Appendix: Math Growth Rates for Non-FRL and FRL Students by Elementary and Middle School %FRL (Full Results)

|  |  |  |
| --- | --- | --- |
|   | ***Non-FRL*** | ***FRL*** |
|   | Model 1A | Model 2A | Model 1B | Model 2B |
| Time 1 (Elem.Sch.) | 33.94\*\*\* | 33.65\*\*\* | 29.26\*\*\* | 29.41\*\*\* |
|   | (0.418) | (0.419) | (0.394) | (0.393) |
| T1 x Elem. %FRL | -9.073\*\*\* | -11.59\*\*\* | -1.144 | -3.446 |
|   | (1.662) | (1.717) | (1.711) | (1.767) |
| T1 x Elem. Black | 7.734\*\*\* | 8.027\*\*\* | -4.401\*\* | -3.965\* |
|   | (1.978) | (1.962) | (1.693) | (1.677) |
| T1 x Elem. Latino | 4.318 | 4.304 | -0.832 | -0.417 |
|   | (3.750) | (3.735) | (2.841) | (2.820) |
| T1 x Black | -4.125\*\*\* | -3.745\*\*\* | -1.314\* | -1.067\* |
|   | (0.687) | (0.686) | (0.522) | (0.513) |
| T1 x Latino | -0.260 | -0.167 | 1.571\*\*\* | 1.697\*\*\* |
|   | (0.586) | (0.587) | (0.443) | (0.444) |
| T1 x Am.Ind. | -5.655\*\* | -5.662\*\* | 2.565 | 2.564 |
|   | (1.963) | (1.955) | (1.939) | (1.948) |
| T1 x API | 9.613\*\*\* | 9.397\*\*\* | 14.81\*\*\* | 14.89\*\*\* |
|   | (1.156) | (1.132) | (2.027) | (2.047) |
| T1 x Multirac. | -1.385\* | -1.280\* | 1.165\* | 1.342\* |
|   | (0.591) | (0.588) | (0.538) | (0.534) |
| T1 x Male | -0.876\*\*\* | -0.859\*\*\* | -1.012\*\*\* | -0.993\*\*\* |
|   | (0.221) | (0.220) | (0.261) | (0.260) |
| T1 x BY Math | -7.910\*\*\* | -7.974\*\*\* | -7.926\*\*\* | -7.954\*\*\* |
|   | (0.249) | (0.250) | (0.229) | (0.229) |
| Time 2 (Mid.Sch.) | 24.46\*\*\* | 24.16\*\*\* | 23.32\*\*\* | 23.30\*\*\* |
|   | (0.345) | (0.344) | (0.318) | (0.317) |
| T2 x Elem. %FRL |   | -9.848\*\*\* |   | -7.927\*\*\* |
|   |   | (1.270) |   | (1.115) |
| T2 x M.Sch. %FRL | -2.438 | 7.350\*\*\* | -3.628 | 3.882 |
|   | (1.612) | (2.079) | (1.891) | (2.208) |
| T2 x M.Sch. Black | 1.362 | 0.263 | 3.979 | 3.723 |
|   | (2.099) | (2.105) | (2.086) | (2.059) |
| T2 x M.Sch. Latino | 0.376 | 0.681 | 4.780 | 4.631 |
|   | (4.270) | (4.271) | (3.343) | (3.332) |
| T2 x Black | -0.144 | 0.105 | -0.740 | -0.454 |
|   | (0.501) | (0.503) | (0.441) | (0.438) |
| T2 x Latino | -1.516\*\* | -1.473\*\* | -0.0216 | 0.209 |
|   | (0.479) | (0.479) | (0.383) | (0.378) |
| T2 x Am.Ind. | 1.541 | 1.471 | -5.873\*\*\* | -5.597\*\*\* |
|   | (1.390) | (1.387) | (1.576) | (1.585) |
| T2 x API | 1.033 | 0.997 | 1.628 | 1.733 |
|   | (0.805) | (0.812) | (1.428) | (1.430) |
| T2 x Multirac. | 0.707 | 0.796 | -0.919 | -0.823 |
|   | (0.479) | (0.482) | (0.511) | (0.513) |
| T2 x Male | -1.105\*\*\* | -1.104\*\*\* | -1.123\*\*\* | -1.135\*\*\* |
|   | (0.154) | (0.154) | (0.215) | (0.214) |
| T2 x BY Math | -0.668\*\*\* | -0.713\*\*\* | -0.596\*\*\* | -0.629\*\*\* |
|   | (0.173) | (0.175) | (0.178) | (0.177) |
| Spec. Educ. | -1.158\* | -1.159\* | 0.272 | 0.271 |
|   | (0.513) | (0.513) | (0.622) | (0.621) |
| LEP | 1.177 | 1.008 | -0.325 | -0.372 |
|   | (1.137) | (1.138) | (0.799) | (0.796) |
| Retained | 19.22\*\*\* | 19.33\*\*\* | 14.97\*\*\* | 14.98\*\*\* |
|   | (2.569) | (2.565) | (1.808) | (1.806) |
| Transition | -2.053\*\* | -2.022\*\* | -4.002\*\*\* | -4.092\*\*\* |
|   | (0.662) | (0.660) | (0.660) | (0.660) |
| TP x T1 | -6.652\*\*\* | -6.449\*\*\* | -5.942\*\*\* | -5.940\*\*\* |
|   | (1.124) | (1.143) | (0.776) | (0.775) |
| TP x T1 x Elem. %FRL | 11.87\*\*\* | 12.07\*\*\* | 1.725 | 2.134 |
|   | (2.411) | (2.437) | (1.896) | (1.874) |
| TP xT1 x Elem. Black | -11.09\*\*\* | -11.01\*\*\* | 1.183 | 1.035 |
|   | (2.493) | (2.517) | (1.785) | (1.768) |
| TP xT1 x Elem. Latino | -3.959 | -3.477 | 3.818 | 3.506 |
|   | (4.441) | (4.438) | (2.918) | (2.871) |
| TP xT1 x Black | 2.988\*\* | 2.975\*\* | -1.179 | -1.142 |
|   | (1.085) | (1.079) | (0.673) | (0.668) |
| TP xT1 x Latino | -0.0734 | -0.177 | -1.035 | -0.959 |
|   | (1.105) | (1.102) | (0.542) | (0.541) |
| TP xT1 x Am.Ind. | 1.382 | 1.302 | 1.325 | 1.445 |
|   | (3.368) | (3.355) | (3.217) | (3.213) |
| TP xT1 x API | 2.127 | 2.192 | -2.965 | -2.943 |
|   | (1.628) | (1.617) | (2.317) | (2.339) |
| TP xT1 x Multirac. | 0.984 | 0.953 | -1.511\* | -1.469\* |
|   | (1.068) | (1.065) | (0.723) | (0.720) |
| TP xT1 x Male | 0.204 | 0.172 | 0.0512 | 0.0536 |
|   | (0.366) | (0.365) | (0.324) | (0.324) |
| TP xT1 x BY Math | 0.376 | 0.383 | 0.0268 | 0.0132 |
|   | (0.297) | (0.298) | (0.244) | (0.244) |
| TP xTime 2 (Mid.Sch.) | -1.835\*\* | -1.392\* | -2.419\*\*\* | -2.334\*\*\* |
|   | (0.645) | (0.650) | (0.506) | (0.504) |
| TP xT2 x Elem. %FRL |   | 3.728 |   | 2.505 |
|   |   | (2.030) |   | (1.541) |
| TP xT2 x M.Sch. %FRL | -9.605\*\* | -13.46\*\*\* | -0.226 | -3.338 |
|   | (3.081) | (3.159) | (2.694) | (2.666) |
| TP xT2 x M.Sch. Black | 0.424 | 1.061 | -6.553\* | -6.379\* |
|   | (3.118) | (3.104) | (2.793) | (2.751) |
| TP xT2 x M.Sch. Latino | 1.565 | 1.281 | -6.546 | -6.406 |
|   | (7.130) | (7.285) | (5.869) | (5.694) |
| TP xT2 x Black | -1.731\* | -1.843\* | 0.594 | 0.427 |
|   | (0.783) | (0.785) | (0.622) | (0.616) |
| TP xT2 x Latino | -0.0345 | 0.00605 | 1.183 | 1.037 |
|   | (0.737) | (0.737) | (0.604) | (0.603) |
| TP xT2 x Am.Ind. | 1.380 | 1.356 | 3.246 | 2.932 |
|   | (2.093) | (2.077) | (2.220) | (2.218) |
| TP xT2 x API | 0.470 | 0.564 | 3.215\* | 3.177\* |
|   | (0.976) | (0.979) | (1.555) | (1.551) |
| TP xT2 x Multirac. | -1.022 | -1.103 | 1.606\* | 1.532\* |
|   | (0.689) | (0.685) | (0.740) | (0.740) |
| TP xT2 x Male | 0.210 | 0.188 | 0.293 | 0.317 |
|   | (0.232) | (0.230) | (0.295) | (0.296) |
| TP xT2 x BY Math | -0.901\*\* | -0.851\*\* | -0.413 | -0.387 |
|   | (0.274) | (0.274) | (0.244) | (0.242) |
| Transfer | -4.456\*\* | -4.367\*\* | -6.086\*\*\* | -6.085\*\*\* |
|   | (1.449) | (1.455) | (0.843) | (0.835) |
| Trans. Period | 17.93\*\*\* | 17.34\*\*\* | 18.88\*\*\* | 18.61\*\*\* |
|   | (2.846) | (2.869) | (1.820) | (1.805) |
| \_cons | 483.8\*\*\* | 483.8\*\*\* | 442.2\*\*\* | 442.2\*\*\* |
|   | (0.396) | (0.391) | (0.426) | (0.421) |
| *N* | 1775,83 | 177,583 | 128,013 | 128,013 |

Standard errors in parentheses

t1\_full\_IN\_schtran\_02\_A18.rtf

\* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

|  |
| --- |
| Sensitivity Analysis on Key Coefficients Models Presented in Table 2 |
|   | Model 1A | Model 2A | Model 1B | Model 2B |
| T1 x Elem. %FRL | 82%(-.091, 091) | 84%(-.107, .107) | n.s. | n.s. |
| T2 x M.Sch. %FRL | n.s. | 153%(.061, 061) | n.s. | n.s. |
| T2 x Elem. %FRL | n.a. | 83%(-.118, .118) | n.a. | 81%(-.120, 120) |
| Note: The figures in the table rely upon measures derived by Frank and Min (2007). The top figure indicates the percentage of the estimated effect that would have to be due to bias, in order for the inference to be invalidated. The lower figures in parentheses represents the size of the relationship (conditional on the model covariates) between an omitted variable and the explanatory variable, and the omitted variable and the outcome (respectively) that would invalidate the inference. “n.s.” indicates that the coefficient was not statistically significant, and “n.a.” indicates “not applicable” because the coefficient is not present in a given model. |