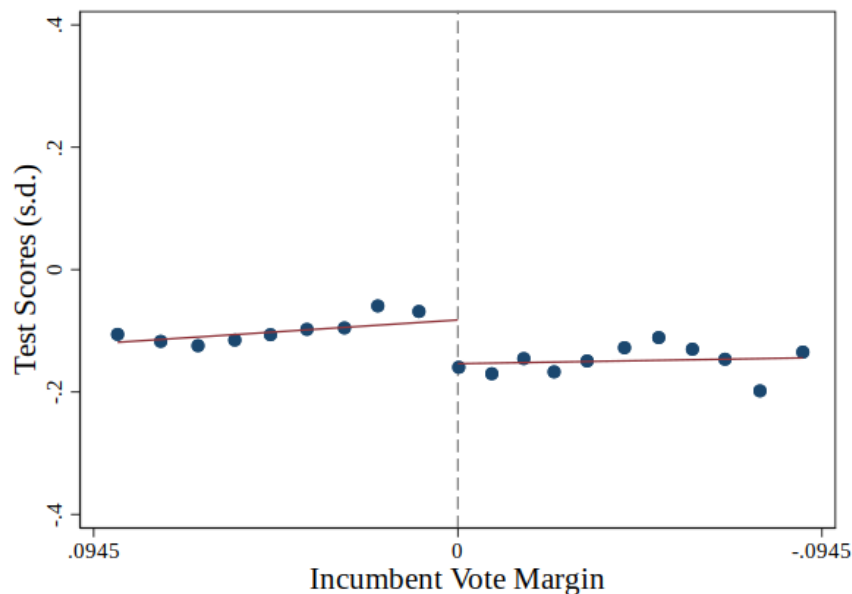


A Additional Figures and Tables

Figure A.1: Political turnover and test scores: municipal schools



Note: This figure is replicated from [Akhtari et al. \(2022\)](#) using the AER replication files. It shows the average of individual-level test scores by bins of *IncumbVoteMargin* in municipal schools, pooling students from grade 5 and grade 9 and controlling for the average, school-level test scores for the respective grade at baseline. Municipalities with *IncumbVoteMargin* < 0 experienced a change in the political party of the mayor. Municipalities with *IncumbVoteMargin* > 0 did not experience a change in the political party of the mayor. Note that values to the right side of the zero are negative (political turnover), while values on the left side are positive (no political turnover). Selected bandwidth follows Calonico et al. (2017).

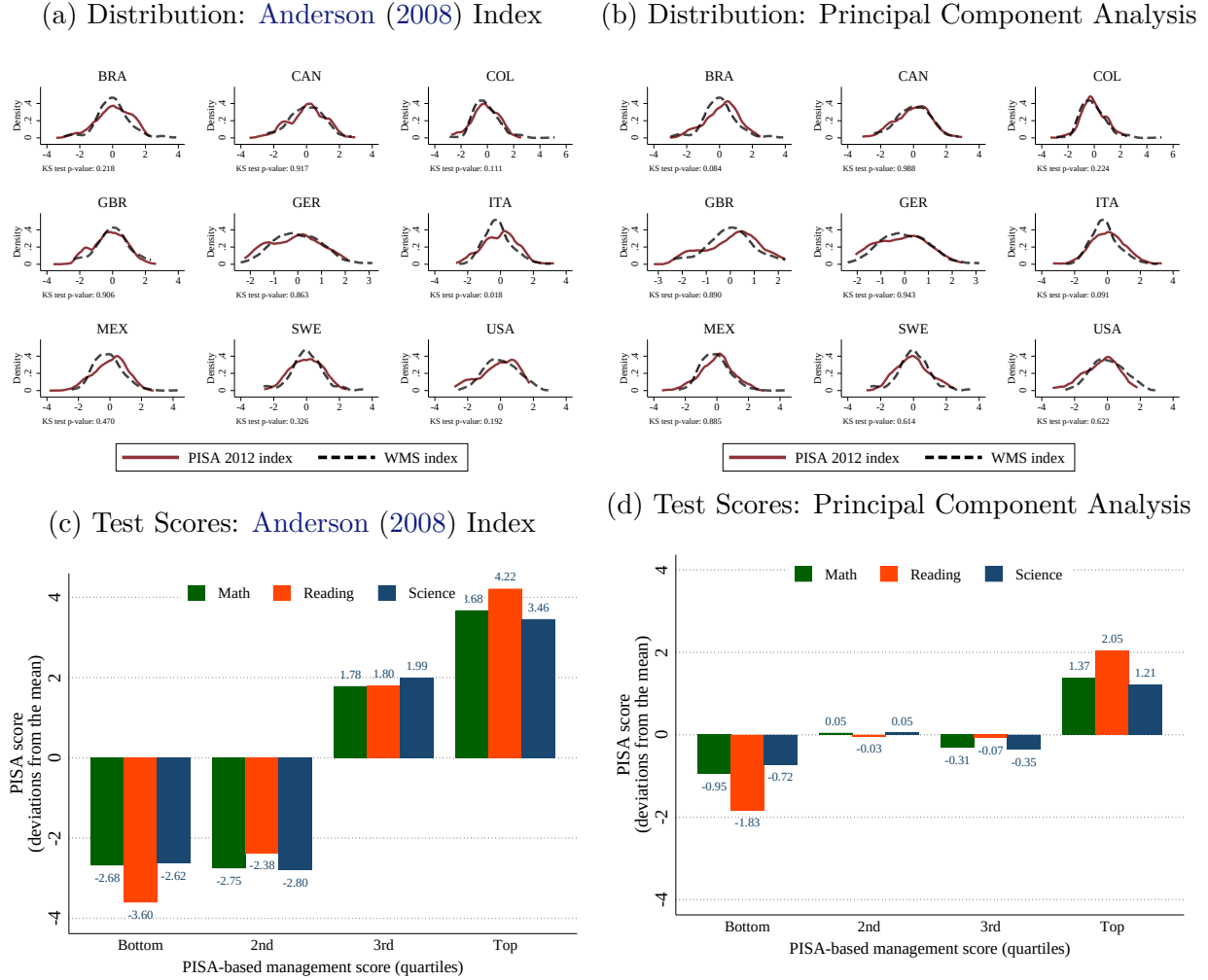
Table A.1: Political turnover and test scores

	Outcome: Test Scores					
	(1)	(2)	(3)	(4)	(5)	(6)
Municipal Schools						
$1\{IncumbVoteMargin < 0\}$	-0.067 (0.022) [0.002]	-0.053 (0.021) [0.012]	-0.077 (0.024) [0.001]	-0.067 (0.023) [0.004]	-0.064 (0.020) [0.002]	-0.052 (0.019) [0.007]
School-Level Baseline Test Scores	0.846 (0.011) [0.000]	0.741 (0.011) [0.000]	0.843 (0.013) [0.000]	0.740 (0.012) [0.000]	0.839 (0.010) [0.000]	0.735 (0.010) [0.000]
Observations	550460	550460	422025	422025	621148	621148
R-Squared	0.201	0.228	0.198	0.225	0.200	0.227
Clusters	1952	1952	1585	1585	2163	2163
Using Bandwidth	0.095	0.095	0.070	0.070	0.110	0.110
Optimal Bandwidth	0.095	0.095	0.095	0.095	0.095	0.095
Munic. Schools, No Prin. Replac.						
$1\{IncumbVoteMargin < 0\}$	-0.044 (0.030) [0.149]	-0.045 (0.029) [0.123]	-0.049 (0.036) [0.180]	-0.052 (0.035) [0.136]	-0.040 (0.029) [0.171]	-0.041 (0.029) [0.154]
School-Level Baseline Test Scores	0.847 (0.015) [0.000]	0.750 (0.015) [0.000]	0.844 (0.017) [0.000]	0.753 (0.018) [0.000]	0.843 (0.014) [0.000]	0.747 (0.015) [0.000]
Observations	213008	213008	151434	151434	222225	222225
R-Squared	0.210	0.234	0.204	0.227	0.208	0.231
Clusters	1111	1111	810	810	1153	1153
Using Bandwidth	0.104	0.104	0.070	0.070	0.110	0.110
Optimal Bandwidth	0.104	0.104	0.104	0.104	0.104	0.104
Controls		Y		Y		Y

Note: This table is replicated from Akhtari et al. (2022) using the AER replication files. Standard errors in parentheses, p-values in square brackets. The top panel reports the coefficient from regressions of individual-level test scores on the running variable of the RDD (*IncumbVoteMargin*), political party turnover (*IncumbVoteMargin* < 0), and the interaction of these two variables for the set of municipalities with *IncumbVoteMargin* < *UsingBandwidth*, pooling students from grade 5 and grade 9. We also control for the average, school-level test scores for the respective grade at baseline. Test scores are from the Prova Brasil exam and are standardized based on the distribution of individual-level test scores in municipalities with no change in the ruling party. Controls include school-level controls (whether: the school is located in an urban or rural area, the school is connected to the electric grid, the school is connected to the water network, the school is connected to the sewage system, the schools trash is regularly collected, and the school has Internet), individual-level controls (an indicator variable for gender, whether the student is white, and whether the student sees their mother reading), and a 2012 election-cycle indicator. Optimal bandwidth follows Calonico et al. (2017). The bottom panel repeats the analysis in the top panel for the municipal schools where the school principal was not replaced. New principals are those that report being the head of their current school for less than two years on the Prova Brasil school principal questionnaire.

B Alternative Index Building

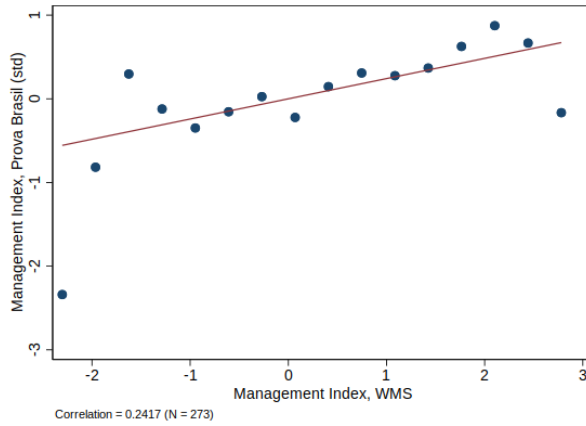
Figure B.1: Index validation: PISA



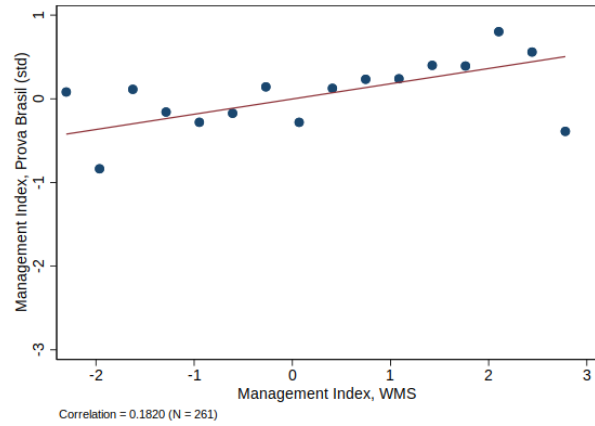
Note: Data for the World Management Survey and PISA 2012. Management indices standardized within country. Kernel density curves estimated using WMS sampling weights (calculated as the inverse probability of being interviewed on log of number of students, public status, and population density by state, province, or NUTS 2 region as a measure of location) for the WMS data and school final weights for the PISA data. Samples include both public and private secondary schools for both datasets, with the exception of Colombia where WMS data is only available for public primary schools. For Panels (a) and (b), number of observations are as follows (WMS/PISA): Brazil = 510/561, Canada = 129/770, Colombia = 467/268, Great Britain = 89/422, Germany = 102/158, Italy = 284/926, Mexico = 157/1,327, Sweden = 85/179, United States = 263/136. Panels (c) and (d) include only PISA 2012 data, 15,196 schools across 65 countries. Student outcomes are estimated using five plausible values and collapsed at the school level using PISA's senate weights. Quartiles of the management index are built at the country level. Test scores are presented as deviations from the subject-specific global mean.

Figure B.2: Index validation: Prova Brasil

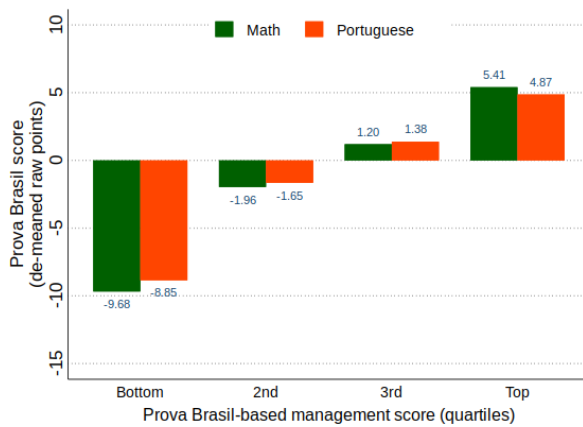
(a) Management Scores: [Anderson \(2008\)](#) Index



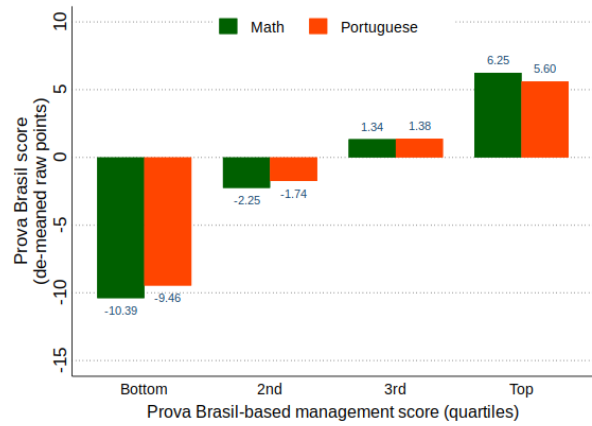
(b) Management Scores: PCA



(c) Test Scores: Anderson



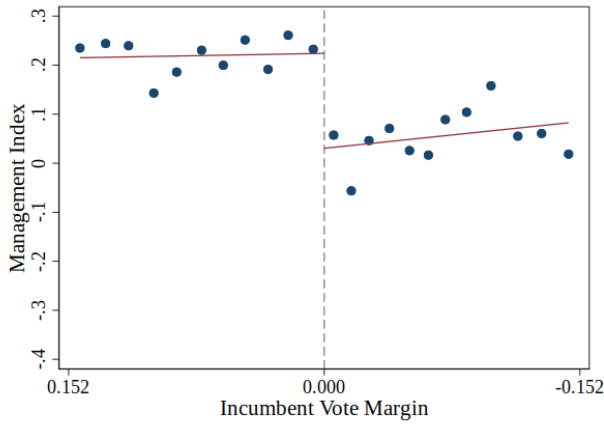
(d) Test Scores: PCA



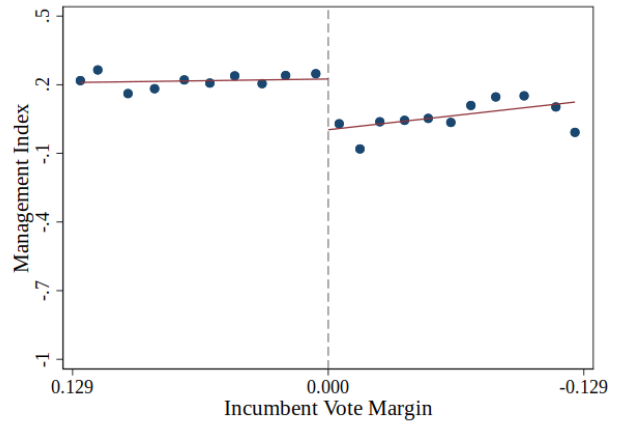
Note: Data from Prova Brasil (2013) and the World Management Survey. The sample contains schools which have data for both Prova Brasil and WMS in 2013, matched at the school level via school identifiers (thus, this sample includes only public schools). Both indices are standardized within-subsample. Panels (a) and (b) are binned scatterplots using 40 quantiles. Panels (b) and (c) use only Prova Brasil data for 2013 (33,344 schools). Sample restricted to schools with grade 9 to maintain closer comparability to the WMS sample. Quartiles of the management index are built from this sample. Test scores are presented as deviations from the subject-specific mean, also within this sample.

Figure B.3: Political turnover and management scores

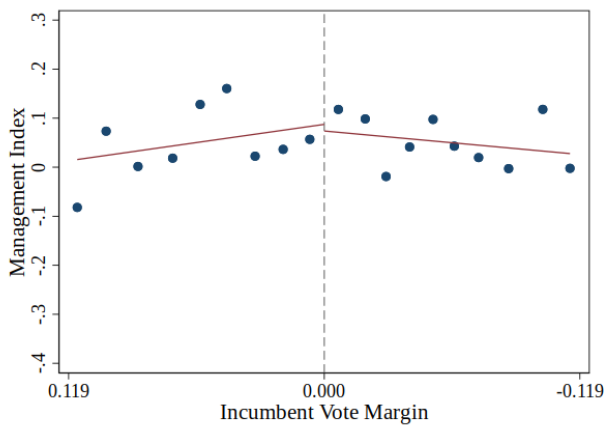
(a) Municipal schools (treated): Anderson



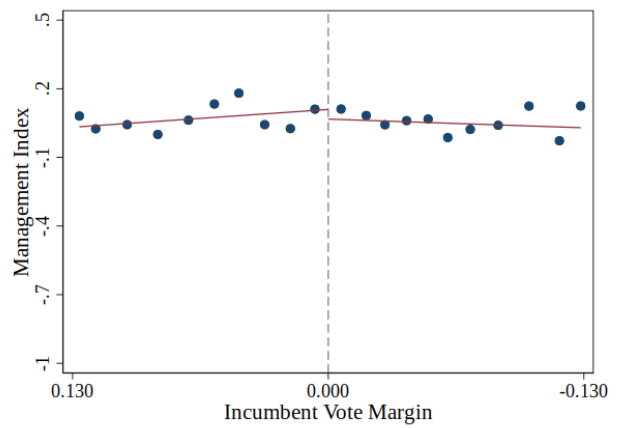
(b) Municipal schools (treated): PCA



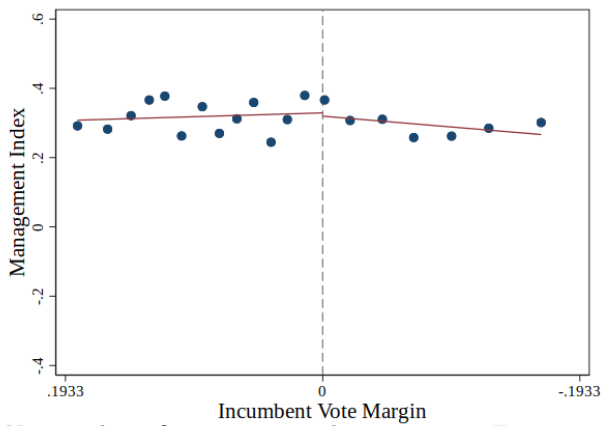
(c) Placebo schools (non-municipal): Anderson



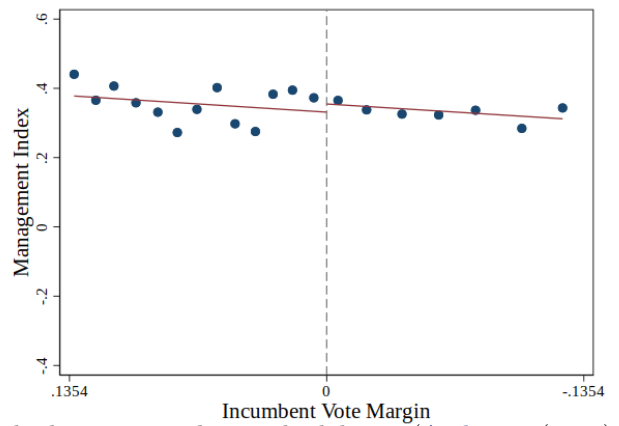
(d) Placebo schools (non-municipal): PCA



(e) Munic., no principal replac.: Anderson



(f) Munic., no principal replac.: PCA



Note: These figures repeat the exercise in Figure 3 with alternative index methodologies (Anderson (2008) and Principal Component Analysis).

Table B.1: Management and student performance, PISA: [Anderson \(2008\)](#) Index

	Reading PISA Points			Math PISA Points			Science PISA Points		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
All Schools									
Management Index	4.238 (1.088) [0.000]	2.984 (1.014) [0.003]	2.280 (0.912) [0.012]	3.965 (1.146) [0.001]	2.943 (1.098) [0.007]	2.140 (0.936) [0.022]	3.595 (1.112) [0.001]	2.677 (1.082) [0.013]	1.930 (0.916) [0.035]
Private=1		11.268 (2.913) [0.000]	2.767 (2.587) [0.285]		11.223 (2.896) [0.000]	1.865 (2.670) [0.485]		9.991 (2.781) [0.000]	1.122 (2.399) [0.640]
Students	410701	410200	410200	410701	410200	410200	410701	410200	410200
Schools	15196	15176	15176	15196	15176	15176	15196	15176	15176
R-Squared	0.243	0.290	0.423	0.307	0.342	0.450	0.299	0.330	0.431
Brazil									
Management Index	9.119 (3.148) [0.004]	3.672 (2.237) [0.101]	2.233 (1.789) [0.212]	10.572 (2.849) [0.000]	5.339 (1.928) [0.006]	3.793 (1.546) [0.014]	10.501 (2.784) [0.000]	5.445 (2.030) [0.007]	4.045 (1.678) [0.016]
Private=1		41.318 (17.121) [0.016]	31.984 (14.349) [0.026]		41.214 (16.059) [0.010]	29.646 (13.932) [0.033]		38.117 (12.224) [0.002]	27.849 (10.066) [0.006]
Students	14949	14949	14949	14949	14949	14949	14949	14949	14949
Schools	561	561	561	561	561	561	561	561	561
R-Squared	0.014	0.173	0.353	0.022	0.220	0.392	0.022	0.199	0.341
Country FE	Y	Y	Y	Y	Y	Y	Y	Y	Y
School Controls		Y	Y		Y	Y		Y	Y
Student Controls			Y			Y			Y

Note: Standard errors in parentheses, p-values in square brackets. OLS regressions were run with the student-level PISA dataset using the OECDs `repest` Stata command. Standard errors are clustered at the school level and use all 5 plausible values for each subject and student final weights. Main independent variable is the PISA-based management index standardized using the overall distribution, built using [Anderson \(2008\)](#) index method. All specifications include country fixed effects (except for panel B, which is restricted to Brazil). School controls: school location (set of dummies for village, small town, town, city, and large city), student-teacher ratio, log of the number of students, ratio of computers connected to the web as a proxy for school resources, and share of government funding relative to total school funding. Student controls: gender, grade compared to modal grade of students taking the PISA exam in the country, an index of economic, social, and cultural status, and immigration status (set of dummies for native, first generation, and second generation). For control variables, missing variables are replaced with a value of -99 and we include an indicator variable with a value of 1 for each imputed value.

Table B.2: Management and student performance, PISA: Principal Component Analysis Index

	Reading PISA Points			Math PISA Points			Science PISA Points		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
All Schools									
Management Index	3.104 (1.045) [0.003]	1.891 (0.972) [0.052]	1.947 (0.791) [0.014]	2.433 (0.988) [0.014]	1.458 (0.952) [0.126]	1.465 (0.766) [0.056]	2.213 (0.967) [0.022]	1.334 (0.957) [0.163]	1.379 (0.765) [0.071]
Private=1		11.128 (2.933) [0.000]	2.252 (2.542) [0.376]		10.819 (2.888) [0.000]	1.258 (2.643) [0.634]		9.921 (2.809) [0.000]	0.848 (2.404) [0.724]
Students	409029	408528	408528	409029	408528	408528	409029	408528	408528
Schools	15139	15119	15119	15139	15119	15119	15139	15119	15119
R-Squared	0.241	0.288	0.422	0.305	0.340	0.449	0.297	0.327	0.429
Brazil									
Management Index	6.172 (3.068) [0.044]	2.906 (2.595) [0.263]	0.909 (1.967) [0.644]	7.773 (2.747) [0.005]	4.578 (2.461) [0.063]	2.463 (1.885) [0.191]	9.020 (2.659) [0.001]	5.815 (2.342) [0.013]	3.949 (1.882) [0.036]
Private=1		40.284 (16.490) [0.015]	31.793 (13.659) [0.020]		39.467 (15.428) [0.011]	28.804 (13.106) [0.028]		35.910 (12.049) [0.003]	26.464 (9.645) [0.006]
Students	14777	14777	14777	14777	14777	14777	14777	14777	14777
Schools	555	555	555	555	555	555	555	555	555
R-Squared	0.006	0.173	0.352	0.010	0.220	0.391	0.014	0.200	0.342
Country FE	Y	Y	Y	Y	Y	Y	Y	Y	Y
School Controls		Y	Y		Y	Y		Y	Y
Student Controls			Y			Y			Y

Note: Standard errors in parentheses, p-values in square brackets. OLS regressions were run with the student-level PISA dataset using the OECDs `repest` Stata command. Standard errors are clustered at the school level and use all 5 plausible values for each subject and student final weights. Main independent variable is the PISA-based management index standardized using the overall distribution, built using Principal Component Analysis. All specifications include country fixed effects (except for panel B, which is restricted to Brazil). School controls: school location (set of dummies for village, small town, town, city, and large city), student-teacher ratio, log of the number of students, ratio of computers connected to the web as a proxy for school resources, and share of government funding relative to total school funding. Student controls: gender, grade compared to modal grade of students taking the PISA exam in the country, an index of economic, social, and cultural status, and immigration status (set of dummies for native, first generation, and second generation). For control variables, missing variables are replaced with a value of -99 and we include an indicator variable with a value of 1 for each imputed value.

Table B.3: Management and student performance, Prova Brasil: [Anderson \(2008\)](#) Index

	Portuguese Score					Mathematics Score				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Management Index	0.118 (0.001) [0.000]	0.051 (0.001) [0.000]	0.037 (0.001) [0.000]	0.033 (0.001) [0.000]	0.016 (0.001) [0.000]	0.131 (0.001) [0.000]	0.054 (0.001) [0.000]	0.042 (0.001) [0.000]	0.038 (0.001) [0.000]	0.019 (0.001) [0.000]
Students	23829018	23829018	23829018	23829018	23829018	23827854	23827854	23827854	23827854	23827854
Schools	72683	72683	72683	72683	72683	72683	72683	72683	72683	72683
R-Squared	0.062	0.107	0.133	0.159	0.221	0.041	0.101	0.124	0.149	0.229
Year FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
State FE		Y	Y	Y			Y	Y	Y	
PISA-Like Controls			Y	Y	Y			Y	Y	Y
PB Controls				Y	Y				Y	Y
School FE					Y					Y

Note: Standard errors in parentheses, p-values in square brackets. OLS regressions for Prova Brasil (PB) run with the student-level Prova Brasil dataset, pooling grades 5 and 9, for years 2007 to 2017. Standard errors clustered at the school level. Test scores are normalized within grade. Management index built using [Anderson \(2008\)](#) method. All specifications include year fixed effects. PISA-like controls are taken from PB data set and attempt to match school controls and student controls in PISA regressions: indicator variable for urban schools, student-teacher ratio, log of the number of students, dummies indicating the presence of a computer lab and whether the school has internet access, gender, student households' consumption index, and a set of dummies for race. Given the availability of principal characteristics, PB controls include principals' age, set of dummies for principals' race, principals' educational attainment (set of dummies for less than high school, high school, undergraduate (pedagogy), undergraduate (math), undergraduate (Portuguese), undergraduate (others), masters, doctoral), indicator for whether the principal holds another job. PB controls also include the class-year-level share of white teachers, share of teachers holding a college degree, and average teacher tenure. For the students, PB controls include dummies for mother educational attainment (grades 1-5, grades 6-9, secondary grades 10-12, and college). For control variables, missing variables are replaced with a value of -99 and we include an indicator variable with a value of 1 for each imputed value.

Table B.4: Management and student performance, Prova Brasil: Principal Component Analysis Index

	Portuguese Score					Mathematics Score				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Management Index	0.133 (0.001) [0.000]	0.061 (0.001) [0.000]	0.046 (0.001) [0.000]	0.041 (0.001) [0.000]	0.022 (0.001) [0.000]	0.148 (0.001) [0.000]	0.064 (0.001) [0.000]	0.051 (0.001) [0.000]	0.046 (0.001) [0.000]	0.024 (0.001) [0.000]
Students	22496848	22496848	22496848	22496848	22496848	22495956	22495956	22495956	22495956	22495956
Schools	71832	71832	71832	71832	71832	71832	71832	71832	71832	71832
R-Squared	0.068	0.110	0.136	0.161	0.223	0.047	0.104	0.126	0.151	0.230
Year FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
State FE		Y	Y	Y			Y	Y	Y	
PISA-Like Controls			Y	Y	Y			Y	Y	Y
PB Controls				Y	Y				Y	Y
School FE					Y					Y

Note: Standard errors in parentheses, p-values in square brackets. OLS regressions for Prova Brasil (PB) run with the student-level Prova Brasil dataset, pooling grades 5 and 9, for years 2007 to 2017. Standard errors clustered at the school level. Test scores are normalized within grade. Management index built using Principal Component Analysis. All specifications include year fixed effects. PISA-like controls are taken from PB data set and attempt to match school controls and student controls in PISA regressions: indicator variable for urban schools, student-teacher ratio, log of the number of students, dummies indicating the presence of a computer lab and whether the school has internet access, gender, student households' consumption index, and a set of dummies for race. Given the availability of principal characteristics, PB controls include principals' age, set of dummies for principals' race, principals' educational attainment (set of dummies for less than high school, high school, undergraduate (pedagogy), undergraduate (math), undergraduate (Portuguese), undergraduate (others), masters, doctoral), indicator for whether the principal holds another job. PB controls also include the class-year-level share of white teachers, share of teachers holding a college degree, and average teacher tenure. For the students, PB controls include dummies for mother educational attainment (grades 1-5, grades 6-9, secondary grades 10-12, and college). For control variables, missing variables are replaced with a value of -99 and we include an indicator variable with a value of 1 for each imputed value.

Table B.5: Political turnover and school management scores: Anderson

	Outcome: Management Index					
	(1)	(2)	(3)	(4)	(5)	(6)
Municipal Schools						
$1\{IncumbVoteMargin < 0\}$	-0.202 (0.040) [0.000]	-0.186 (0.038) [0.000]	-0.232 (0.058) [0.000]	-0.223 (0.055) [0.000]	-0.266 (0.046) [0.000]	-0.249 (0.044) [0.000]
Baseline Management Index	0.336 (0.011) [0.000]	0.301 (0.010) [0.000]	0.326 (0.014) [0.000]	0.286 (0.014) [0.000]	0.323 (0.012) [0.000]	0.287 (0.012) [0.000]
Observations	11957	11957	6117	6117	9080	9080
R-Squared	0.142	0.163	0.137	0.162	0.133	0.154
Clusters	2575	2575	1563	1563	2130	2130
Using Bandwidth	0.152	0.152	0.070	0.070	0.110	0.110
Optimal Bandwidth	0.152	0.152	0.152	0.152	0.152	0.152
Non-Municipal Schools						
$1\{IncumbVoteMargin < 0\}$	-0.005 (0.054) [0.926]	0.003 (0.052) [0.959]	0.033 (0.069) [0.629]	0.059 (0.064) [0.355]	-0.001 (0.055) [0.985]	0.010 (0.053) [0.846]
Baseline Management Index	0.381 (0.015) [0.000]	0.353 (0.015) [0.000]	0.370 (0.018) [0.000]	0.338 (0.017) [0.000]	0.375 (0.015) [0.000]	0.347 (0.014) [0.000]
Observations	6122	6122	3965	3965	5663	5663
R-Squared	0.157	0.174	0.152	0.173	0.156	0.175
Clusters	1978	1978	1390	1390	1875	1875
Using Bandwidth	0.119	0.119	0.070	0.070	0.110	0.110
Optimal Bandwidth	0.119	0.119	0.119	0.119	0.119	0.119
Munic. Schools, No Headm. Replac.						
$1\{IncumbVoteMargin < 0\}$	-0.070 (0.046) [0.132]	-0.071 (0.046) [0.125]	-0.102 (0.076) [0.180]	-0.110 (0.076) [0.148]	-0.062 (0.063) [0.326]	-0.074 (0.063) [0.242]
Baseline Management Index	0.386 (0.014) [0.000]	0.367 (0.014) [0.000]	0.361 (0.020) [0.000]	0.339 (0.021) [0.000]	0.366 (0.018) [0.000]	0.345 (0.018) [0.000]
Observations	5299	5299	2222	2222	3329	3329
R-Squared	0.200	0.210	0.183	0.196	0.186	0.196
Clusters	1657	1657	804	804	1143	1143
Using Bandwidth	0.193	0.193	0.070	0.070	0.110	0.110
Optimal Bandwidth	0.193	0.193	0.193	0.193	0.193	0.193
Controls		Y		Y		Y

Note: Data from Prova Brasil. Management index built using [Anderson \(2008\)](#) method. Panel A: Standard errors in parentheses, p-values in square brackets. This table reports the coefficient on political party turnover from regressing standardized management scores in municipal schools on the running variable of the RDD (*IncumbVoteMargin*), political party turnover (*IncumbVoteMargin* < 0), and the interaction of these two variables for the set of municipalities with *IncumbVoteMargin* < *UsingBandwidth*. We also control for baseline standardized management scores in the year before the election. Controls include school-level controls (whether: the school is located in an urban or rural area, the school is connected to the electric grid, the school is connected to the water network, the school is connected to the sewage system, the schools trash is regularly collected, and the school has Internet) and a 2012 election-cycle indicator. Optimal bandwidth follows Calonico et al. (2017). Panel B: repeat of the analysis in Panel A using non-municipal schools (state and federal schools). Only public schools participate in the Prova Brasil exam. Panel C: repeat of the analysis in Panel A for the municipal schools where the school principal was not replaced. New school principals are those that report being the head of their current school for less than two years on the Prova Brasil school principal questionnaire.

Table B.6: Political turnover and school management scores: PCA

	Outcome: Management Index					
	(1)	(2)	(3)	(4)	(5)	(6)
Municipal Schools						
1{ <i>IncumbVoteMargin</i> < 0}	-0.238 (0.043) [0.000]	-0.237 (0.041) [0.000]	-0.259 (0.058) [0.000]	-0.256 (0.056) [0.000]	-0.285 (0.047) [0.000]	-0.278 (0.045) [0.000]
Baseline Management Index	0.373 (0.011) [0.000]	0.334 (0.011) [0.000]	0.373 (0.014) [0.000]	0.333 (0.014) [0.000]	0.368 (0.012) [0.000]	0.329 (0.012) [0.000]
Observations	9338	9338	5352	5352	7997	7997
R-Squared	0.175	0.193	0.177	0.199	0.170	0.188
Clusters	2194	2194	1424	1424	1961	1961
Using Bandwidth	0.129	0.129	0.070	0.070	0.110	0.110
Optimal Bandwidth	0.129	0.129	0.129	0.129	0.129	0.129
Non-Municipal Schools						
1{ <i>IncumbVoteMargin</i> < 0}	-0.021 (0.052) [0.678]	-0.023 (0.050) [0.649]	0.028 (0.071) [0.692]	0.054 (0.068) [0.423]	-0.036 (0.057) [0.528]	-0.028 (0.055) [0.606]
Baseline Management Index	0.432 (0.014) [0.000]	0.402 (0.014) [0.000]	0.420 (0.018) [0.000]	0.386 (0.017) [0.000]	0.427 (0.015) [0.000]	0.396 (0.014) [0.000]
Observations	5677	5677	3387	3387	4839	4839
R-Squared	0.212	0.229	0.203	0.226	0.207	0.225
Clusters	1940	1940	1267	1267	1717	1717
Using Bandwidth	0.130	0.130	0.070	0.070	0.110	0.110
Optimal Bandwidth	0.130	0.130	0.130	0.130	0.130	0.130
Munic. Schools, No Headm. Replac.						
1{ <i>IncumbVoteMargin</i> < 0}	-0.028 (0.054) [0.601]	-0.045 (0.054) [0.406]	-0.061 (0.078) [0.436]	-0.070 (0.078) [0.365]	-0.030 (0.063) [0.633]	-0.048 (0.064) [0.456]
Baseline Management Index	0.412 (0.016) [0.000]	0.389 (0.016) [0.000]	0.389 (0.019) [0.000]	0.363 (0.020) [0.000]	0.403 (0.018) [0.000]	0.376 (0.019) [0.000]
Observations	3987	3987	2111	2111	3174	3174
R-Squared	0.229	0.241	0.216	0.232	0.219	0.231
Clusters	1309	1309	779	779	1113	1113
Using Bandwidth	0.135	0.135	0.070	0.070	0.110	0.110
Optimal Bandwidth	0.135	0.135	0.135	0.135	0.135	0.135
Controls		Y		Y		Y

Note: Data from Prova Brasil. Management index built using Principal Component Analysis. Panel A: Standard errors in parentheses, p-values in square brackets. This table reports the coefficient on political party turnover from regressing standardized management scores in municipal schools on the running variable of the RDD (*IncumbVoteMargin*), political party turnover (*IncumbVoteMargin* < 0), and the interaction of these two variables for the set of municipalities with *IncumbVoteMargin* < *UsingBandwidth*. We also control for baseline standardized management scores in the year before the election. Controls include school-level controls (whether: the school is located in an urban or rural area, the school is connected to the electric grid, the school is connected to the water network, the school is connected to the sewage system, the schools trash is regularly collected, and the school has Internet) and a 2012 election-cycle indicator. Optimal bandwidth follows Calonico et al. (2017). Panel B: repeat of the analysis in Panel A using non-municipal schools (state and federal schools). Only public schools participate in the Prova Brasil exam. Panel C: repeat of the analysis in Panel A for the municipal schools where the school principal was not replaced. New school principals are those that report being the head of their current school for less than two years on the Prova Brasil school principal questionnaire.

Table B.7: Management and school functioning: [Anderson \(2008\)](#) Index

	Teachers						Households	
	(1) shortage	(2) shortage	(3) motivation	(4) motivation	(5) effort	(6) effort	(7) effort	(8) effort
PISA								
Management Index	-0.076 (0.023) [0.001]	-0.072 (0.022) [0.001]	0.250 (0.025) [0.000]	0.260 (0.024) [0.000]	0.048 (0.026) [0.064]	0.065 (0.024) [0.008]	0.204 (0.027) [0.000]	0.216 (0.025) [0.000]
Observations	12133	12133	12133	12133	12133	12133	12133	12133
Schools	12133	12133	12133	12133	12133	12133	12133	12133
R-Squared	0.032	0.052	0.061	0.083	0.011	0.060	0.047	0.090
Country FE	Y	Y	Y	Y	Y	Y	Y	Y
School Controls		Y		Y		Y		Y
Student Controls		Y		Y		Y		Y
Prova Brasil								
Management Index	-0.046 (0.002) [0.000]	-0.090 (0.003) [0.000]	0.244 (0.002) [0.000]	0.236 (0.003) [0.000]	0.016 (0.002) [0.000]	0.059 (0.003) [0.000]	0.044 (0.002) [0.000]	0.052 (0.003) [0.000]
Observations	322127	322127	315885	315885	322273	322273	322313	322313
Schools	72658	72658	72321	72321	72686	72686	72688	72688
R-Squared	0.002	0.448	0.059	0.375	0.000	0.484	0.002	0.443
Year FE	Y	Y	Y	Y	Y	Y	Y	Y
PISA-Like Controls		Y		Y		Y		Y
PB Controls		Y		Y		Y		Y
School FE		Y		Y		Y		Y

Note: Standard errors in parentheses, p-values in square brackets. Management Index built using [Anderson \(2008\)](#) method. Panel A: All regressions use data from public schools only. The table reports coefficients from school-level regressions of the PISA-based management index standardized using the overall distribution on each of the intermediate school outcomes (also standardized). All specifications include PISA school final weights and country fixed effects. School controls: school location (set of dummies for village, small town, town, city, and large city), student-teacher ratio, log of the number of students, ratio of computers connected to the web as a proxy for school resources, and share of government funding relative to total school funding. Student controls: gender, grade compared to modal grade of students taking the PISA exam in the country, an index of economic, social, and cultural status, and immigration status (set of dummies for native, first generation, and second generation). Panel B: PB exam is applied in public schools only. The table reports coefficients from school-level regressions of the PB-based management index standardized using the overall distribution on each of the intermediate school outcomes (also standardized). All specifications include year fixed effects. PISA-like controls are taken from PB data set and attempt to match school controls and student controls in PISA regressions (Table 1): indicator variable for urban schools, student-teacher ratio, log of the number of students, dummies indicating the presence of a computer lab and whether the school has internet access, gender, student households' consumption index, and a set of dummies for race. Given the availability of principal characteristics, PB controls include principals' age, set of dummies for principals' race, principals' educational attainment (set of dummies for less than high school, high school, undergraduate (pedagogy), undergraduate (math), undergraduate (Portuguese), undergraduate (others), masters, doctoral), indicator for whether the principal holds another job. PB controls also include the class-year-level share of white teachers, share of teachers holding a college degree, and average teacher tenure. For the students, PB controls include dummies for mother educational attainment (grades 1-5, grades 6-9, secondary grades 10-12, and college). In both panels: For control variables, missing variables are replaced with a value of -99 and we include an indicator variable with a value of 1 for each imputed value.

Table B.8: Management and school functioning: PCA

	Teachers						Households	
	(1) shortage	(2) shortage	(3) motivation	(4) motivation	(5) effort	(6) effort	(7) effort	(8) effort
PISA								
Management Index	-0.066 (0.025) [0.008]	-0.064 (0.024) [0.008]	0.261 (0.027) [0.000]	0.283 (0.025) [0.000]	0.042 (0.026) [0.111]	0.074 (0.025) [0.003]	0.211 (0.031) [0.000]	0.242 (0.030) [0.000]
Observations	10847	10847	10847	10847	10847	10847	10847	10847
Schools	10847	10847	10847	10847	10847	10847	10847	10847
R-Squared	0.035	0.055	0.072	0.112	0.014	0.068	0.060	0.132
Country FE	Y	Y	Y	Y	Y	Y	Y	Y
School Controls		Y		Y		Y		Y
Student Controls		Y		Y		Y		Y
Prova Brasil								
Management Index	-0.033 (0.002) [0.000]	-0.080 (0.003) [0.000]	0.327 (0.002) [0.000]	0.360 (0.003) [0.000]	0.087 (0.002) [0.000]	0.041 (0.003) [0.000]	0.125 (0.002) [0.000]	0.063 (0.003) [0.000]
Observations	296610	296610	298011	298011	300137	300137	293873	293873
Schools	71556	71556	71462	71462	71711	71711	71320	71320
R-Squared	0.001	0.470	0.106	0.423	0.008	0.502	0.015	0.589
Year FE	Y	Y	Y	Y	Y	Y	Y	Y
PISA-Like Controls		Y		Y		Y		Y
PB Controls		Y		Y		Y		Y
School FE		Y		Y		Y		Y

Note: Standard errors in parentheses, p-values in square brackets. Management index built using Principal Component Analysis. Panel A: All regressions use data from public schools only. The table reports coefficients from school-level regressions of the PISA-based management index standardized using the overall distribution on each of the intermediate school outcomes (also standardized). All specifications include PISA school final weights and country fixed effects. School controls: school location (set of dummies for village, small town, town, city, and large city), student-teacher ratio, log of the number of students, ratio of computers connected to the web as a proxy for school resources, and share of government funding relative to total school funding. Student controls: gender, grade compared to modal grade of students taking the PISA exam in the country, an index of economic, social, and cultural status, and immigration status (set of dummies for native, first generation, and second generation). Panel B: PB exam is applied in public schools only. The table reports coefficients from school-level regressions of the PB-based management index standardized using the overall distribution on each of the intermediate school outcomes (also standardized). All specifications include year fixed effects. PISA-like controls are taken from PB data set and attempt to match school controls and student controls in PISA regressions (Table 1): indicator variable for urban schools, student-teacher ratio, log of the number of students, dummies indicating the presence of a computer lab and whether the school has internet access, gender, student households' consumption index, and a set of dummies for race. Given the availability of principal characteristics, PB controls include principals' age, set of dummies for principals' race, principals' educational attainment (set of dummies for less than high school, high school, undergraduate (pedagogy), undergraduate (math), undergraduate (Portuguese), undergraduate (others), masters, doctoral), indicator for whether the principal holds another job. PB controls also include the class-year-level share of white teachers, share of teachers holding a college degree, and average teacher tenure. For the students, PB controls include dummies for mother educational attainment (grades 1-5, grades 6-9, secondary grades 10-12, and college). In both panels: For control variables, missing variables are replaced with a value of -99 and we include an indicator variable with a value of 1 for each imputed value.

C Appendix: Theoretical Framework

We first present a result that establishes effort levels in high and low management public schools, high management private schools, and the outside sector.

Lemma 1. *Assume that the government assigns the teacher to public school $i = L, H$.*

1. *If the teacher accepts the government's offer, then she exerts effort $e^i = \frac{\tau + \Delta^i}{2}$.*
2. *If the teacher declines the government's offer and is hired by a high management private school, then she exerts effort $e^P = \frac{\theta B}{2(\bar{\varepsilon} - \underline{\varepsilon})} + \frac{\tau + \Delta^H}{2}$.*
3. *If the teacher declines the government's offer and is hired by an outside employer, then she exerts effort $e^O = \frac{\theta \beta}{2(\bar{\varepsilon} - \underline{\varepsilon})}$.*

Proof. Part 1. When working in public school i , a teacher with baseline motivation τ chooses effort to solve

$$\max_e G - (e^2 - (\tau + \Delta^i) \cdot e).$$

Differentiation to obtain the first order condition yields the solution stated above. (Here, as in the cases below, the second order condition necessary for a maximum holds.)

Part 2. When working in a high management private school, a teacher with baseline motivation τ and ability θ chooses effort to solve

$$\max_e P \cdot B + W - (e^2 - (\tau + \Delta^H) \cdot e)$$

where P is the probability that y_1^H exceeds the threshold $\bar{y}$ given teacher and household effort. Using the uniform distribution for ε , we can rewrite this probability as

$$P = \Pr(\theta e + a + \varepsilon > \bar{y}) = \Pr(\theta e + a - \bar{y} > -\varepsilon) = \frac{\bar{\varepsilon} + \theta e + a - \bar{y}}{\bar{\varepsilon} - \underline{\varepsilon}}.$$

The first order condition for this optimization problem is

$$\frac{\theta B}{\bar{\varepsilon} - \underline{\varepsilon}} = 2e - (\tau + \Delta^H),$$

which yields the solution stated above.

Part 3. When working in the outside sector, a teacher chooses effort to solve

$$\max_e P^O \cdot \beta - e^2,$$

where P^O is the probability that z exceeds the threshold $\bar{z}$ given effort. We can rewrite this probability as

$$P^O = \Pr(\theta e + \varepsilon^O > \bar{z}) = \Pr(\theta e - \bar{z} > -\varepsilon^O) = \frac{\bar{\varepsilon} + \theta e - \bar{z}}{\bar{\varepsilon} - \underline{\varepsilon}}.$$

The first order condition for this optimization problem is

$$\frac{\theta \beta}{\bar{\varepsilon} - \underline{\varepsilon}} = 2e,$$

which yields the solution stated above. $\square$

We now use these effort levels to construct Figure 7. Calculations were performed in Mathematica; the notebook file is available on request.

Derivation of Figure 7 The figure is based on the following numerical example. Teacher intrinsic motivation is distributed $\tau \sim U[0, 10]$, and teacher ability is distributed $\theta \sim U[1, 5]$. In the low management public school $G^L = 30$, $\Delta^L = 0$, and $\gamma^L = 1$. In the high management public school, $G^H = 35$, $\Delta^H = 0.5$ and $\gamma^H = 2$. Other parameters are set at $W = 15$, $B = 40$, $\bar{y} = 4.5$, $\beta = 50$, and $\bar{z} = 1$.

The unshaded region in the top panel of Figure 7 shows $\mathcal{T}^H$, the set of (θ, τ) types for whom the payoff from accepting a job in the assigned high management public school (weakly) exceeds both the expected payoff of declining and accepting a job in a high management private school and the expected payoff of declining and accepting a job in the outside sector. This region is bounded by two functions

$$\tau_P^H = \frac{7}{\theta} - 2\theta - \frac{1}{2}, \quad \tau_O^H = \sqrt{25\theta^2 - 60} - \frac{1}{2}.$$

The function τ_P^H traces out the loci of (θ, τ) types who, anticipating subsequent teacher and household effort, are indifferent between accepting the job in the assigned high management public school and declining it in favour of a job in a high management private school, i.e. types for whom

$$G - (e^H)^2 + (\tau + \Delta^H) e^H = W + B \left(\frac{\bar{\varepsilon} + \theta e^P + a^P - \bar{y}}{\bar{\varepsilon} - \underline{\varepsilon}} \right) - (e^P)^2 + (\tau + \Delta^H) e^P.$$

Substituting for e^H and e^P from Lemma 1, together with the parameters in the numerical example (implying $a^P = 1$), and rearranging yields the expression for τ_P^H stated above. Fixing θ , for any $\tau < \tau_P^H(\theta)$, the teacher's payoff from accepting the government's offer is strictly higher than her expected payoff from declining and accepting a job in a high management private school.

The function τ_O^H traces out the loci of (θ, τ) types who, anticipating subsequent teacher effort, are indifferent between accepting the job in the assigned high management public school and declining it in favour of a job in the outside sector, i.e. types for whom

$$G - (e^H)^2 + (\tau + \Delta^H) e^H = \beta \left(\frac{\bar{\varepsilon} + \theta e^O - \bar{z}}{\bar{\varepsilon} - \underline{\varepsilon}} \right) - (e^O)^2.$$

Substituting for e^H and e^O from Lemma 1, together with the parameters in the numerical example, and rearranging for τ yields the expression for τ_O^H stated above. Fixing θ , for any $\tau > \tau_O^H(\theta)$, the teacher's payoff from accepting the government's offer is strictly higher than her expected payoff from declining and accepting a job in the outside sector.

The values for average ability and average baseline intrinsic motivation (the coordinates of the blue dot) are obtained by numerical integration.

The unshaded region in the bottom panel of Figure 7 shows $\mathcal{T}^L$, the set of (θ, τ) types for whom the payoff from accepting a job in the assigned low management public school (weakly) exceeds both the expected payoff of declining and accepting a job in a high management private school and the expected payoff of declining and accepting a job in the outside sector. This region is bounded

by two functions

$$\tau_P^L = \frac{36}{8\theta + 1} - 2\theta - \frac{1}{4}, \quad \tau_O^L = \sqrt{25\theta^2 - 40}.$$

The function τ_P^L traces out the loci of (θ, τ) types who, anticipating subsequent teacher and household effort, are indifferent between accepting the job in the assigned low management public school and declining it in favour of a job in a high management private school, i.e. types for whom

$$G - (e^L)^2 + (\tau + \Delta^L) e^L = W + B \left(\frac{\bar{\varepsilon} + \theta e^P + a^P - \bar{y}}{\bar{\varepsilon} - \underline{\varepsilon}} \right) - (e^P)^2 + (\tau + \Delta^H) e^P.$$

Substituting for e^L and e^P from Lemma 1, together with the parameters in the numerical example (implying $a^P = 1$), and rearranging yields the expression for τ_P^L stated above. Fixing θ , for any $\tau < \tau_P^L(\theta)$, the teacher's payoff from accepting the government's offer is strictly higher than her expected payoff from declining and accepting a job in a high management private school.

The function τ_O^L traces out the loci of (θ, τ) types who, anticipating subsequent teacher effort, are indifferent between accepting the job in the assigned low management public school and declining it in favour of a job in the outside sector, i.e. types for whom

$$G - (e^L)^2 + (\tau + \Delta^L) e^L = \beta \left(\frac{\bar{\varepsilon} + \theta e^O - \bar{z}}{\bar{\varepsilon} - \underline{\varepsilon}} \right) - (e^O)^2.$$

Substituting for e^L and e^O from Lemma 1, together with the parameters in the numerical example, and rearranging for τ yields the expression for τ_O^L stated above. Fixing θ , for any $\tau > \tau_O^L(\theta)$, the teacher's payoff from accepting the government's offer is strictly higher than her expected payoff from declining and accepting a job in the outside sector.

The values for average ability and average baseline intrinsic motivation (the coordinates of the orange dot) are also obtained by numerical integration.

Low-cost private schools We complete the analysis by considering an alternative numerical example, where pay in a high management private school is *below* the level in both high and low management public schools. All parameters take the same values as in the previous numerical example, except $W = 5$ and $B = 20$. In this numerical example,

$$\tau_P^H = \frac{27}{\theta} - \theta - \frac{1}{2}, \quad \tau_O^H = \sqrt{25\theta^2 - 60} - \frac{1}{2}$$

and

$$\tau_P^L = \frac{88}{4\theta + 1} - \theta - \frac{1}{4}, \quad \tau_O^L = \sqrt{25\theta^2 - 40}.$$

These functions are plotted in Figure 9. As before, the probability of hiring the teacher in a high management public school is higher than the probability of hiring the teacher in a low management public school (the unshaded region is larger in the top panel than in the bottom panel). The expected intrinsic motivation of a teacher hired to a high management public school is now slightly *lower* than the expected intrinsic motivation of a teacher hired to a low management public school (compare the height of the orange dot at 5.98 with the height of the blue dot at 5.81). The difference is small, however, and not sufficient to reverse the effort effect: the expected effort level of a teacher hired to a high management public school is higher than the expected intrinsic

motivation of a teacher hired to a low management public school ($E \left[\frac{\tau + \Delta^H}{2} | (\theta, \tau) \in \mathcal{T}^H \right] = 3.16 > E \left[\frac{\tau + \Delta^L}{2} | (\theta, \tau) \in \mathcal{T}^L \right] = 2.99$). Household effort levels in public schools are unchanged.

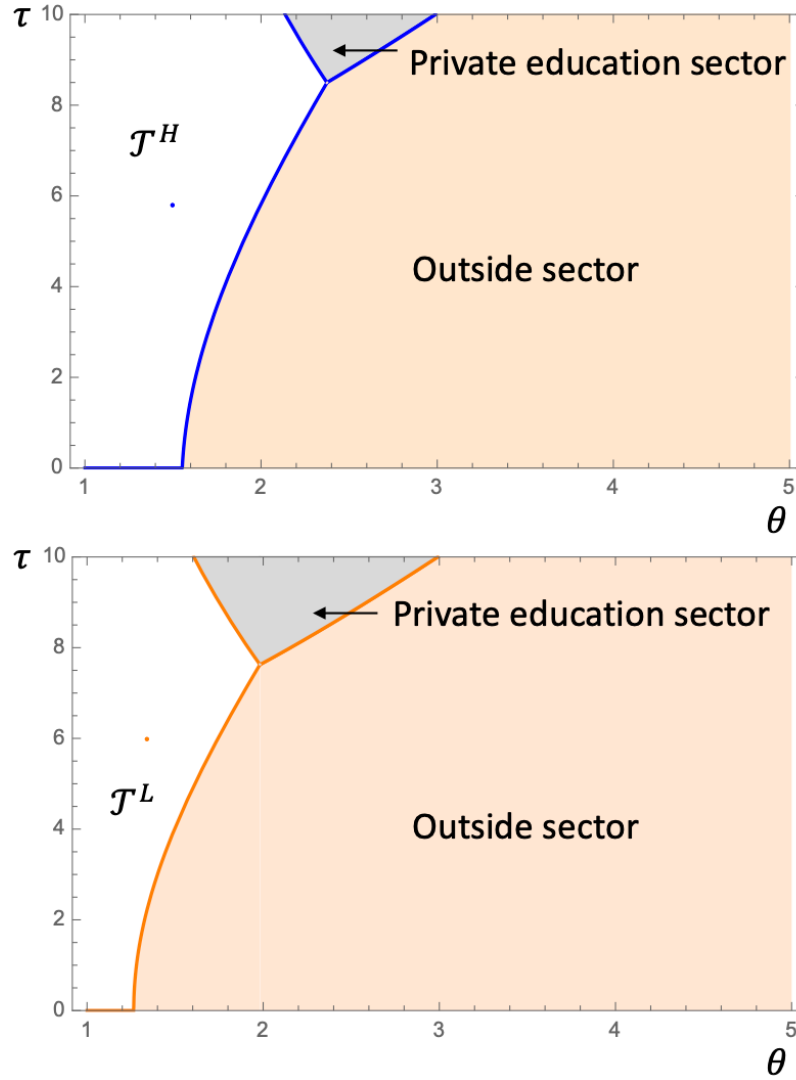


Figure C.1: Teacher selection, with 'low cost' private schools

Note: Teacher ability is distributed $\theta \sim U[1, 5]$ and teacher intrinsic motivation is distributed $\tau \sim U[0, 10]$. In the low management public school $G^L = 30$, $\Delta^L = 0$, and $\gamma^L = 1$. In the high management public school, $G^H = 35$, $\Delta^H = 0.5$ and $\gamma^H = 2$. Other parameters are set at $W = 5$, $B = 20$, $\bar{y} = 4.5$, $\beta = 50$, and $\bar{z} = 1$. The blue point in the top panel shows average teacher ability and average baseline intrinsic motivation among teacher types who select into a high management public school. The (x, y) -coordinates are $(1.50, 5.81)$. The orange point in the bottom panel shows average teacher ability and average baseline intrinsic motivation among teacher types who select into a low management public school. The (x, y) -coordinates are $(1.34, 5.98)$.

D Construction of Indices

D.1 PISA

For each WMS topic, there is a scoring grid ranging from 1 (little to no structured management) to 5 (best practice), which serves as a guide to evaluate answers to questions during the interviews. The overall management index, which measures the level of adoption of structured management best practices, is simply the average of the scores for these 20 topics. A score between 1 to 2 refers to a school with practically no structured management practices or very weak management practices implemented; a score between 2 to 3 refers to a school with some informal practices implemented, but these practices consist mostly of a reactive approach to managing the school; a score between 3 to 4 refers to a school where a good, formal management process is in place (though not yet consistently enough) and these practices consist mostly of a proactive approach to managing a school; and a score between 4 to 5 refers to well-defined, strong processes in place which are often seen as best practices in education.

To construct a PISA-based school management index, we followed a four-step approach. First, we classified each of the 2012 PISA questions either under one of the WMS topics or under “not management”. We were able to classify 53 2012 PISA questions into 14 WMS topics. Second, we manually assigned scores following the conceptual guidelines of the scoring grid of the World Management Survey, similar to the exercise conducted in the census-based management surveys such as the US Census Management and Organizational Practices Survey (MOPS), where values indicating best practices receive higher scores than values indicating poor practices. Values are normalized from 0 to 1.¹⁸ Third, we compute a score for each of the 14 topics as the average of the questions we classified into each topic. These topic-level scores are then standardized using the within-country distributions of each topic. Fourth, to build the overall management index we follow three different procedures. In our main analysis, the overall management index is the average of the standardized score of the 14 topics. For robustness, we also compute an alternative index following [Anderson \(2008\)](#)¹⁹. Using this methodology yields similar results. We also build the indices following a principal components analysis, in which we considered the predicted value of the first component. Once again, results are similar to the main analysis.

Besides the management index and its sub-indices, we also constructed teacher shortage, teacher motivation, teacher effort, and household effort indices. The procedure here is analogous to the one for the management indices: first, we identify the PISA 2012 questions associated with each new index; second, we assign scores for each question; third, we standardize each question; fourth, the indices used in the main analysis are computed as the average of the questions that we mapped into each one them. As before, we also compute alternative indices using the Anderson methodology or running a principal components analysis, finding similar results.

The list of questions included in the PISA 2012 management index and its mapping to the individual questions is described below, as well as the list of questions mapped into each of the teacher shortage, teacher motivation, teacher effort, and household effort indices.

¹⁸MOPS has since been replicated in a number of other countries. Its questions follow the WMS topics and look to measure similar practices, but with self-reported answers.

¹⁹The methodology proposed by [Anderson \(2008\)](#) weights the impact of the included variables by the sum of their row in the inverse variance-covariance matrix, thereby assigning greater weight to questions that carry more “new information”. Given that the importance (weight) of one questions is relative to the important of all others, we conservatively drop schools missing more than one management question (approximately 15% of schools are dropped, yet all countries are still included in the final sample).

PISA 2012				
Questions	Var. name in questionnaire	Value label	Value	MGMT score
1) Standardization of Instructional Processes				
Which of the following options describe what your school does for <national modal grade for 15-year-olds> students in mathematics classes? Answer: Mathematics classes study similar content, but at different levels of difficulty.	SC15Q01	All classes	1	0.00
		Some classes	2	0.50
		Not for any class	3	1.00
Which of the following options describe what your school does for <national modal grade for 15-year-olds> students in mathematics classes? Answer: Different classes study different content or sets of mathematics topics that have different levels of difficulty.	SC15Q02	All classes	1	0.00
		Some classes	2	0.50
		Not for any class	3	1.00
Which of the following measures aimed at quality assurance and improvement do you have in your school? Answer: Implementation of a standardised policy for mathematics (i.e. school curriculum with shared instructional materials accompanied by staff development and training).	SC39Q10	Yes	1	1.00
		No	2	0.00
Which of the following statements apply in your school? Answer: The school has a policy on how to use computers in mathematics instruction (e.g. amount of computer use in mathematics lessons, use of specific mathematics computer programs).	SC40Q01	Yes	1	1.00
		No	2	0.00
Which of the following statements apply in your school? Answer: All <national modal grade for 15-year-olds> mathematics classes in the school use the same textbook.	SC40Q02	Yes	1	1.00
		No	2	0.00
Which of the following statements apply in your school? Answer: Mathematics teachers in the school follow a standardised curriculum that specifies content at least on a monthly basis.	SC40Q03	Yes	1	1.00
		No	2	0.00
2) Personalization of Instruction and Learning				
Which of the following options describe what your school does for <national modal grade for 15-year-olds> students in mathematics classes? Answer: In mathematics classes, teachers use pedagogy suitable for students with heterogeneous abilities (i.e. students are not grouped by ability).	SC15Q04	All classes	1	1.00
		Some classes	2	0.50
		Not for any class	3	0.00
3) Data-Driven Planning and Student Transitions				
Are assessments of students in <national modal grade for 15-year-olds> used to inform parents about their child's progress?	SC18Q01	Yes	1	1.00
		No	2	0.00
Are assessments of students in <national modal grade for 15-year-olds> used to make decisions about students' retention or promotion?	SC18Q02	Yes	1	1.00
		No	2	0.00
Which of the following measures aimed at quality assurance and improvement do you have in your school? Answer: Systematic recording of data including teacher and student attendance and graduation rates, test results and professional development of teachers.	SC39Q03	Yes	1	1.00
		No	2	0.00
4) Adopting Educational Best Practices				
Are assessments of students in <national modal grade for 15-year-olds> used to identify aspects of instruction or the curriculum that could be improved?	SC18Q07	Yes	1	1.00
		No	2	0.00

PISA 2012				
Questions	Var. name in questionnaire	Value label	Value	MGMT score
4) Adopting Educational Best Practices				
Please indicate the frequency of the following activities and behaviours in your school during <the last academic year>. Answer: I promote teaching practices based on recent educational research.	SC34Q05	Did not occur	1	0.00
		1-2 times during the year	2	0.20
		3-4 times during the year	3	0.40
		Once a month	4	0.60
		Once a week	5	0.80
		More than once a week	6	1.00
		Please indicate the frequency of the following activities and behaviours in your school during <the last academic year>. Answer: I set aside time at faculty meetings for teachers to share ideas or information from in-service activities.	SC34Q18	Did not occur
1-2 times during the year	2			0.20
3-4 times during the year	3			0.40
Once a month	4			0.60
Once a week	5			0.80
More than once a week	6			1.00
Which of the following measures aimed at quality assurance and improvement do you have in your school? Answer: Teacher mentoring.	SC39Q08			Yes
		No	2	0.00
Please indicate the frequency of the following activities and behaviours in your school during <the last academic year>. Answer: I lead or attend in-service activities concerned with instruction.	SC34Q17	Did not occur	1	0.00
		1-2 times during the year	2	0.20
		3-4 times during the year	3	0.40
		Once a month	4	0.60
		Once a week	5	0.80
		More than once a week	6	1.00
		5) Continuous Improvement		
Please indicate the frequency of the following activities and behaviours in your school during <the last academic year>. Answer: When a teacher has problems in his/her classroom, I take the initiative to discuss matters.	SC34Q07	Did not occur	1	0.00
		1-2 times during the year	2	0.20
		3-4 times during the year	3	0.40
		Once a month	4	0.60
		Once a week	5	0.80
		More than once a week	6	1.00
		Please indicate the frequency of the following activities and behaviours in your school during <the last academic year>. Answer: I engage teachers to help build a school culture of continuous improvement.	SC34Q11	Did not occur
1-2 times during the year	2			0.20
3-4 times during the year	3			0.40
Once a month	4			0.60
Once a week	5			0.80
More than once a week	6			1.00

PISA 2012				
Questions	Var. name in questionnaire	Value label	Value	MGMT score
5) Continuous Improvement				
Please indicate the frequency of the following activities and behaviours in your school during <the last academic year>. Answer: I conduct informal observations in classrooms on a regular basis (informal observations are unscheduled, last at least 5 minutes, and may or may not involve written feedback or a formal conference).	SC34Q19	Did not occur	1	0.00
		1-2 times during the year	2	0.20
		3-4 times during the year	3	0.40
		Once a month	4	0.60
		Once a week	5	0.80
		More than once a week	6	1.00
Which of the following measures aimed at quality assurance and improvement do you have in your school? Answer: Internal evaluation/self-evaluation.	SC39Q05	Yes	1	1.00
		No	2	0.00
Which of the following measures aimed at quality assurance and improvement do you have in your school? Answer: External evaluation.	SC39Q06	Yes	1	1.00
		No	2	0.00
Which of the following measures aimed at quality assurance and improvement do you have in your school? Answer: Seeking written feed-back from students (e.g. regarding lessons, teachers or resources).	SC39Q07	Yes	1	1.00
		No	2	0.00
7) Performance Review				
During the last year, have any of the following methods been used to monitor the practice of mathematics teachers at your school? Answer: Tests or assessments of student achievement.	SC30Q01	Yes	1	1.00
		No	2	0.00
During the last year, have any of the following methods been used to monitor the practice of mathematics teachers at your school? Answer: Teacher peer review (of lesson plans, assessment instruments, lessons).	SC30Q02	Yes	1	1.00
		No	2	0.00
During the last year, have any of the following methods been used to monitor the practice of mathematics teachers at your school? Answer: Principal or senior staff observations of lessons.	SC30Q03	Yes	1	1.00
		No	2	0.00
During the last year, have any of the following methods been used to monitor the practice of mathematics teachers at your school? Answer: Observation of classes by inspectors or other persons external to the school.	SC30Q04	Yes	1	1.00
		No	2	0.00
8) Performance Dialogue				
Please indicate the frequency of the following activities and behaviours in your school during <the last academic year>. Answer: I ask teachers to participate in reviewing management practices.	SC34Q12	Did not occur	1	0.00
		1-2 times during the year	2	0.20
		3-4 times during the year	3	0.40
		Once a month	4	0.60
		Once a week	5	0.80
		More than once a week	6	1.00

PISA 2012				
Questions	Var. name in questionnaire	Value label	Value	MGMT score
8) Performance Dialogue				
Please indicate the frequency of the following activities and behaviours in your school during <the last academic year>. Answer: When a teacher brings up a classroom problem, we solve the problem together.	SC34Q13	Did not occur	1	0.00
		1-2 times during the year	2	0.20
		3-4 times during the year	3	0.40
		Once a month	4	0.60
		Once a week	5	0.80
		More than once a week	6	1.00
Please indicate the frequency of the following activities and behaviours in your school during <the last academic year>. Answer: I discuss academic performance results with the faculty to identify curricular strengths and weaknesses.	SC34Q16	Did not occur	1	0.00
		1-2 times during the year	2	0.20
		3-4 times during the year	3	0.40
		Once a month	4	0.60
		Once a week	5	0.80
		More than once a week	6	1.00
10) Target Balance				
Are assessments of students in <national modal grade for 15-year-olds> used to compare the school to <district or national> performance?	SC18Q04	Yes	1	1.00
		No	2	0.00
Are assessments of students in <national modal grade for 15-year-olds> used to monitor the school's progress from year to year?	SC18Q05	Yes	1	1.00
		No	2	0.00
Are assessments of students in <national modal grade for 15-year-olds> used to compare the school with other schools?	SC18Q08	Yes	1	1.00
		No	2	0.00
Please indicate the frequency of the following activities and behaviours in your school during <the last academic year>. Answer: I make sure that the professional development activities of teachers are in accordance with the teaching goals of the school.	SC34Q03	Did not occur	1	0.00
		1-2 times during the year	2	0.20
		3-4 times during the year	3	0.40
		Once a month	4	0.60
		Once a week	5	0.80
		More than once a week	6	1.00
11) Target Inter-Connection				
Please indicate the frequency of the following activities and behaviours in your school during <the last academic year>. Answer: I discuss the school's academic goals with teachers at faculty meetings.	SC34Q14	Did not occur	1	0.00
		1-2 times during the year	2	0.20
		3-4 times during the year	3	0.40
		Once a month	4	0.60
		Once a week	5	0.80
		More than once a week	6	1.00
13) Target Stretch				
Please indicate the frequency of the following activities and behaviours in your school during <the last academic year>. Answer: I use student performance results to develop the school's educational goals.	SC34Q02	Did not occur	1	0.00
		1-2 times during the year	2	0.20
		3-4 times during the year	3	0.40
		Once a month	4	0.60
		Once a week	5	0.80
		More than once a week	6	1.00

PISA 2012				
Questions	Var. name in questionnaire	Value label	Value	MGMT score
14) Clarity and Comparability of Targets				
Please indicate the frequency of the following activities and behaviours in your school during <the last academic year>. Answer: I ensure that teachers work according to the school's educational goals.	SC34Q04	Did not occur	1	0.00
		1-2 times during the year	2	0.20
		3-4 times during the year	3	0.40
		Once a month	4	0.60
		Once a week	5	0.80
		More than once a week	6	1.00
Please indicate the frequency of the following activities and behaviours in your school during <the last academic year>. Answer: I refer to the school's academic goals when making curricular decisions with teachers.	SC34Q15	Did not occur	1	0.00
		1-2 times during the year	2	0.20
		3-4 times during the year	3	0.40
		Once a month	4	0.60
		Once a week	5	0.80
		More than once a week	6	1.00
Which of the following measures aimed at quality assurance and improvement do you have in your school? Answer: Written specification of the school's curricular profile and educational goals.	SC39Q01	Yes	1	1.00
		No	2	0.00
Which of the following measures aimed at quality assurance and improvement do you have in your school? Answer: Written specification of student performance standards.	SC39Q02	Yes	1	1.00
		No	2	0.00
In your school, are achievement data used in any of the following <accountability procedures>? Answer: Achievement data are posted publicly (e.g. in the medi1).	SC19Q01	Yes	1	1.00
		No	2	0.00
In your school, are achievement data used in any of the following <accountability procedures>? Answer: Achievement data are tracked over time by an administrative authority.	SC19Q02	Yes	1	1.00
		No	2	0.00
15) Rewarding High Performers				
Please indicate the frequency of the following activities and behaviours in your school during <the last academic year>. Answer: I evaluate the performance of staff.	SC34Q22	Did not occur	1	0.00
		1-2 times during the year	2	0.20
		3-4 times during the year	3	0.40
		Once a month	4	0.60
		Once a week	5	0.80
		More than once a week	6	1.00
Are assessments of students in <national modal grade for 15-year-olds> used to make judgements about teachers' effectiveness?	SC18Q06	Yes	1	1.00
		No	2	0.00
To what extent have appraisals of and/or feedback to teachers directly led a change in salary?	SC31Q01	No change	1	0.00
		Small change	2	0.33
		Moderate change	3	0.66
		Large change	4	1.00
To what extent have appraisals of and/or feedback to teachers directly led a financial bonus or another kind of monetary reward?	SC31Q02	No change	1	0.00
		Small change	2	0.33
		Moderate change	3	0.66
		Large change	4	1.00
To what extent have appraisals of and/or feedback to teachers directly led a public recognition from you?	SC31Q05	No change	1	0.00
		Small change	2	0.33
		Moderate change	3	0.66
		Large change	4	1.00

PISA 2012				
Questions	Var. name in questionnaire	Value label	Value label	MGMT score
15) Rewarding High Performers				
Please indicate the frequency of the following activities and behaviours in your school during <the last academic year>. Answer: I praise teachers whose students are actively participating in learning.	SC34Q06	Did not occur	1	0.00
		1-2 times during the year	2	0.20
		3-4 times during the year	3	0.40
		Once a month	4	0.60
		Once a week	5	0.80
		More than once a week	6	1.00
17) Promoting High Performers				
To what extent have appraisals of and/or feedback to teachers directly led to opportunities for professional development activities?	SC31Q03	No change	1	0.00
		Small change	2	0.33
		Moderate change	3	0.66
		Large change	4	1.00
To what extent have appraisals of and/or feedback to teachers directly led changes in work responsibilities that make the job more attractive?	SC31Q06	No change	1	0.00
		Small change	2	0.33
		Moderate change	3	0.66
		Large change	4	1.00
To what extent have appraisals of and/or feedback to teachers directly led a role in school development initiatives (e.g. curriculum development group, development of school objectives)?	SC31Q07	No change	1	0.00
		Small change	2	0.33
		Moderate change	3	0.66
		Large change	4	1.00
To what extent have appraisals of and/or feedback to teachers directly led a change in the likelihood of career advancement?	SC31Q04	No change	1	0.00
		Small change	2	0.33
		Moderate change	3	0.66
		Large change	4	1.00
20) Attracting Talent / Creating a Distinctive Employee Value Proposition				
Please indicate the frequency of the following activities and behaviours in your school during <the last academic year>. Answer: I work to enhance the school's reputation in the community.	SC34Q01	Did not occur	1	0.00
		1-2 times during the year	2	0.20
		3-4 times during the year	3	0.40
		Once a month	4	0.60
		Once a week	5	0.80
		More than once a week	6	1.00
What percentage of all staff in your school has attended a programme of professional development with a focus on mathematics?	SC35Q01	Percentage	0	0.00
			1-25	0.25
			26-50	0.50
			51-75	0.75
			76-100	1.00
What percentage of math teachers in your school has attended a programme of professional development with a focus on mathematics?	SC35Q02	Percentage	0	0.00
			1-25	0.25
			26-50	0.50
			51-75	0.75
			76-100	1.00

PISA 2012				
Questions	Var. name in questionnaire	Value label	Value	MGMT score
Teacher Shortage				
Is your school's capacity to provide instruction hindered by any of the following issues? Answer: A lack of qualified science teachers.	SC14Q01	Not at all	1	1
		Very little	2	2
		To some extent	3	3
		A lot	4	4
Is your school's capacity to provide instruction hindered by any of the following issues? Answer: A lack of qualified mathematics teachers.	SC14Q02	Not at all	1	1
		Very little	2	2
		To some extent	3	3
		A lot	4	4
Is your school's capacity to provide instruction hindered by any of the following issues? Answer: A lack of qualified <test language> teachers.	SC14Q03	Not at all	1	1
		Very little	2	2
		To some extent	3	3
		A lot	4	4
Is your school's capacity to provide instruction hindered by any of the following issues? Answer: A lack of qualified teachers of other subjects	SC14Q04	Not at all	1	1
		Very little	2	2
		To some extent	3	3
		A lot	4	4
Teacher Motivation				
In your school, to what extent is the learning of students hindered by the following phenomena? Answer: Teachers' low expectation of students.	SC22Q13	Not at all	1	4
		Very little	2	3
		To some extent	3	2
		A lot	4	1
In your school, to what extent is the learning of students hindered by the following phenomena? Answer: Teachers not meeting individual students' needs.	SC22Q14	Not at all	1	4
		Very little	2	3
		To some extent	3	2
		A lot	4	1
During <the last academic year>, what proportion of students' parents participated in the following school-related activities? Answer: Discussed their child's behavior on the initiative of one of their child's teachers.	SC25Q02	Percentage		
During <the last academic year>, what proportion of students' parents participated in the following school-related activities? Answer: Discussed their child's progress on the initiative of one of their child's teachers.	SC25Q04	Percentage		
Think about the teachers in your school. How much do you agree with the following statements? Answer: The morale of teachers in this school is high.	SC26Q01	Strongly agree	1	4
		Agree	2	3
		Disagree	3	2
		Strongly disagree	4	1
Think about the teachers in your school. How much do you agree with the following statements? Answer: Teachers work with enthusiasms.	SC26Q02	Strongly agree	1	4
		Agree	2	3
		Disagree	3	2
		Strongly disagree	4	1
Think about the teachers in your school. How much do you agree with the following statements? Answer: Teachers take pride in this school.	SC26Q03	Strongly agree	1	4
		Agree	2	3
		Disagree	3	2
		Strongly disagree	4	1
Think about the teachers in your school. How much do you agree with the following statements? Answer: Teachers value academic achievement.	SC26Q04	Strongly agree	1	4
		Agree	2	3
		Disagree	3	2
		Strongly disagree	4	1
How much do you agree with these statements about teachers in your school? Answer: Mathematics teachers are interested in trying new methods and teaching practices.	SC27Q01	Strongly agree	1	4
		Agree	2	3
		Disagree	3	2
		Strongly disagree	4	1
How much do you agree with these statements about teachers in your school? Answer: There is a preference among mathematics teachers to stay with well-known methods and practices.	SC27Q02	Strongly agree	1	4
		Agree	2	3
		Disagree	3	2
		Strongly disagree	4	1
How much do you agree with these statements about teachers in your school? Answer: There is consensus among mathematics teachers that academic achievement must be kept as high as possible.	SC28Q01	Strongly agree	1	4
		Agree	2	3
		Disagree	3	2
		Strongly disagree	4	1

PISA 2012				
Questions	Var. name in questionnaire	Value label	Value	MGMT score
Teacher Motivation				
How much do you agree with these statements about teachers in your school? Answer: There is consensus among mathematics teachers that it is best to adapt academic standards to the students' levels and needs.	SC28Q02	Strongly agree	1	4
		Agree	2	3
		Disagree	3	2
		Strongly disagree	4	1
How much do you agree with these statements about teachers in your school? Answer: There is consensus among mathematics teachers that the social and emotional development of the students is as important as their acquisition of mathematical skills and knowledge in mathematics classes.	SC29Q01	Strongly agree	1	4
		Agree	2	3
		Disagree	3	2
		Strongly disagree	4	1
How much do you agree with these statements about teachers in your school? Answer: There is consensus among mathematics teachers that the development of mathematical skills and knowledge in students is the most important objective in mathematics classes.	SC29Q02	Strongly agree	1	4
		Agree	2	3
		Disagree	3	2
		Strongly disagree	4	1
Teacher Effort				
In your school, to what extent is the learning of students hindered by the following phenomena? Answer: Teacher absenteeism.	SC22Q15	Not at all	1	4
		Very little	2	3
		To some extent	3	2
		A lot	4	1
In your school, to what extent is the learning of students hindered by the following phenomena? Answer: Teachers being too strict with students.	SC22Q17	Not at all	1	4
		Very little	2	3
		To some extent	3	2
		A lot	4	1
In your school, to what extent is the learning of students hindered by the following phenomena? Answer: Teachers being late for classes.	SC22Q18	Not at all	1	4
		Very little	2	3
		To some extent	3	2
		A lot	4	1
Household Effort				
In your school, to what extent is the learning of students hindered by the following phenomena? Answer: Student truancy.	SC22Q01	Not at all	1	4
		Very little	2	3
		To some extent	3	2
		A lot	4	1
In your school, to what extent is the learning of students hindered by the following phenomena? Answer: Students skipping classes.	SC22Q02	Not at all	1	4
		Very little	2	3
		To some extent	3	2
		A lot	4	1
In your school, to what extent is the learning of students hindered by the following phenomena? Answer: Students arriving late for school.	SC22Q03	Not at all	1	4
		Very little	2	3
		To some extent	3	2
		A lot	4	1
In your school, to what extent is the learning of students hindered by the following phenomena? Answer: Students not attending compulsory school events (e.g. sports day) or excursions.	SC22Q04	Not at all	1	4
		Very little	2	3
		To some extent	3	2
		A lot	4	1
In your school, to what extent is the learning of students hindered by the following phenomena? Answer: Students lacking respect for teachers.	SC22Q05	Not at all	1	4
		Very little	2	3
		To some extent	3	2
		A lot	4	1
In your school, to what extent is the learning of students hindered by the following phenomena? Answer: Disruption of classes by students.	SC22Q06	Not at all	1	4
		Very little	2	3
		To some extent	3	2
		A lot	4	1
In your school, to what extent is the learning of students hindered by the following phenomena? Answer: Students intimidating or bullying other students.	SC22Q08	Not at all	1	4
		Very little	2	3
		To some extent	3	2
		A lot	4	1

PISA 2012				
Questions	Var. name in questionnaire	Value label	Value label	MGMT score
Household Effort				
In your school, to what extent is the learning of students hindered by the following phenomena? Answer: Poor student-teacher relations.	SC22Q10	Not at all	1	4
		Very little	2	3
		To some extent	3	2
		A lot	4	1
Which statement below best characterizes parental expectations towards your school?	SC24Q01	There is constant pressure from many parents, who expect our school to set very high academic standards and to have our students achieve them.	1	3
		Pressure on the school to achieve higher academic standards among students comes from a minority of parents.	2	2
		Pressure from parents on the school to achieve higher academic standards among students is largely absent.	3	1
During <the last academic year>, what proportion of students' parents participated in the following school-related activities? Answer: Discussed their child's behaviour with a teacher on their own initiative.	SC25Q01	Percentage		
During <the last academic year>, what proportion of students' parents participated in the following school-related activities? Answer: Discussed their child's progress with a teacher on their own initiative.	SC25Q03	Percentage		
During <the last academic year>, what proportion of students' parents participated in the following school-related activities? Answer: Volunteered in physical activities, e.g. building maintenance, carpentry, gardening or yard work.	SC25Q05	Percentage		
During <the last academic year>, what proportion of students' parents participated in the following school-related activities? Answer: Volunteered in extra-curricular activities, e.g. book club, school play, sports, field trip.	SC25Q06	Percentage		
During <the last academic year>, what proportion of students' parents participated in the following school-related activities? Answer: Volunteered in the school library or media centre.	SC25Q07	Percentage		
During <the last academic year>, what proportion of students' parents participated in the following school-related activities? Answer: Assisted a teacher in the school.	SC25Q08	Percentage		
During <the last academic year>, what proportion of students' parents participated in the following school-related activities? Answer: Appeared as a guest speaker.	SC25Q09	Percentage		
During <the last academic year>, what proportion of students' parents participated in the following school-related activities? Answer: Participated in local school <government>, e.g. parent council or school management committee.	SC25Q10	Percentage		
During <the last academic year>, what proportion of students' parents participated in the following school-related activities? Answer: Assisted in fundraising for the school.	SC25Q11	Percentage		
During <the last academic year>, what proportion of students' parents participated in the following school-related activities? Answer: Volunteered in the school <canteen>.	SC25Q12	Percentage		

D.2 Prova Brasil

The Prova Brasil-based school management index is based on a harmonized version of the Prova Brasil mapping across 2007 to 2017. We use questions from the three questionnaires in Prova Brasil: school director, teacher, and student questionnaires, which are merged together in a student-level data set with students from grades 5 and 9. We collapse this data set at the school-grade level. We then follow steps similar to the ones detailed in the construction of the PISA-based index.

First, using the combined Prova Brasil data set, 29 questions are classified into 5 WMS topics. Second, we manually assigned normalized scores from 0 to 1 following the conceptual guidelines of the scoring grid of the World Management Survey. Third, we compute a score for each of the 5 topics as the average of the questions we classified into each topic. These topic-level scores are then standardized using the within-year distributions of each topic. Fourth, in the main analysis, to build the grade-specific management index, we average the standardized score of the 5 topics.

At last, for schools offering both grade 5 and grade 9, the school-level management index is the average of the grade-specific scores. For schools offering just one of the two grades, the school-level management index is identical to the grade-specific score.

We also compute alternative indices following the Anderson methodology and a principal components analysis, finding similar results. We note that these alternative indices are constructed using within-year distributions of the questions.

Teacher shortage, teacher motivation, teacher effort, and household effort indices are constructed in a similar fashion. First, we identify the Prova Brasil questions associated with each index; second, we assign scores for each question; third, we standardize each question within year; fourth, the indices used in the main analysis are computed as the average of the questions that we mapped into each one them and averaged at the school-level for schools offering both grades. As before, we also compute alternative indices using the Anderson methodology or running a principal components analysis, finding similar results.

The WMS-Prova Brasil mapping is detailed below.

Prova Brasil		2007-2009			2011		2013-2017	
Questions	Questionnaire: Var. name (year)	Option	Value label	MGMT score	Value label	MGMT score	Value label	MGMT score
1) Standardisation of Instructional Processes								
2007-2009: Algumas afirmações são usadas para explicar as dificuldades de aprendizagem dos alunos. Assinale sua posição, considerando a situação dos alunos da(s) série(s) avaliada(s): Estão relacionadas ao não-cumprimento do conteúdo curricular. 2011: Assinale sua posição em relação às afirmações abaixo, que se referem aos possíveis problemas de aprendizagem dos alunos da(s) série(s) avaliada(s): estão relacionados ao não-cumprimento do conteúdo curricular. 2013-2017: Na sua percepção, os possíveis problemas de aprendizagem dos alunos das série(s) ou ano(s) avaliado(s) ocorrem, nesta escola, devido à/ao(s): Não cumprimento dos conteúdos curriculares ao longo da	Teacher: TX_RESP_Q63 (2007) TX_RESP_Q67 (2009) TX_RESP_Q50 (2011) TX_RESP_Q73 (2013-2017)	A	Concordo	0.00	Concordo	0.00	Sim	0.00
		B	Discordo	1.00	Discordo	1.00	Não	1.00
2007-2009: Quanto dos conteúdos previstos você conseguiu desenvolver com os alunos da(s) turma(s) avaliada(s), neste ano? 2011: Quanto do conteúdo previsto você conseguiu desenvolver com os alunos desta turma neste ano? 2013-2017: Quanto do conteúdo previsto você conseguiu desenvolver com os alunos desta turma neste ano?	Teacher: TX_RESP_Q55 (2007) TX_RESP_Q59 (2009) TX_RESP_Q121 (2011) TX_RESP_Q106 (2013-2017)	A	Menos de 40%.	0.00	Menos de 20%.	0.00	Menos de 20%.	0.00
		B	Entre 40% e 60%.	0.33	De 20% a menos de 40%.	0.33	De 20% a menos de 40%.	0.00
		C	Entre 60% e 80%.	0.66	De 40% a menos de 60%.	0.66	De 40% a menos de 60%.	0.33
		D	Mais de 80%.	1.00	De 60% a menos de 80%.	1.00	De 60% a menos de 80%.	0.66
		E	-	-	-	-	80% ou mais.	1.00
		A	Sim, todos têm.	1.00	Sim, todos têm.	1.00	Não, esta turma não recebeu o livro didático.	0.00
2007-2009: Os alunos da(s) turma(s) em que você leciona têm livros didáticos? 2011: Os alunos desta turma têm livros didáticos? 2013-2017: Os alunos desta turma têm livros didáticos?	Teacher: TX_RESP_Q126 (2007) TX_RESP_Q130 (2009) TX_RESP_Q126 (2011) TX_RESP_Q99 (2013-2017)	B	Sim, a maioria tem.	0.75	Sim, a maioria tem.	0.75	Sim, menos da metade da turma tem.	0.25
		C	Sim, metade da turma tem.	0.50	Sim, metade da turma tem.	0.50	Sim, metade da turma tem.	0.50
		D	Sim, menos da metade da turma tem.	0.25	Sim, menos da metade da turma tem.	0.25	Sim, a maioria tem.	0.75
		E	Não, esta turma não recebeu o livro didático.	0.00	Não, esta turma não recebeu o livro didático. (passe para questão 129)	0.00	Sim, todos têm.	1.00

Prova Brasil		2007-2009			2011		2013-2017	
Questions	Questionnaire: Var. name (year)	Option	Value label	MGMT score	Value label	MGMT score	Value label	MGMT score
1) Standardisation of Instructional Processes								
2007-2009: Indique se você utiliza ou não nesta escola: jornais e revistas informativas.	Teacher: TX_RESP_Q47 (2007-2009)	A	Sim, utilizo.	1.00	Sim, utilizo.	1.00	Não utilizo porque a escola não tem.	0.00
2011: Indique se você utiliza ou não nesta escola: jornais e revistas informativas.	TX_RESP_Q37 (2011)	B	Não utilizo porque não acho necessário.	0.00	Não utilizo porque não acho necessário.	0.00	Nunca.	0.00
2013-2017: Gostaríamos de saber quais os recursos que você utiliza para fins pedagógicos, nesta turma: Jornais e revistas informativas.	TX_RESP_Q44 (2013-2017)	C	Não utilizo porque a escola não tem.	0.00	Não utilizo porque a escola não tem.	0.00	De vez em quando.	0.50
		D	-	-	-	-	Sempre ou quase sempre.	1.00
2007-2009: Indique se você utiliza ou não nesta escola: livros de literatura em geral.	Teacher: TX_RESP_Q49 (2007)	A	Sim, utilizo.	1.00	Sim, utilizo.	1.00	Não utilizo porque a escola não tem.	0.00
2011: Indique se você utiliza ou não nesta escola: livros de literatura em geral.	TX_RESP_Q50 (2009)	B	Não utilizo porque não acho necessário.	0.00	Não utilizo porque não acho necessário.	0.00	Nunca.	0.00
2013-2017: Gostaríamos de saber quais os recursos que você utiliza para fins pedagógicos, nesta turma: livros de literatura em geral.	TX_RESP_Q38 (2011)	C	Não utilizo porque a escola não tem.	0.00	Não utilizo porque a escola não tem.	0.00	De vez em quando.	1.00
		D	-	-	-	-	Sempre ou quase sempre.	1.00
2) Personalization of Instruction and Learning								
2007-2009: Algumas afirmações são usadas para explicar as dificuldades de aprendizagem dos alunos. Assinale sua posição, considerando a situação dos alunos da(s) série(s) avaliada(s): Estão relacionadas aos conteúdos curriculares, que são inadequados às necessidades dos alunos.	Teacher: TX_RESP_Q60 (2007)	A	Concordo	0.00	Concordo	0.00	Sim	0.00
2011: Assinale sua posição em relação às afirmações abaixo, que se referem aos possíveis problemas de aprendizagem dos alunos da(s) série(s) avaliada(s): estão relacionados aos conteúdos curriculares, que são inadequados às necessidades dos alunos.	TX_RESP_Q66 (2009)							
2013-2017: Na sua percepção, os possíveis problemas de aprendizagem dos alunos das série(s) ou ano(s) avaliado(s) ocorrem, nesta escola, devido à/ao(s): Conteúdos curriculares inadequados às necessidades dos alunos.	TX_RESP_Q49 (2011)							
	TX_RESP_Q72 (2013-2017)	B	Discordo	1.00	Discordo	1.00	Não	1.00

Prova Brasil		2007-2009		2011		2013-2017		
Questions	Questionnaire: Var. name (year)	Option	Value label	MGMT score	Value label	MGMT score	Value label	MGMT score
2) Personalization of Instruction and Learning								
2007-2009: Para evitar que os alunos faltem às aulas, os professores falam com os alunos.	Principal: TX_RESP_Q38 (2007)	A	Sim	1.00	Sim	1.00	Nunca.	0.00
2011: Para evitar que os alunos faltem às aulas, os professores falam com os alunos.	TX_RESP_Q038 (2009-2011)	B	Não	0.00	Não	0.00	Algumas vezes.	1.00
2013-2017: Indique com qual frequência são desenvolvidas as seguintes atividades para minimizar as faltas dos alunos neste ano e nesta escola: Os professores conversam com os alunos para tentar solucionar o problema.	TX_RESP_Q045 (2013-2017)	C	-	-	-	-	Frequentemente.	1.00
		D	-	-	-	-	Sempre ou quase sempre.	1.00
2007-2009: Para evitar que os alunos faltem às aulas, os pais/responsáveis são avisados por comunicação escrita.	Principal: TX_RESP_Q39 (2007)	A	Sim	1.00	Sim	1.00	Nunca.	0.00
2011: Para evitar que os alunos faltem às aulas, os pais/responsáveis são avisados por comunicação escrita.	TX_RESP_Q039 (2009-2011)	B	Não	0.00	Não	0.00	Algumas vezes.	1.00
2013-2017: Indique com qual frequência são desenvolvidas as seguintes atividades para minimizar as faltas dos alunos neste ano e nesta escola: Os pais/responsáveis são avisados por comunicação da escola.	TX_RESP_Q046 (2013-2017)	C	-	-	-	-	Frequentemente.	1.00
		D	-	-	-	-	Sempre ou quase sempre.	1.00
2007-2009: Para evitar que os alunos faltem às aulas, os pais/responsáveis são chamados à escola para conversar sobre o assunto em reunião de pais.	Principal: TX_RESP_Q40 (2007)	A	Sim	1.00	Sim	1.00	Nunca.	0.00
2011: Para evitar que os alunos faltem às aulas, os pais/responsáveis são chamados à escola para conversar sobre o assunto em reunião de pais.	TX_RESP_Q040 (2009-2011)	B	Não	0.00	Não	0.00	Algumas vezes.	1.00
2013-2017: Indique com qual frequência são desenvolvidas as seguintes atividades para minimizar as faltas dos alunos neste ano e nesta escola: Os pais/responsáveis são chamados à escola para conversar sobre o assunto em reunião de pais.	TX_RESP_Q047 (2013-2017)	C	-	-	-	-	Frequentemente.	1.00
		D	-	-	-	-	Sempre ou quase sempre.	1.00
2007-2009: Para evitar que os alunos faltem às aulas, os pais/responsáveis são chamados à escola para conversar sobre o assunto individualmente.	Principal: TX_RESP_Q41 (2007)	A	Sim	1.00	Sim	1.00	Nunca.	0.00
2011: Para evitar que os alunos faltem às aulas, os pais/responsáveis são chamados à escola para conversar sobre o assunto individualmente.	TX_RESP_Q041 (2009-2011)	B	Não	0.00	Não	0.00	Algumas vezes.	1.00
2013-2017: Indique com qual frequência são desenvolvidas as seguintes atividades para minimizar as faltas dos alunos neste ano e nesta escola: Os pais/responsáveis são chamados à escola para conversar sobre o assunto individualmente.	TX_RESP_Q048 (2013-2017)	C	-	-	-	-	Frequentemente.	1.00
		D	-	-	-	-	Sempre ou quase sempre.	1.00

Prova Brasil		2007-2009			2011		2013-2017	
Questions	Questionnaire: Var. name (year)	Option	Value label	MGMT score	Value label	MGMT score	Value label	MGMT score
2) Personalization of Instruction and Learning								
2007-2009: Para evitar que os alunos faltem às aulas, a escola envia alguém à casa do aluno.	Principal: TX_RESP_Q42 (2007)	A	Sim	1.00	Sim	1.00	Nunca.	0.00
2011: Para evitar que os alunos faltem às aulas, a escola envia alguém à casa do aluno.	TX_RESP_Q042 (2009-2011)	B	Não	0.00	Não	0.00	Algumas vezes.	1.00
2013-2017: Indique com qual frequência são desenvolvidas as seguintes atividades para minimizar as faltas dos alunos neste ano e nesta escola: A escola envia alguém à casa do aluno.	TX_RESP_Q049 (2013-2017)	C	-	-	-	-	Frequentemente.	1.00
		D	-	-	-	-	Sempre ou quase sempre.	1.00
Como se deu a escolha do livro didático neste ano?	Principal: TX_RESP_Q94 (2007) TX_RESP_Q097 (2009) TX_RESP_Q128 (2011) TX_RESP_Q086 (2013-2017)	A	A equipe de professores da disciplina correspondente.	0.75	A equipe de professores da disciplina correspondente.	0.75	Não sei.	0.00
		B	O coordenador pedagógico, orientador educacional e eu, depois de consultarmos a equipe de professores da disciplina correspondente.	0.50	O coordenador pedagógico, orientador educacional e eu, depois de consultarmos a equipe de professores da disciplina correspondente.	0.50	Foi escolhido de forma participativa pelos professores.	1.00
		C	O coordenador pedagógico ou orientador educacional escolheu sozinho.	0.25	O coordenador pedagógico ou orientador educacional escolheu sozinho.	0.25	Foi escolhido por somente alguns membros da equipe escolar.	0.50
		D	Eu escolhi sozinho.	0.25	Eu escolhi sozinho.	0.25	Foi escolhido por órgãos externos à escola.	0.50
		E	Órgãos de gerência externa à escola.	0.25	Órgãos de gerência externa à escola.	0.25	Foi escolhido de outra maneira.	NA
		G	Não sei.	0.00	Não sei.	0.00	-	-

Prova Brasil		2007-2009			2011		2013-2017	
Questions	Questionnaire: Var. name (year)	Option	Value label	MGMT score	Value label	MGMT score	Value label	MGMT score
2) Personalization of Instruction and Learning								
2007-2011: Quanto ao projeto pedagógico desta escola neste ano (marque apenas uma opção) 2013-2017: Neste ano e nesta escola, como se deu a elaboração do Projeto Pedagógico?	Principal: TX_RESP_Q30 (2007-2011)	A	O modelo encaminhado pela secretaria da educação.	0.00	O modelo encaminhado pela secretaria da educação.	0.00	Não sei como foi desenvolvido.	NA
	TX_RESP_Q32 (2013-2017)	B	Foi elaborado por mim.	0.50	Foi elaborado por mim.	0.50	Não existe Projeto Pedagógico.	0.00
		C	Depois de eu ter elaborado uma proposta do projeto, apresentei-a aos professores para sugestões e só depois escrevi a versão final.	1.00	Depois de eu ter elaborado uma proposta do projeto, apresentei-a aos professores para sugestões e só depois escrevi a versão final.	1.00	Utilizando-se um modelo pronto, sem discussão com a equipe escolar.	0.00
		D	Os professores elaboraram uma proposta e, com base nela, escrevi a versão final.	1.00	Os professores elaboraram uma proposta e, com base nela, escrevi a versão final.	1.00	Utilizando-se um modelo pronto, mas com discussão com a equipe escolar.	1.00
		E	Uma equipe de professores e eu elaboramos o projeto.	1.00	Uma equipe de professores e eu elaboramos o projeto.	1.00	Utilizando-se um modelo pronto, porém com adaptações, sem discussão com a equipe escolar.	0.50
		F	Foi elaborado de outra maneira.	NA	Uma equipe de professores e eu elaboramos o projeto.	1.00	Utilizando-se um modelo pronto, porém com adaptações e com discussão com a equipe escolar.	1.00
		G	Não sei como foi desenvolvido.	NA	Foi elaborado de outra maneira.	NA	Elaborou-se um modelo próprio, mas não houve discussão com a equipe escolar.	0.50

Prova Brasil		2007-2009			2011		2013-2017	
Questions	Questionnaire: Var. name (year)	Option	Value label	MGMT score	Value label	MGMT score	Value label	MGMT score
2) Personalization of Instruction and Learning								
2007-2009: Como foi desenvolvido o projeto pedagógico desta escola neste ano? 2011: Como foi desenvolvido o projeto pedagógico desta escola neste ano? (marque apenas uma opção) 2013-2017: Neste ano e nesta escola, como se deu a elaboração do Projeto Pedagógico?	Teacher: TX_RESP_Q53 (2007) TX_RESP_Q55 (2009) TX_RESP_Q42 (2011) TX_RESP_Q51 (2013-2017)	H	Não existe Projeto Pedagógico.	0.00	Não sei como foi desenvolvido.	NA	Elaborou-se um modelo próprio e houve discussão com a equipe escolar.	1.00
		I	-	-	Não existe Projeto Pedagógico.	0.00	-	-
		A	Pela aplicação de modelo encaminhado pela Secretaria de Educação.	0.00	Pela aplicação de modelo encaminhado pela Secretaria de Educação.	0.00	Não sei como foi desenvolvido.	NA
		B	Foi elaborado pelo(a) diretor(a).	0.50	Foi elaborado pelo(a) diretor(a).	0.50	Não existe Projeto Pedagógico.	0.00
		C	O(A) diretor(a) elaborou uma proposta de projeto, apresentou-a aos professores para sugestões e depois chegou à versão final.	1.00	O(A) diretor(a) elaborou uma proposta de projeto, apresentou-a aos professores para sugestões e depois chegou à versão final.	1.00	Utilizando-se um modelo pronto, sem discussão com a equipe escolar.	0.00
		D	Os professores elaboraram uma proposta e, com base nela, o diretor chegou à versão final.	1.00	Os professores elaboraram uma proposta e, com base nela, o diretor chegou à versão final.	1.00	Utilizando-se um modelo pronto, mas com discussão com a equipe escolar.	1.00
		E	Foi elaborado pelo(a) diretor(a) e por uma equipe de professores.	1.00	Foi elaborado pelo(a) diretor(a) e por uma equipe de professores.	1.00	Utilizando-se um modelo pronto, porém com adaptações, sem discussão com a equipe escolar.	0.50

Prova Brasil		2007-2009			2011		2013-2017	
Questions	Questionnaire: Var. name (year)	Option	Value label	MGMT score	Value label	MGMT score	Value label	MGMT score
2) Personalization of Instruction and Learning								
		F	De outra maneira.	NA	De outra maneira.	NA	Utilizando-se um modelo pronto, porém com adaptações e com discussão com a equipe escolar.	1.00
		G	Não sei como foi desenvolvido.	NA	Não sei como foi desenvolvido.	NA	Elaborou-se um modelo próprio, mas não houve discussão com a equipe escolar.	0.50
		H	Não existe Projeto Pedagógico.	0.00	Não existe Projeto Pedagógico.	0.00	Elaborou-se um modelo próprio e houve discussão com a equipe escolar.	1.00
3) Data-Driven Planning and Student Transitions								
2007-2009: Neste ano, qual foi o critério mais importante para a atribuição das turmas de 1. ^a a 4. ^a séries do ensino fundamental aos professores?	Principal: TX_RESP_Q34 (2007) TX_RESP_Q034 (2009-2011)	A	Esta escola não oferece 1. ^a a 4. ^a séries do ensino fundamental.	missi ng	Esta escola não oferece 1. ^a a 4. ^a séries do ensino fundamental.	missi ng	Preferência dos professores.	0.00
2011: Neste ano, qual foi o critério mais importante para a atribuição das turmas de 1. ^a a 4. ^a séries do ensino fundamental aos professores?	TX_RESP_Q040 (2013-2017)	B	Preferência dos professores.	0.00	Preferência dos professores.	0.00	Escolha dos professores, de acordo com a pontuação por tempo de serviço e formação.	0.00
2013-2017: Neste ano, qual foi o principal critério para a atribuição das turmas aos professores?		C	Professores experientes com turmas de aprendizagem mais rápida.	1.00	Professores experientes com turmas de aprendizagem mais rápida.	1.00	Professores experientes com turmas de aprendizagem mais rápida.	1.00
		D	Professores experientes com turmas de aprendizagem mais lenta.	1.00	Professores experientes com turmas de aprendizagem mais lenta.	1.00	Professores experientes com turmas de aprendizagem mais lenta.	1.00
		E	Manutenção do professor com a mesma turma.	0.00	Manutenção do professor com a mesma turma.	0.00	Manutenção do professor com a mesma turma.	0.00

Prova Brasil		2007-2009			2011		2013-2017	
Questions	Questionnaire: Var. name (year)	Option	Value label	MGMT score	Value label	MGMT score	Value label	MGMT score
3) Data-Driven Planning and Student Transitions								
2007-2011: Qual o critério utilizado para formação das turmas nesta escola? 2013-2017: Neste ano, qual foi o principal critério utilizado para a formação das turmas nesta escola?	Principal: TX_RESP_Q33 (2007-2011) TX_RESP_Q39 (2013-2017)	F	Revezamento dos professores entre as séries.	0.00	Revezamento dos professores entre as séries.	0.00	Revezamento dos professores entre as séries	0.00
		G	Sorteio das turmas entre os professores	0.00	Sorteio das turmas entre os professores	0.00	Sorteio das turmas entre os professores	0.00
		H	Outro critério	missing	Outro critério	missing	Atribuição pela direção da escola	missing
		I	Não houve critério pré-estabelecido	0.00	Não houve critério pré-estabelecido	0.00	Outro critério	missing
		J					Não houve critério	missing
		A	Homogeneidade quanto à idade (alunos com a mesma idade).	0.50	Homogeneidade quanto à idade (alunos com a mesma idade).	0.50	Homogeneidade quanto à idade (alunos com a mesma idade).	0.50
		B	Homogeneidade quanto ao rendimento escolar (alunos com similar rendimento).	1.00	Homogeneidade quanto ao rendimento escolar (alunos com similar rendimento).	1.00	Homogeneidade quanto ao rendimento escolar (alunos com similar rendimento).	1.00
		C	Heterogeneidade quanto à idade (alunos com idades diferentes).	0.50	Heterogeneidade quanto à idade (alunos com idades diferentes).	0.50	Heterogeneidade quanto à idade (alunos com idades diferentes).	0.50
		D	Heterogeneidade quanto ao rendimento escolar (alunos com nível de rendimento diferente).	1.00	Heterogeneidade quanto ao rendimento escolar (alunos com nível de rendimento diferente).	1.00	Heterogeneidade quanto ao rendimento escolar (alunos com nível de rendimento diferente).	1.00
		E	Não houve critério.	0.00	Não houve critério.	0.00	Outro critério.	NA
		F	-	-	-	-	Não houve critério.	-

Prova Brasil		2007-2009			2011		2013-2017	
Questions	Questionnaire: Var. name (year)	Option	Value label	MGMT score	Value label	MGMT score	Value label	MGMT score
3) Data-Driven Planning and Student Transitions								
2007-2009: Nesta escola, há algum programa de redução das taxas de abandono/evasão?	Principal: TX_RESP_Q36 (2007-2011)	A	Sim, e o programa está sendo aplicado.	1.00	Sim, e o programa está sendo aplicado.		Não há ação, embora exista o problema.	0.00
2011-2017: Nesta escola, há algum programa de redução das taxas de abandono?	TX_RESP_Q41 (2013-2017)	B	Sim, mas ainda não foi implementado.	1.00	Sim, mas ainda não foi implementado.		Não há ação, porque nesta escola não há esse tipo de problema.	0.00
		C	Não criamos ainda o programa, embora exista o problema.	0.00	Não criamos ainda o programa, embora exista o problema.		Sim, mas com resultados ainda insatisfatórios.	1.00
		D	Não, porque na minha escola não há esse tipo de problema.	0.00	Não, porque na minha escola não há esse tipo de problema.		Sim, com resultados satisfatórios.	1.00
		E	-	-	-	-	Sim, mas ainda não avaliamos o resultado.	1.00
2007-2011: Nesta escola, há algum programa de redução das taxas de reprovação?	Principal: TX_RESP_Q37 (2007-2011)	A	Sim, e o programa está sendo aplicado.	1.00	Sim, e o programa está sendo aplicado.		Não há ação, embora exista o problema.	0.00
2013-2017: Nesta escola, há alguma ação para redução das taxas de reprovação?	TX_RESP_Q42 (2013-2017)	B	Sim, mas ainda não foi implementado.	1.00	Sim, mas ainda não foi implementado.		Não há ação, porque nesta escola não há esse tipo de problema.	0.00
		C	Não criamos ainda o programa, embora exista o problema.	0.00	Não criamos ainda o programa, embora exista o problema.		Sim, mas com resultados ainda insatisfatórios.	1.00
		D	Não, porque na minha escola não há esse tipo de problema.	0.00	Não, porque na minha escola não há esse tipo de problema.		Sim, com resultados satisfatórios.	1.00
		E	-	-	-	-	Sim, mas ainda não avaliamos o resultado.	1.00

Prova Brasil		2007-2009		2011		2013-2017		
Questions	Questionnaire: Var. name (year)	Option	Value label	MGMT score	Value label	MGMT score	Value label	MGMT score
3) Data-Driven Planning and Student Transitions								
2007-2011: Esta escola desenvolve, regularmente, algum programa de apoio ou reforço de aprendizagem para os alunos (monitoria, aula de reforço etc.)?	Principal: TX_RESP_Q43 (2007-2017)	-	Não	0.00	Não	0.00	Não	0.00
		-	Sim	1.00	Sim	1.00	Sim	1.00
2013-2017: Nesta escola, há alguma ação para o reforço escolar à aprendizagem dos alunos (monitoria, aula de reforço, recuperação etc.)?								
4) Adopting Educational Best Practices								
2007-2009: Você promoveu alguma atividade de formação continuada (atualização, treinamento, capacitação etc.) Nesta escola?	Principal: TX_RESP_Q22 (2007)	A	Sim	1.00	Sim	1.00	Não	0.00
		B	Não. (passe para a Q24)	0.00	Não. (passe para a Q24)	0.00	Sim	1.00
2011: Você promoveu alguma atividade de formação continuada (atualização, treinamento, capacitação etc.) Nesta escola?	TX_RESP_Q022 (2009-2011)							
2013-2017: Nos últimos dois anos, você organizou alguma atividade de formação continuada (atualização, treinamento, capacitação etc.) nesta escola?	TX_RESP_Q026 (2013-2017)							
2007-2009: Qual foi a proporção de docentes da sua escola que participou das atividades de formação continuada promovidas por você nos últimos dois anos?	Principal: TX_RESP_Q23 (2007)	-	* If missing & Q22 = (B) Não. (passe para a Q24)	0.00	-	-	-	-
2011: Qual foi a proporção de docentes da sua escola que participou das atividades de formação continuada promovidas por você nos últimos dois anos?	TX_RESP_Q023 (2009-2011)							
		TX_RESP_Q027 (2013-2017)						
2013-2017: Qual foi a quantidade de docentes desta escola que participou das atividades de formação continuada que você organizou nos últimos dois anos?		A	Menos de 10%.	0.33	Menos de 10%.	0.33	Não foram organizadas atividades de formação continuada por professores.	0.00
		B	Entre 11% e 30%.	0.33	Entre 11% e 30%.	0.33	Poucos professores.	0.33
		C	Entre 31% e 50%.	0.66	Entre 31% e 50%.	0.66	Um pouco menos da metade dos professores.	0.66
		D	Mais de 51%.	1.00	Mais de 51%.	1.00	Um pouco mais da metade dos professores.	1.00
		E	Não sei.	NA	Não sei.	NA	Quase todos ou todos os professores.	1.00

Prova Brasil		2007-2009			2011		2013-2017	
Questions	Questionnaire: Var. name (year)	Option	Value label	MGMT score	Value label	MGMT score	Value label	MGMT score
4) Adopting Educational Best Practices								
2007-2009: Indique seu grau de concordância/discordância com cada uma delas: O(a) diretor(a) estimula as atividades inovadoras. 2011: Indique seu grau de concordância/discordância com cada uma delas. (marque apenas uma opção em cada linha.): o(a) diretor(a) estimula as atividades inovadoras. 2013-2017: Nesta escola e neste ano, indique a frequência com que: O(A) diretor(a) estimula atividades inovadoras.	Teacher: TX_RESP_Q76 (2007)	A	Concordo totalmente	1.00	Concordo totalmente	1.00	Nunca.	0.00
	TX_RESP_Q80 (2009)	B	Concordo	1.00	Concordo	1.00	Algumas vezes.	0.00
	TX_RESP_Q63 (2011)	C	Neutro	0.00	Neutro	0.00	Frequentemente.	1.00
	TX_RESP_Q65 (2013-2017)	D	Discordo	0.00	Discordo	0.00	Sempre ou quase sempre.	1.00
		E	Discordo totalmente	0.00	Discordo totalmente	0.00	-	-
2007-2009: Indique seu grau de concordância/discordância com cada uma delas: O(a) diretor(a) dá atenção especial a aspectos relacionados com a aprendizagem dos alunos. 2011: Indique seu grau de concordância/discordância com cada uma delas. (marque apenas uma opção em cada linha.): O(a) diretor(a) dá atenção especial a aspectos relacionados com a aprendizagem dos alunos. 2013-2017: Nesta escola e neste ano, indique a frequência com que: O(a) diretor(a) dá atenção especial a aspectos relacionados com a aprendizagem dos alunos.	Teacher: TX_RESP_Q77 (2007)	A	Concordo totalmente	1.00	Concordo totalmente	1.00	Nunca.	0.00
	TX_RESP_Q81 (2009)	B	Concordo	1.00	Concordo	1.00	Algumas vezes.	0.00
	TX_RESP_Q64 (2011)	C	Neutro	0.00	Neutro	0.00	Frequentemente.	1.00
	TX_RESP_Q61 (2013-2017)	D	Discordo	0.00	Discordo	0.00	Sempre ou quase sempre.	1.00
		E	Discordo totalmente	0.00	Discordo totalmente	0.00		
7) Performance Review								
2007-2011: Conselho de escola é um colegiado constituído por representantes da escola e da comunidade que tem como objetivo acompanhar as atividades escolares. Neste ano, quantas vezes o conselho desta escola se reuniu? 2013-2017: O Conselho Escolar é um colegiado geralmente constituído por representantes da escola e da comunidade que tem como objetivo acompanhar as atividades escolares. Neste ano, quantas vezes se reuniu o Conselho Escolar?	Principal: TX_RESP_Q24 (2007-2011)	A	Uma vez.	0.33	Uma vez.	0.33	Não existe	0.00
	TX_RESP_Q29 (2013-2017)	B	Duas vezes.	0.66	Duas vezes.	0.66	Nenhuma vez.	0.00
		C	Três vezes ou mais.	1.00	Três vezes ou mais.	1.00	Uma vez.	0.33
		D	Nenhuma vez.	0.00	Nenhuma vez.	0.00	Duas vezes.	0.66
		E	Não existe Conselho de Escola. (Passe para a Q29)	0.00	Não existe Conselho de Escola. (Passe para a Q29)	0.00	Três vezes ou mais.	1.00

Prova Brasil		2007-2009			2011		2013-2017	
Questions	Questionnaire: Var. name (year)	Option	Value label	MGMT score	Value label	MGMT score	Value label	MGMT score
7) Performance Review								
2007-2011: Conselho de classe é um órgão formado por todos os professores que lecionam em cada turma/série. Neste ano, quantas vezes se reuniram os conselhos de classe desta escola? 2013-2017: O Conselho de Classe é um órgão formado por todos os professores que lecionam em cada turma/série. Neste ano e nesta escola, quantas vezes se reuniu o Conselho de Classe?	Principal: TX_RESP_Q29 (2007)	A	Uma vez.	0.33	Uma vez.	0.25	Não existe Conselho de Classe nesta escola.	0.00
	TX_RESP_Q029 (2009-2011)	B	Duas vezes.	0.66	Duas vezes.	0.25	Nenhuma vez.	0.00
	TX_RESP_Q031 (2013-2017)	C	Três vezes ou mais.	1.00	Três vezes ou mais.	0.50	Uma vez.	0.33
		D	Nenhuma vez.	0.00	Nenhuma vez.	0.00	Duas vezes.	0.66
		E	Não existe Conselho de Classe.	0.00	Não existe Conselho de Classe.	0.00	Três vezes ou mais.	1.00
2007-2011: O conselho de escola é composto por alunos. (marque sim ou não em cada linha) 2013-2017: Além de você, quem participa do Conselho Escolar?	Principal: TX_RESP_Q26 (2007-2011) TX_RESP_Q30 (2013-2017)	-	* If missing & Q24 = (E) Não existe Conselho de Escola. (Passe para a Q29)	0.00	* If missing & Q24 = (E) Não existe Conselho de Escola. (Passe para a Q29)	0.00	-	-
		A	Sim	1.00	Uma vez.	0.33	Não existe Conselho Escolar.	0.00
		B	Não	0.00	Duas vezes.	0.66	Professores, funcionários, alunos e pais/responsáveis.	1.00
		C	-	-	-	1.00	Professores, funcionários e pais/responsáveis.	0.00
		D	-	-	-	0.00	Professores,	1.00
		E	-	-	-	0.00	Professores,	1.00
		F	-	-	-	-	Professores e	0.00
		G	-	-	-	-	Outros.	0.00

Prova Brasil		2007-2009			2011		2013-2017	
Questions	Questionnaire: Var. name (year)	Option	Value label	MGMT score	Value label	MGMT score	Value label	MGMT score
7) Performance Review								
2007-2011: O conselho de escola é composto por pais. (marque sim ou não em cada linha)	Principal: TX_RESP_Q28 (2007-2011)	-	* If missing & Q24 = (E) Não existe Conselho de Escola.	0.00	* If missing & Q24 = (E) Não existe Conselho de Escola. (Passe para a Q29)	0.00	-	-
2013-2017: Além de você, quem participa do Conselho Escolar?	TX_RESP_Q30 (2013-2017)		(Passe para a Q29)					
		A	Sim	1.00	Uma vez.	0.33	Não existe Conselho Escolar.	0.00
		B	Não	0.00	Duas vezes.	0.66	Professores, funcionários, alunos e pais/responsáveis.	1.00
		C	-	-	-	1.00	Professores, funcionários e pais/responsáveis.	0.00
		D	-	-	-	0.00	Professores, alunos e pais/responsáveis.	1.00
		E	-	-	-	0.00	Professores, funcionários e alunos.	1.00
		F	-	-	-	-	Professores e pais/responsáveis.	0.00
		G	-	-	-	-	Outros.	0.00

Prova Brasil		2007-2009			2011		2013-2017	
Questions	Questionnaire: Var. name (year)	Option	Value label	MGMT score	Value label	MGMT score	Value label	MGMT score
7) Performance Review								
2007-2011: O conselho de escola é composto por funcionários. (marque sim ou não em cada linha) 2013-2017: Além de você, quem participa do Conselho Escolar?	Principal:	-	* If missing & Q24 = (E) Não existe Conselho de Escola. (Passe para a Q29)	0.00	* If missing & Q24 = (E) Não existe Conselho de Escola. (Passe para a Q29)	0.00	-	-
	TX_RESP_Q27 (2007-2011)							
	TX_RESP_Q30 (2013-2017)							
		A	Sim	1.00	Uma vez.	0.33	Não existe Conselho Escolar.	0.00
		B	Não	0.00	Duas vezes.	0.66	Professores, funcionários, alunos e pais/responsáveis.	1.00
		C	-	-	-	1.00	Professores, funcionários e pais/responsáveis.	0.00
		D	-	-	-	0.00	Professores, alunos e pais/responsáveis.	1.00
		E	-	-	-	0.00	Professores, funcionários e alunos.	1.00
2007-2011: Conselho de classe é um órgão formado por todos os professores que lecionam em cada turma/série. Neste ano, quantas vezes se reuniram os conselhos de classe desta escola? 2013-2017: O Conselho de Classe é um órgão formado por todos os professores que lecionam em cada turma/série. Neste ano e nesta escola, quantas vezes se reuniu o Conselho de Classe?	Teacher:							
	TX_RESP_Q54 (2007)	A	Uma vez.	0.33	Uma vez.	0.33	Não existe Conselho de Classe nesta escola.	0.00
	TX_RESP_Q56 (2009)							
	TX_RESP_Q43 (2011)							
	TX_RESP_Q52 (2013-2017)	B	Duas vezes.	0.66	Duas vezes.	0.66	Nenhuma vez.	0.00
		C	Três vezes ou mais.	1.00	Três vezes ou mais.	1.00	Uma vez.	0.33
		D	Nenhuma vez.	0.00	Nenhuma vez.	0.00	Duas vezes.	0.66
		E	Não existe Conselho de Classe.	0.00	Não existe Conselho de Classe.	0.00	Três vezes ou mais.	1.00

Prova Brasil		2007-2009			2011		2013-2017	
Questions	Questionnaire: Var. name (year)	Option	Value label	MGMT score	Value label	MGMT score	Value label	MGMT score
Teacher Shortage								
2007-2011: Ocorreu na escola inexistência de professores para algumas disciplinas ou séries? 2013-2017: O funcionamento da escola foi dificultado por algum dos seguintes problemas? Inexistência de professores para algumas disciplinas ou séries.	Principal: TX_RESP_Q45 (2007)	A	Não	0.00	Não	0.00	Não existe Conselho Escolar.	0.00
	TX_RESP_Q47 (2009)	B	Sim, mas não foi um problema grave	0.50	Sim, mas não foi um problema grave	0.50	Sim, pouco.	0.50
	TX_RESP_Q56 (2011)							
	TX_RESP_Q68 (2013-2017)	C	Sim, e foi um problema grave	1.00	Sim, e foi um problema grave	1.00	Sim, moderadamente.	1.00
		D	-	-	-	-	Sim, muito.	1.00
2007-2011: Ocorreu na escola carência de pessoal de apoio pedagógico (coordenador, supervisor, orientador educacional)? 2013-2017: O funcionamento da escola foi dificultado por algum dos seguintes problemas? Carência de pessoal de apoio pedagógico (supervisor, coordenador, orientador educacional).	Principal: TX_RESP_Q47 (2007)	A	Não	0.00	Não	0.00	Não existe Conselho Escolar.	0.00
	TX_RESP_Q49 (2009)	B	Sim, mas não foi um problema grave	0.50	Sim, mas não foi um problema grave	0.50	Sim, pouco.	0.50
	TX_RESP_Q58 (2011)							
	TX_RESP_Q70 (2013-2017)	C	Sim, e foi um problema grave	1.00	Sim, e foi um problema grave	1.00	Sim, moderadamente.	1.00
		D	-	-	-	-	Sim, muito.	1.00
2007-2011: Ocorreu na escola rotatividade do corpo docente? 2013-2017: O funcionamento da escola foi dificultado por algum dos seguintes problemas? Alta rotatividade do corpo docente.	Principal: TX_RESP_Q52 (2007)	A	Não	0.00	Não	0.00	Não existe Conselho Escolar.	0.00
	TX_RESP_Q54 (2009)	B	Sim, mas não foi um problema grave	0.50	Sim, mas não foi um problema grave	0.50	Sim, pouco.	0.50
	TX_RESP_Q63 (2011)							
	TX_RESP_Q75 (2013-2017)	C	Sim, e foi um problema grave	1.00	Sim, e foi um problema grave	1.00	Sim, moderadamente.	1.00
		D	-	-	-	-	Sim, muito.	1.00

Prova Brasil		2007-2009		2011		2013-2017		
Questions	Questionnaire: Var. name (year)	Option	Value label	MGMT score	Value label	MGMT score	Value label	MGMT score
Teacher Shortage								
2007-2009: Algumas afirmações são usadas para explicar as dificuldades de aprendizagem dos alunos. Assinale sua posição, considerando a situação dos alunos das séries avaliadas: Relacionam-se à sobrecarga de trabalho do(as) professores(as), dificultando o planejamento e o preparo das aulas. 2011: Assinale sua posição em relação às afirmações abaixo, que se referem aos possíveis problemas de aprendizagem dos alunos da(s) série(s) avaliada(s): relacionam-se à sobrecarga de trabalho do(as) professores(as), dificultando o planejamento e o preparo das aulas. 2013-2017: Na sua percepção, os possíveis problemas de aprendizagem dos alunos das série(s) ou ano(s) avaliado(s) ocorrem, nesta escola, devido à/ao(s): Sobrecarga de trabalho dos professores, dificultando o	Teachers: TX_RESP_Q64 (2007) TX_RESP_Q68 (2009) TX_RESP_Q51 (2011) TX_RESP_Q74 (2013-2017)	A	Concordo	0.00	Concordo	0.00	Sim	0.00
	B	Discordo	1.00	Discordo	1.00	Não	1.00	
Teacher Motivation								
2007-2009: Indique seu grau de concordância/discordância com cada uma delas: o(a) diretor(a) me anima e me motiva para o trabalho. 2011: Indique seu grau de concordância/discordância com cada uma delas. (marque apenas uma opção em cada linha.): o(a) diretor(a) me anima e me motiva para o trabalho. 2013-2017: Nesta escola e neste ano, indique seu grau de concordancia: O(A) diretor(a) me anima e me motiva para o trabalho	Teacher: TX_RESP_Q73 (2007) TX_RESP_Q77 (2009) TX_RESP_Q60 (2011) TX_RESP_Q64 (2013-2017)	Concordo		Concordo				
	A	totalmente	1.00	totalmente	1.00	Nunca.	0.00	
		B	Concordo	1.00	Concordo	1.00	Algumas vezes.	0.00
		C	Neutro	0.00	Neutro	0.00	Frequentemente.	1.00
		Discordo		Discordo		Sempre ou quase sempre.		
		D	Discordo	0.00	Discordo	0.00	sempre.	1.00
		Discordo		Discordo		-		
		E	totalmente	0.00	totalmente	0.00		-
200-2009: Indique seu grau de concordância/discordância com cada uma delas: Sinto-me respeitado(a) pelo(a) diretor(a). 2011: Indique seu grau de concordância/discordância com cada uma delas. (marque apenas uma opção em cada linha.): sinto-me respeitado(a) pelo(a) diretor(a). 2013-2017: Nesta escola e neste ano, indique a frequência com que: sinto-me respeitado(a) pelo(a) diretor(a)	Teacher: TX_RESP_Q80 (2007) TX_RESP_Q84 (2009) TX_RESP_Q67 (2011) TX_RESP_Q66 (2013-2017)	Concordo		Concordo				
	A	totalmente	1.00	totalmente	1.00	Nunca.	0.00	
		B	Concordo	1.00	Concordo	1.00	Algumas vezes.	0.00
		C	Neutro	0.00	Neutro	0.00	Frequentemente.	1.00
		Discordo		Discordo		Sempre ou quase sempre.		
		D	Discordo	0.00	Discordo	0.00	sempre.	1.00
		Discordo		Discordo		-		
		E	totalmente	0.00	totalmente	0.00		-
2007-2009: Indique seu grau de concordância/discordância com cada uma delas: Tenho plena confiança no(a) diretor(a) como profissional. 2011: Indique seu grau de concordância/discordância com cada uma delas. (marque apenas uma opção em cada linha.): tenho plena confiança no(a) diretor(a) como profissional. 2013-2017: Nesta escola e neste ano, indique a frequência com que: tenho confiança no(a) director(a) como profissional	Teacher: TX_RESP_Q74 (2007) TX_RESP_Q78 (2009) TX_RESP_Q61 (2011) TX_RESP_Q67 (2013-2017)	Concordo		Concordo				
	A	totalmente	1.00	totalmente	1.00	Nunca.	0.00	
		B	Concordo	1.00	Concordo	1.00	Algumas vezes.	0.00
		C	Neutro	0.00	Neutro	0.00	Frequentemente.	1.00
		Discordo		Discordo		Sempre ou quase sempre.		
		D	Discordo	0.00	Discordo	0.00	sempre.	1.00
		Discordo		Discordo		-		
		E	totalmente	0.00	totalmente	0.00		-

Prova Brasil		2007-2009			2011		2013-2017	
Questions	Questionnaire: Var. name (year)	Option	Value label	MGMT score	Value label	MGMT score	Value label	MGMT score
Teacher Motivation								
2007-2009: Indique seu grau de concordância/discordância com cada uma delas: Participo das decisões relacionadas com o meu trabalho. 2011: Indique seu grau de concordância/discordância com cada uma delas. (marque apenas uma opção em cada linha.): participo das decisões relacionadas com o meu trabalho. 2013-2017: Nesta escola e neste ano, indique a frequência com que: participo nas decisões relacionadas com o meu trabalho	Teacher:		Concordo		Concordo			
	TX_RESP_Q82 (2007)	A	totalmente	1.00	totalmente	1.00	Nunca.	0.00
	TX_RESP_Q86 (2009)	B	Concordo	1.00	Concordo	1.00	Algumas vezes.	0.00
	TX_RESP_Q69 (2011)	C	Neutro	0.00	Neutro	0.00	Frequentemente.	1.00
	TX_RESP_Q68 (2013-2017)						Sempre ou quase sempre.	
		D	Discordo	0.00	Discordo	0.00	sempre.	1.00
			Discordo		Discordo		-	-
		E	totalmente	0.00	totalmente	0.00		
Teacher:								
2007-2009: Indique seu grau de concordância/discordância com cada uma delas: Tenho plena confiança no(a) diretor(a) como profissional. 2011: Indique seu grau de concordância/discordância com cada uma delas. (marque apenas uma opção em cada linha.): a equipe de professores leva em consideração minhas ideias. 2013-2017: Nesta escola e neste ano, indique a frequência com que: a equipe de professores leva em consideração as minhas idéias	TX_RESP_Q83 (2007)	A	totalmente	1.00	totalmente	1.00	Nunca.	0.00
	TX_RESP_Q87 (2009)	B	Concordo	1.00	Concordo	1.00	Algumas vezes.	0.00
	TX_RESP_Q70 (2011)	C	Neutro	0.00	Neutro	0.00	Frequentemente.	1.00
	TX_RESP_Q69 (2013-2017)						Sempre ou quase sempre.	
		D	Discordo	0.00	Discordo	0.00	sempre.	1.00
			Discordo		Discordo		-	-
		E	totalmente	0.00	totalmente	0.00		
Teacher Effort								
2007-2011: Ocorreu na escola alto índice de faltas por parte de professores? 2013-2017: O funcionamento da escola foi dificultado por algum dos seguintes problemas? Alto índice de faltas por parte dos professores.	Principal:	A	Não	1.00	Não	1.00	Não	1.00
	TX_RESP_Q50 (2007)		Sim, mas não					
	TX_RESP_Q52 (2009)		foi um problema		Sim, mas não foi			
	TX_RESP_Q61 (2011)	B	grave	0.50	um problema grave	0.50	Sim, pouco	0.50
	TX_RESP_Q73 (2013-2017)		Sim, e foi um		Sim, e foi um		Sim,	
		C	problema grave	0.00	problema grave	0.00	moderadamente	0.00
		D	-	-	-	-	Sim, muito	0.00
2007-2011: O professor corrige o dever de casa de língua portuguesa? 2013-2017: O(A) professor(a) corrige o dever de casa de Língua Portuguesa?	Student:		Sempre ou		Sempre ou quase		Sempre ou quase	
	TX_RESP_Q42,Q41 (2007-2009)	A	quase sempre.	1.00	sempre.	1.00	sempre.	1.00
	TX_RESP_Q53,Q51 (2011)		De vez em				De vez em	
	TX_RESP_Q52,Q48 (2013-2017)	B	quando.	0.50	De vez em quando.	0.50	quando.	0.50
			C	Nunca ou quase nunca.	0.00	Nunca ou quase nunca.	0.00	Nunca ou quase nunca.
			-	-	-	-	O(A) professor(a) não passa dever de casa.	
		D						0.00

Prova Brasil		2007-2009		2011		2013-2017		
Questions	Questionnaire: Var. name (year)	Option	Value label	MGMT score	Value label	MGMT score	Value label	MGMT score
Teacher Effort								
2007-2011: O professor corrige o dever de casa de matemática?	Student:		Sempre ou		Sempre ou quase		Sempre ou quase	
2013-2017: O(A) professor(a) corrige o dever de casa de Matemática?	TX_RESP_Q45,Q43 (2007-2009)	A	quase sempre.	1.00	sempre.	1.00	sempre.	1.00
	TX_RESP_Q56,Q53 (2011)	B	De vez em quando.	0.50	De vez em quando.	0.50	De vez em quando.	0.50
	TX_RESP_Q55,Q50 (2013-2017)	C	Nunca ou quase nunca.	0.00	Nunca ou quase nunca.	0.00	Nunca ou quase nunca.	0.00
		-	-	-	-	-	O(A) professor(a) não passa dever de casa.	0.00
		D						
Household Effort								
2007-2011: Ocorreu na escola alto índice de faltas por parte de alunos?	Principal:	A	Não	1.00	Não	1.00	Não	1.00
2013-2017: O funcionamento da escola foi dificultado por algum dos seguintes problemas? Alto índice de faltas por parte dos alunos.	TX_RESP_Q51 (2007)		Sim, mas não					
	TX_RESP_Q53 (2009)	B	foi um problema grave	0.50	Sim, mas não foi um problema grave	0.50	Sim, pouco	0.50
	TX_RESP_Q64 (2011)	C	Sim, e foi um problema grave	0.00	Sim, e foi um problema grave	0.00	Sim, moderadamente	0.00
	TX_RESP_Q74 (2013-2017)	D	-	-	-	-	Sim, muito	0.00
2007-2011: Ocorreu na escola problemas disciplinares causados por alunos?	Principal:	A	Não	1.00	Não	1.00	Não	1.00
2013-2017: O funcionamento da escola foi dificultado por algum dos seguintes problemas? Indisciplina por parte dos alunos.	TX_RESP_Q53 (2007)		Sim, mas não					
	TX_RESP_Q54 (2009)	B	foi um problema grave	0.50	Sim, mas não foi um problema grave	0.50	Sim, pouco	0.50
	TX_RESP_Q64 (2011)	C	Sim, e foi um problema grave	0.00	Sim, e foi um problema grave	0.00	Sim, moderadamente	0.00
	TX_RESP_Q76 (2013-2017)	D	-	-	-	-	Sim, muito	0.00
2007-2009: Algumas afirmações são usadas para explicar as dificuldades de aprendizagem dos alunos. Assinale sua posição, considerando a situação dos alunos da(s) série(s) avaliada(s): Estão relacionadas à falta de assistência e acompanhamento da família nos deveres de casa e pesquisas dos alunos.	Teacher:	A	Concordo	0.00	Concordo	0.00	Sim	0.00
2011: Assinale sua posição em relação às afirmações abaixo, que se referem aos possíveis problemas de aprendizagem dos alunos da(s) série(s) avaliada(s): estão relacionadas à falta de assistência e acompanhamento da família nos deveres de casa e pesquisas dos alunos.	TX_RESP_Q69 (2007)							
2013-2017: Na sua percepção, os possíveis problemas de aprendizagem dos alunos das série(s) ou ano(s) avaliado(s) ocorrem, nesta escola, devido à/ao(s): Falta de assistência e acompanhamento dos pais na vida escolar do aluno.	TX_RESP_Q72 (2009)	B	Discordo	1.00	Discordo	1.00	Não	1.00
	TX_RESP_Q55 (2011)							
	TX_RESP_Q78 (2013-2015))							

Prova Brasil		2007-2009		2011		2013-2017			
Questions	Questionnaire: Var. name (year)	Option	Value label	MGMT score	Value label	MGMT score	Value label	MGMT score	
Household Effort									
2007-2009: Algumas afirmações são usadas para explicar as dificuldades de aprendizagem dos alunos. assinale sua posição, considerando a situação dos alunos da(s) série(s) avaliada(s): Ocorrem devido ao desinteresse e falta de esforço do aluno.	Teacher:	A	Concordo	0.00	Concordo	0.00	Sim	0.00	
	TX_RESP_Q71 (2007)	B	Discordo	1.00	Discordo	1.00	Não	1.00	
	TX_RESP_Q75 (2009)								
	TX_RESP_Q58 (2011)								
2011: Assinale sua posição em relação às afirmações abaixo, que se referem aos possíveis problemas de aprendizagem dos alunos da(s) série(s) avaliada(s): ocorrem devido ao desinteresse e falta de esforço do aluno.	TX_RESP_Q80 (2013-2015)								
2013-2017: Na sua percepção, os possíveis problemas de aprendizagem dos alunos das série(s) ou ano(s) avaliado(s) ocorrem, nesta escola, devido à/ao(s): Desinteresse e falta de esforço do aluno.									
2007-2009: Algumas afirmações são usadas para explicar as dificuldades de aprendizagem dos alunos. Assinale sua posição, considerando a situação dos alunos da(s) série(s) avaliada(s): São decorrentes da indisciplina dos alunos em sala de aula.	Teacher:	A	Concordo	0.00	Concordo	0.00	Sim	0.00	
	TX_RESP_Q65 (2007)	B	Discordo	1.00	Discordo	1.00	Não	1.00	
	TX_RESP_Q76 (2009)								
	TX_RESP_Q59 (2011)								
2011: Assinale sua posição em relação às afirmações abaixo, que se referem aos possíveis problemas de aprendizagem dos alunos da(s) série(s) avaliada(s): são decorrentes da indisciplina dos alunos em sala de aula.	TX_RESP_Q81 (2013-2015)								
2013-2017: Na sua percepção, os possíveis problemas de aprendizagem dos alunos das série(s) ou ano(s) avaliado(s) ocorrem, nesta escola, devido à/ao(s): Indisciplina dos alunos em sala de aula..									
2007-2009: As perguntas de 88 a 95 apresentam alguns problemas que podem ocorrer nas escolas. Responda se cada um deles ocorreu ou não neste ano. Caso tenha ocorrido, assinale se foi ou não um problema grave, dificultando o funcionamento da escola: alto índice de faltas por parte de alunos?	Teacher:	A	Não	1.00	Não	1.00	Não	1.00	
	TX_RESP_Q94 (2007)	B	Sim, mas não foi um problema grave.	0.50	Sim, mas não foi um problema grave.	0.50	Sim, pouco	0.50	
	TX_RESP_Q98 (2009)								
	TX_RESP_Q81 (2011)								
	2011: As perguntas de 75 a 82 apresentam alguns problemas que podem ocorrer nas escolas. Responda se cada um deles ocorreu ou não neste ano. Caso tenha ocorrido, assinale se foi ou não um problema grave, dificultando o funcionamento da escola. (marque apenas uma opção em cada linha.) Ocorreu na escola: alto índice de faltas por parte dos alunos?	TX_RESP_Q82 (2013-2015)	C	Sim, e foi um problema grave	0.00	Sim, e foi um problema grave	0.00	Sim, moderadamente	0.00
	2013-2017: Na sua percepção, os possíveis problemas de aprendizagem dos alunos das série(s) ou ano(s) avaliado(s) ocorrem, nesta escola, devido à/ao(s): Alto índice de faltas por parte dos alunos.		D	-	-	-	-	Sim, muito	0.00