag | .9999446 .0018057 -0.03 0.976 .9964117 1.00349

sp75\_1727\_pp\_1lag | .5707975 .014034 -22.81 0.000 .5439437 .5989771

sp75\_1728\_pp\_1lag | 1.010884 .0034472 3.17 0.002 1.00415 1.017663

sp75\_1729\_pp\_1lag | 1.001093 .0022663 0.48 0.629 .9966609 1.005545

sp75\_1730\_pp\_1lag | 1.002739 .0023401 1.17 0.241 .9981631 1.007336

sp75\_1731\_pp\_1lag | 1.000081 .0000826 0.98 0.326 .9999192 1.000243

sp75\_1903\_pp\_1lag | 1.000382 .0007977 0.48 0.632 .99882 1.001947

sp75\_1909\_pp\_1lag | 1.000329 .0001893 1.74 0.082 .9999584 1.0007

sp75\_1910\_pp\_1lag | 1.000026 .0002515 0.10 0.917 .9995333 1.000519

sp75\_1911\_pp\_1lag | .9999832 .0003018 -0.06 0.956 .9993919 1.000575

sp75\_1912\_pp\_1lag | 1.000069 .001968 0.04 0.972 .9962195 1.003934

sp75\_1913\_pp\_1lag | .9988212 .0022217 -0.53 0.596 .9944764 1.003185

sp75\_1914\_pp\_1lag | 1.000144 .0001624 0.89 0.375 .9998259 1.000463

sp75\_1915\_pp\_1lag | 1.002344 .0023405 1.00 0.316 .9977676 1.006942

sp75\_202\_pp\_1lag | 1.000002 .0000803 0.03 0.979 .9998448 1.00016

sp75\_208\_pp\_1lag | .9999868 .0003176 -0.04 0.967 .9993645 1.00061

sp75\_211\_pp\_1lag | 1.000694 .0003799 1.83 0.068 .9999496 1.001439

sp75\_212\_pp\_1lag | .9995561 .001016 -0.44 0.662 .9975669 1.001549

sp75\_214\_pp\_1lag | .9999257 .0009552 -0.08 0.938 .9980553 1.0018

sp75\_312\_pp\_1lag | 1.000219 .0008745 0.25 0.802 .9985066 1.001934

sp75\_320\_pp\_1lag | .9996826 .0004541 -0.70 0.485 .9987929 1.000573

sp75\_324\_pp\_1lag | .9985675 .0015215 -0.94 0.347 .9955899 1.001554

sp75\_337\_pp\_1lag | .9989854 .0007835 -1.29 0.196 .997451 1.000522

sp75\_340\_pp\_1lag | 1.000076 .0002657 0.29 0.775 .9995553 1.000597

sp75\_341\_pp\_1lag | .987652 .0099103 -1.24 0.216 .9684179 1.007268

sp75\_342\_pp\_1lag | 1.000057 .0001737 0.33 0.742 .9997167 1.000398

sp75\_344\_pp\_1lag | .9990788 .0019349 -0.48 0.634 .9952937 1.002878

sp75\_352\_pp\_1lag | .9976646 .0016096 -1.45 0.147 .9945148 1.000824

sp75\_382\_pp\_1lag | .9995991 .0008517 -0.47 0.638 .9979313 1.00127

sp75\_503\_pp\_1lag | .9998883 .000083 -1.35 0.178 .9997257 1.000051

sp75\_504\_pp\_1lag | 1.001919 .0021649 0.89 0.375 .9976852 1.006171

sp75\_505\_pp\_1lag | .9980527 .00301 -0.65 0.518 .9921706 1.00397

sp75\_506\_1\_pp\_1lag | 1.002901 .001886 1.54 0.123 .9992117 1.006605

sp75\_506\_pp\_1lag | .9992104 .0014719 -0.54 0.592 .9963298 1.002099

sp75\_507\_pp\_1lag | 1.00192 .0009085 2.12 0.034 1.000141 1.003702

sp75\_511\_1\_pp\_1lag | .6017858 .014242 -21.46 0.000 .5745095 .6303571

sp75\_511\_pp\_1lag | 1.000873 .0009653 0.91 0.365 .9989834 1.002767

sp75\_512\_1\_pp\_1lag | 1.003271 .006705 0.49 0.625 .9902149 1.016499

sp75\_512\_2\_pp\_1lag | 1.00054 .0003245 1.66 0.096 .9999039 1.001176

sp75\_512\_pp\_1lag | 1.000074 .0000971 0.77 0.443 .9998841 1.000265

sp75\_513\_1\_pp\_1lag | 1.000064 .0040933 0.02 0.988 .9920729 1.008119

sp75\_513\_pp\_1lag | 1.000601 .0011845 0.51 0.612 .9982816 1.002925

sp75\_514\_pp\_1lag | .9999023 .0004822 -0.20 0.839 .9989577 1.000848

sp75\_515\_pp\_1lag | .9993785 .0002251 -2.76 0.006 .9989374 .9998197

sp75\_516\_1\_pp\_1lag | .9945911 .0035575 -1.52 0.129 .987643 1.001588

sp75\_516\_2\_pp\_1lag | .9993335 .0007245 -0.92 0.358 .9979145 1.000755

sp75\_516\_pp\_1lag | 1.000447 .0004171 1.07 0.284 .9996299 1.001265

sp75\_517\_1\_pp\_1lag | 1.002515 .0037748 0.67 0.505 .9951438 1.009941

sp75\_517\_pp\_1lag | .999905 .0000878 -1.08 0.279 .999733 1.000077

sp75\_518\_1\_pp\_1lag | .9996846 .0006874 -0.46 0.646 .9983383 1.001033

sp75\_518\_pp\_1lag | 1.000219 .0003861 0.57 0.570 .9994628 1.000976

sp75\_519\_pp\_1lag | .9878205 .0117496 -1.03 0.303 .9650581 1.01112

sp75\_520\_pp\_1lag | 1.000841 .0005237 1.61 0.108 .9998155 1.001868

sp75\_523\_1\_pp\_1lag | .9990335 .0009217 -1.05 0.295 .9972287 1.000842

sp75\_523\_2\_pp\_1lag | 1.000029 .0006866 0.04 0.967 .9986838 1.001375

sp75\_523\_pp\_1lag | .9985723 .0010415 -1.37 0.171 .9965331 1.000616

sp75\_600\_1\_pp\_1lag | .9951519 .0074207 -0.65 0.515 .9807134 1.009803

sp75\_600\_pp\_1lag | 1.004736 .0089418 0.53 0.595 .9873624 1.022415

sp75\_601\_1\_pp\_1lag | 1.00007 .0003087 0.23 0.821 .999465 1.000675

sp75\_601\_2\_pp\_1lag | .7143726 .009169 -26.21 0.000 .6966258 .7325716

sp75\_601\_3\_pp\_1lag | .9938485 .0023004 -2.67 0.008 .9893501 .9983675

sp75\_601\_pp\_1lag | 1.000154 .0004541 0.34 0.734 .9992644 1.001044

sp75\_602\_pp\_1lag | 1.001741 .0008364 2.08 0.037 1.000103 1.003381

sp75\_603\_pp\_1lag | .9999024 .0011028 -0.09 0.929 .9977434 1.002066

sp75\_604\_pp\_1lag | 1.000425 .0001256 3.39 0.001 1.000179 1.000672

sp75\_605\_pp\_1lag | .9998374 .0004654 -0.35 0.727 .9989258 1.00075

sp75\_606\_pp\_1lag | .999747 .0002008 -1.26 0.208 .9993535 1.000141

sp75\_607\_pp\_1lag | 1.000347 .0011007 0.31 0.753 .9981916 1.002506

sp75\_700\_1\_pp\_1lag | .9900166 .0051311 -1.94 0.053 .9800108 1.000125

sp75\_700\_pp\_1lag | .9989756 .0014142 -0.72 0.469 .9962076 1.001751

sp75\_701\_1\_pp\_1lag | .9975321 .0012873 -1.91 0.056 .9950123 1.000058

sp75\_701\_2\_pp\_1lag | .9972681 .0017728 -1.54 0.124 .9937996 1.000749

sp75\_701\_3\_pp\_1lag | 1.001261 .0013253 0.95 0.341 .9986671 1.003862

sp75\_701\_4\_pp\_1lag | 1.005877 .0047476 1.24 0.214 .9966143 1.015225

sp75\_701\_5\_pp\_1lag | .9994559 .0011646 -0.47 0.640 .997176 1.001741

sp75\_701\_pp\_1lag | 1.00016 .0003119 0.51 0.607 .9995493 1.000772

sp75\_702\_1\_pp\_1lag | .7674475 .0085387 -23.79 0.000 .750893 .7843669

sp75\_702\_pp\_1lag | .7681277 .0089552 -22.63 0.000 .7507747 .7858817

sp75\_703\_1\_pp\_1lag | .9994303 .0062815 -0.09 0.928 .9871944 1.011818

sp75\_703\_2\_pp\_1lag | .9922193 .0049378 -1.57 0.117 .9825884 1.001945

sp75\_703\_3\_pp\_1lag | 1.003044 .0017374 1.75 0.079 .9996441 1.006455

sp75\_703\_4\_pp\_1lag | .6950583 .010335 -24.46 0.000 .6750944 .7156126

sp75\_703\_pp\_1lag | 1.000844 .000821 1.03 0.304 .9992358 1.002454

sp75\_704\_pp\_1lag | 1.00125 .0027278 0.46 0.647 .9959179 1.006611

sp75\_705\_1\_pp\_1lag | .9982757 .0016745 -1.03 0.304 .9949992 1.001563

sp75\_705\_3\_pp\_1lag | 1.012909 .0051626 2.52 0.012 1.002841 1.023078

sp75\_705\_8\_pp\_1lag | .9961653 .0055211 -0.69 0.488 .9854026 1.007045

sp75\_705\_pp\_1lag | .999127 .0063792 -0.14 0.891 .986702 1.011708

sp75\_706\_pp\_1lag | .9985649 .0019593 -0.73 0.464 .9947322 1.002412

sp75\_800\_2\_pp\_1lag | .6083707 .01308 -23.11 0.000 .5832669 .6345549

sp75\_800\_3\_pp\_1lag | .9998151 .0025429 -0.07 0.942 .9948436 1.004811

sp75\_800\_4\_pp\_1lag | 1.000787 .0025298 0.31 0.756 .9958405 1.005757

sp75\_800\_pp\_1lag | .9993877 .00188 -0.33 0.745 .9957099 1.003079

sp75\_801\_pp\_1lag | 1.000194 .0050391 0.04 0.969 .9903663 1.01012

sp75\_802\_pp\_1lag | .9972425 .0028221 -0.98 0.329 .9917267 1.002789

sp75\_803\_2\_pp\_1lag | .787143 .0080252 -23.48 0.000 .77157 .8030302

sp75\_803\_pp\_1lag | 1.001418 .0016585 0.86 0.392 .9981732 1.004674

sp75\_804\_pp\_1lag | 1.002008 .0011516 1.75 0.081 .9997536 1.004268

sp75\_805\_pp\_1lag | 1.002166 .0032485 0.67 0.504 .9958192 1.008553

sp75\_806\_pp\_1lag | 1.019113 .0054319 3.55 0.000 1.008522 1.029815

sp75\_807\_pp\_1lag | 1.000098 .0002456 0.40 0.691 .9996165 1.000579

sp75\_808\_pp\_1lag | 1.001794 .0020527 0.87 0.382 .9977785 1.005825

sp75\_809\_pp\_1lag | .9998806 .0006701 -0.18 0.859 .998568 1.001195

sp75\_810\_pp\_1lag | 1.000173 .0012503 0.14 0.890 .9977257 1.002627

sp75\_811\_pp\_1lag | 1.001509 .0010395 1.45 0.146 .9994737 1.003548

sp75\_812\_pp\_1lag | 1.000698 .0025369 0.28 0.783 .9957377 1.005682

sp75\_814\_pp\_1lag | .998796 .001895 -0.64 0.525 .9950888 1.002517

sp75\_815\_pp\_1lag | 1.004789 .0010823 4.44 0.000 1.00267 1.006913

sp75\_816\_pp\_1lag | 1.000222 .0006899 0.32 0.748 .9988707 1.001575

sp75\_818\_pp\_1lag | 1.001551 .0017715 0.88 0.381 .9980845 1.005029

sp75\_820\_pp\_1lag | 1.001148 .0009438 1.22 0.224 .9992994 1.002999

sp75\_821\_pp\_1lag | 1.002748 .0018367 1.50 0.134 .9991546 1.006354

sp75\_825\_pp\_1lag | 1.003958 .001756 2.26 0.024 1.000522 1.007406

sp75\_827\_pp\_1lag | 1.003707 .0017921 2.07 0.038 1.000201 1.007226

sp75\_831\_pp\_1lag | .9931347 .0047985 -1.43 0.154 .9837742 1.002584

sp75\_832\_pp\_1lag | .7223383 .0100777 -23.31 0.000 .7028541 .7423627

sp75\_834\_pp\_1lag | 1.236745 .0783995 3.35 0.001 1.092248 1.400359

sp75\_900\_2\_pp\_1lag | 1.001992 .0046176 0.43 0.666 .9929828 1.011084

sp75\_900\_3\_pp\_1lag | 1.001384 .0014533 0.95 0.341 .9985392 1.004236

sp75\_900\_4\_pp\_1lag | .9994962 .0005847 -0.86 0.389 .9983509 1.000643

sp75\_900\_pp\_1lag | .9990947 .0005933 -1.53 0.127 .9979326 1.000258

sp75\_901\_pp\_1lag | 1.000701 .0019689 0.36 0.722 .9968495 1.004567

sp75\_902\_1\_pp\_1lag | 1.003104 .0063067 0.49 0.622 .9908193 1.015542

sp75\_902\_2\_pp\_1lag | 1.001356 .0010284 1.32 0.187 .9993421 1.003373

sp75\_902\_4\_pp\_1lag | 1.000615 .0011162 0.55 0.582 .9984292 1.002805

sp75\_902\_pp\_1lag | .9996044 .000636 -0.62 0.534 .9983586 1.000852

sp75\_903\_pp\_1lag | 1.000627 .0009534 0.66 0.511 .9987598 1.002497

sp75\_904\_pp\_1lag | .9997547 .0002396 -1.02 0.306 .9992852 1.000225

sp75\_905\_pp\_1lag | 1.000671 .0035543 0.19 0.850 .9937287 1.007662

sp75\_907\_pp\_1lag | 1.000758 .0021219 0.36 0.721 .996608 1.004926

sp77\_103\_pp\_1lag | .8941185 .0062283 -16.07 0.000 .8819941 .9064095

sp77\_104\_pp\_1lag | .7612567 .0092662 -22.41 0.000 .7433102 .7796364

sp77\_1103\_pp\_1lag | .9999597 .0006839 -0.06 0.953 .9986202 1.001301

sp77\_1104\_pp\_1lag | 1.000025 .0002728 0.09 0.926 .9994906 1.00056

sp77\_1106\_pp\_1lag | 1.007323 .0187422 0.39 0.695 .9712504 1.044735

sp77\_1111\_pp\_1lag | .9954774 .0051562 -0.88 0.382 .9854225 1.005635

sp77\_1112\_pp\_1lag | 1.001889 .0020137 0.94 0.348 .9979503 1.005844

sp77\_1403\_pp\_1lag | .9982428 .0033574 -0.52 0.601 .9916841 1.004845

sp77\_1432\_pp\_1lag | .9902722 .0032478 -2.98 0.003 .9839269 .9966583

sp77\_1433\_pp\_1lag | .9948094 .0036792 -1.41 0.159 .9876245 1.002047

sp77\_1434\_pp\_1lag | 1.001456 .0030212 0.48 0.630 .9955519 1.007395

sp77\_1437\_pp\_1lag | .9902838 .0041387 -2.34 0.019 .9822053 .9984288

sp77\_1438\_pp\_1lag | .9471738 .0303534 -1.69 0.090 .889512 1.008573

sp77\_1605\_pp\_1lag | .999874 .0002446 -0.51 0.607 .9993948 1.000354

sp77\_1606\_pp\_1lag | 1.000407 .0004241 0.96 0.337 .9995765 1.001239

sp77\_1710\_pp\_1lag | .9992428 .000707 -1.07 0.284 .9978581 1.000629

sp77\_1802\_pp\_1lag | .9978832 .0025975 -0.81 0.416 .9928052 1.002987

sp77\_1906\_pp\_1lag | 1.004752 .0052708 0.90 0.366 .9944742 1.015136

sp77\_1915\_pp\_1lag | 1.004901 .0025402 1.93 0.053 .9999351 1.009893

sp77\_1916\_pp\_1lag | 1.001437 .0019662 0.73 0.464 .9975912 1.005299

sp77\_200\_pp\_1lag | 1.000555 .000384 1.44 0.149 .9998022 1.001307

sp77\_202\_pp\_1lag | .9991575 .0004473 -1.88 0.060 .9982811 1.000035

sp77\_203\_pp\_1lag | 1.000067 .0023336 0.03 0.977 .9955035 1.004651

sp77\_204\_pp\_1lag | .9995346 .0007439 -0.63 0.532 .9980777 1.000994

sp77\_205\_pp\_1lag | 1.000118 .0002126 0.56 0.579 .9997015 1.000535

sp77\_206\_pp\_1lag | .9992634 .0009952 -0.74 0.459 .9973147 1.001216

sp77\_207\_pp\_1lag | 1.000252 .0010008 0.25 0.801 .9982924 1.002216

sp77\_208\_pp\_1lag | 1.000492 .0004837 1.02 0.309 .9995447 1.001441

sp77\_210\_pp\_1lag | .9995815 .0015795 -0.26 0.791 .9964907 1.002682

sp77\_216\_pp\_1lag | .9995359 .000658 -0.71 0.481 .9982471 1.000826

sp77\_305\_pp\_1lag | 1.001632 .0067501 0.24 0.809 .9884886 1.014949

sp77\_309\_pp\_1lag | 1.000263 .0040713 0.06 0.948 .9923154 1.008275

sp77\_314\_pp\_1lag | .9912976 .0054732 -1.58 0.113 .9806283 1.002083

sp77\_315\_pp\_1lag | .9858898 .0077502 -1.81 0.071 .9708161 1.001197

sp77\_400\_pp\_1lag | 1.000422 .0002105 2.01 0.045 1.00001 1.000835

sp77\_401\_pp\_1lag | .9997656 .0014248 -0.16 0.869 .9969771 1.002562

sp77\_402\_pp\_1lag | .9985666 .0010596 -1.35 0.176 .9964918 1.000646

sp77\_403\_1\_pp\_1lag | 1.000798 .0020566 0.39 0.698 .9967754 1.004837

sp77\_403\_2\_pp\_1lag | 1.022085 .0058396 3.82 0.000 1.010703 1.033595

sp77\_403\_pp\_1lag | 1.005133 .0048977 1.05 0.293 .9955798 1.014779

sp77\_404\_pp\_1lag | .9997595 .0002352 -1.02 0.307 .9992985 1.000221

sp77\_405\_pp\_1lag | .9953895 .0023334 -1.97 0.049 .9908266 .9999734

sp77\_408\_pp\_1lag | .9969453 .0022308 -1.37 0.172 .9925826 1.001327

sp77\_409\_pp\_1lag | 1.006183 .004244 1.46 0.144 .9978994 1.014536

sp77\_410\_pp\_1lag | 1.000653 .000466 1.40 0.161 .9997404 1.001567

sp77\_411\_pp\_1lag | .9991573 .0108191 -0.08 0.938 .9781757 1.020589

sp77\_412\_pp\_1lag | .9985103 .0015723 -0.95 0.344 .9954333 1.001597

sp77\_413\_pp\_1lag | .9990841 .0027583 -0.33 0.740 .9936926 1.004505

sp77\_500\_pp\_1lag | .9949818 .003606 -1.39 0.165 .9879392 1.002075

sp77\_501\_pp\_1lag | 1.001709 .0015889 1.08 0.282 .9986 1.004828

sp77\_502\_1\_pp\_1lag | 1.006177 .0073776 0.84 0.401 .9918209 1.020741

sp77\_502\_2\_pp\_1lag | 1.001159 .0011245 1.03 0.302 .9989579 1.003366

sp77\_502\_pp\_1lag | 1.000078 .0002052 0.38 0.702 .9996764 1.000481

sp77\_503\_1\_pp\_1lag | 1.001329 .007666 0.17 0.862 .9864158 1.016467

sp77\_503\_pp\_1lag | 1.005445 .0026358 2.07 0.038 1.000292 1.010624

sp77\_504\_pp\_1lag | .9984992 .0009174 -1.63 0.102 .9967028 1.000299

sp77\_505\_pp\_1lag | 1.000048 .0005518 0.09 0.930 .9989672 1.00113

sp77\_506\_1\_pp\_1lag | .9994718 .001158 -0.46 0.648 .9972047 1.001744

sp77\_506\_pp\_1lag | 1.001209 .0005798 2.09 0.037 1.000073 1.002346

sp77\_507\_pp\_1lag | .9996577 .0027818 -0.12 0.902 .9942202 1.005125

sp77\_508\_1\_pp\_1lag | .9908178 .0045429 -2.01 0.044 .9819538 .9997618

sp77\_508\_pp\_1lag | 1.00263 .0025904 1.02 0.309 .9975656 1.00772

sp77\_509\_pp\_1lag | .9990387 .0009979 -0.96 0.336 .9970848 1.000996

sp77\_510\_pp\_1lag | .991007 .0038394 -2.33 0.020 .9835104 .9985608

sp77\_511\_pp\_1lag | .9954043 .005315 -0.86 0.388 .9850415 1.005876

sp77\_512\_pp\_1lag | .9997572 .0003983 -0.61 0.542 .9989768 1.000538

sp77\_513\_pp\_1lag | .9988616 .0009352 -1.22 0.224 .9970303 1.000696

sp77\_514\_pp\_1lag | .9961173 .0092446 -0.42 0.675 .978162 1.014402

sp77\_515\_pp\_1lag | 1.01437 .0063281 2.29 0.022 1.002043 1.026849

sp77\_516\_pp\_1lag | .9991872 .0003867 -2.10 0.036 .9984295 .9999454

sp77\_600\_pp\_1lag | 1.002585 .0029565 0.88 0.381 .9968072 1.008396

sp77\_601\_pp\_1lag | 1.002595 .0048294 0.54 0.590 .9931745 1.012106

sp77\_602\_pp\_1lag | .9927225 .0063031 -1.15 0.250 .9804453 1.005154

sp77\_603\_pp\_1lag | 1.020903 .0044006 4.80 0.000 1.012315 1.029565

sp77\_604\_pp\_1lag | 1.004549 .0017456 2.61 0.009 1.001133 1.007976

sp77\_605\_pp\_1lag | .6719031 .0134042 -19.93 0.000 .6461383 .6986953

sp77\_606\_1\_pp\_1lag | .9981345 .0047812 -0.39 0.697 .9888075 1.00755

sp77\_606\_pp\_1lag | .5862557 .0195988 -15.97 0.000 .5490742 .625955

sp77\_700\_1\_pp\_1lag | 1.001998 .0035934 0.56 0.578 .9949801 1.009066

sp77\_700\_pp\_1lag | .9981113 .0029973 -0.63 0.529 .992254 1.004003

sp77\_701\_1\_pp\_1lag | .999542 .0042299 -0.11 0.914 .9912859 1.007867

sp77\_701\_2\_pp\_1lag | 1.002389 .0043175 0.55 0.580 .9939621 1.010887

sp77\_701\_3\_pp\_1lag | .9894882 .0116715 -0.90 0.370 .9668749 1.01263

sp77\_701\_4\_pp\_1lag | 1.006428 .0039884 1.62 0.106 .9986408 1.014275

sp77\_701\_pp\_1lag | .9995012 .0007499 -0.66 0.506 .9980326 1.000972

sp77\_703\_pp\_1lag | 1.000172 .0037239 0.05 0.963 .9928997 1.007497

sp77\_704\_1\_pp\_1lag | 1.001003 .0051935 0.19 0.847 .9908754 1.011234

sp77\_704\_8\_pp\_1lag | 1.000198 .0029822 0.07 0.947 .9943698 1.00606

sp77\_704\_9\_pp\_1lag | .9836234 .0102077 -1.59 0.112 .9638187 1.003835

sp77\_704\_pp\_1lag | 1.001205 .0042368 0.28 0.776 .9929354 1.009544

sp77\_705\_pp\_1lag | .9999419 .0011953 -0.05 0.961 .9976019 1.002287

sp77\_800\_1\_pp\_1lag | .9960175 .004848 -0.82 0.412 .9865607 1.005565

sp77\_800\_2\_pp\_1lag | .9983838 .0031041 -0.52 0.603 .9923183 1.004486

sp77\_800\_pp\_1lag | 1.009603 .0073037 1.32 0.186 .9953895 1.02402

sp77\_801\_pp\_1lag | .7392211 .0122701 -18.20 0.000 .7155591 .7636656

sp77\_802\_pp\_1lag | .9934263 .0034647 -1.89 0.059 .9866589 1.00024

sp77\_803\_pp\_1lag | .9972989 .0042531 -0.63 0.526 .9889978 1.00567

sp77\_804\_pp\_1lag | .5802578 .0122664 -25.75 0.000 .5567073 .6048046

sp77\_805\_pp\_1lag | .9964012 .0046465 -0.77 0.439 .9873357 1.00555

sp77\_807\_1\_pp\_1lag | 1.004073 .0051391 0.79 0.427 .9940508 1.014196

sp77\_807\_2\_pp\_1lag | .9969875 .0054429 -0.55 0.581 .9863765 1.007713

sp77\_807\_3\_pp\_1lag | 1.004147 .0008364 4.97 0.000 1.002509 1.005787

sp77\_807\_pp\_1lag | .99592 .0040556 -1.00 0.315 .9880028 1.003901

sp77\_808\_pp\_1lag | 1.019834 .0027606 7.26 0.000 1.014438 1.025259

sp77\_809\_pp\_1lag | .9993717 .0013275 -0.47 0.636 .9967733 1.001977

sp77\_810\_pp\_1lag | 1.001752 .004581 0.38 0.702 .9928135 1.010771

sp77\_900\_1\_pp\_1lag | 1.013009 .0037521 3.49 0.000 1.005682 1.02039

sp77\_900\_2\_pp\_1lag | 1.004867 .0023213 2.10 0.036 1.000327 1.009427

sp77\_900\_pp\_1lag | 1.001336 .0040006 0.33 0.738 .9935258 1.009208

sp77\_901\_1\_pp\_1lag | 1.001555 .0045766 0.34 0.734 .9926251 1.010565

sp77\_901\_pp\_1lag | .9938809 .0036538 -1.67 0.095 .9867453 1.001068

sp77\_902\_2\_pp\_1lag | 1.050651 .0014132 36.73 0.000 1.047885 1.053425

sp77\_902\_3\_pp\_1lag | .9996541 .0052624 -0.07 0.948 .9893931 1.010021

sp77\_902\_pp\_1lag | 1.006073 .0023295 2.62 0.009 1.001518 1.010649

sp77\_903\_pp\_1lag | .9994094 .0066383 -0.09 0.929 .9864829 1.012505

sp77\_904\_pp\_1lag | 1.000164 .0006648 0.25 0.805 .9988617 1.001468

mine\_time | .9985029 .0017652 -0.85 0.397 .9950492 1.001969

onsite\_insp\_hours | .9997938 .0001227 -1.68 0.093 .9995533 1.000034

|

state |

AL | 1.087499 .0749871 1.22 0.224 .9500258 1.244866

AR | 2.11073 .1315076 11.99 0.000 1.868096 2.384879

CO | .7106776 .119041 -2.04 0.041 .5117919 .9868516

IL | 1.137817 .0947973 1.55 0.121 .9663948 1.339647

IN | .9000757 .1438737 -0.66 0.510 .6579876 1.231233

MD | 1.044147 .1885738 0.24 0.811 .7328819 1.487611

MT | .8780102 .0616445 -1.85 0.064 .7651336 1.007539

NM | .807381 .0434316 -3.98 0.000 .7265905 .8971547

OH | 1.202826 .1529553 1.45 0.146 .9374781 1.543279

OK | .8910058 .240019 -0.43 0.668 .5255136 1.510696

PA | .9537571 .093493 -0.48 0.629 .787042 1.155787

TN | 1.234409 .1640992 1.58 0.113 .9512669 1.601827

UT | .6147684 .0748594 -4.00 0.000 .4842416 .7804786

VA | .6886005 .0578472 -4.44 0.000 .5840641 .8118469

WV | 1.016401 .056884 0.29 0.771 .9108079 1.134237

WY | 1.151455 .071958 2.26 0.024 1.018716 1.301491

|

time |

2000.25 | .9791276 .1129535 -0.18 0.855 .7809864 1.227538

2000.5 | 1.140381 .1167313 1.28 0.199 .9330811 1.393735

2000.75 | .8773242 .0907544 -1.27 0.206 .7163215 1.074514

2001 | .8657735 .086833 -1.44 0.151 .7112672 1.053843

2001.25 | .7906476 .0829092 -2.24 0.025 .64376 .9710507

2001.75 | .8274562 .0769141 -2.04 0.042 .6896421 .9928103

2002 | .8789102 .0826392 -1.37 0.170 .7309886 1.056765

2002.25 | .7958567 .0848784 -2.14 0.032 .6457343 .9808799

2002.5 | .9778047 .1009409 -0.22 0.828 .7986946 1.197081

2002.75 | .8951906 .097436 -1.02 0.309 .723215 1.108061

2003 | .7200402 .0825435 -2.87 0.004 .5751449 .9014388

2003.25 | .8550344 .0926682 -1.45 0.148 .6914023 1.057393

2003.5 | .8840963 .0986848 -1.10 0.270 .7103733 1.100304

2003.75 | .6762587 .0707645 -3.74 0.000 .5508612 .8302015

2004 | .8508966 .1031546 -1.33 0.183 .6709424 1.079116

2004.25 | .8137794 .0880263 -1.91 0.057 .6583131 1.00596

2004.5 | .8058279 .0883692 -1.97 0.049 .6499759 .9990502

2004.75 | .732807 .0869363 -2.62 0.009 .5807745 .9246378

2005 | .6296865 .0645768 -4.51 0.000 .5150274 .7698718

2005.25 | .7995626 .0853228 -2.10 0.036 .648663 .9855662

2005.5 | .7174622 .0789882 -3.02 0.003 .5782118 .8902482

2005.75 | .6445028 .0721462 -3.92 0.000 .517536 .8026184

2006 | .6700463 .0768663 -3.49 0.000 .5351269 .8389824

2006.25 | .676372 .0804505 -3.29 0.001 .5357228 .8539474

2006.5 | .7360535 .0896887 -2.51 0.012 .5796819 .9346069

2006.75 | .6230554 .0766763 -3.84 0.000 .4895235 .793012

2007 | .6329445 .0718355 -4.03 0.000 .5067097 .7906277

2007.25 | .6073753 .078767 -3.84 0.000 .471053 .7831492

2007.5 | .6372558 .073344 -3.91 0.000 .5085644 .7985122

2007.75 | .6204945 .076543 -3.87 0.000 .4872315 .7902064

2008 | .5496838 .0652197 -5.04 0.000 .4356305 .6935975

2008.25 | .5367561 .0623922 -5.35 0.000 .4273993 .6740935

2008.5 | .6278426 .0750115 -3.90 0.000 .4967678 .7935022

2008.75 | .5198319 .064197 -5.30 0.000 .408078 .6621899

2009 | .4958085 .0672681 -5.17 0.000 .3800392 .646844

2009.25 | .4856729 .0639761 -5.48 0.000 .3751612 .6287382

2009.5 | .5779086 .0700374 -4.52 0.000 .4557231 .7328537

2009.75 | .4243147 .0516972 -7.04 0.000 .3341799 .5387606

2010 | .4535686 .0644718 -5.56 0.000 .3432814 .5992883

2010.25 | .4661115 .0592182 -6.01 0.000 .3633683 .5979056

2010.5 | .5441968 .0675647 -4.90 0.000 .4266533 .6941237

2010.75 | .4344444 .0577995 -6.27 0.000 .3347253 .5638713

2011 | .4968522 .0611818 -5.68 0.000 .3903114 .6324747

2011.25 | .4914702 .0604299 -5.78 0.000 .3862208 .6254012

2011.5 | .5319043 .0634352 -5.29 0.000 .4210355 .6719674

2011.75 | .4517816 .0586585 -6.12 0.000 .3502758 .5827027

2012 | .5421068 .0634979 -5.23 0.000 .4309056 .6820051

2012.25 | .4885408 .0553351 -6.32 0.000 .3912809 .6099764

2012.5 | .5249227 .0633245 -5.34 0.000 .4143906 .6649376

2012.75 | .4475796 .0539851 -6.66 0.000 .3533475 .5669419

2013 | .4869571 .0635764 -5.51 0.000 .3770154 .6289589

2013.25 | .4117642 .0594971 -6.14 0.000 .3102101 .5465644

2013.5 | .5465525 .0709842 -4.65 0.000 .4237219 .7049897

2013.75 | .430602 .0587987 -6.17 0.000 .3294916 .5627399

2014 | .40918 .0597512 -6.12 0.000 .307338 .5447691

2014.25 | .4421418 .0624619 -5.78 0.000 .3352057 .5831923

2014.5 | .4453536 .0575276 -6.26 0.000 .3457425 .5736633

2014.75 | .4509984 .0598862 -6.00 0.000 .3476542 .5850629

2015 | .421434 .0588558 -6.19 0.000 .3205192 .5541216

2015.25 | .4632175 .0722281 -4.94 0.000 .3412399 .6287965

2015.5 | .5817495 .0816098 -3.86 0.000 .4419025 .7658531

2015.75 | .3363155 .0570562 -6.42 0.000 .2411792 .4689795

2016 | .4801624 .0673917 -5.23 0.000 .3646872 .632202

|

\_cons | .0000185 1.57e-06 -128.37 0.000 .0000156 .0000218

ln(hours) | 1 (exposure)

**. estat gof**

Deviance goodness-of-fit = 20665.62

Prob > chi2(25725) = 1.0000

Pearson goodness-of-fit = 328647.5

Prob > chi2(25725) = 0.0000

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

Iteration 0: log pseudolikelihood = -19092.19

Iteration 1: log pseudolikelihood = -18867.952

Iteration 2: log pseudolikelihood = -18866.537

Iteration 3: log pseudolikelihood = -18866.188

Iteration 4: log pseudolikelihood = -18866.1

Iteration 5: log pseudolikelihood = -18866.08

Iteration 6: log pseudolikelihood = -18866.075

Iteration 7: log pseudolikelihood = -18866.074

Iteration 8: log pseudolikelihood = -18866.074

Iteration 9: log pseudolikelihood = -18866.074

Generalized linear models No. of obs = 26,110

Optimization : ML Residual df = 25,720

Scale parameter = 1

Deviance = 14244.49718 (1/df) Deviance = .5538296

Pearson = 295022.516 (1/df) Pearson = 11.47055

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

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

AIC = 1.474996

Log pseudolikelihood = -18866.07367 BIC = -247329.8

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

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| Robust

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

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

sp47\_41\_pp\_1lag | .9975933 .001333 -1.80 0.071 .9949841 1.000209

sp47\_42\_pp\_1lag | .9891294 .0042895 -2.52 0.012 .9807577 .9975725

sp47\_44\_pp\_1lag | 1.000195 .0019198 0.10 0.919 .9964396 1.003965

sp48\_11\_pp\_1lag | 1.001792 .0011328 1.58 0.113 .9995739 1.004014

sp48\_24\_pp\_1lag | .9591155 .0027524 -14.55 0.000 .9537361 .9645253

sp48\_25\_pp\_1lag | 1.002633 .0014604 1.80 0.071 .9997743 1.005499

sp48\_26\_pp\_1lag | 1.001983 .0019829 1.00 0.317 .9981043 1.005877

sp48\_27\_pp\_1lag | 1.00198 .0016723 1.19 0.236 .9987082 1.005263

sp48\_28\_pp\_1lag | .9985912 .0019164 -0.73 0.463 .9948422 1.002354

sp48\_4\_pp\_1lag | .8297371 .010187 -15.20 0.000 .8100094 .8499453

sp48\_5\_pp\_1lag | .997277 .002985 -0.91 0.362 .9914437 1.003145

sp48\_6\_pp\_1lag | .9994307 .0011886 -0.48 0.632 .9971037 1.001763

sp48\_7\_pp\_1lag | 1.001583 .0009413 1.68 0.092 .9997397 1.003429

sp48\_8\_pp\_1lag | 1.000511 .0016964 0.30 0.763 .9971914 1.003841

sp71\_701\_pp\_1lag | 1.011446 .006629 1.74 0.082 .9985364 1.024522

sp72\_503\_pp\_1lag | .9963373 .0014933 -2.45 0.014 .9934147 .9992685

sp72\_610\_pp\_1lag | 1.005246 .0081814 0.64 0.520 .9893379 1.02141

sp72\_620\_pp\_1lag | .9980556 .0094471 -0.21 0.837 .9797103 1.016745

sp72\_630\_pp\_1lag | 1.000443 .0001836 2.41 0.016 1.000083 1.000803

sp75\_100\_pp\_1lag | .9999103 .0035175 -0.03 0.980 .9930398 1.006828

sp75\_1001\_1\_pp\_1lag | .9981736 .0056905 -0.32 0.748 .9870825 1.009389

sp75\_1001\_pp\_1lag | .9953488 .008366 -0.55 0.579 .9790862 1.011882

sp75\_1003\_1\_pp\_1lag | .992806 .0032041 -2.24 0.025 .9865459 .9991058

sp75\_1100\_2\_pp\_1lag | 1.000341 .0002154 1.58 0.113 .9999189 1.000763

sp75\_1101\_20\_pp\_1lag | 1.001426 .0053411 0.27 0.789 .9910126 1.01195

sp75\_1102\_pp\_1lag | .9993678 .0014511 -0.44 0.663 .9965278 1.002216

sp75\_1103\_4\_pp\_1lag | 1.000341 .0003282 1.04 0.299 .9996975 1.000984

sp75\_1104\_pp\_1lag | 1.00034 .000958 0.35 0.723 .9984641 1.002219

sp75\_1106\_2\_pp\_1lag | .9997697 .0008406 -0.27 0.784 .9981236 1.001419

sp75\_1106\_3\_pp\_1lag | 1.000462 .0003109 1.49 0.137 .9998526 1.001071

sp75\_1106\_4\_pp\_1lag | 1.001587 .0023816 0.67 0.505 .99693 1.006266

sp75\_1106\_5\_pp\_1lag | .9999606 .0010061 -0.04 0.969 .9979906 1.001935

sp75\_1106\_6\_pp\_1lag | 1.076548 .1689715 0.47 0.638 .7914652 1.464318

sp75\_1106\_pp\_1lag | 1.002398 .0022575 1.06 0.288 .9979826 1.006832

sp75\_1107\_14\_pp\_1lag | 1.001325 .0048314 0.27 0.784 .9919006 1.01084

sp75\_1400\_1\_pp\_1lag | 1.004177 .0041538 1.01 0.314 .9960688 1.012352

sp75\_1400\_2\_pp\_1lag | 1.003329 .0076356 0.44 0.662 .988475 1.018407

sp75\_1400\_3\_pp\_1lag | 1.001054 .0014483 0.73 0.467 .9982193 1.003897

sp75\_1400\_4\_pp\_1lag | .9984744 .0029172 -0.52 0.601 .9927732 1.004208

sp75\_1400\_pp\_1lag | .99911 .0013521 -0.66 0.511 .9964635 1.001764

sp75\_1401\_1\_pp\_1lag | .9935967 .0098384 -0.65 0.516 .9744997 1.013068

sp75\_1401\_pp\_1lag | 1.005807 .0073452 0.79 0.428 .9915136 1.020307

sp75\_1403\_10\_pp\_1lag | 1.00067 .000469 1.43 0.153 .999751 1.00159

sp75\_1403\_11\_pp\_1lag | 1.001135 .0040715 0.28 0.780 .9931863 1.009146

sp75\_1403\_3\_pp\_1lag | .9992235 .0041935 -0.19 0.853 .991038 1.007477

sp75\_1403\_4\_pp\_1lag | 1.002952 .004063 0.73 0.467 .9950205 1.010947

sp75\_1403\_5\_pp\_1lag | .999466 .0003558 -1.50 0.133 .9987689 1.000164

sp75\_1403\_6\_pp\_1lag | .999899 .0001982 -0.51 0.610 .9995106 1.000287

sp75\_1403\_7\_pp\_1lag | .9994844 .0010648 -0.48 0.628 .9973996 1.001574

sp75\_1403\_8\_pp\_1lag | .9994623 .0003157 -1.70 0.089 .9988438 1.000081

sp75\_1403\_9\_pp\_1lag | .9993774 .0007748 -0.80 0.422 .9978599 1.000897

sp75\_1404\_1\_pp\_1lag | .9874867 .0106441 -1.17 0.243 .9668436 1.008571

sp75\_1404\_pp\_1lag | .9993035 .0080161 -0.09 0.931 .9837152 1.015139

sp75\_1405\_1\_pp\_1lag | 1.001682 .0026035 0.65 0.518 .9965922 1.006798

sp75\_1405\_pp\_1lag | .9994093 .0003279 -1.80 0.072 .9987669 1.000052

sp75\_1431\_pp\_1lag | .6855807 .0161493 -16.03 0.000 .6546482 .7179748

sp75\_1432\_pp\_1lag | .9994095 .0023904 -0.25 0.805 .9947353 1.004106

sp75\_1433\_pp\_1lag | 1.000879 .0020022 0.44 0.661 .9969623 1.004811

sp75\_1434\_pp\_1lag | .9978162 .0019757 -1.10 0.270 .9939514 1.001696

sp75\_1435\_pp\_1lag | 1.004807 .008379 0.58 0.565 .9885174 1.021364

sp75\_1437\_pp\_1lag | 1.009777 .0055348 1.77 0.076 .9989867 1.020683

sp75\_150\_pp\_1lag | 1.00665 .0036201 1.84 0.065 .9995796 1.01377

sp75\_151\_pp\_1lag | .9980419 .0063243 -0.31 0.757 .9857232 1.010515

sp75\_153\_pp\_1lag | 1.002984 .0046941 0.64 0.524 .9938255 1.012226

sp75\_156\_pp\_1lag | .9974933 .0045839 -0.55 0.585 .9885495 1.006518

sp75\_160\_pp\_1lag | 1.008061 .0041495 1.95 0.051 .999961 1.016227

sp75\_1600\_2\_pp\_1lag | .9990556 .0005409 -1.75 0.081 .9979961 1.000116

sp75\_1712\_10\_pp\_1lag | .9985472 .0018134 -0.80 0.423 .9949993 1.002108

sp75\_1712\_6\_pp\_1lag | 1.000103 .0011411 0.09 0.928 .9978689 1.002342

sp75\_1720\_pp\_1lag | .99979 .0008819 -0.24 0.812 .9980631 1.00152

sp75\_1721\_pp\_1lag | 1.021537 .0102589 2.12 0.034 1.001627 1.041844

sp75\_1725\_pp\_1lag | 1.000038 .0000944 0.40 0.689 .9998527 1.000223

sp75\_1726\_pp\_1lag | 1.001564 .0020684 0.76 0.449 .9975182 1.005626

sp75\_1727\_pp\_1lag | .602545 .0196735 -15.52 0.000 .5651935 .642365

sp75\_1728\_pp\_1lag | 1.00877 .0043812 2.01 0.044 1.000219 1.017393

sp75\_1729\_pp\_1lag | 1.000714 .0025143 0.28 0.776 .9957977 1.005654

sp75\_1730\_pp\_1lag | 1.002331 .0024125 0.97 0.333 .9976139 1.007071

sp75\_1731\_pp\_1lag | 1.000027 .0000887 0.30 0.764 .9998528 1.0002

sp75\_1903\_pp\_1lag | .9996675 .0008647 -0.38 0.701 .9979741 1.001364

sp75\_1909\_pp\_1lag | 1.00029 .000184 1.57 0.115 .9999292 1.00065

sp75\_1910\_pp\_1lag | .9999356 .0002654 -0.24 0.808 .9994156 1.000456

sp75\_1911\_pp\_1lag | .9999869 .000336 -0.04 0.969 .9993287 1.000646

sp75\_1912\_pp\_1lag | 1.000604 .0025249 0.24 0.811 .9956678 1.005565

sp75\_1913\_pp\_1lag | .9992954 .0028301 -0.25 0.803 .993764 1.004858

sp75\_1914\_pp\_1lag | 1.000191 .0001997 0.96 0.339 .9997994 1.000582

sp75\_1915\_pp\_1lag | 1.003462 .002667 1.30 0.194 .9982481 1.008703

sp75\_202\_pp\_1lag | 1.000011 .0000793 0.14 0.886 .999856 1.000167

sp75\_208\_pp\_1lag | 1.000036 .0003652 0.10 0.922 .9993204 1.000752

sp75\_211\_pp\_1lag | 1.000654 .0003827 1.71 0.087 .9999045 1.001405

sp75\_212\_pp\_1lag | .9988042 .0009753 -1.23 0.220 .9968945 1.000718

sp75\_214\_pp\_1lag | 1.000006 .000944 0.01 0.995 .998158 1.001858

sp75\_312\_pp\_1lag | 1.000572 .0007931 0.72 0.471 .9990183 1.002127

sp75\_320\_pp\_1lag | .9995946 .0004934 -0.82 0.411 .998628 1.000562

sp75\_324\_pp\_1lag | .9979282 .0016819 -1.23 0.218 .9946372 1.00123

sp75\_337\_pp\_1lag | .9982424 .0008582 -2.05 0.041 .9965617 .9999259

sp75\_340\_pp\_1lag | .9999348 .000286 -0.23 0.820 .9993745 1.000496

sp75\_341\_pp\_1lag | .9866874 .0100773 -1.31 0.189 .9671326 1.006638

sp75\_342\_pp\_1lag | .9999754 .0001776 -0.14 0.890 .9996275 1.000324

sp75\_344\_pp\_1lag | .9992631 .0024275 -0.30 0.762 .9945165 1.004032

sp75\_352\_pp\_1lag | .996968 .001666 -1.82 0.069 .9937081 1.000239

sp75\_382\_pp\_1lag | .9996321 .0009885 -0.37 0.710 .9976966 1.001571

sp75\_503\_pp\_1lag | .9999466 .0000849 -0.63 0.529 .9997802 1.000113

sp75\_504\_pp\_1lag | 1.001607 .0019878 0.81 0.418 .9977185 1.005511

sp75\_505\_pp\_1lag | .9981836 .0042518 -0.43 0.670 .989885 1.006552

sp75\_506\_1\_pp\_1lag | 1.003291 .0021461 1.54 0.125 .9990934 1.007506

sp75\_506\_pp\_1lag | .9989115 .0017242 -0.63 0.528 .9955379 1.002297

sp75\_507\_pp\_1lag | 1.001884 .0010445 1.81 0.071 .9998389 1.003933

sp75\_511\_1\_pp\_1lag | .6317349 .0195749 -14.82 0.000 .5945106 .6712899

sp75\_511\_pp\_1lag | 1.000071 .001101 0.06 0.949 .9979153 1.002231

sp75\_512\_1\_pp\_1lag | 1.002844 .00739 0.39 0.700 .9884634 1.017433

sp75\_512\_2\_pp\_1lag | 1.000481 .0003526 1.36 0.173 .9997899 1.001172

sp75\_512\_pp\_1lag | 1.000118 .0001035 1.14 0.255 .9999149 1.000321

sp75\_513\_1\_pp\_1lag | .9988227 .004358 -0.27 0.787 .9903176 1.007401

sp75\_513\_pp\_1lag | .9994358 .0013951 -0.40 0.686 .9967052 1.002174

sp75\_514\_pp\_1lag | 1.000017 .0005043 0.03 0.973 .999029 1.001006

sp75\_515\_pp\_1lag | .9992603 .0002474 -2.99 0.003 .9987756 .9997453

sp75\_516\_1\_pp\_1lag | .99507 .0032095 -1.53 0.125 .9887993 1.001381

sp75\_516\_2\_pp\_1lag | .9992187 .0007757 -1.01 0.314 .9976996 1.00074

sp75\_516\_pp\_1lag | 1.000087 .0004276 0.20 0.838 .9992495 1.000926

sp75\_517\_1\_pp\_1lag | 1.004572 .0042897 1.07 0.285 .9961999 1.013015

sp75\_517\_pp\_1lag | .9999727 .0000992 -0.28 0.783 .9997783 1.000167

sp75\_518\_1\_pp\_1lag | .9998694 .0006896 -0.19 0.850 .9985188 1.001222

sp75\_518\_pp\_1lag | 1.000427 .0003323 1.28 0.199 .9997755 1.001078

sp75\_519\_pp\_1lag | .9864649 .0132781 -1.01 0.311 .9607806 1.012836

sp75\_520\_pp\_1lag | 1.000584 .0006105 0.96 0.339 .9993883 1.001782

sp75\_523\_1\_pp\_1lag | .9984534 .0009528 -1.62 0.105 .9965876 1.000323

sp75\_523\_2\_pp\_1lag | 1.000739 .0007456 0.99 0.321 .9992791 1.002202

sp75\_523\_pp\_1lag | .9984796 .0010669 -1.42 0.154 .9963907 1.000573

sp75\_600\_1\_pp\_1lag | .99409 .0064386 -0.92 0.360 .9815504 1.00679

sp75\_600\_pp\_1lag | 1.005993 .0077476 0.78 0.438 .9909217 1.021293

sp75\_601\_1\_pp\_1lag | .9998483 .0003159 -0.48 0.631 .9992293 1.000468

sp75\_601\_2\_pp\_1lag | .7365662 .0131404 -17.14 0.000 .7112566 .7627764

sp75\_601\_3\_pp\_1lag | .9940558 .0030676 -1.93 0.053 .9880616 1.000086

sp75\_601\_pp\_1lag | 1.000024 .0005044 0.05 0.963 .9990355 1.001013

sp75\_602\_pp\_1lag | 1.001387 .00101 1.37 0.169 .9994097 1.003369

sp75\_603\_pp\_1lag | .999674 .0011843 -0.28 0.783 .9973556 1.001998

sp75\_604\_pp\_1lag | 1.000388 .000133 2.91 0.004 1.000127 1.000648

sp75\_605\_pp\_1lag | .9998668 .0004963 -0.27 0.788 .9988945 1.00084

sp75\_606\_pp\_1lag | .9998134 .0002087 -0.89 0.371 .9994043 1.000223

sp75\_607\_pp\_1lag | 1.000833 .0013607 0.61 0.540 .9981694 1.003503

sp75\_700\_1\_pp\_1lag | .9897381 .0060684 -1.68 0.093 .9779154 1.001704

sp75\_700\_pp\_1lag | .9988658 .0014725 -0.77 0.441 .9959838 1.001756

sp75\_701\_1\_pp\_1lag | .9976095 .0014853 -1.61 0.108 .9947025 1.000525

sp75\_701\_2\_pp\_1lag | .9975603 .0018453 -1.32 0.187 .9939501 1.001184

sp75\_701\_3\_pp\_1lag | 1.000309 .0013219 0.23 0.815 .9977218 1.002904

sp75\_701\_4\_pp\_1lag | 1.013115 .0073017 1.81 0.071 .998904 1.027527

sp75\_701\_5\_pp\_1lag | .9997274 .0011986 -0.23 0.820 .9973809 1.002079

sp75\_701\_pp\_1lag | 1.00064 .000345 1.85 0.064 .9999637 1.001316

sp75\_702\_1\_pp\_1lag | .7842261 .0086572 -22.02 0.000 .7674406 .8013787

sp75\_702\_pp\_1lag | .7864647 .009609 -19.66 0.000 .7678551 .8055254

sp75\_703\_1\_pp\_1lag | 1.000924 .0095375 0.10 0.923 .9824044 1.019793

sp75\_703\_2\_pp\_1lag | .9909626 .0051044 -1.76 0.078 .9810086 1.001018

sp75\_703\_3\_pp\_1lag | 1.00385 .0019849 1.94 0.052 .9999674 1.007748

sp75\_703\_4\_pp\_1lag | .7219661 .0137306 -17.13 0.000 .6955501 .7493854

sp75\_703\_pp\_1lag | 1.00026 .0008738 0.30 0.766 .9985488 1.001974

sp75\_704\_pp\_1lag | 1.001428 .003551 0.40 0.687 .9944922 1.008412

sp75\_705\_1\_pp\_1lag | .9988074 .0020338 -0.59 0.558 .9948292 1.002801

sp75\_705\_3\_pp\_1lag | 1.011163 .0052544 2.14 0.033 1.000917 1.021514

sp75\_705\_8\_pp\_1lag | .992071 .0070499 -1.12 0.263 .9783493 1.005985

sp75\_705\_pp\_1lag | 1.003587 .0080856 0.44 0.657 .9878642 1.019561

sp75\_706\_pp\_1lag | .9985797 .0023221 -0.61 0.541 .9940389 1.003141

sp75\_800\_2\_pp\_1lag | .6431313 .020444 -13.89 0.000 .6042844 .6844754

sp75\_800\_3\_pp\_1lag | 1.000878 .0029516 0.30 0.766 .99511 1.00668

sp75\_800\_4\_pp\_1lag | 1.000228 .0023721 0.10 0.923 .9955896 1.004888

sp75\_800\_pp\_1lag | 1.00107 .0026148 0.41 0.682 .9959583 1.006208

sp75\_801\_pp\_1lag | .9991207 .0049278 -0.18 0.858 .9895089 1.008826

sp75\_802\_pp\_1lag | .994368 .0031903 -1.76 0.078 .9881347 1.000641

sp75\_803\_2\_pp\_1lag | .8046021 .0115169 -15.19 0.000 .7823431 .8274944

sp75\_803\_pp\_1lag | 1.002109 .0019103 1.11 0.269 .9983723 1.00586

sp75\_804\_pp\_1lag | 1.00194 .0014981 1.30 0.195 .9990078 1.00488

sp75\_805\_pp\_1lag | 1.002046 .0041334 0.50 0.620 .9939775 1.01018

sp75\_806\_pp\_1lag | 1.017235 .0058482 2.97 0.003 1.005837 1.028762

sp75\_807\_pp\_1lag | 1.000084 .0002533 0.33 0.740 .9995878 1.000581

sp75\_808\_pp\_1lag | 1.001905 .0021425 0.89 0.373 .9977148 1.006113

sp75\_809\_pp\_1lag | 1.000078 .0007859 0.10 0.921 .9985386 1.001619

sp75\_810\_pp\_1lag | .9999388 .001284 -0.05 0.962 .9974254 1.002459

sp75\_811\_pp\_1lag | 1.00161 .0009424 1.71 0.087 .9997645 1.003459

sp75\_812\_pp\_1lag | .998757 .003068 -0.40 0.686 .9927619 1.004788

sp75\_814\_pp\_1lag | .9976921 .0020397 -1.13 0.258 .9937023 1.001698

sp75\_815\_pp\_1lag | 1.004368 .0010783 4.06 0.000 1.002256 1.006483

sp75\_816\_pp\_1lag | 1.000632 .0007369 0.86 0.391 .9991891 1.002078

sp75\_818\_pp\_1lag | 1.000521 .0018797 0.28 0.782 .9968436 1.004212

sp75\_820\_pp\_1lag | 1.00141 .0010921 1.29 0.196 .9992717 1.003553

sp75\_821\_pp\_1lag | 1.002844 .0018072 1.58 0.115 .9993086 1.006393

sp75\_825\_pp\_1lag | 1.004454 .0024322 1.84 0.066 .9996986 1.009233

sp75\_827\_pp\_1lag | 1.002587 .0024023 1.08 0.281 .9978898 1.007307

sp75\_831\_pp\_1lag | .9943295 .0067593 -0.84 0.403 .9811693 1.007666

sp75\_832\_pp\_1lag | .7408128 .0127031 -17.50 0.000 .7163289 .7661334

sp75\_834\_pp\_1lag | 1.226282 .0857288 2.92 0.004 1.06926 1.406363

sp75\_900\_2\_pp\_1lag | .9976118 .0046475 -0.51 0.608 .9885444 1.006762

sp75\_900\_3\_pp\_1lag | 1.001252 .0016785 0.75 0.455 .9979678 1.004547

sp75\_900\_4\_pp\_1lag | .9994269 .0005797 -0.99 0.323 .9982913 1.000564

sp75\_900\_pp\_1lag | .9994072 .0005855 -1.01 0.311 .9982604 1.000555

sp75\_901\_pp\_1lag | 1.000413 .0020582 0.20 0.841 .9963876 1.004456

sp75\_902\_1\_pp\_1lag | .9972113 .0066761 -0.42 0.677 .9842119 1.010382

sp75\_902\_2\_pp\_1lag | 1.002482 .0022424 1.11 0.268 .9980962 1.006886

sp75\_902\_4\_pp\_1lag | .9999042 .0012845 -0.07 0.941 .9973898 1.002425

sp75\_902\_pp\_1lag | .9998235 .0006108 -0.29 0.773 .9986271 1.001021

sp75\_903\_pp\_1lag | 1.000746 .0010168 0.73 0.463 .9987549 1.002741

sp75\_904\_pp\_1lag | .9997232 .0002521 -1.10 0.272 .9992291 1.000217

sp75\_905\_pp\_1lag | 1.000003 .0041829 0.00 0.999 .9918378 1.008235

sp75\_907\_pp\_1lag | 1.000289 .0021945 0.13 0.895 .9959967 1.004599

sp77\_103\_pp\_1lag | .9048088 .0063119 -14.34 0.000 .8925219 .9172649

sp77\_104\_pp\_1lag | .7779291 .0095904 -20.37 0.000 .7593574 .7969549

sp77\_1103\_pp\_1lag | 1.00024 .0007586 0.32 0.752 .9987542 1.001728

sp77\_1104\_pp\_1lag | .9998717 .0002529 -0.51 0.612 .9993761 1.000367

sp77\_1106\_pp\_1lag | 1.018891 .0276707 0.69 0.491 .9660752 1.074594

sp77\_1111\_pp\_1lag | .9995978 .0051749 -0.08 0.938 .9895065 1.009792

sp77\_1112\_pp\_1lag | 1.001524 .0017161 0.89 0.374 .9981663 1.004893

sp77\_1403\_pp\_1lag | .9977754 .0031503 -0.71 0.481 .99162 1.003969

sp77\_1432\_pp\_1lag | .9893301 .0038123 -2.78 0.005 .9818863 .9968303

sp77\_1433\_pp\_1lag | .9963162 .0046381 -0.79 0.428 .9872671 1.005448

sp77\_1434\_pp\_1lag | 1.002003 .0031903 0.63 0.530 .9957696 1.008275

sp77\_1437\_pp\_1lag | .9919696 .0069502 -1.15 0.250 .9784407 1.005686

sp77\_1438\_pp\_1lag | .9432307 .0291041 -1.89 0.058 .8878784 1.002034

sp77\_1605\_pp\_1lag | 1.000072 .0002934 0.25 0.805 .9994976 1.000648

sp77\_1606\_pp\_1lag | 1.000245 .0005006 0.49 0.625 .9992641 1.001226

sp77\_1710\_pp\_1lag | .9995207 .0007026 -0.68 0.495 .9981445 1.000899

sp77\_1802\_pp\_1lag | .9949178 .0034652 -1.46 0.143 .9881493 1.001733

sp77\_1906\_pp\_1lag | 1.00181 .0058048 0.31 0.755 .9904967 1.013252

sp77\_1915\_pp\_1lag | 1.003567 .0026196 1.36 0.173 .9984454 1.008714

sp77\_1916\_pp\_1lag | 1.000672 .0022174 0.30 0.762 .9963349 1.005027

sp77\_200\_pp\_1lag | 1.000855 .0004739 1.81 0.071 .9999267 1.001784

sp77\_202\_pp\_1lag | .9988259 .0004403 -2.67 0.008 .9979634 .9996892

sp77\_203\_pp\_1lag | 1.000139 .0027118 0.05 0.959 .9948382 1.005468

sp77\_204\_pp\_1lag | .9992065 .0007237 -1.10 0.273 .9977891 1.000626

sp77\_205\_pp\_1lag | 1.000217 .0002653 0.82 0.412 .9996976 1.000738

sp77\_206\_pp\_1lag | .999475 .0011044 -0.48 0.635 .9973128 1.001642

sp77\_207\_pp\_1lag | 1.00028 .0010983 0.25 0.799 .9981293 1.002435

sp77\_208\_pp\_1lag | 1.000761 .0004818 1.58 0.114 .9998167 1.001706

sp77\_210\_pp\_1lag | .9989443 .001808 -0.58 0.560 .9954069 1.002494

sp77\_216\_pp\_1lag | .9997318 .0007825 -0.34 0.732 .9981993 1.001267

sp77\_305\_pp\_1lag | .9984995 .0080486 -0.19 0.852 .9828484 1.0144

sp77\_309\_pp\_1lag | 1.002718 .0044924 0.61 0.545 .9939515 1.011562

sp77\_314\_pp\_1lag | .9950047 .0057275 -0.87 0.384 .9838421 1.006294

sp77\_315\_pp\_1lag | .9820538 .0080884 -2.20 0.028 .966328 .9980355

sp77\_400\_pp\_1lag | 1.000356 .0002681 1.33 0.184 .9998308 1.000882

sp77\_401\_pp\_1lag | .9994416 .0016027 -0.35 0.728 .9963053 1.002588

sp77\_402\_pp\_1lag | .9989135 .0013075 -0.83 0.406 .9963541 1.001479

sp77\_403\_1\_pp\_1lag | .9990096 .0019961 -0.50 0.620 .9951049 1.00293

sp77\_403\_2\_pp\_1lag | 1.022264 .0059526 3.78 0.000 1.010664 1.033998

sp77\_403\_pp\_1lag | 1.005337 .004758 1.12 0.261 .9960543 1.014706

sp77\_404\_pp\_1lag | .9997022 .0002398 -1.24 0.214 .9992323 1.000172

sp77\_405\_pp\_1lag | .9971484 .0027047 -1.05 0.292 .9918614 1.002464

sp77\_408\_pp\_1lag | .9977591 .003026 -0.74 0.459 .9918459 1.003707

sp77\_409\_pp\_1lag | 1.002842 .0063586 0.45 0.654 .9904565 1.015382

sp77\_410\_pp\_1lag | 1.000485 .000462 1.05 0.294 .9995797 1.001391

sp77\_411\_pp\_1lag | .9968963 .0109246 -0.28 0.777 .9757127 1.01854

sp77\_412\_pp\_1lag | .9997541 .0016426 -0.15 0.881 .9965398 1.002979

sp77\_413\_pp\_1lag | .9974301 .0031 -0.83 0.408 .9913727 1.003525

sp77\_500\_pp\_1lag | .9954262 .0040702 -1.12 0.262 .9874807 1.003436

sp77\_501\_pp\_1lag | 1.001673 .0018007 0.93 0.352 .9981497 1.005208

sp77\_502\_1\_pp\_1lag | 1.018891 .019996 0.95 0.340 .9804438 1.058846

sp77\_502\_2\_pp\_1lag | 1.001733 .0012925 1.34 0.180 .9992032 1.00427

sp77\_502\_pp\_1lag | 1.000191 .0002555 0.75 0.454 .9996907 1.000692

sp77\_503\_1\_pp\_1lag | .9992721 .0072577 -0.10 0.920 .985148 1.013599

sp77\_503\_pp\_1lag | 1.004932 .0030499 1.62 0.105 .9989721 1.010928

sp77\_504\_pp\_1lag | .9993519 .0010494 -0.62 0.537 .9972971 1.001411

sp77\_505\_pp\_1lag | .9997327 .0006328 -0.42 0.673 .9984932 1.000974

sp77\_506\_1\_pp\_1lag | .9992342 .0015187 -0.50 0.614 .9962621 1.002215

sp77\_506\_pp\_1lag | 1.000893 .0007157 1.25 0.212 .9994911 1.002297

sp77\_507\_pp\_1lag | .9988848 .0028527 -0.39 0.696 .9933094 1.004492

sp77\_508\_1\_pp\_1lag | .9878434 .0049611 -2.44 0.015 .9781675 .997615

sp77\_508\_pp\_1lag | 1.00488 .0031574 1.55 0.121 .9987111 1.011088

sp77\_509\_pp\_1lag | .9984279 .0011135 -1.41 0.158 .9962479 1.000613

sp77\_510\_pp\_1lag | .988527 .0039048 -2.92 0.003 .9809033 .9962101

sp77\_511\_pp\_1lag | .9957668 .0064204 -0.66 0.511 .9832623 1.00843

sp77\_512\_pp\_1lag | .9994916 .0004526 -1.12 0.261 .9986049 1.000379

sp77\_513\_pp\_1lag | .9980169 .0009638 -2.06 0.040 .9961297 .9999078

sp77\_514\_pp\_1lag | .9958545 .0101726 -0.41 0.684 .9761148 1.015993

sp77\_515\_pp\_1lag | 1.009353 .0071027 1.32 0.186 .9955277 1.023371

sp77\_516\_pp\_1lag | .9992237 .0004346 -1.79 0.074 .9983724 1.000076

sp77\_600\_pp\_1lag | 1.00343 .0034325 1.00 0.317 .9967244 1.01018

sp77\_601\_pp\_1lag | 1.002923 .0054168 0.54 0.589 .9923621 1.013596

sp77\_602\_pp\_1lag | .9990608 .0069108 -0.14 0.892 .9856073 1.012698

sp77\_603\_pp\_1lag | 1.017819 .0051497 3.49 0.000 1.007775 1.027962

sp77\_604\_pp\_1lag | 1.003788 .001946 1.95 0.051 .9999813 1.007609

sp77\_605\_pp\_1lag | .6974757 .018496 -13.59 0.000 .6621501 .7346859

sp77\_606\_1\_pp\_1lag | .9985612 .004988 -0.29 0.773 .9888327 1.008385

sp77\_606\_pp\_1lag | .6153893 .0205784 -14.52 0.000 .5763496 .6570733

sp77\_700\_1\_pp\_1lag | 1.003062 .0034505 0.89 0.374 .9963222 1.009848

sp77\_700\_pp\_1lag | 1.000981 .003928 0.25 0.803 .9933115 1.008709

sp77\_701\_1\_pp\_1lag | .9993521 .0040697 -0.16 0.874 .9914074 1.00736

sp77\_701\_2\_pp\_1lag | 1.002936 .0036742 0.80 0.424 .9957601 1.010163

sp77\_701\_3\_pp\_1lag | .9957828 .018926 -0.22 0.824 .9593709 1.033577

sp77\_701\_4\_pp\_1lag | 1.005721 .0040409 1.42 0.156 .997832 1.013672

sp77\_701\_pp\_1lag | .9992414 .0008368 -0.91 0.365 .9976026 1.000883

sp77\_703\_pp\_1lag | 1.001522 .0040399 0.38 0.706 .993635 1.009471

sp77\_704\_1\_pp\_1lag | 1.001145 .0055826 0.21 0.837 .9902632 1.012147

sp77\_704\_8\_pp\_1lag | .9989039 .0039495 -0.28 0.781 .9911929 1.006675

sp77\_704\_9\_pp\_1lag | .983115 .0109972 -1.52 0.128 .9617955 1.004907

sp77\_704\_pp\_1lag | 1.002585 .0054038 0.48 0.632 .9920498 1.013233

sp77\_705\_pp\_1lag | .9996546 .0013457 -0.26 0.797 .9970206 1.002296

sp77\_800\_1\_pp\_1lag | .9972912 .0048416 -0.56 0.576 .9878468 1.006826

sp77\_800\_2\_pp\_1lag | .9992659 .0038316 -0.19 0.848 .9917842 1.006804

sp77\_800\_pp\_1lag | 1.004436 .006283 0.71 0.479 .9921967 1.016826

sp77\_801\_pp\_1lag | .7630221 .0152301 -13.55 0.000 .733748 .7934641

sp77\_802\_pp\_1lag | .9921159 .0042556 -1.85 0.065 .98381 1.000492

sp77\_803\_pp\_1lag | .9954313 .0045009 -1.01 0.311 .9866487 1.004292

sp77\_804\_pp\_1lag | .6092647 .0131635 -22.93 0.000 .5840032 .6356188

sp77\_805\_pp\_1lag | .9971704 .005232 -0.54 0.589 .9869685 1.007478

sp77\_807\_1\_pp\_1lag | 1.003847 .0064933 0.59 0.553 .991201 1.016655

sp77\_807\_2\_pp\_1lag | .9981157 .0057818 -0.33 0.745 .9868477 1.009512

sp77\_807\_3\_pp\_1lag | 1.00421 .0021976 1.92 0.055 .9999117 1.008526

sp77\_807\_pp\_1lag | .9975866 .0048724 -0.49 0.621 .9880824 1.007182

sp77\_808\_pp\_1lag | 1.01959 .0031169 6.35 0.000 1.013499 1.025717

sp77\_809\_pp\_1lag | .9995389 .0014051 -0.33 0.743 .9967888 1.002297

sp77\_810\_pp\_1lag | 1.000976 .004394 0.22 0.824 .9924012 1.009626

sp77\_900\_1\_pp\_1lag | 1.014354 .0043269 3.34 0.001 1.005908 1.02287

sp77\_900\_2\_pp\_1lag | 1.00389 .0028231 1.38 0.167 .9983718 1.009438

sp77\_900\_pp\_1lag | 1.000962 .0039094 0.25 0.806 .9933286 1.008653

sp77\_901\_1\_pp\_1lag | 1.000773 .0050032 0.15 0.877 .9910148 1.010627

sp77\_901\_pp\_1lag | .9937798 .0047396 -1.31 0.191 .9845337 1.003113

sp77\_902\_2\_pp\_1lag | 1.050299 .0014798 34.83 0.000 1.047402 1.053203

sp77\_902\_3\_pp\_1lag | .9992598 .0073199 -0.10 0.919 .9850155 1.01371

sp77\_902\_pp\_1lag | 1.005918 .0029356 2.02 0.043 1.000181 1.011688

sp77\_903\_pp\_1lag | .9969856 .0062491 -0.48 0.630 .9848125 1.009309

sp77\_904\_pp\_1lag | 1.00014 .0007596 0.18 0.854 .9986524 1.00163

mine\_time | .9988926 .0016407 -0.67 0.500 .9956821 1.002113

onsite\_insp\_hours | .9998077 .0001281 -1.50 0.133 .9995568 1.000059

|

state |

AL | 1.191398 .0989296 2.11 0.035 1.012456 1.401967

AR | 2.051123 .1188074 12.40 0.000 1.830996 2.297714

CO | .7766909 .1331314 -1.47 0.140 .5550666 1.086804

IL | 1.167296 .0848783 2.13 0.033 1.012248 1.346092

IN | .9301112 .1471133 -0.46 0.647 .6821856 1.26814

MD | 1.100781 .2055944 0.51 0.607 .7633445 1.58738

MT | 1.010879 .0632446 0.17 0.863 .8942209 1.142757

NM | .8793443 .0504708 -2.24 0.025 .7857845 .9840438

OH | 1.077398 .1599916 0.50 0.616 .8053312 1.441379

OK | .9405178 .2425108 -0.24 0.812 .567396 1.559006

PA | 1.073284 .0910674 0.83 0.405 .9088473 1.267473

TN | 1.336224 .1824074 2.12 0.034 1.022545 1.74613

UT | .6621609 .0847527 -3.22 0.001 .5152462 .8509662

VA | .7361619 .0523624 -4.31 0.000 .6403661 .8462884

WV | 1.129551 .0568681 2.42 0.016 1.023415 1.246695

WY | 1.258457 .082463 3.51 0.000 1.10678 1.430919

|

time |

2000.25 | .9745698 .1076728 -0.23 0.816 .7848203 1.210196

2000.5 | 1.200607 .1288827 1.70 0.089 .9728053 1.481752

2000.75 | .8804113 .0991791 -1.13 0.258 .7059875 1.097929

2001 | .8731938 .0910447 -1.30 0.193 .7118017 1.07118

2001.25 | .8527816 .0963902 -1.41 0.159 .6833233 1.064264

2001.75 | .8783393 .0920965 -1.24 0.216 .7151732 1.078732

2002 | .8752596 .0904093 -1.29 0.197 .7148463 1.07167

2002.25 | .7992449 .088841 -2.02 0.044 .6427818 .9937936

2002.5 | 1.009818 .107056 0.09 0.927 .8203572 1.243035

2002.75 | .9494674 .1058137 -0.47 0.642 .7631636 1.181252

2003 | .7605104 .087379 -2.38 0.017 .6071643 .9525859

2003.25 | .8733214 .1074762 -1.10 0.271 .6861516 1.111548

2003.5 | .9320456 .1047463 -0.63 0.531 .7477843 1.161711

2003.75 | .6463854 .0735146 -3.84 0.000 .5172289 .8077934

2004 | .8851987 .1063781 -1.01 0.310 .6994365 1.120297

2004.25 | .7980882 .0867928 -2.07 0.038 .6448845 .9876881

2004.5 | .8140224 .0921509 -1.82 0.069 .6520436 1.01624

2004.75 | .7184337 .0863187 -2.75 0.006 .5676964 .9091954

2005 | .63522 .0723761 -3.98 0.000 .5080885 .7941618

2005.25 | .8126528 .0856485 -1.97 0.049 .6609883 .999117

2005.5 | .6822772 .077417 -3.37 0.001 .5462309 .8522076

2005.75 | .6567621 .0777535 -3.55 0.000 .5207569 .8282875

2006 | .7043156 .0797638 -3.10 0.002 .5641162 .8793586

2006.25 | .7137748 .0904835 -2.66 0.008 .5567452 .9150945

2006.5 | .7527348 .0892395 -2.40 0.017 .5966627 .9496314

2006.75 | .6311328 .0754696 -3.85 0.000 .4992704 .7978214

2007 | .6208059 .0726322 -4.07 0.000 .493592 .7808068

2007.25 | .6217706 .0791238 -3.73 0.000 .4845181 .7979035

2007.5 | .6484173 .0756825 -3.71 0.000 .5158261 .8150905

2007.75 | .6298407 .0753045 -3.87 0.000 .4982647 .7961619

2008 | .5211298 .0619584 -5.48 0.000 .4128044 .6578811

2008.25 | .5437041 .0644636 -5.14 0.000 .430964 .685937

2008.5 | .6148229 .0748285 -4.00 0.000 .4843423 .7804546

2008.75 | .495941 .0601534 -5.78 0.000 .3910087 .6290331

2009 | .4806272 .0616012 -5.72 0.000 .3738619 .617882

2009.25 | .4678235 .0594735 -5.98 0.000 .3646452 .6001967

2009.5 | .5536355 .0702563 -4.66 0.000 .4317243 .7099722

2009.75 | .4038759 .0517331 -7.08 0.000 .3142072 .5191343

2010 | .4436318 .0597666 -6.03 0.000 .340681 .5776935

2010.25 | .444362 .0553051 -6.52 0.000 .3481743 .5671227

2010.5 | .57089 .0719761 -4.45 0.000 .4458979 .7309193

2010.75 | .4386758 .0587581 -6.15 0.000 .3373884 .5703707

2011 | .5208864 .0647692 -5.25 0.000 .4082265 .6646376

2011.25 | .498555 .0614424 -5.65 0.000 .3915706 .6347694

2011.5 | .5399046 .0623515 -5.34 0.000 .4305415 .6770474

2011.75 | .4499193 .0580892 -6.19 0.000 .3493299 .5794734

2012 | .5262433 .0615535 -5.49 0.000 .4184306 .6618349

2012.25 | .4860735 .0571973 -6.13 0.000 .3859573 .6121595

2012.5 | .5549413 .069248 -4.72 0.000 .4345406 .7087022

2012.75 | .4314568 .0563988 -6.43 0.000 .3339418 .5574474

2013 | .443223 .0569065 -6.34 0.000 .3446153 .5700463

2013.25 | .3835828 .0529746 -6.94 0.000 .2926202 .5028217

2013.5 | .4959767 .0638459 -5.45 0.000 .3853791 .638314

2013.75 | .4177633 .057659 -6.32 0.000 .3187491 .5475347

2014 | .3718928 .0540423 -6.81 0.000 .2797202 .4944379

2014.25 | .4159961 .0569989 -6.40 0.000 .3180236 .5441507

2014.5 | .4301169 .0569751 -6.37 0.000 .3317666 .5576226

2014.75 | .4322882 .0579805 -6.25 0.000 .3323581 .5622641

2015 | .4029417 .0581784 -6.30 0.000 .3036283 .5347393

2015.25 | .4560432 .0702967 -5.09 0.000 .3371303 .6168992

2015.5 | .5788312 .0798982 -3.96 0.000 .4416288 .7586587

2015.75 | .3360281 .0549768 -6.67 0.000 .2438442 .4630616

2016 | .4728241 .0687766 -5.15 0.000 .3555368 .6288033

|

\_cons | .0000174 1.42e-06 -134.15 0.000 .0000148 .0000204

ln(hours) | 1 (exposure)

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

**. eststo: nbreg MR `subpart\_penpoints\_lag\_1\_vars' `covariates' ib(freq).state ib(freq).time if sample\_pp == 1, vce(cl mineid) exposure(hours) iter(50) irr**

note: sp75\_1001\_pp\_1lag omitted because of collinearity

note: sp75\_1106\_6\_pp\_1lag omitted because of collinearity

note: sp75\_1431\_pp\_1lag omitted because of collinearity

note: sp75\_511\_1\_pp\_1lag omitted because of collinearity

note: sp75\_806\_pp\_1lag omitted because of collinearity

note: sp77\_413\_pp\_1lag omitted because of collinearity

note: sp77\_606\_pp\_1lag omitted because of collinearity

note: sp77\_804\_pp\_1lag omitted because of collinearity

Fitting Poisson model:

Iteration 0: log pseudolikelihood = -56209.633

Iteration 1: log pseudolikelihood = -32449.743 (backed up)

Iteration 2: log pseudolikelihood = -23989.487

Iteration 3: log pseudolikelihood = -14824.08

Iteration 4: log pseudolikelihood = -11025.513

Iteration 5: log pseudolikelihood = -9846.9667

Iteration 6: log pseudolikelihood = -9724.687

Iteration 7: log pseudolikelihood = -9705.0661

Iteration 8: log pseudolikelihood = -9703.88

Iteration 9: log pseudolikelihood = -9703.8712

Iteration 10: log pseudolikelihood = -9703.8712

Fitting constant-only model:

Iteration 0: log pseudolikelihood = -10180.355

Iteration 1: log pseudolikelihood = -10003.325

Iteration 2: log pseudolikelihood = -9998.9252

Iteration 3: log pseudolikelihood = -9998.9136

Iteration 4: log pseudolikelihood = -9998.9136

Fitting full model:

Iteration 0: log pseudolikelihood = -9727.1929

Iteration 1: log pseudolikelihood = -9683.7633

Iteration 2: log pseudolikelihood = -9681.5786

Iteration 3: log pseudolikelihood = -9681.5312

Iteration 4: log pseudolikelihood = -9681.5311

Negative binomial regression Number of obs = 14,208

Wald chi2(345) = .

Dispersion = mean Prob > chi2 = .

Log pseudolikelihood = -9681.5311 Pseudo R2 = 0.0317

(Std. Err. adjusted for 867 clusters in mineid)

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| Robust

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

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

sp47\_41\_pp\_1lag | .9983052 .0011743 -1.44 0.149 .9960062 1.000609

sp47\_42\_pp\_1lag | .990997 .0043056 -2.08 0.037 .9825939 .9994718

sp47\_44\_pp\_1lag | .9990238 .0019165 -0.51 0.611 .9952746 1.002787

sp48\_11\_pp\_1lag | 1.001564 .0013479 1.16 0.246 .9989258 1.004209

sp48\_24\_pp\_1lag | .937063 .0026872 -22.67 0.000 .9318109 .9423446

sp48\_25\_pp\_1lag | 1.004166 .0013443 3.11 0.002 1.001534 1.006804

sp48\_26\_pp\_1lag | 1.001812 .0020611 0.88 0.379 .9977802 1.00586

sp48\_27\_pp\_1lag | 1.001335 .0017815 0.75 0.453 .9978494 1.004833

sp48\_28\_pp\_1lag | .9992381 .0019033 -0.40 0.689 .9955147 1.002975

sp48\_4\_pp\_1lag | .7509148 .0092457 -23.27 0.000 .7330104 .7692565

sp48\_5\_pp\_1lag | .997474 .0031229 -0.81 0.419 .9913719 1.003614

sp48\_6\_pp\_1lag | .9997964 .0010786 -0.19 0.850 .9976846 1.001913

sp48\_7\_pp\_1lag | 1.00162 .0008939 1.81 0.070 .9998693 1.003373

sp48\_8\_pp\_1lag | 1.000462 .0012918 0.36 0.721 .9979332 1.002997

sp71\_701\_pp\_1lag | 1.0129 .0064522 2.01 0.044 1.000333 1.025626

sp72\_503\_pp\_1lag | .9962972 .0016625 -2.22 0.026 .9930442 .9995609

sp72\_610\_pp\_1lag | 1.004859 .0057309 0.85 0.395 .9936892 1.016155

sp72\_620\_pp\_1lag | .99455 .009826 -0.55 0.580 .9754766 1.013996

sp72\_630\_pp\_1lag | 1.000367 .0001647 2.23 0.026 1.000045 1.00069

sp75\_100\_pp\_1lag | 1.000408 .0032437 0.13 0.900 .9940709 1.006786

sp75\_1001\_1\_pp\_1lag | .9948679 .0072488 -0.71 0.480 .9807614 1.009177

sp75\_1001\_pp\_1lag | 1 (omitted)

sp75\_1003\_1\_pp\_1lag | .9933777 .0033741 -1.96 0.050 .9867865 1.000013

sp75\_1100\_2\_pp\_1lag | 1.000184 .0001982 0.93 0.353 .9997956 1.000573

sp75\_1101\_20\_pp\_1lag | 1.001138 .0039223 0.29 0.772 .9934794 1.008855

sp75\_1102\_pp\_1lag | .9992252 .0014551 -0.53 0.595 .9963773 1.002081

sp75\_1103\_4\_pp\_1lag | 1.00025 .0003112 0.80 0.422 .9996399 1.00086

sp75\_1104\_pp\_1lag | .9999419 .0009536 -0.06 0.951 .9980746 1.001813

sp75\_1106\_2\_pp\_1lag | 1.000488 .0008477 0.58 0.565 .9988279 1.002151

sp75\_1106\_3\_pp\_1lag | 1.000302 .0002899 1.04 0.298 .9997337 1.00087

sp75\_1106\_4\_pp\_1lag | 1.001731 .0023838 0.73 0.467 .9970692 1.006414

sp75\_1106\_5\_pp\_1lag | .999939 .0010047 -0.06 0.952 .9979718 1.00191

sp75\_1106\_6\_pp\_1lag | 1 (omitted)

sp75\_1106\_pp\_1lag | 1.00062 .0019666 0.32 0.753 .9967725 1.004481

sp75\_1107\_14\_pp\_1lag | 1.002667 .0039706 0.67 0.501 .9949153 1.01048

sp75\_1400\_1\_pp\_1lag | 1.002438 .0039412 0.62 0.536 .9947427 1.010192

sp75\_1400\_2\_pp\_1lag | 1.003472 .0082688 0.42 0.674 .9873957 1.01981

sp75\_1400\_3\_pp\_1lag | 1.000368 .0013206 0.28 0.781 .9977828 1.002959

sp75\_1400\_4\_pp\_1lag | .9992058 .0026404 -0.30 0.764 .9940441 1.004394

sp75\_1400\_pp\_1lag | 1.000507 .0015483 0.33 0.743 .9974766 1.003546

sp75\_1401\_1\_pp\_1lag | .9972193 .0085835 -0.32 0.746 .9805371 1.014185

sp75\_1401\_pp\_1lag | 1.000094 .0059996 0.02 0.988 .9884035 1.011922

sp75\_1403\_10\_pp\_1lag | 1.000057 .0004839 0.12 0.906 .999109 1.001006

sp75\_1403\_11\_pp\_1lag | 1.00179 .0035517 0.50 0.614 .9948531 1.008776

sp75\_1403\_3\_pp\_1lag | 1.002431 .004172 0.58 0.560 .9942869 1.010641

sp75\_1403\_4\_pp\_1lag | 1.006864 .0043949 1.57 0.117 .9982869 1.015515

sp75\_1403\_5\_pp\_1lag | .99966 .0003481 -0.98 0.329 .9989781 1.000342

sp75\_1403\_6\_pp\_1lag | .9996971 .0002124 -1.43 0.154 .999281 1.000113

sp75\_1403\_7\_pp\_1lag | 1.000346 .0011501 0.30 0.763 .998095 1.002603

sp75\_1403\_8\_pp\_1lag | .9994085 .0002782 -2.13 0.034 .9988634 .9999539

sp75\_1403\_9\_pp\_1lag | 1.000477 .0006866 0.69 0.487 .9991321 1.001824

sp75\_1404\_1\_pp\_1lag | 1.000433 .0070937 0.06 0.951 .9866252 1.014433

sp75\_1404\_pp\_1lag | .9995255 .0069549 -0.07 0.946 .9859868 1.01325

sp75\_1405\_1\_pp\_1lag | 1.004064 .002197 1.85 0.064 .9997667 1.008379

sp75\_1405\_pp\_1lag | .9994287 .0003774 -1.51 0.130 .9986893 1.000169

sp75\_1431\_pp\_1lag | 1 (omitted)

sp75\_1432\_pp\_1lag | .9992934 .0019163 -0.37 0.712 .9955446 1.003056

sp75\_1433\_pp\_1lag | 1.001468 .001691 0.87 0.385 .9981592 1.004788

sp75\_1434\_pp\_1lag | .995612 .0019152 -2.29 0.022 .9918653 .9993727

sp75\_1435\_pp\_1lag | 1.005505 .0088217 0.63 0.532 .9883621 1.022944

sp75\_1437\_pp\_1lag | 1.009864 .0060936 1.63 0.104 .9979916 1.021879

sp75\_150\_pp\_1lag | 1.006849 .0034484 1.99 0.046 1.000113 1.013631

sp75\_151\_pp\_1lag | .9977273 .0053496 -0.42 0.671 .9872971 1.008268

sp75\_153\_pp\_1lag | .9992388 .0022267 -0.34 0.733 .9948841 1.003612

sp75\_156\_pp\_1lag | .999644 .0039171 -0.09 0.928 .9919961 1.007351

sp75\_160\_pp\_1lag | 1.011358 .0033567 3.40 0.001 1.0048 1.017958

sp75\_1600\_2\_pp\_1lag | .9991455 .0004693 -1.82 0.069 .9982261 1.000066

sp75\_1712\_10\_pp\_1lag | .9987935 .0019076 -0.63 0.527 .9950617 1.002539

sp75\_1712\_6\_pp\_1lag | 1.00015 .0010282 0.15 0.884 .9981365 1.002167

sp75\_1720\_pp\_1lag | .9993061 .0008351 -0.83 0.406 .9976707 1.000944

sp75\_1721\_pp\_1lag | 1.023624 .0080456 2.97 0.003 1.007976 1.039515

sp75\_1725\_pp\_1lag | 1.000106 .0000858 1.24 0.215 .9999381 1.000274

sp75\_1726\_pp\_1lag | 1.000289 .0018784 0.15 0.878 .9966145 1.003978

sp75\_1727\_pp\_1lag | .598984 .0137406 -22.34 0.000 .5726494 .6265296

sp75\_1728\_pp\_1lag | 1.010783 .003451 3.14 0.002 1.004041 1.017569

sp75\_1729\_pp\_1lag | 1.001682 .0025331 0.66 0.506 .996729 1.006659

sp75\_1730\_pp\_1lag | 1.003229 .0021607 1.50 0.134 .9990026 1.007473

sp75\_1731\_pp\_1lag | 1.0001 .0000813 1.23 0.219 .9999406 1.000259

sp75\_1903\_pp\_1lag | 1.000071 .0007594 0.09 0.926 .9985837 1.00156

sp75\_1909\_pp\_1lag | 1.000264 .0001868 1.42 0.157 .9998983 1.000631

sp75\_1910\_pp\_1lag | .9998894 .0002273 -0.49 0.627 .999444 1.000335

sp75\_1911\_pp\_1lag | 1.000005 .000313 0.02 0.988 .9993915 1.000618

sp75\_1912\_pp\_1lag | .9992919 .0021614 -0.33 0.743 .9950647 1.003537

sp75\_1913\_pp\_1lag | .9992564 .0025391 -0.29 0.770 .9942923 1.004245

sp75\_1914\_pp\_1lag | .9999913 .0001802 -0.05 0.961 .9996382 1.000345

sp75\_1915\_pp\_1lag | 1.002383 .0026292 0.91 0.364 .9972435 1.00755

sp75\_202\_pp\_1lag | 1.000017 .0000662 0.26 0.797 .9998873 1.000147

sp75\_208\_pp\_1lag | .999881 .0003566 -0.33 0.739 .9991824 1.00058

sp75\_211\_pp\_1lag | 1.000653 .0003943 1.66 0.098 .9998803 1.001426

sp75\_212\_pp\_1lag | .9997995 .0010615 -0.19 0.850 .9977211 1.001882

sp75\_214\_pp\_1lag | 1.000376 .0009057 0.41 0.678 .9986022 1.002153

sp75\_312\_pp\_1lag | 1.000469 .0008457 0.55 0.579 .9988129 1.002128

sp75\_320\_pp\_1lag | .9996618 .0004586 -0.74 0.461 .9987635 1.000561

sp75\_324\_pp\_1lag | .9993886 .0013629 -0.45 0.654 .9967211 1.002063

sp75\_337\_pp\_1lag | .9988499 .000803 -1.43 0.152 .9972772 1.000425

sp75\_340\_pp\_1lag | 1.000013 .0002781 0.05 0.963 .9994678 1.000558

sp75\_341\_pp\_1lag | .9864038 .0103894 -1.30 0.194 .9662497 1.006978

sp75\_342\_pp\_1lag | 1.000132 .0001778 0.75 0.456 .9997841 1.000481

sp75\_344\_pp\_1lag | .9970502 .0015063 -1.96 0.051 .9941022 1.000007

sp75\_352\_pp\_1lag | .9968365 .0017312 -1.82 0.068 .9934492 1.000235

sp75\_382\_pp\_1lag | .9992802 .0008285 -0.87 0.385 .9976577 1.000905

sp75\_503\_pp\_1lag | .9999649 .000081 -0.43 0.665 .9998061 1.000124

sp75\_504\_pp\_1lag | 1.002067 .002091 0.99 0.322 .9979769 1.006174

sp75\_505\_pp\_1lag | .9956163 .0040164 -1.09 0.276 .9877753 1.00352

sp75\_506\_1\_pp\_1lag | 1.003346 .001809 1.85 0.064 .9998064 1.006898

sp75\_506\_pp\_1lag | .9987707 .0017431 -0.70 0.481 .9953601 1.002193

sp75\_507\_pp\_1lag | 1.00145 .000979 1.48 0.138 .9995334 1.003371

sp75\_511\_1\_pp\_1lag | 1 (omitted)

sp75\_511\_pp\_1lag | .9999548 .0011588 -0.04 0.969 .9976861 1.002229

sp75\_512\_1\_pp\_1lag | .9958855 .0059182 -0.69 0.488 .9843533 1.007553

sp75\_512\_2\_pp\_1lag | 1.000536 .0003299 1.63 0.104 .9998897 1.001183

sp75\_512\_pp\_1lag | 1.000008 .0001049 0.07 0.942 .999802 1.000213

sp75\_513\_1\_pp\_1lag | .9987426 .0042983 -0.29 0.770 .9903535 1.007203

sp75\_513\_pp\_1lag | .9995236 .001364 -0.35 0.727 .9968538 1.002201

sp75\_514\_pp\_1lag | .9997952 .0005451 -0.38 0.707 .9987274 1.000864

sp75\_515\_pp\_1lag | .9994425 .0002324 -2.40 0.016 .9989871 .999898

sp75\_516\_1\_pp\_1lag | .9940977 .0035666 -1.65 0.099 .987132 1.001113

sp75\_516\_2\_pp\_1lag | .9993024 .000718 -0.97 0.331 .9978961 1.000711

sp75\_516\_pp\_1lag | 1.000192 .0004342 0.44 0.658 .9993417 1.001044

sp75\_517\_1\_pp\_1lag | 1.005319 .0041535 1.28 0.199 .997211 1.013493

sp75\_517\_pp\_1lag | .9999276 .0000932 -0.78 0.437 .9997449 1.00011

sp75\_518\_1\_pp\_1lag | 1.000014 .0006799 0.02 0.984 .9986819 1.001347

sp75\_518\_pp\_1lag | 1.000183 .0003942 0.46 0.643 .9994107 1.000956

sp75\_519\_pp\_1lag | .7698445 .0079889 -25.21 0.000 .7543446 .7856628

sp75\_520\_pp\_1lag | 1.001483 .0005264 2.82 0.005 1.000451 1.002515

sp75\_523\_1\_pp\_1lag | .9972663 .0011056 -2.47 0.014 .9951017 .9994356

sp75\_523\_2\_pp\_1lag | .9992048 .0007723 -1.03 0.303 .9976923 1.00072

sp75\_523\_pp\_1lag | .9991479 .0013874 -0.61 0.539 .9964323 1.001871

sp75\_600\_1\_pp\_1lag | .9965284 .0065157 -0.53 0.595 .9838394 1.009381

sp75\_600\_pp\_1lag | 1.005653 .0091765 0.62 0.537 .9878271 1.0238

sp75\_601\_1\_pp\_1lag | .9998913 .0003046 -0.36 0.721 .9992946 1.000488

sp75\_601\_2\_pp\_1lag | .6759847 .0098993 -26.74 0.000 .6568583 .6956681

sp75\_601\_3\_pp\_1lag | .994358 .0031556 -1.78 0.075 .9881923 1.000562

sp75\_601\_pp\_1lag | 1.000104 .0004762 0.22 0.827 .9991708 1.001038

sp75\_602\_pp\_1lag | 1.001548 .0010802 1.43 0.152 .9994328 1.003667

sp75\_603\_pp\_1lag | 1.00022 .0011717 0.19 0.851 .9979267 1.00252

sp75\_604\_pp\_1lag | 1.000441 .0001303 3.38 0.001 1.000185 1.000696

sp75\_605\_pp\_1lag | .9999924 .0004857 -0.02 0.987 .9990408 1.000945

sp75\_606\_pp\_1lag | .9997159 .0001932 -1.47 0.142 .9993372 1.000095

sp75\_607\_pp\_1lag | 1.000745 .0011786 0.63 0.527 .9984375 1.003058

sp75\_700\_1\_pp\_1lag | .9848493 .0069896 -2.15 0.031 .9712449 .9986444

sp75\_700\_pp\_1lag | .9993664 .0013978 -0.45 0.650 .9966304 1.00211

sp75\_701\_1\_pp\_1lag | .9972638 .0016409 -1.67 0.096 .9940528 1.000485

sp75\_701\_2\_pp\_1lag | .9973707 .00188 -1.40 0.163 .9936927 1.001062

sp75\_701\_3\_pp\_1lag | .9995312 .0014351 -0.33 0.744 .9967223 1.002348

sp75\_701\_4\_pp\_1lag | 1.007776 .0061206 1.28 0.202 .9958514 1.019844

sp75\_701\_5\_pp\_1lag | 1.000595 .001183 0.50 0.615 .9982793 1.002917

sp75\_701\_pp\_1lag | 1.000318 .0003276 0.97 0.332 .9996759 1.00096

sp75\_702\_1\_pp\_1lag | .7017687 .0085427 -29.09 0.000 .6852234 .7187134

sp75\_702\_pp\_1lag | .6993478 .009248 -27.04 0.000 .681455 .7177104

sp75\_703\_1\_pp\_1lag | 1.000727 .0078708 0.09 0.926 .9854185 1.016273

sp75\_703\_2\_pp\_1lag | .9917448 .0075543 -1.09 0.276 .9770487 1.006662

sp75\_703\_3\_pp\_1lag | 1.00308 .0019972 1.54 0.122 .9991734 1.007002

sp75\_703\_4\_pp\_1lag | .5905403 .0149251 -20.84 0.000 .5620004 .6205296

sp75\_703\_pp\_1lag | 1.000172 .0009113 0.19 0.850 .9983879 1.00196

sp75\_704\_pp\_1lag | 1.001381 .002933 0.47 0.638 .9956484 1.007146

sp75\_705\_1\_pp\_1lag | .9998738 .0014237 -0.09 0.929 .9970873 1.002668

sp75\_705\_3\_pp\_1lag | 1.016124 .0053049 3.06 0.002 1.00578 1.026575

sp75\_705\_8\_pp\_1lag | .9946246 .0059959 -0.89 0.371 .982942 1.006446

sp75\_705\_pp\_1lag | 1.008214 .0075351 1.09 0.274 .9935531 1.023091

sp75\_706\_pp\_1lag | .9982726 .002085 -0.83 0.408 .9941945 1.002367

sp75\_800\_2\_pp\_1lag | .7211009 .0105603 -22.33 0.000 .7006974 .7420986

sp75\_800\_3\_pp\_1lag | .9995066 .0026642 -0.19 0.853 .9942985 1.004742

sp75\_800\_4\_pp\_1lag | 1.001102 .0023925 0.46 0.645 .9964241 1.005803

sp75\_800\_pp\_1lag | 1.000044 .0025193 0.02 0.986 .9951188 1.004994

sp75\_801\_pp\_1lag | .9986016 .0044009 -0.32 0.751 .9900132 1.007264

sp75\_802\_pp\_1lag | .9972663 .0028772 -0.95 0.343 .991643 1.002922

sp75\_803\_2\_pp\_1lag | .7171268 .0117296 -20.33 0.000 .6945019 .7404888

sp75\_803\_pp\_1lag | 1.003838 .0016515 2.33 0.020 1.000606 1.00708

sp75\_804\_pp\_1lag | 1.000531 .0048978 0.11 0.914 .9909773 1.010176

sp75\_805\_pp\_1lag | 1.002283 .0034332 0.67 0.506 .9955768 1.009035

sp75\_806\_pp\_1lag | 1 (omitted)

sp75\_807\_pp\_1lag | 1.000129 .0002495 0.52 0.606 .9996397 1.000618

sp75\_808\_pp\_1lag | 1.001632 .0020687 0.79 0.430 .9975857 1.005695

sp75\_809\_pp\_1lag | .9998466 .0007069 -0.22 0.828 .9984621 1.001233

sp75\_810\_pp\_1lag | 1.000867 .0012357 0.70 0.483 .998448 1.003292

sp75\_811\_pp\_1lag | 1.00159 .0009262 1.72 0.086 .9997763 1.003407

sp75\_812\_pp\_1lag | 1.000747 .0026822 0.28 0.781 .9955034 1.006017

sp75\_814\_pp\_1lag | .9986858 .0015869 -0.83 0.408 .9955804 1.001801

sp75\_815\_pp\_1lag | 1.004857 .0010936 4.45 0.000 1.002716 1.007002

sp75\_816\_pp\_1lag | 1.000444 .0006753 0.66 0.511 .9991212 1.001768

sp75\_818\_pp\_1lag | 1.001397 .0018494 0.76 0.450 .9977788 1.005028

sp75\_820\_pp\_1lag | 1.00131 .0009251 1.42 0.157 .9994982 1.003125

sp75\_821\_pp\_1lag | 1.002122 .0021976 0.97 0.334 .997824 1.006438

sp75\_825\_pp\_1lag | 1.003335 .0017466 1.91 0.056 .9999176 1.006764

sp75\_827\_pp\_1lag | 1.002536 .0020269 1.25 0.210 .9985711 1.006517

sp75\_831\_pp\_1lag | .9935349 .0059916 -1.08 0.282 .9818607 1.005348

sp75\_832\_pp\_1lag | .6390935 .0123132 -23.24 0.000 .61541 .6636885

sp75\_834\_pp\_1lag | 1.288617 .0960991 3.40 0.001 1.113385 1.491429

sp75\_900\_2\_pp\_1lag | 1.001938 .0040027 0.48 0.628 .994124 1.009814

sp75\_900\_3\_pp\_1lag | 1.000451 .0015984 0.28 0.778 .9973232 1.003589

sp75\_900\_4\_pp\_1lag | .9996072 .0005982 -0.66 0.512 .9984353 1.00078

sp75\_900\_pp\_1lag | .998997 .0006269 -1.60 0.110 .9977691 1.000226

sp75\_901\_pp\_1lag | 1.000471 .0020827 0.23 0.821 .9963969 1.004561

sp75\_902\_1\_pp\_1lag | .6208853 .0167695 -17.65 0.000 .5888725 .6546383

sp75\_902\_2\_pp\_1lag | 1.001178 .0010912 1.08 0.280 .999042 1.003319

sp75\_902\_4\_pp\_1lag | 1.000469 .0011818 0.40 0.691 .9981555 1.002788

sp75\_902\_pp\_1lag | .9998345 .0006668 -0.25 0.804 .9985285 1.001142

sp75\_903\_pp\_1lag | 1.000701 .0010047 0.70 0.485 .9987334 1.002672

sp75\_904\_pp\_1lag | .999616 .0002453 -1.57 0.118 .9991354 1.000097

sp75\_905\_pp\_1lag | .9979779 .0036004 -0.56 0.575 .9909462 1.00506

sp75\_907\_pp\_1lag | 1.001011 .0020626 0.49 0.624 .9969768 1.005062

sp77\_103\_pp\_1lag | .854869 .0059487 -22.53 0.000 .843289 .8666081

sp77\_104\_pp\_1lag | .6873888 .0090107 -28.60 0.000 .6699532 .7052782

sp77\_1103\_pp\_1lag | .9998969 .0007472 -0.14 0.890 .9984334 1.001363

sp77\_1104\_pp\_1lag | .9998357 .0002367 -0.69 0.488 .9993718 1.0003

sp77\_1106\_pp\_1lag | 1.0081 .0209035 0.39 0.697 .9679513 1.049914

sp77\_1111\_pp\_1lag | .9932719 .0035491 -1.89 0.059 .9863402 1.000252

sp77\_1112\_pp\_1lag | 1.001631 .0018643 0.88 0.381 .9979836 1.005292

sp77\_1403\_pp\_1lag | .9988235 .0031183 -0.38 0.706 .9927303 1.004954

sp77\_1432\_pp\_1lag | .9879959 .003356 -3.56 0.000 .9814401 .9945956

sp77\_1433\_pp\_1lag | .9960091 .004081 -0.98 0.329 .9880425 1.00404

sp77\_1434\_pp\_1lag | 1.003263 .0030719 1.06 0.287 .9972598 1.009302

sp77\_1437\_pp\_1lag | .9922487 .00461 -1.67 0.094 .9832543 1.001325

sp77\_1438\_pp\_1lag | .9627572 .041045 -0.89 0.373 .8855797 1.046661

sp77\_1605\_pp\_1lag | .9999696 .0002962 -0.10 0.918 .9993893 1.00055

sp77\_1606\_pp\_1lag | 1.000388 .0004628 0.84 0.402 .9994813 1.001295

sp77\_1710\_pp\_1lag | 1.000117 .0007502 0.16 0.876 .9986478 1.001588

sp77\_1802\_pp\_1lag | .6459632 .0105869 -26.66 0.000 .625543 .66705

sp77\_1906\_pp\_1lag | .9970192 .0088909 -0.33 0.738 .9797449 1.014598

sp77\_1915\_pp\_1lag | 1.003952 .0025036 1.58 0.114 .9990566 1.008871

sp77\_1916\_pp\_1lag | 1.001558 .0020848 0.75 0.454 .9974806 1.005653

sp77\_200\_pp\_1lag | 1.001274 .0004626 2.76 0.006 1.000368 1.002181

sp77\_202\_pp\_1lag | .9991358 .0004539 -1.90 0.057 .9982466 1.000026

sp77\_203\_pp\_1lag | 1.001817 .0025639 0.71 0.478 .996804 1.006854

sp77\_204\_pp\_1lag | .9988598 .0009024 -1.26 0.207 .9970926 1.00063

sp77\_205\_pp\_1lag | 1.000405 .0002961 1.37 0.172 .9998246 1.000985

sp77\_206\_pp\_1lag | .9998462 .001108 -0.14 0.890 .9976769 1.00202

sp77\_207\_pp\_1lag | 1.000418 .0011168 0.37 0.708 .9982319 1.00261

sp77\_208\_pp\_1lag | 1.000574 .0004931 1.17 0.244 .9996085 1.001541

sp77\_210\_pp\_1lag | .9988747 .0017656 -0.64 0.524 .9954202 1.002341

sp77\_216\_pp\_1lag | .9997578 .0006681 -0.36 0.717 .9984493 1.001068

sp77\_305\_pp\_1lag | .9967079 .0070128 -0.47 0.639 .9830574 1.010548

sp77\_309\_pp\_1lag | 1.003484 .0042312 0.82 0.410 .9952247 1.011811

sp77\_314\_pp\_1lag | .9967709 .0049778 -0.65 0.517 .9870622 1.006575

sp77\_315\_pp\_1lag | .9798491 .0076343 -2.61 0.009 .9649999 .9949269

sp77\_400\_pp\_1lag | 1.000492 .000327 1.51 0.132 .9998514 1.001133

sp77\_401\_pp\_1lag | 1.000486 .0015646 0.31 0.756 .9974238 1.003557

sp77\_402\_pp\_1lag | .9987643 .0012524 -0.99 0.324 .9963126 1.001222

sp77\_403\_1\_pp\_1lag | 1.000011 .0020053 0.01 0.996 .9960882 1.003949

sp77\_403\_2\_pp\_1lag | 1.023595 .0061169 3.90 0.000 1.011676 1.035654

sp77\_403\_pp\_1lag | 1.001444 .0052772 0.27 0.784 .9911539 1.011841

sp77\_404\_pp\_1lag | .9997132 .0002524 -1.14 0.256 .9992186 1.000208

sp77\_405\_pp\_1lag | .9957957 .0023987 -1.75 0.080 .9911054 1.000508

sp77\_408\_pp\_1lag | .9991136 .0029712 -0.30 0.766 .993307 1.004954

sp77\_409\_pp\_1lag | 1.005387 .0043049 1.25 0.210 .9969853 1.01386

sp77\_410\_pp\_1lag | 1.000543 .0004706 1.16 0.248 .9996215 1.001466

sp77\_411\_pp\_1lag | .999237 .0102028 -0.07 0.940 .9794387 1.019436

sp77\_412\_pp\_1lag | .999436 .0015115 -0.37 0.709 .9964779 1.002403

sp77\_413\_pp\_1lag | 1 (omitted)

sp77\_500\_pp\_1lag | .9935404 .0052671 -1.22 0.222 .9832706 1.003918

sp77\_501\_pp\_1lag | 1.000391 .0018629 0.21 0.834 .9967464 1.004049

sp77\_502\_1\_pp\_1lag | 1.008177 .009983 0.82 0.411 .9887992 1.027934

sp77\_502\_2\_pp\_1lag | 1.00145 .0011969 1.21 0.225 .9991069 1.003799

sp77\_502\_pp\_1lag | 1.000128 .000224 0.57 0.569 .9996888 1.000567

sp77\_503\_1\_pp\_1lag | .9997825 .0079851 -0.03 0.978 .9842537 1.015556

sp77\_503\_pp\_1lag | 1.005885 .0027649 2.13 0.033 1.00048 1.011318

sp77\_504\_pp\_1lag | .9989377 .0009978 -1.06 0.287 .9969839 1.000895

sp77\_505\_pp\_1lag | .9999168 .0005782 -0.14 0.886 .9987843 1.001051

sp77\_506\_1\_pp\_1lag | .9995405 .0012072 -0.38 0.704 .9971771 1.001909

sp77\_506\_pp\_1lag | 1.001109 .0006026 1.84 0.065 .9999291 1.002291

sp77\_507\_pp\_1lag | 1.001212 .0030221 0.40 0.688 .9953059 1.007152

sp77\_508\_1\_pp\_1lag | .9916795 .004532 -1.83 0.068 .9828366 1.000602

sp77\_508\_pp\_1lag | 1.004386 .0026416 1.66 0.096 .9992221 1.009577

sp77\_509\_pp\_1lag | .9994174 .0010943 -0.53 0.595 .9972749 1.001564

sp77\_510\_pp\_1lag | 1.000027 .0057481 0.00 0.996 .9888242 1.011357

sp77\_511\_pp\_1lag | .9958325 .0058224 -0.71 0.475 .984486 1.00731

sp77\_512\_pp\_1lag | .9998041 .0004488 -0.44 0.662 .9989249 1.000684

sp77\_513\_pp\_1lag | .9984319 .0009412 -1.66 0.096 .9965888 1.000278

sp77\_514\_pp\_1lag | .9822002 .0059107 -2.98 0.003 .9706835 .9938535

sp77\_515\_pp\_1lag | 1.011199 .0061876 1.82 0.069 .9991444 1.0234

sp77\_516\_pp\_1lag | .9991445 .0004285 -2.00 0.046 .9983049 .9999848

sp77\_600\_pp\_1lag | 1.002772 .0031347 0.89 0.376 .9966473 1.008935

sp77\_601\_pp\_1lag | .9997152 .0041878 -0.07 0.946 .9915408 1.007957

sp77\_602\_pp\_1lag | .9943743 .0077107 -0.73 0.467 .9793759 1.009602

sp77\_603\_pp\_1lag | 1.014328 .0051663 2.79 0.005 1.004252 1.024504

sp77\_604\_pp\_1lag | 1.003611 .0016715 2.16 0.030 1.00034 1.006892

sp77\_605\_pp\_1lag | .6679036 .0129115 -20.88 0.000 .643071 .6936951

sp77\_606\_1\_pp\_1lag | .9972848 .0044744 -0.61 0.545 .9885535 1.006093

sp77\_606\_pp\_1lag | 1 (omitted)

sp77\_700\_1\_pp\_1lag | 1.003618 .0030863 1.17 0.240 .9975875 1.009686

sp77\_700\_pp\_1lag | .998538 .0031639 -0.46 0.644 .992356 1.004758

sp77\_701\_1\_pp\_1lag | .9998431 .0041613 -0.04 0.970 .9917202 1.008032

sp77\_701\_2\_pp\_1lag | 1.003909 .0037773 1.04 0.300 .9965325 1.011339

sp77\_701\_3\_pp\_1lag | 1.000091 .0190933 0.00 0.996 .9633605 1.038222

sp77\_701\_4\_pp\_1lag | 1.008806 .003076 2.88 0.004 1.002796 1.014853

sp77\_701\_pp\_1lag | .9996035 .0008112 -0.49 0.625 .9980148 1.001195

sp77\_703\_pp\_1lag | 1.001901 .0038971 0.49 0.625 .994292 1.009569

sp77\_704\_1\_pp\_1lag | .9159726 .0036879 -21.80 0.000 .908773 .9232293

sp77\_704\_8\_pp\_1lag | 1.000674 .0034929 0.19 0.847 .9938516 1.007543

sp77\_704\_9\_pp\_1lag | .9841362 .010636 -1.48 0.139 .9635093 1.005205

sp77\_704\_pp\_1lag | .9969335 .0048491 -0.63 0.528 .9874747 1.006483

sp77\_705\_pp\_1lag | .9997512 .0012257 -0.20 0.839 .9973517 1.002156

sp77\_800\_1\_pp\_1lag | .9964731 .0048189 -0.73 0.465 .987073 1.005963

sp77\_800\_2\_pp\_1lag | .9975305 .0030334 -0.81 0.416 .9916029 1.003493

sp77\_800\_pp\_1lag | .999421 .0059411 -0.10 0.922 .9878442 1.011133

sp77\_801\_pp\_1lag | .6720282 .0150474 -17.75 0.000 .6431737 .7021773

sp77\_802\_pp\_1lag | .9909012 .0041045 -2.21 0.027 .9828891 .9989786

sp77\_803\_pp\_1lag | .9975907 .0040049 -0.60 0.548 .9897719 1.005471

sp77\_804\_pp\_1lag | 1 (omitted)

sp77\_805\_pp\_1lag | .9980894 .0046212 -0.41 0.680 .9890729 1.007188

sp77\_807\_1\_pp\_1lag | 1.006826 .0052577 1.30 0.193 .9965737 1.017184

sp77\_807\_2\_pp\_1lag | .9920253 .0064969 -1.22 0.221 .9793731 1.004841

sp77\_807\_3\_pp\_1lag | 1.003869 .0010396 3.73 0.000 1.001834 1.005909

sp77\_807\_pp\_1lag | .9953542 .0047536 -0.98 0.330 .9860808 1.004715

sp77\_808\_pp\_1lag | 1.020526 .0025817 8.03 0.000 1.015478 1.025598

sp77\_809\_pp\_1lag | .9993379 .0015118 -0.44 0.662 .9963792 1.002305

sp77\_810\_pp\_1lag | 1.002807 .0044157 0.64 0.524 .9941901 1.011499

sp77\_900\_1\_pp\_1lag | 1.014444 .0039988 3.64 0.000 1.006637 1.022312

sp77\_900\_2\_pp\_1lag | 1.004433 .0024439 1.82 0.069 .9996547 1.009235

sp77\_900\_pp\_1lag | 1.000119 .0037513 0.03 0.975 .9927932 1.007498

sp77\_901\_1\_pp\_1lag | .9994271 .004892 -0.12 0.907 .9898848 1.009061

sp77\_901\_pp\_1lag | .9884721 .0057575 -1.99 0.047 .9772518 .9998213

sp77\_902\_2\_pp\_1lag | 1.050034 .0014865 34.49 0.000 1.047124 1.052951

sp77\_902\_3\_pp\_1lag | .9959548 .0063143 -0.64 0.523 .9836556 1.008408

sp77\_902\_pp\_1lag | 1.0061 .0026094 2.34 0.019 1.000998 1.011227

sp77\_903\_pp\_1lag | 1.000464 .0062626 0.07 0.941 .9882643 1.012814

sp77\_904\_pp\_1lag | .9999945 .0007052 -0.01 0.994 .9986133 1.001378

mine\_time | .997437 .0018052 -1.42 0.156 .9939052 1.000981

onsite\_insp\_hours | .9997544 .0001243 -1.98 0.048 .9995109 .999998

|

state |

AL | 1.299572 .152195 2.24 0.025 1.033035 1.634881

AR | 2.309608 .1636015 11.82 0.000 2.010218 2.653587

CO | .7297861 .1211757 -1.90 0.058 .5270596 1.010489

IL | 1.072195 .0954672 0.78 0.434 .9004999 1.276627

IN | .8740755 .1833762 -0.64 0.521 .5793908 1.31864

KY | .9679214 .0606771 -0.52 0.603 .8560121 1.094461

MD | 1.192876 .167151 1.26 0.208 .906403 1.569891

MT | .7671872 .060615 -3.35 0.001 .6571257 .895683

NM | .8380122 .0616106 -2.40 0.016 .7255544 .9679003

OH | .9842007 .1493998 -0.10 0.916 .7309252 1.32524

OK | .7390582 .3346884 -0.67 0.504 .3042323 1.795362

PA | .8609025 .0970522 -1.33 0.184 .6902325 1.073773

TN | 1.108336 .1684721 0.68 0.499 .8227824 1.492994

UT | .6367091 .1266743 -2.27 0.023 .4311149 .9403489

VA | .6625824 .0609305 -4.48 0.000 .5533045 .7934428

WY | 1.081121 .089361 0.94 0.345 .9194276 1.271251

|

time |

2007 | 1.208671 .1476661 1.55 0.121 .9512939 1.535682

2007.25 | 1.177027 .153411 1.25 0.211 .9116808 1.519603

2007.5 | 1.242329 .1457632 1.85 0.064 .9871081 1.563539

2007.75 | 1.223584 .1499342 1.65 0.100 .9623439 1.555742

2008 | 1.033028 .1167836 0.29 0.774 .8277213 1.289259

2008.25 | 1.037019 .1238301 0.30 0.761 .8206257 1.310474

2008.5 | 1.21322 .1351813 1.73 0.083 .9752047 1.509328

2009 | .967448 .1100687 -0.29 0.771 .7740777 1.209124

2009.25 | .9496491 .1121525 -0.44 0.662 .7534202 1.196986

2009.5 | 1.108323 .1358604 0.84 0.401 .8716146 1.409316

2009.75 | .8198423 .1028024 -1.58 0.113 .6412032 1.04825

2010 | .8839985 .1094677 -1.00 0.319 .693498 1.126829

2010.25 | .9100627 .1147889 -0.75 0.455 .7107334 1.165295

2010.5 | 1.070988 .1259656 0.58 0.560 .8504901 1.348651

2010.75 | .840543 .1015074 -1.44 0.150 .6633846 1.065012

2011 | .9801458 .1138316 -0.17 0.863 .7806104 1.230685

2011.25 | .9606857 .1123485 -0.34 0.732 .7639001 1.208165

2011.5 | 1.034326 .119436 0.29 0.770 .8248352 1.297023

2011.75 | .8894641 .1036991 -1.00 0.315 .7077669 1.117806

2012 | 1.067973 .1223032 0.57 0.566 .85326 1.336716

2012.25 | .9438576 .1092897 -0.50 0.618 .7522209 1.184316

2012.5 | 1.056539 .1247405 0.47 0.641 .8382785 1.331628

2012.75 | .8720116 .1124907 -1.06 0.288 .6771986 1.122867

2013 | .9373134 .1067058 -0.57 0.570 .7498634 1.171622

2013.25 | .7948389 .1033258 -1.77 0.077 .6160648 1.025491

2013.5 | 1.057419 .1269349 0.47 0.642 .8357317 1.337911

2013.75 | .8287195 .1033203 -1.51 0.132 .6490592 1.05811

2014 | .7853533 .1063516 -1.78 0.074 .6022772 1.02408

2014.25 | .8472677 .1022026 -1.37 0.169 .6688728 1.073242

2014.5 | .876512 .1095695 -1.05 0.292 .6860446 1.119859

2014.75 | .8903028 .112296 -0.92 0.357 .6953024 1.139992

2015 | .8091563 .099097 -1.73 0.084 .6364821 1.028676

2015.25 | .9151005 .1225431 -0.66 0.508 .703854 1.189748

2015.5 | 1.140976 .1450782 1.04 0.300 .8892907 1.463892

2015.75 | .6615606 .1003757 -2.72 0.006 .4913835 .8906739

2016 | .9684766 .1246942 -0.25 0.804 .7524791 1.246476

|

\_cons | .0000101 1.05e-06 -110.29 0.000 8.24e-06 .0000124

ln(hours) | 1 (exposure)

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

/lnalpha | -2.08449 .2720013 -2.617603 -1.551377

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

alpha | .1243705 .033829 .0729776 .2119559

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(est1 stored)

**. lrtest pois nbin, stats force**

Likelihood-ratio test LR chi2(38) = -17654.94

(Assumption: nbin nested in pois) Prob > chi2 = 1.0000

Akaike's information criterion and Bayesian information criterion

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

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

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

nbin | 14,208 -9998.914 -9681.531 347 20057.06 22680.92

pois | 26,110 -19356.43 -18509 385 37788.01 40933.49

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

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

**. summ MR spcpp2\_yhat**

Variable | Obs Mean Std. Dev. Min Max

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

MR | 30,289 .4096207 .9550592 0 14

spcpp2\_yhat | 26,110 .4624531 .7075447 5.53e-37 10.54599

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