| **MODEL** | **SPECIFICATION** | **ASSESSMENT** |
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| *MR.Y.P.B.V.1*  MR injury outcome  Mine-year unit  Part-level violation predictors  Binary outcome variable  Predictors = # violations  No lag  *Probit does not converge*  *Logit results reported* | p75 (1.0056)\*\*\*  p77 (1.0320)\*  onsite\_insp\_hours (1.0007)\*\*\*  state fixed effects significant  year fixed effects significant | Good fit (lfit)  Specification error/missing vars (linktest)  Log pseudo-likelihood -2900.2368 (+180.4936)  Positive predictive value Pr(1 | +) 78.79% (+2.25%)  Negative predictive value Pr(0 | -) 75.10% (-1.18%)  False + rate for true 0 Pr(+ | 0) 26.59% (-4.68%)  False - rate for true 1 Pr(- | 1) 19.77% (+2.37%)  Correctly classified 77.17% (+0.77%)  Mean Standard Deviation  True 0.5525 0.4973  Predicted 0.5517 0.2923 |
| *MR.Y.P.B.SSV.1*  MR injury outcome  Mine-year unit  Part-level violation predictors  Binary outcome variable  Predictors = # sig&sub violations  No lag  *Probit does not converge*  *Logit results reported* | p75\_ss (1.0120)\*\*  p77\_ss (1.0992)\*  onsite\_insp\_hours (1.0010)\*\*\*  state fixed effects significant  year fixed effects significant | Good fit (lfit)  Specification error/missing vars (linktest)  Log pseudo-likelihood -2903.7479 (+149.9825)  Positive predictive value Pr(1 | +) 78.89% (+2.35%)  Negative predictive value Pr(0 | -) 75.22% (-0.97%)  False + rate for true 0 Pr(+ | 0) 26.45% (-4.82%)  False - rate for true 1 Pr(- | 1) 19.69% (+2.29%)  Correctly classified 77.28% (+0.88%)  Mean Standard Deviation  True 0.5525 0.4973  Predicted 0.5517 0.2922 |
| *MR.Y.P.B.PP.1*  MR injury outcome  Mine-year unit  Part-level violation predictors  Binary outcome variable  Predictors = # penalty points  No lag  *Probit does not converge*  *Logit results reported* | onsite\_insp\_hours (1.0010)\*\*\*  state fixed effects significant  year fixed effects significant | Good fit (lfit)  Specification error/missing vars (linktest)  Log pseudo-likelihood -2912.6471 (+168.0833)  Positive predictive value Pr(1 | +) 78.77% (+2.23%)  Negative predictive value Pr(0 | -) 75.50% (-0.69%)  False + rate for true 0 Pr(+ | 0) 26.77% (-4.50%)  False - rate for true 1 Pr(- | 1) 19.31% (+1.91%)  Correctly classified 77.35% (+0.95%)  Mean Standard Deviation  True 0.5525 0.4973  Predicted 0.5517 0.2911 |
| *MR.Q.P.B.V.1*  MR injury outcome  Mine-quarter unit  Part-level violation predictors  Binary outcome variable  Predictors = # violations  No lag  *Probit does not converge*  *Logit results reported* | P48 (0.9600)\*  p75 (1.0083)\*\*\*  onsite\_insp\_hours (1.0005)\*  state fixed effects significant  quarter fixed effects significant | Bad fit (lfit)  Specification error/missing vars (linktest)  Log pseudo-likelihood -12177.0680 (+570.593)  Positive predictive value Pr(1 | +) 71.82% (+1.84%)  Negative predictive value Pr(0 | -) 82.72% (-0.55%)  False + rate for true 0 Pr(+ | 0) 5.84% (+0.30%)  False - rate for true 1 Pr(- | 1) 56.95% (-2.55%)  Correctly classified 81.04% (-0.37%)  Mean Standard Deviation  True 0.2419 0.4282  Predicted 0.2568 0.2315 |
| *MR.Q.P.B.SSV.1*  MR injury outcome  Mine-quarter unit  Part-level violation predictors  Binary outcome variable  Predictors = # sig&sub violations  No lag  *Probit does not converge*  *Logit results reported* | p71\_ss (0.300)\*\*\*  p75\_ss (1.018)\*\*\*  p77\_ss (1.117)\*  onsite\_insp\_hours (1.0001)\*\*\*  state fixed effects significant  quarter fixed effects significant | Bad fit (lfit)  Specification error/missing vars (linktest)  Log pseudo-likelihood -12176.52 (+571.141)  Positive predictive value Pr(1 | +) 71.74% (+X.XX%)  Negative predictive value Pr(0 | -) 82.71% (-X.XX%)  False + rate for true 0 Pr(+ | 0) 5.86% (-X.XX%)  False - rate for true 1 Pr(- | 1) 56.96% (+X.XX%)  Correctly classified 81.02% (+X.XX%)  Mean Standard Deviation  True 0.2419 0.4282  Predicted 0.2568 0.2310 |
| *MR.Q.P.B.PP.1*  MR injury outcome  Mine-quarter unit  Part-level violation predictors  Binary outcome variable  Predictors = # penalty points  No lag  *Probit does not converge*  *Logit results reported* | p75\_pp (1.000)\*\*\*  onsite\_insp\_hours (1.001)\*  state fixed effects significant  quarter fixed effects significant | Bad fit (lfit)  Some specification error/missing vars (linktest)  Log pseudo-likelihood -6285.3533 (+6462.3077)  Positive predictive value Pr(1 | +) 71.24% (+X.XX%)  Negative predictive value Pr(0 | -) 83.03% (-X.XX%)  False + rate for true 0 Pr(+ | 0) 6.20% (-X.XX%)  False - rate for true 1 Pr(- | 1) 55.55% (+X.XX%)  Correctly classified 81.14% (+X.XX%)  Mean Standard Deviation  True 0.2419 0.4282  Predicted 0.2156 0.2133 |
| *MR.Y.P.B.V.2*  MR injury outcome  Mine-year unit  Part-level violation predictors  Binary outcome variable  Predictors = # violations  Lag 1  *Probit does not converge*  *Logit results reported* | p75\_1lag (1.005)\*\*\*  p77\_1lag (1.036)\*\*  onsite\_insp\_hours (1.001)\*\*\*  state fixed effects significant  quarter fixed effects significant | Good fit (lfit)  Some specification error/missing vars (linktest)  Log pseudo-likelihood -2902.6511 (+9845.0099)  Positive predictive value Pr(1 | +) 78.66% (+X.XX%)  Negative predictive value Pr(0 | -) 75.07% (-X.XX%)  False + rate for true 0 Pr(+ | 0) 26.80% (-X.XX%)  False - rate for true 1 Pr(- | 1) 19.74% (+X.XX%)  Correctly classified 77.09% (+X.XX%)  Mean Standard Deviation  True 0. 5525 0.4973  Predicted 0. 5517 0.2919 |
| *MR.Y.P.B.SSV.2*  MR injury outcome  Mine-year unit  Part-level violation predictors  Binary outcome variable  Predictors = # sig&sub violations  Lag 1  *Probit does not converge*  *Logit results reported* | p75\_ss\_1lag (1.013)\*\*\*  p77\_ss\_1lag (1.117)\*  onsite\_insp\_hours (1.001)\*\*\*  state fixed effects significant  quarter fixed effects significant | Good fit (lfit)  Some specification error/missing vars (linktest)  Log pseudo-likelihood -2903.1676 (+9844.4934)  Positive predictive value Pr(1 | +) 79.00% (+X.XX%)  Negative predictive value Pr(0 | -) 75.51% (-X.XX%)  False + rate for true 0 Pr(+ | 0) 26.38% (-X.XX%)  False - rate for true 1 Pr(- | 1) 19.40% (+X.XX%)  Correctly classified 77.48% (+X.XX%)  Mean Standard Deviation  True 0. 5525 0.4973  Predicted 0. 5517 0.2923 |
| *MR.Y.P.B.PP.2*  MR injury outcome  Mine-year unit  Part-level violation predictors  Binary outcome variable  Predictors = # penalty points  Lag 1  *Probit does not converge*  *Logit results reported* | p75\_pp\_1lag (1.000)\*\*  onsite\_insp\_hours (1.001)\*\*\*  state fixed effects significant  quarter fixed effects significant | Good fit (lfit)  No specification error/missing vars (linktest)  Log pseudo-likelihood -1520.166 (+11227.495)  Positive predictive value Pr(1 | +) 78.91% (+X.XX%)  Negative predictive value Pr(0 | -) 75.82% (-X.XX%)  False + rate for true 0 Pr(+ | 0) 26.20% (-X.XX%)  False - rate for true 1 Pr(- | 1) 19.35% (+X.XX%)  Correctly classified 77.56% (+X.XX%)  Mean Standard Deviation  True 0.5525 0.4973  Predicted 0.5091 0.2858 |
| *MR.Q.P.B.V.2*  MR injury outcome  Mine-quarter unit  Part-level violation predictors  Binary outcome variable  Predictors = # violations  Lag 1  *Probit does not converge*  *Logit results reported* | p71\_1lag (1.421)\*\*  p75\_1lag (1.006)\*\*\*  onsite\_insp\_hours (1.001)\*\*\*  state fixed effects significant  quarter fixed effects significant | Bad fit (lfit)  Specification error/missing vars (linktest)  Log pseudo-likelihood -11580.899 (+1166.762)  Positive predictive value Pr(1 | +) 71.69% (+1.71%)  Negative predictive value Pr(0 | -) 81.90% (-1.37%)  False + rate for true 0 Pr(+ | 0) 6.36% (+0.82%)  False - rate for true 1 Pr(- | 1) 56.23% (-3.27%)  Correctly classified 80.23% (-1.18%)  Mean Standard Deviation  True 0.2419 0. 4282  Predicted 0.2690 0. 2333 |
| *MR.Q.P.B.SSV.2*  MR injury outcome  Mine-quarter unit  Part-level violation predictors  Binary outcome variable  Predictors = # sig&sub violations  Lag 1  *Probit does not converge*  *Logit results reported* | p47\_ss\_1lag (2.161)\*\*  p75\_ss\_1lag (1.014)\*\*\*  state fixed effects significant  quarter fixed effects significant | Bad fit (lfit)  Specification error/missing vars (linktest)  Log pseudo-likelihood -11583.109 (+1164.552)  Positive predictive value Pr(1 | +) 71.48% (+1.50%)  Negative predictive value Pr(0 | -) 81.91% (-1.36%)  False + rate for true 0 Pr(+ | 0) 6.43% (+0.89%)  False - rate for true 1 Pr(- | 1) 56.17% (-3.33%)  Correctly classified 80.19% (-1.22%)  Mean Standard Deviation  True 0. 2418700 0. 4282230  Predicted 0. 2689774 0. 2329331 |
| *MR.Q.P.B.PP.2*  MR injury outcome  Mine-quarter unit  Part-level violation predictors  Binary outcome variable  Predictors = # penalty points  Lag 1  *Probit does not converge*  *Logit results reported* | P71\_pp\_1lag (1.007)\*\*  p75\_pp\_1lag (1.000)\*\*\*  onsite\_insp\_hours (1.001)\*\*  state fixed effects significant  quarter fixed effects significant | Bad fit (lfit)  Specification error/missing vars (linktest)  Log pseudo-likelihood -6160.1597 (+6587.5013)  Positive predictive value Pr(1 | +) 71.10% (+1.12%)  Negative predictive value Pr(0 | -) 82.33% (-0.94%)  False + rate for true 0 Pr(+ | 0) 6.60% (+1.06%)  False - rate for true 1 Pr(- | 1) 55.25% (-4.25%)  Correctly classified 80.45% (-0.96%)  Mean Standard Deviation  True 0.2419 0.4282  Predicted 0.2271 0.2164 |
| *MR.Y.P.B.V.3*  MR injury outcome  Mine-year unit  Part-level violation predictors  Binary outcome variable  Predictors = # violations  Cumulative Lag 4  *Probit does not converge*  *Logit results reported* | p75\_c\_lag\_4 (1.0010)\*\*  p77\_c\_lag\_4 (1.0103)\*  onsite\_insp\_hours (1.0009)\*\*\*  state fixed effects significant  year fixed effects significant | Good fit (lfit)  Specification error/missing vars (linktest)  Log pseudo-likelihood -2906.5584 (+174.1720)  Positive predictive value Pr(1 | +) 78.74% (+2.20%)  Negative predictive value Pr(0 | -) 75.26% (-0.93%)  False + rate for true 0 Pr(+ | 0) 26.73% (-4.54%)  False - rate for true 1 Pr(- | 1) 19.57% (+2.17%)  Correctly classified 77.22% (+0.82%)  Mean Standard Deviation  True 0.5525 0.4973  Predicted 0.5527 0.2917 |
| *MR.Y.P.B.SSV.3*  MR injury outcome  Mine-year unit  Part-level violation predictors  Binary outcome variable  Predictors = # sig&sub violations  Cumulative Lag 4  *Probit does not converge*  *Logit results reported* | p75\_ss\_c\_lag\_4 (1.0030)\*\*  p77\_ss\_c\_lag\_4 (1.0432)\*\*  onsite\_insp\_hours (1.0010)\*\*\*  state fixed effects significant  year fixed effects significant | Good fit (lfit)  Specification error/missing vars (linktest)  Log pseudo-likelihood -2904.9460 (+175.7844)  Positive predictive value Pr(1 | +) 78.77% (+2.23%)  Negative predictive value Pr(0 | -) 75.22% (-0.97%)  False + rate for true 0 Pr(+ | 0) 26.66% (-4.61%)  False - rate for true 1 Pr(- | 1) 19.63% (+2.23%)  Correctly classified 77.22% (+0.82%)  Mean Standard Deviation  True 0.5525 0.4973  Predicted 0.5517 0.2921 |
| *MR.Y.P.B.PP.3*  MR injury outcome  Mine-year unit  Part-level violation predictors  Binary outcome variable  Predictors = # penalty points  Cumulative Lag 4  *Probit does not converge*  *Logit results reported* | P48\_pp\_c\_lag\_4 (1.0005)\*  onsite\_insp\_hours (1.0013)\*\*\*  state fixed effects significant  year fixed effects significant | Good fit (lfit)  No specification error/missing vars (linktest)  Log pseudo-likelihood -2914.5412 (+166.1892)  Positive predictive value Pr(1 | +) 78.66% (+2.12%)  Negative predictive value Pr(0 | -) 75.38% (-0.81%)  False + rate for true 0 Pr(+ | 0) 26.91% (-4.36%)  False - rate for true 1 Pr(- | 1) 19.40% (+2.00%)  Correctly classified 77.23% (+0.83%)  Mean Standard Deviation  True 0.5525 0.4973  Predicted 0.5517 0.2910 |
| *MR.Q.P.B.V.3*  MR injury outcome  Mine-quarter unit  Part-level violation predictors  Binary outcome variable  Predictors = # violations  Cumulative Lag 4  *Probit does not converge*  *Logit results reported* | p75\_c\_4lag (1.002)\*\*\*  onsite\_insp\_hours (1.000)\*  state fixed effects significant  year fixed effects significant | Bad fit (lfit)  Specification error/missing vars (linktest)  Log pseudo-likelihood -10185.222 (+2562.439)  Positive predictive value Pr(1 | +) 71.40% (+1.42%)  Negative predictive value Pr(0 | -) 81.11% (-2.16%)  False + rate for true 0 Pr(+ | 0) 7.31% (+1.77%)  False - rate for true 1 Pr(- | 1) 54.21% (-5.29%)  Correctly classified 79.33% (-2.08%)  Mean Standard Deviation  True 0. 2419 0.4282  Predicted 0. 2849 0.2396 |
| *MR.Q.P.B.SSV.3*  MR injury outcome  Mine-quarter unit  Part-level violation predictors  Binary outcome variable  Predictors = # sig&sub violations  Cumulative Lag 4  *Probit does not converge*  *Logit results reported* | p75\_ss\_c\_lag\_4 (1.0064)\*\*\*  onsite\_insp\_hours (1.0007)\*\*\*  state fixed effects significant  year fixed effects significant | Bad fit (lfit)  Specification error/missing vars (linktest)  Log pseudo-likelihood -10182.675 (+2564.986)  Positive predictive value Pr(1 | +) 71.64% (+1.66%)  Negative predictive value Pr(0 | -) 81.14% (-2.13%)  False + rate for true 0 Pr(+ | 0) 7.23% (+1.69%)  False - rate for true 1 Pr(- | 1) 54.13% (-5.37%)  Correctly classified 79.41% (-2.00%)  Mean Standard Deviation  True 0.2419 0.4282  Predicted 0.2849 0.2392 |
| *MR.Q.P.B.PP.3*  MR injury outcome  Mine-quarter unit  Part-level violation predictors  Binary outcome variable  Predictors = # penalty points  Cumulative Lag 4  *Probit does not converge*  *Logit results reported* | P75\_pp\_c\_lag\_4 (1.0000)\*\*\*  onsite\_insp\_hours (1.0019)\*\*\*  state fixed effects significant  year fixed effects significant | Bad fit (lfit)  Specification error/missing vars (linktest)  Log pseudo-likelihood -10198.239 (+2549.422)  Positive predictive value Pr(1 | +) 71.59% (+1.61%)  Negative predictive value Pr(0 | -) 81.09% (-2.18%)  False + rate for true 0 Pr(+ | 0) 7.22% (+1.68%)  False - rate for true 1 Pr(- | 1) 54.32% (-5.18%)  Correctly classified 79.36% (-2.05%)  Mean Standard Deviation  True 0.2419 0.4282  Predicted 0.2849 0.2376 |
| *MR.Y.P.B.V.4*  MR injury outcome  Mine-year unit  Part-level violation predictors  Binary outcome variable  Predictors = # violations  Cumulative Lag From T=0  *Probit does not converge*  *Logit results reported* | p71\_c\_lag\_all (1.0765)\*\*  onsite\_insp\_hours (1.001)\*\*\*  state fixed effects significant  year fixed effects significant | Good fit (lfit)  Specification error/missing vars (linktest)  Log pseudo-likelihood -2911.9179 (+168.8125)  Positive predictive value Pr(1 | +) 78.63% (+2.09%)  Negative predictive value Pr(0 | -) 75.21% (-0.98%)  False + rate for true 0 Pr(+ | 0) 26.91% (-4.36%)  False - rate for true 1 Pr(- | 1) 19.57% (+2.17%)  Correctly classified 77.14% (+0.74%)  Mean Standard Deviation  True 0.5525 0.4973  Predicted 0.5517 0.2909 |
| *MR.Y.P.B.SSV.4*  MR injury outcome  Mine-year unit  Part-level violation predictors  Binary outcome variable  Predictors = # sig&sub violations  Cumulative Lag From T=0  *Probit does not converge*  *Logit results reported* | p72\_ss\_c\_lag\_all (0.947)\*  p77\_ss\_c\_lag\_all (1.022)\*\*\*  onsite\_insp\_hours (1.001)\*\*\*  state fixed effects significant  year fixed effects significant | Good fit (lfit)  Some specification error/missing vars (linktest)  Log pseudo-likelihood -2907.3854 (+XXX.XXXX)  Positive predictive value Pr(1 | +) 78.66% (+X.XX%)  Negative predictive value Pr(0 | -) 75.66% (-X.XX%)  False + rate for true 0 Pr(+ | 0) 27.02% (-X.XX%)  False - rate for true 1 Pr(- | 1) 19.08% (+X.XX%)  Correctly classified 77.36% (+X.XX%)  Mean Standard Deviation  True 0.5525 0.4973  Predicted 0.5517 0.2913 |
| *MR.Y.P.B.PP.4*  MR injury outcome  Mine-year unit  Part-level violation predictors  Binary outcome variable  Predictors = # penalty points  Cumulative Lag From T=0  *Probit does not converge*  *Logit results reported* | p71\_pp\_c\_lag\_all (1.0014)\*  onsite\_insp\_hours (1.0013)\*\*\*  state fixed effects significant  year fixed effects significant | Good fit (lfit)  Specification error/missing vars (linktest)  Log pseudo-likelihood -2912.8854 (+167.8450)  Positive predictive value Pr(1 | +) 78.68% (+2.14%)  Negative predictive value Pr(0 | -) 75.36% (-0.83%)  False + rate for true 0 Pr(+ | 0) 26.88% (-4.39%)  False - rate for true 1 Pr(- | 1) 19.43% (+2.03%)  Correctly classified 77.23% (+0.83%)  Mean Standard Deviation  True 0.5525 0.4973  Predicted 0.5517 0.2909 |
| *MR.Q.P.B.V.4*  MR injury outcome  Mine-quarter unit  Part-level violation predictors  Binary outcome variable  Predictors = # violations  Cumulative Lag From T=0  *Probit does not converge*  *Logit results reported* | p75\_c\_lag\_all (1.0002)\*\*  onsite\_insp\_hours (1.0010)\*\*\*  state fixed effects significant  quarter fixed effects significant | Bad fit (lfit)  Specification error/missing vars (linktest)  Log pseudo-likelihood -2911.9179 (+168.8125)  Positive predictive value Pr(1 | +) 72.92% (+2.94%)  Negative predictive value Pr(0 | -) 81.51% (-2.34%)  False + rate for true 0 Pr(+ | 0) 8.21% (+2.67%)  False - rate for true 1 Pr(- | 1) 48.52% (-10.48%)  Correctly classified 79.68% (-1.73%)  Mean Standard Deviation  True 0.2419 0.4282  Predicted 0.2419 0.2096 |
| *MR.Q.P.B.SSV.4*  MR injury outcome  Mine-quarter unit  Part-level violation predictors  Binary outcome variable  Predictors = # sig&sub violations  Cumulative Lag From T=0  *Probit does not converge*  *Logit results reported* | onsite\_insp\_hours (1.001)\*\*\*  state fixed effects significant  year fixed effects significant | Bad fit (lfit)  Specification error/missing vars (linktest)  Log pseudo-likelihood -8797.1773 (+3950.4837)  Positive predictive value Pr(1 | +) 72.90% (+2.92%)  Negative predictive value Pr(0 | -) 81.52% (-1.75%)  False + rate for true 0 Pr(+ | 0) 8.22% (+2.68%)  False - rate for true 1 Pr(- | 1) 48.46% (-11.04%)  Correctly classified 79.69% (-1.72%)  Mean Standard Deviation  True 0.2419 0.4282  Predicted 0.3004 0.2504 |
| *MR.Q.P.B.PP.4*  MR injury outcome  Mine-quarter unit  Part-level violation predictors  Binary outcome variable  Predictors = # penalty points  Cumulative Lag From T=0  *Probit does not converge*  *Logit results reported* | onsite\_insp\_hours (1.0011)\*\*\*  state fixed effects significant  year fixed effects significant | Bad fit (lfit)  Specification error/missing vars (linktest)  Log pseudo-likelihood -8797.6042 (+3950.0568)  Positive predictive value Pr(1 | +) 72.89% (+2.91%)  Negative predictive value Pr(0 | -) 81.54% (-1.73%)  False + rate for true 0 Pr(+ | 0) 8.24% (+2.70%)  False - rate for true 1 Pr(- | 1) 48.39% (-11.11%)  Correctly classified 79.70% (-1.71%)  Mean Standard Deviation  True 0.2419 0.4282  Predicted 0.3004 0.2501 |