

Table Appendix

Table A: Parametric Tests (OLS)

AYP history	Reading Score			
	Linear	Quadratic	Cubic	Quartic
Aggregate	0.0053 (0.0078)	0.0127 (0.0102)	-0.0003 (0.0127)	0.0044 (0.0152)
Threat SES	0.0419 (0.0180)	0.0438 (0.0232)	0.0284 (0.0288)	0.0320 (0.0346)
Threat transfer	0.0108 (0.0173)	-0.0180 (0.0220)	-0.0330 (0.0274)	-0.0450 (0.0325)
Mid. (trsfc., SES)	1 significant	0 significant	0 significant	0 significant
Corrective	0.0133 (0.0220)	0.0251 (0.0293)	0.0480 (0.0375)	0.0144 (0.0455)
Restr. Plan	0.0022 (0.0270)	-0.0180 (0.0346)	-0.0246 (0.0432)	0.0111 (0.0507)
Restructuring	0.0419 (0.0221)	0.0672 (0.0296)	0.0408 (0.0367)	0.0923 (0.0458)

AYP history	Math Score			
	Linear	Quadratic	Cubic	Quartic
Aggregate	0.0250 (0.0079)	0.0207 (0.0102)	0.0611 (0.0326)	0.0135 (0.0152)
Threat SES	0.0474 (0.0203)	0.0558 (0.0262)	0.0066 (0.0305)	0.0572 (0.0392)
Threat transfer	0.0179 (0.0192)	0.0086 (0.0245)	-0.0314 (0.0450)	-0.0275 (0.0361)
Mid. (trsfc., SES)	0 significant	0 significant	0 significant	0 significant
Corrective	0.0404 (0.0207)	0.0377 (0.0276)	0.0007 (0.0351)	-0.0291 (0.0425)
Restr. Plan	0.0299 (0.0259)	0.0519 (0.0332)	0.0503 (0.0412)	0.0621 (0.0486)
Restructuring	0.0696 (0.0257)	0.0482 (0.0345)	0.0573 (0.0431)	0.0755 (0.0539)

Note: Standard errors in parentheses. Unit of observation is school/year. Dependent variable is mean year-over-year change in standardized test score in the indicated subject between the year of AYP status determination and the following year. Included regressors are treatment indicator, school score, treatment indicator x school score (linear, quadratic, cubic, and quartic terms), minority (status or percent), LEP (status or percent), female (status or percent), disabled (status or percent), school population.

Table B1: RD estimates of the impact of exposure to the first NCLB sanction/threat of second

First sanction is transfers (second SES)	Reading (n=1,486)	Math (n=1,486)
At optimal bandwidth	0.0178 (0.0124)	0.0144 (0.0181)
Half optimal bandwidth	0.0139 (0.0176)	0.0076 (0.0254)
Twice optimal bandwidth	0.0185 (0.0106)	0.0256 (0.015)
At optimal bandwidth, including transferred students	0.0194 (0.0105)	0.0092 (0.0200)
First sanction is SES (second transfers)	Reading (n=177)	Math (n=177)
At optimal bandwidth	-0.0064 (0.0377)	-0.0069 (0.0337)
Half optimal bandwidth	-0.0291 (0.0445)	-0.0184 (0.0423)
Twice optimal bandwidth	-0.0126 (0.0353)	0.0069 (0.0306)
At optimal bandwidth, including transferred students	0.0055 (0.0381)	-0.0056 (0.0314)

Note: Standard errors in parentheses. Unit of observation is school/year, weighted by number of students used to compute dependent variable. Dependent variable is mean year-over-year change in standardized test score in the indicated subject between the year of AYP status determination and the following year. Bandwidth determination is by the Imbens-Kalyanaraman algorithm. Specifications factor out school-level aggregate characteristics including percent minority, percent limited English proficient, and percent free/reduced lunch.

*** denotes an estimate significant at the 1% level; ** the 5% level; * the 10% level.

Table B2: RD estimates of the impact of exposure to the second NCLB sanction/threat of third

Second sanction is SES (transfers in place)	Reading (n=727)	Math (n=727)
At optimal bandwidth	-0.0244 (0.0268)	-0.0219 (0.0368)
Half optimal bandwidth	-0.0519 (0.0398)	-0.064 (0.0546)
Twice optimal bandwidth	-0.0234 (0.0217)	-0.0409 (0.0394)
At optimal bandwidth, including transferred students	-0.0191 (0.0259)	-0.0384 (0.0473)
Second sanction is transfers (SES in place)	Reading (n=310)	Math (n=310)
At optimal bandwidth	-0.0289 (0.0244)	-0.0442 (0.0243)
Half optimal bandwidth	0.005 (0.0327)	-0.0495 (0.029)
Twice optimal bandwidth	-0.0429** (0.0208)	-0.0394 (0.0234)
At optimal bandwidth, including transferred students	-0.0495** (0.0216)	-0.0528* (0.0261)

Note: Standard errors in parentheses. Unit of observation is school/year, weighted by number of students used to compute dependent variable. Dependent variable is mean year-over-year change in standardized test score in the indicated subject between the year of AYP status determination and the following year. Bandwidth determination is by the Imbens-Kalyanaraman algorithm. Specifications factor out school-level aggregate characteristics including percent minority, percent limited English proficient, and percent free/reduced lunch.

*** denotes an estimate significant at the 1% level; ** the 5% level; * the 10% level.

Table B3: RD estimates of the impact of higher order sanctions and threats

Corrective action, threat of restructuring plan	Reading (n=549)	Math (n=549)
At optimal bandwidth	0.035 (0.0261)	0.0231 (0.0247)
Half optimal bandwidth	0.0337 (0.0392)	-0.0065 (0.0319)
Twice optimal bandwidth	0.0148 (0.0213)	0.0311 (0.0215)
Restructuring plan, threat of restructuring	Reading (n=442)	Math (n=442)
At optimal bandwidth	-0.0558** (0.0288)	0.0278 (0.0258)
Half optimal bandwidth	-0.052 (0.0466)	0.0486 (0.0339)
Twice optimal bandwidth	-0.0937* (0.0516)	0.0197 (0.0238)
Restructuring	Reading (n=367)	Math (n=367)
At optimal bandwidth	0.0264* (0.0144)	0.0547** (0.0263)
Half optimal bandwidth	0.0562*** (0.0202)	0.0664* (0.035)
Twice optimal bandwidth	0.0205 (0.0132)	0.0609** (0.0242)

Note: Standard errors in parentheses. Unit of observation is school/year, weighted by number of students used to compute dependent variable. Dependent variable is mean year-over-year change in standardized test score in the indicated subject between the year of AYP status determination and the following year. Bandwidth determination is by the Imbens-Kalyanaraman algorithm. Specifications factor out school-level aggregate characteristics including percent minority, percent limited English proficient, and percent free/reduced lunch.

*** denotes an estimate significant at the 1% level; ** the 5% level; * the 10% level.

Table C: RD Results with Free and reduced lunch eligible students only

	Std. Reading	Bandwidth	N	Std. Math	Bandwidth	N
All Schools	-0.0025 (0.0114)	0.2345	8244	-0.0344*** (0.0095)	0.2377	8245
	-0.0077 (0.0172)	0.1172	8244	-0.0379*** (0.0134)	0.1188	8245
	0.0071 (0.0093)	0.4690	8244	-0.0310*** (0.0081)	0.4753	8245
SES w/ 2 more failures	-0.0181 (0.0195)	0.1967	955	-0.0233 (0.0191)	0.3196	955
	-0.0232 (0.0266)	0.0984	955	-0.0245 (0.0234)	0.1598	955
	-0.0272* (0.0165)	0.3934	955	-0.0229 (0.0172)	0.6391	955
Transfer w/ 2 more failures	0.0150 (0.0267)	0.2931	3230	-0.0674*** (0.0222)	0.2015	3231
	0.0390 (0.0357)	0.1466	3230	-0.0586* (0.0313)	0.1008	3231
	0.0079 (0.0238)	0.5862	3230	-0.0620*** (0.0190)	0.4031	3231
SES w/ 1 more failure	0.0040 (0.0454)	0.2267	176	-0.0083 (0.0357)	0.4451	176
	0.0315 (0.0584)	0.1134	176	-0.0003 (0.0394)	0.2226	176
	-0.0045 (0.0405)	0.4535	176	-0.0030 (0.0332)	0.8903	176
Transfer w/ 1 more failure	-0.0943** (0.0368)	0.2364	1484	-0.0286 (0.0264)	0.2105	1484
	-0.0752 (0.0495)	0.1182	1484	-0.0047 (0.0369)	0.1053	1484
	-0.0762* (0.0324)	0.4727	1484	-0.0358 (0.0236)	0.4211	1484
SES w/ 1 more failure, sanctioned w/ transfer	0.0393 (0.0501)	0.2017	725	-0.0437 (0.0382)	0.1894	725
	0.0838 (0.0653)	0.1009	725	-0.0282 (0.0523)	0.0947	725
	0.0451 (0.0431)	0.4034	725	-0.0477 (0.0329)	0.3787	725
Transfer w/ 1 more failure, sanctioned w/SES	0.0357 (0.0263)	0.3088	310	0.0420 (0.0341)	0.2355	310
	-0.0027 (0.0349)	0.1544	310	0.0090 (0.0491)	0.1178	310
	0.0519** (0.0233)	0.6176	310	0.0339 (0.0283)	0.4711	310
Corrective action w/ 1 more failure	-0.0172 (0.0270)	0.5091	549	-0.0371* (0.0206)	0.8848	549

	-0.0476 (0.0333)	0.2546	549	-0.0404* (0.0232)	0.4424	549
	-0.0107 (0.0246)	1.0182	549	-0.0369* (0.0206)	1.7697	549
Plan for restructuring w/ 1 more failure	0.0736** (0.0298)	0.2902	441	-0.0401 (0.0261)	0.2776	441
	0.0669 (0.0422)	0.1451	441	-0.0575* (0.0346)	0.1388	441
	0.0588** (0.0270)	0.5804	441	-0.0332 (0.0239)	0.5552	441
Restructuring w/ 1 more failure	-0.0177 (0.0149)	0.5295	367	-0.0479* (0.0269)	0.4979	367
	-0.0313* (0.0165)	0.2648	367	-0.0547* (0.0317)	0.2490	367
	-0.0172 (0.0154)	1.0591	367	-0.0531** (0.0264)	0.9959	367

Note: Standard errors in parentheses. Unit of observation is school/year, weighted by number of students used to compute dependent variable. Dependent variable is mean year-over-year change in standardized test score in the indicated subject between the year of AYP status determination and the following year. Bandwidth determination is by the Imbens-Kalyanaraman algorithm. Specifications factor out school-level aggregate characteristics including percent minority, percent limited English proficient, and percent free/reduced lunch. *** denotes an estimate significant at the 1% level; ** the 5% level; * the 10% level.

Table D: RD estimates & Falsification Tests @ 0.15 and -0.15

	Reading	Band-width	Cut (denom %)	Math	Band-width	Cut (denom %)
All Schools	0.00002 (0.0056)	0.4178	0 (85.40%)	-0.0180* (0.0095)	0.2604	0 (82.75%)
	0.0607 (0.05019)	0.2310	0.15 (11.7%)	1.0900*** (0.3391)	0.1840	0.15 (3.70%)
	-0.0097 (0.0279)	0.3123	-0.15 (30.05%)	-0.1302 (0.1231)	0.2547	-0.15 (14.19%)
SES w/ 2 more failures	-0.0161 (0.0136)	0.3063	0 (96.06%)	-0.0285* (0.0163)	0.2400	0 (95.84%)
	0.8443 (0.5371)	0.1925	0.15 (2.27%)	0.4196 (0.2702)	0.2418	0.15 (5.60%)
	-0.0319 (0.0508)	0.4140	-0.15 (57.91%)	-0.0828 (0.0725)	0.3278	-0.15 (49.89%)
Transfer w/ 2 more failures	-0.0203 (0.0140)	0.2285	0 (67.40%)	-0.0473** (0.0204)	0.2468	0 (68.34%)
	0.8638 (0.1395)	0.2183	0.15 (5.96%)	13.2603 (5.1727)	0.1565	0.15 (0.41%)
	0.0360 (0.0267)	0.3942	-0.15 (52.62%)	0.0400 (0.0528)	0.4443	-0.15 (55.60%)
SES w/ 1 more failure	0.0064 (0.0377)	0.3964	0 (98.47%)	0.0069 (0.0337)	0.2204	0 (95.31%)
	-0.3334 (0.3781)	0.2209	0.15 (14.39%)	-0.3278 (0.3737)	0.2304	0.15 (16.51%)
	0.6278 ** (0.2702)	0.2432	-0.15 (20.05%)	0.5864 (0.2433)	0.2383	-0.15 (18.73%)
Transfer w/ 1 more failure	-0.0178 (0.0124)	0.2309	0 (87.70%)	-0.0144 (0.0181)	0.1961	0 (86.52%)
	0.0487 (0.0463)	0.3059	0.15 (31.60%)	-0.0043 (0.0642)	0.3330	0.15 (35.52%)
	-0.2575 (0.0848)	0.2659	-0.15 (19.85%)	-0.0678 (0.0720)	0.3634	-0.15 (30.89%)
SES w/ 1 more failure, sanctioned w/ transfer	0.0244 (0.0268)	0.2177	0 (79.11%)	0.0219 (0.0368)	0.1882	0 (77.38%)
	-0.0069 (0.0385)	0.6423	0.15 (73.86%)	0.0898 (0.1857)	0.3744	0.15 (60.38%)
	0.1114 (0.2058)	0.2520	-0.15 (10.86%)	-0.1249 (0.6859)	0.2037	-0.15 (5.92%)
Transfer w/ 1 more failure, sanctioned w/SES	0.0289 (0.0244)	0.2432	0 (92.22%)	0.0442 (0.0243)	0.5091	0 (94.13%)
	-0.0463 (0.0771)	0.3324	0.15 (40.63%)	-0.1315* (0.0741)	0.4246	0.15 (49.96%)
	-0.1208 (0.1029)	0.3466	-0.15 (27.36%)	0.0772 (0.1113)	0.3378	-0.15 (26.71%)
Corrective action w/ 1 more failure	-0.035 (0.0261)	0.2270	0 (91.59%)	-0.0231 (0.0247)	0.2377	0 (92.23%)
	0.0375 (0.0516)	0.4729	0.15 (54.44%)	0.0381 (0.0632)	0.4418	0.15 (52.44%)

	0.1139 (0.1799)	0.2906	-0.15 (17.31%)	0.1322 (0.1058)	0.3228	-0.15 (19.50%)
Plan for restructuring w/ 1 more failure	0.0558** (0.0288)	0.2758	0 (86.61%)	-0.0278 (0.0258)	0.3578	0 (88.03%)
	0.0649 (0.0936)	0.4459	0.15 (55.67%)	-1.8563 (1.5760)	0.4998	0.15 (-5.70%)
	0.3918 (0.3351)	0.3429	-0.15 (12.61%)	0.4226* (0.2199)	0.2473	-0.15 (10.72%)
Restructuring w/ 1 more failure	-0.0264* (0.0144)	0.2825	0 (85.15%)	-0.0547** (0.0263)	0.3334	0 (86.62%)
	0.0479 (0.0819)	0.2699	0.15 (30.32%)	0.1251** (0.0570)	0.5105	0.15 (60.30%)
	-0.2930 (0.4069)	0.2213	-0.15 (7.63%)	-0.0344 (0.3138)	0.2001	-0.15 (6.70%)

Note: Standard errors in parentheses. Unit of observation is school/year, weighted by number of students used to compute dependent variable. Dependent variable is mean year-over-year change in standardized test score in the indicated subject between the year of AYP status determination and the following year. Bandwidth determination is by the Imbens-Kalyanaraman algorithm. Specifications factor out school-level aggregate characteristics including percent minority, percent limited English proficient, and percent free/reduced lunch. *** denotes an estimate significant at the 1% level; ** the 5% level; * the 10% level.

Table E: Restructuring Sample Analysis

Sanction (threat)	Reading	Math
Aggregate	-0.0133 (0.0153)	0.0058 (0.0373)
Transfer(SES)	-0.0177 (0.0302)	-0.0234 (0.0352)
SES (Corrective Action)	0.0120 (0.0240)	0.0040 (0.0391)
Restructuring Plan (Restructuring)	-0.0805 (0.0681)	-0.0027 (0.0946)
Restructuring	0.0264** (0.0144)	0.0547** (0.0263)

Note: Standard error in parenthesis. Unit of observation is school/year, weighted by number of students used to compute dependent variable. Dependent variable is mean year-over-year change in standardized test score in the indicated subject between the year of AYP status determination and the following year. Bandwidth determination is by the Imbens-Kalyanaraman algorithm. Specifications factor out school-level aggregate characteristics including percent minority, percent limited English proficient, and percent free/reduced lunch. RD estimates restricted to school sample that is eventually threatened with restructuring. ** denotes an estimate significant at the 5% level.