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## DISCUSSION PAPER SERIES

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# Do School Principals Respond to <br> Increased Public Scrutiny? <br> New Survey Evidence from Australia 

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[^1]
## ABSTRACT

## Do School Principals Respond to Increased Public Scrutiny? New Survey Evidence from Australia*

We explore responses of Australian school principals to the introduction of test score reporting via the My School website in 2010. Our analysis is motivated by the implicit assumption that heightened public scrutiny should motivate principals to align schools' policies and practices with what is believed to generate better test results. We use responses from both public and private schools to a custom-built questionnaire administered to principals before (2009) and after (2012) the My School website launch. We find scarce evidence of meaningful adjustments over time, but we do find evidence of significantly different policies and practices across school groups.

JEL Classification:<br>Keywords:<br>D83, I21, I28<br>school accountability, standardized test scores, educational performance, school competition

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[^2]
## I. Introduction

The existing literature on school accountability suggests that schools improve their performance on standardised exams when they are held accountable for this performance and when performance information is publicly accessible. ${ }^{1}$ These studies suggest that the improvements in test scores associated with school accountability are large in comparison to those attainable via many other types of educational interventions (Lee, 2008). Evidence exists that schools facing accountability pressure respond to this pressure in substantive ways, although the literature also offers many examples of ways in which schools respond to accountability pressures to affect measured performance without contributing to generalized improvements in outcomes. ${ }^{2}$ Most studies - with a few recent exceptions, such as Mizala and Urquiola (2013) and Andrabi, Das and Khwaja (2017) focus on the impact of accountability only on public schools' responses, due to the inaccessibility of data on private schools.

A small and very recent literature (Coelli and Foster, 2017; Foster et al., 2017) has exploited the availability of data on all Australian school sectors - public, independent, and Catholic - to examine accountability effects on Australian schools resulting from the launch of a website called My School. The Australian government introduced this website in 2010 to increase public scrutiny on school performance by publicly disseminating multi-dimensional results on the National Assessment Program - Literacy and Numeracy (NAPLAN) national tests. The data used in these recent papers are

[^3]drawn from the Australian Curriculum and Reporting Authority (ACARA), which collects NAPLAN scores for the country and shares them with researchers at the level of the school or the student on a case-by-case basis, as detailed in Pugh and Foster (2014).

Most studies of school accountability effects treat the mechanism by which such effects materialize, particularly on the supply side, as a black box. What exactly do schools do to substantively improve student performance? Rouse et al. (2013) provide unique insight into this question by surveying Florida public school principals at ex-post high-performing and low-performing schools before and after an accountability intervention that involved the release of updated school performance indicators. Data from their surveys, consisting of scientifically developed survey items that ask about a range of school policies and practices, indicate that at the time of the first survey, many poorly-performing schools were already engaging in a range of interventions generally thought to be associated with good educational outcomes. Comparing data across survey years, they find that relative to other schools, the worst-graded schools change their policies and practices to give more attention to low-performing students, increase instruction time, and increase the flexibility and/or generosity of the scheduling, resourcing, and/or decision-making environment facing teachers.

In this paper, we use new survey data from Australian school principals to analyse the impact of the major information shock represented by the launch of My School in 2010. In the months before the website went live, we set about surveying as many Australian school principals as possible, asking them a detailed battery of questions about everything from budget autonomy to homework requirements. Three years later, we surveyed principals from responding schools to see how their schools had changed in the wake of test score reporting.

In addition to the magnitude of the information change represented by My School's launch, another strength of our study over prior research is the breadth of the schools in the sample. Our sample includes primary and secondary schools in the public, independent and Catholic sectors. This diversity allows us to test for differential responses to Australia's uniquely sudden and significant increase in school accountability.

At baseline, we find striking differences in the initial policy settings in place at lowperforming and high-performing schools. At low-performing schools, we find that parents are less
involved, teachers have lower expectations of students and spend less time with students outside the classroom, fewer hours are assigned to teachers for planning and reviewing, minimum class time for several subjects is less likely to be mandated, and the school day is shorter, although regular classes are smaller and teacher assistance and tutoring of low-performing students are more likely to be used in the classroom. We also find significant differences in initial policies and practices across the three Australian school sectors, with independent schools for example allocating the most time across all three sectors for teacher preparation, being most likely to provide tutoring outside of class and to set reduced class sizes for gifted students, being the likeliest to feature incentives for teachers (including dismissal), and requiring the lengthiest homework commitments by students in mathematics and reading.

Comparing principals' responses before and after the release of My School, we find little evidence that low-performing schools respond to the accountability shock in terms of their overall or student-focussed policies and practices. Low-performing schools in fact fall even further behind other schools in terms of setting minimum class time and time assigned for teacher preparation, although they do increase even further their already relatively high use of classroom-based assistance for teachers (while in non-government low-performing schools, the use of teacher assessment also rises). There is also some evidence of responses by low-performing schools targeted to specific subjects, both in terms of overall curriculum narrowing and, in low-performing government primary schools, the redirection of resources towards the curriculum area (whether literacy or numeracy) in which a school performed poorly and away from the other area.

In summary, our evidence shows that poorly performing schools in Australia feature policies and practices that the education literature generally deems worse for students, and further that lowperforming schools in general do not react to the publication of their poor performance on My School by substantially changing their overall or student-focused policies and practices. We conclude by briefly evaluating possible reasons for our results, including that principals are not focused on optimising their schools' published performance, that rigidities in the education policy-setting environment prevent principals from adjusting the way their schools are run, or that the dramatic move
from a low-information to a high-information environment takes more than a few years to change how schools operate.

The remainder of the paper is organized as follows. Our empirical approach is described and justified in Section II, which also includes details of the launch of the My School website and of our surveys of school principals. Our main estimates and results are presented and discussed in Section III, and we offer some concluding remarks in Section IV.

## II. Empirical approach

We survey principals of Australian schools of all levels (elementary, secondary, and combined) and all sectors (public, independent and Catholic) before and after a simple accountability shock, asking about the policies and practices in place at their school. We first document differences by NAPLAN performance and school sector in principals’ responses to our first survey, and we then apply a simple differencing method to examine the changes in policies and practices that principals report over time.

If school principals care about the increase in access to knowledge about their schools’ NAPLAN performance that My School provides, presumably because they face monetary or nonmonetary incentives that relate either directly or indirectly to this increase, then the principals of more poorly performing schools should be expected to try to improve their schools' performance on the NAPLAN tests once My School is launched - possibly by adjusting the policies and practices in place at their schools. As we have no convincing evidence on the strength or otherwise of such incentives, we take a revealed-preference approach to this question: if our statistical evidence indicates that the policies and practices in place at poorly performing schools do not change in response to My School, then one possible reason for this is that Australian principals are not incentivized to try to improve their schools' performance.

## (i) The accountability intervention

In the prior study most similar to ours, Rouse et al. (2013) evaluate the impact of a complicated accountability intervention, where school performance grades issued in summer 2001, under the auspices of a state-wide accountability policy first introduced in 1999, were updated in June
2002. As a result of this update, some schools may have been caught by surprise with their new (different) grade. The authors measure changes in policies and practices between the spring of 2002 to the spring of 2004 for all schools receiving fail-level grades in 2002, not only for those whose grades changed. Many schools retained the same grade before and after the 2002 re-grading, however, arguably diluting the estimated effects of the accountability shock.

While the Florida experiment represented a change to the available information about school performance, the Australian experiment represented a massive increase in the amount of information that parents had about their school's performance. As the OECD notes, 'Prior to the advent of My School, parents of school children were unable to understand the operations and achievements of their schools on common national definitions and measures.' (OECD, 2012, 9). The My School website launch on 28 January 2010 that we study was the first time that comprehensive absolute and relative academic performance data was publicly disseminated for all schools via a single access point. The OECD compares the demand to access the My School website on launch day to the demand for large news sites and popular reality television shows in an entire month (OECD, 2012, 35). The following day - 29 January 2010 - school results were discussed on the front pages of all major Australian newspapers. On average, the My School website received around 8,000 unique visitors per day during 2010, and over 2,000 unique daily visitors in subsequent years. ${ }^{3}$

It is difficult to overstate the scale of the information shock that the My School website represented. Prior to the My School launch, most schools did not publish any information about their test score performance. In certain instances, information about school performance was available through informal networks or in schools' annual reports, but it was rarely possible to compare schools' performance. ${ }^{4}$ Reflecting the scale of the proposed change, test score reporting was opposed by the

[^4]Australian Secondary Principals Association, the Australian Parents Council, the Independent Education Union of Australia, the Australian Government Primary Principals Association, the Australian Education Union and the Australian Council of State School Organisations (Patty, 2009), and industrial action was threatened if it went ahead.

To what extent was the information published on the My School website new to school principals? While Australian states had run literacy and numeracy testing programs for many years, nationally comparable testing across all states using the NAPLAN instrument only began in May 2008, and the first results of this testing were only published internally to schools in September 2008. Even if the information schools received in September 2008 had been an exact replica of what eventually was published publicly on My School (which is highly doubtful), principals would have had less than a year to take remedial action before our first survey was put into the field, and may not have felt strongly pressured to do so in any event, given that the 2008 performance data had not yet been made public. In addition, our measure of school performance amalgamates schools’ scores from 2008 and 2009, the latter of which were only known to schools in September 2009, around the time our first survey was put into the field. We amalgamate test score information for these two years because both sets of scores were published on the My School website simultaneously upon website launch.

## (ii) School performance measurement

In the typical setting examined in prior research, schools are divided starkly into "winner" and "loser" groups. This is true in the case of the school awards examined by Mizala and Urquiola (2013) and in Rouse et al. (2013), whose performance data take the form of a letter grade, where " $F$ " denotes failure and signals the potential for intervention. By contrast, the school performance signals sent via My School are more-or-less continuous, as they are in the form of average national test scores across students in tested cohorts at the school. While My School also provides colour coding, including red for "worse" than other schools, there is no threshold below which a school is labelled as having "failed". Similarly, although green coding is used to denote "better" performance than other schools,
there is no threshold above which an Australian school receives a prize or is seen to have decisively won a performance contest.

Appendix A provides two screenshots from My School: one for a relatively high-performing primary school, and one for a relatively low-performing high school. On each screenshot, the average NAPLAN test scores of an individual school are shown together with the relevant colour coding. NAPLAN assesses students on five different domains of learning (numeracy, reading, grammar/punctuation, writing and spelling), and is administered to children in school grades 3, 5, 7, and 9 in every year. The website displays all available historical score averages by domain and grade for each school. Test score comparisons are shown in the form of numbers and colours against both "similar" schools offering the tested grade (denoted "SIM" in the screenshot) and against all schools in Australia that offered the tested grade (denoted "ALL"). The "similar" school comparisons are based on the average test score across up to 60 schools identified by ACARA as being similar to the focal school based on parental occupation and education, ${ }^{5}$ remoteness of the school, and Indigenous student percentage. ${ }^{6}$ Each coloured indicator that accompanies a school's average score for each domain and grade within a cohort denotes the level of the school's performance relative to similar and all schools, respectively. The colour of each indicator is determined by the distance of the school's score in that domain $\times$ grade $\times$ cohort to the mean of the relevant comparison group (either similar schools or all schools). Dark green (dark red) colouration is used to denote a score that is "substantially" higher (lower) than the comparison-group mean. Light green (light red) denotes a score that is "somewhat" higher (lower) than the comparison-group mean. No colour denotes a score that is approximately the same as the comparison-group mean. The thresholds that define "substantially" and "somewhat" are 0.5 times and 0.2 times, respectively, of the standard deviation across all students in Australia of

[^5]scores in that domain $\times$ grade $\times$ cohort. Thresholds are calculated using the standard deviation across all school students in Australia, even when the resulting colouration reflects a comparison to the similarschool mean.

With five learning domains and potentially four grade cohorts assessed by NAPLAN each year, and two comparisons for each of these domain $\times$ grade $\times$ cohort cells shown on My School for a given year - one comparing the focal school to all Australian schools, and the other comparing the focal school to similar schools - there are many possible ways to reduce the information displayed on My School into a single metric.

For analytical tractability, we reduce the multi-dimensionality of this information by first calculating the percentage, across all tested grades in the school and across all five learning domains, of a school's scores that fall into each coloration category (dark green, light green, clear, light red, and dark red). For example, if a school offered only grades 7 through 12 (a normal "high school" in most Australian states"), then to calculate the "Percent Dark Red" measure for this school for a given year, we would: (1) calculate the percentage of the average scores posted by the school that year for tested grade-7 students across all five learning domains that fell into the "dark red" zone; (2) calculate the analogous percentage for tested grade-9 students; and (3) take the simple average of these two percentages. We then use the "Percent <colour>" variables - primarily the "Percent Dark Red" variable - constructed in this fashion to build dummy variables that indicate performance bands. We choose this method of constructing a performance measure with the aim of recovering a value that is as close as possible to the rough "feel" about a school's performance that a parent or other stakeholder would get while browsing through the school's posted results on My School.

[^6]
## (iii) Surveys

In 2009 we sent invitations to principals of all 9,552 Australian schools to complete our initial survey, and then in 2012 we sent invitations to complete our second survey to principals of the 1,929 schools whose principals had responded to our 2009 survey and which were still operating as separate entities in 2012. Appendix B contains further details regarding the implementation of the surveys. With data from the surveys in these two years, we can examine both how schools' initial policies and practices differ across school groups, and how schools’ policies and practices changed between one year before and two years after the My School launch. In the absence of an additional pre-My School survey, we are unable to control for any pre-My School trends in policies and practices.

Responses to our first school principal survey were received between 11 October 2009 and 29 January 2010, prior to the start of the 2010 school year. Our response rate for this survey was approximately $21 \%$, which we regard as a reasonable response rate for a survey of busy professional leaders. Of the 1,929 school principals sent invitations to complete the second survey in 2012, approximately $58 \%$ responded. These responses provide us with information for both years on 1,122 schools. When conducting our analyses, we restrict our attention to the 1,062 of these 1,122 schools that are classified as standard schools. ${ }^{8}$

In Tables B1 and B2, we present some evidence about the selectivity of the samples of standard schools that responded to our two surveys. For the initial survey, we look at selection relative to the whole Australian standard school population (Table B1); and for the second survey, we look at selection relative to those standard schools from which responses were received to the 2009 survey (Table B2).

Table B1 shows that the characteristics of schools that responded to our 2009 survey were very similar to the characteristics of those that did not respond. Respondent schools were distributed similarly to non-respondent schools across sector (government, independent, Catholic), location

[^7](metropolitan, provincial, remote, very remote), and type (primary, secondary, combined). Respondent schools were also of similar size, had similar fractions of students with a language background other than English (LBOTE), and reported similar average normalised NAPLAN test scores. ${ }^{9}$

The only characteristics on which statistically significant differences by respondent status are evident in 2009 are the percentage of students from an Indigenous background, which was 1.6 percentage points lower among respondent schools than among non-respondent schools, and ICSEA (an amalgamation of parental background, remoteness and Indigenous background), which is slightly higher (equivalent to 0.05 of a standard deviation) among respondent schools. After controlling for state-by-sector-by-type-by-location fixed effects, however, differences in Indigenous background and ICSEA are much smaller and for ICSEA no longer statistically significant, as shown in the last two columns of Table B1.

As detailed in Appendix B, substantial effort was undertaken to increase response rates. For example, in the 2012 survey, we offered a prize and an extension of response time to principals requiring it, sent up to four separate letter/email invitations, and finally called schools individually. Table B2 provides summary statistics for schools that did and did not respond to the 2012 survey, treating as the base population those schools that responded to the 2009 survey. In this case, significant differences are observed by respondent status. Respondent schools were larger, had higher ICSEA, had a lower Indigenous percentage and a higher LBOTE percentage, were more likely to be from a metropolitan rather than provincial area, were more likely to be Catholic than government, were more likely to be secondary schools than primary schools, and had slightly higher average normalised scores. The lower response rate among government provincial primary schools is due in part to difficulties in obtaining responses from Queensland government schools, driven by the fact that

[^8]our initial survey web link at first invitation was inaccessible via Queensland government computers (a problem that was fixed once we identified it). Once we control for state-by-sector-by-type-bylocation fixed effects, however, there are no statistically significant differences in schools' size, ICSEA, Indigenous percentage, LBOTE percentage or average normalised scores by respondent status, as shown in the last two columns of Table B2.

We implemented our surveys in the form of a core module plus one of four additional modules for each principal. The full set of survey instruments used in 2009 and 2012 are provided in Appendix C. The specific module sent to a school was the same in the two survey years. That is, if a specific school was sent Module 2 in 2009, that school was also sent Module 2 in 2012

## (iv) Measures of school policies and practices

The main advantage of our survey data is the breadth of information on how schools are run. We have responses to over 60 separate questions on policies and practices used in schools that might theoretically affect NAPLAN scores, with sub-questions within several main questions. The challenge is to distil that information into tractable measures of school policies and practices that may influence NAPLAN scores. ${ }^{10}$ To reduce the dimensionality of the estimation problem, we group responses to individual questions into 16 conceptual 'spheres', ${ }^{11}$ namely: Low-performing students, Lengthening instructional time, Reduced class size for subject, Narrowing of curriculum, Low-performing teachers, Teacher assigned time, School climate, Control (teacher, state, and principal), Reduced class size for gifted students, Teacher time spent outside school hours, Teacher observed in the classroom,

[^9]Assistance in the classroom, Homework time expected for tested subjects, Teacher incentives, Assessment of teachers, and Teacher dismissal frequency. ${ }^{12}$

After grouping questions into these spheres, we construct measures and corresponding estimates for each sphere. We first map schools' responses about each policy or practice that might theoretically increase NAPLAN scores into a range that flows logically from "low" to "high", where low values mean little of the policy or practice is in effect at the school, and high values indicate that it is strongly in effect. We then normalise these individual responses to be mean-zero with a standard deviation of one across all schools, and construct the simple average for each school of its normalised responses within each sphere. We use the mean and standard deviation of responses across responding schools in 2009 to construct the normalizations in both 2009 and 2012. This allows policies and practices as we measure them across all schools to change in aggregate in response to the My School accountability shock.

As noted above, response rates to our surveys, particularly in 2012, differ by state, location, sector and type. To address the bias this might otherwise cause, we employ weights when constructing all our measures and estimates that take account of the differential response rates by state-location-sector-type cells. These weights were constructed as the inverse of the probability of responding to our surveys by state-location-sector-type cells. ${ }^{13}$

## (v) Modelling approach

We construct our main estimates of the effect of revealed school performance on the My School website on school policies and practices by first estimating models at the individual-school level for each individual policy or practice $P_{j t}$ implemented in 2012, as follows:

$$
\begin{equation*}
P_{j t}=\alpha_{j}+\beta_{j}^{1} \cdot D R 1_{t-1}+\beta_{j}^{2} \cdot D R 2_{t-1}+X_{t-1} \cdot \Gamma_{j}+\varepsilon_{j t} \tag{1}
\end{equation*}
$$

[^10]Here, $D R 1_{t-1}$ and $D R 2_{t-1}$ are indicators of relatively poor school test score performance as first revealed on the My School website in 2010 (based on the percent of the school's NAPLAN test scores in 2008 and 2009 identified with dark red flags) and $X_{t-1}$ is a vector of school-level variables: (a) the relevant fully interacted set of state $\times$ location $\times$ sector $\times$ type indicators; (b) the 2009 levels of school enrolment, ICSEA, Indigenous percentage and LBOTE percentage (for 2010); as well as importantly - (c) the school's measure of the policy or practice $P_{j}$ in 2009. The indicator $D R 1_{t-1}$ denotes a school whose proportion of test scores in 2008 and 2009 with dark red flags lies above zero but below 0.2 , while $D R 2_{t-1}$ denotes a school whose proportion of dark red flags is 0.2 or higher. When we implement this estimation approach, we use the raw measures of the policies and practices, rather than normalised ones.

The $\beta_{j}^{1}$ and $\beta_{j}^{2}$ coefficients are our objects of interest, as they indicate whether the implementation of the specific policy or practice in 2012 was correlated with a school's reported poor relative performance on My School in 2010, even controlling for the degree of implementation of that policy or practice at the same school in 2009. We standardise each $\beta_{j}^{i}$ estimate by dividing by the standard deviation $\left(\sigma_{j}\right)$ of schools' responses in 2009 regarding the implementation of the given policy or practice. Our estimates of the effect of the public revelation of school performance on each policy sphere is then the average of the $J$ standardised $\beta$ 's within each sphere $d$ :

$$
\begin{equation*}
\beta_{d}^{i}=\frac{1}{J} \sum_{j=1}^{J} \frac{\beta_{j}^{i}}{\sigma_{j}} \tag{2}
\end{equation*}
$$

To obtain the correct standard error of the $\beta_{d}^{i}$,s, we take account of potential covariances among the estimates of the various $\beta_{j}^{i}$,s within sphere $d$. To do this, we follow Kling and Liebman (2004) and estimate seemingly unrelated regressions (SURs) using Equation (1) for all policies within each sphere, recovering identical coefficient estimates as obtained under OLS. We then calculate the standard error of each $\beta_{d}^{i}$ in (2) above using the full variance-covariance matrix we construct for the SUR model. ${ }^{14}$ A potential advantage of these sphere-level estimates is that while estimates of each $\beta_{j}^{i}$

[^11]may be statistically insignificant, estimates of the $\beta_{d}^{i}$ may be significant due to covariation among the outcomes.

## III. Results

(i) School policies and practices prior to My School

We begin by exploring the initial policies and practices employed by schools prior to My School, as revealed in responses to our 2009 survey. We first focus on government primary schools, as this is the largest homogeneous group of schools in our sample, permitting a relatively clean insight into differences by initial school performance. In Table 1, schools' responses are tabulated separately based on their relative performance in the 2008 and 2009 NAPLAN tests. We separate schools into three performance groups: "poorly performing" schools (in which 20\% or more of the reported domain $\times$ grade $\times$ cohort NAPLAN test scores were accompanied by dark red flags), "underperforming" schools (with between zero and 20\% of scores accompanied by dark red flags) and remaining schools (no dark red flags). To create these groups, we use the colouration flags pertaining to the test score comparisons with all schools rather than similar schools. Of our sample of government primary schools, $45 \%$ had no dark red flags, while $35 \%$ of schools had $20 \%$ or more dark red flags.

Table 1 reveals substantial differences between poorly performing schools and schools receiving no dark red flags at all. In poorly performing schools, parents are less involved, teachers have lower expectations of students, fewer hours are assigned to teachers for planning and reviewing, minimum class time for mathematics, reading, writing, and art is less likely to be mandated, and the school day is shorter. Teachers in these distressed schools who are judged by their principal to need assistance are more likely to have a teacher's aide assigned to them and more likely to be assigned to coaching directly by the principal, but less likely to have a mentor or lead teacher assigned to help. Poorly performing schools are also less likely to have reduced class sizes for at least one subject to cater for students with academic difficulties or those for whom English is a second language, although they are more likely to have used reduced class size to teach the basic subjects of reading and writing to regular students. Teachers in poorly performing schools spend less time on music, sport, tutoring, and field trips, and parents in such schools are less likely to be required to sign their child's
homework. In the Control spheres, principals at poorly performing schools report less teacher control of curriculum and hiring, less principal control of curriculum, hiring, and budget, and more state control of everything, including all the above plus teacher evaluations. These results are consistent with an overall picture in which poorly performing schools are struggling to serve a disadvantaged population and at which fewer levers of local discretion appear to be available.

Table 2 shows that schools in the two lower-performing groups are smaller and have lower ICSEA scores, higher percentages of Indigenous students, and lower percentages of LBOTE students. Broadly speaking, there are more striking differences between poorly performing schools and schools that have no dark red flags than between underperforming schools and schools with no dark red flags. This gives us some confidence that schools in our poorly performing group, with $20 \%$ or more dark red flags, are schools that are struggling.

Tests of differences in spheres of policies and practices in 2009 by initial performance among government primary schools are provided in Table 3. These estimates were constructed by simply regressing the sphere indices on indicators for poorly performing and underperforming schools, as defined above. Consistent with the results in Table 1, we see that poorly performing schools - but not underperforming schools - stand out statistically in the spheres of Lengthening instructional time, Low-performing teachers, Teachers assigned time, and all sub-spheres of Control (teacher, state, and principal). Both poorly performing and underperforming schools stand out in terms of School climate and Assistance in the classroom.

The results of analogous tests for differences in sphere indices by initial performance using all schools, not just government primary schools, are presented in Table 4. The differences observed in Table 4 are even more evident in these tests. We now observe differences between underperforming schools and the base sample of schools (no dark red flags) in Lengthening instructional time, Reduced class size for subject and State control. Poorly performing schools also now stand out in terms of Homework time expected for tested subjects.

While we argue that differentiating schools by percentages of dark red flags is most appropriate, we also constructed tests akin to Tables 4 and 5 after splitting schools by quartiles of average normalised scores. These average normalised scores were constructed by first normalising all
school average test scores for each specific testing domain $\times$ grade $\times$ cohort grouping (for example, reading results for students in grade 3 in 2008) by subtracting the overall Australian mean score for the same grouping and dividing by the overall Australian standard deviation. ${ }^{15}$ We then take the simple average of those normalised scores within a school over 2008 and 2009.

Tests of differences in sphere indices by quartiles of average normalised scores are provided in Tables 3 a and 4 a for government primary schools and all schools respectively. A similar pattern of differences are generally evident in these tests as in the tests using schools separated by percent dark red flags. One interesting difference is in terms of Narrowing of Curriculum. It appears that schools in the middle two quartiles of performance are more likely to have a narrower curriculum than schools in both the highest and lowest quartiles.

Table 5 tabulates average responses by schools of all types (not only primary schools) to questions on our 2009 survey by school sector. Note that the questions in the spheres of Teacher incentives, Assessment of teachers, and Teacher dismissal frequency were only asked of nongovernment (Catholic and independent) schools. By comparison with government schools, independent schools are less likely to mandate minimum class time for almost all subjects, give teachers more time for planning and reviewing, are more likely to offer tutoring to low-performing students both in and outside of class, and are more likely to offer smaller classes to gifted students. By contrast, Catholic schools are more likely to mandate minimum time for almost all subjects compared with government schools, and they require teachers to spend less time outside of school hours on school-related activities. Non-government schools of both types are more likely than government schools to assign a mentor or leading teacher to assist low-performing teachers, to have a longer school day, and to have higher average minutes of homework time in tested subjects. The responses of both independent and Catholic schools show patterns indicating stronger principal control, weaker state and teacher control, higher expectations of students, and higher levels of parental involvement than government schools.

[^12]Among non-government schools only, independent schools are also more likely to use various forms of teacher incentives than Catholic schools, with some form of financial incentives for highperforming teachers being provided in 12\% of Catholic schools and $35 \%$ of independent schools. Independent schools are also more likely to have dismissed or counselled a teacher to leave in the past three years.

Tests of differences in sphere indices across school sectors are reported in Table 6. In these tests, the sphere-specific indices were simply regressed on indicators for Catholic and independent schools. Given that the questions in the spheres of Teacher incentives, Assessment of teachers, and Teacher dismissal frequency were only asked of non-government schools, estimates for these spheres were taken from a regression including only an indicator for independent schools, with Catholic schools the omitted category. As expected, these test results are consistent with the individual policy differences reported in Table 5. Interestingly, while Catholic schools are more likely to mandate minimum time for almost all subjects compared with government schools, the overall effect of this is that they are not significantly more or less likely to have a curriculum focused on tested subjects.
(ii) Changes in policies and practices from 2009 to 2012

Moving to an examination of how school policies and practices changed between 2009 and 2012, we begin by showing changes in individual item responses between the two surveys for government primary schools in Table 7. This table shows that poorly performing schools saw a larger reduction between 2009 and 2012 in the likelihood of minimum time being mandated for various subjects, including subjects directly tested by NAPLAN (such as reading and writing) and those not directly tested (such as science and physical education). School principals in both low-performance groups perceived an increase in state control of teacher evaluations compared to schools with no dark red flags, which saw a decrease in this measure in absolute terms. Principals in poorly performing schools also perceived a relative increase in their control over curriculum and hiring teachers, a relative increase in the recognition of teachers for student improvement, a relative decrease in parental monitoring of the instructional program, and a relative decrease in the average expected homework time for tested subjects. Relative to schools with no dark red flags, underperforming schools saw a
relative reduction between 2009 and 2012 in the length of the school day and in the frequency of teachers being observed in the classroom, a relative increase in the use of smaller class sizes for regular students, and a relative increase in both teacher control of teacher evaluation and in the average expected homework time for tested subjects.

In sum, the changes observed in our array of more than 60 policies and practices from 2009 to 2012 in struggling schools are mixed, sometimes in the "wrong" direction in terms of what we might think intuitively would promote better student performance on NAPLAN tests, and frequently indistinguishable from the changes in these same policies and practices in schools receiving no dark red flags. When changes at struggling schools appear to be in the "right" direction, they seem to relate more to teachers than to students.

We report in Table 8 the results of tests of whether the indices for each sphere changed between 2009 and 2012 for schools in the three different school sectors, to illustrate the baseline trend in policies and practices in each of these sectors. The first column in Table 8 is based only on government primary schools. The scores in most spheres are not statistically different in 2012 than in 2009, with the following exceptions. Government schools increased their scores on the Lowperforming teachers, Teacher time spent outside school hours and Assistance in the classroom spheres and reduced their score in the State control sphere; independent schools increased their score on the Assistance in the classroom sphere and reduced their scores on the spheres of Teacher control, State control, School climate and Teacher incentives; and Catholic schools increased their scores in the Narrowing of curriculum, Assistance in the classroom and Assessment of teachers spheres.
(iii) Did worse reports on My School result in improvements to policies and practices?

We now move to a formal consideration of the central question of whether those schools that were revealed to have low relative performance when My School was first released responded differently. Here we employ the estimation strategy described above in Equations (1) and (2). We use indicators of percentage of dark red flags over the 2008 and 2009 years combined as our measures of relative performance. Results for government primary schools are presented in Table 9, using test score comparisons to both similar schools and all schools.

Table 9 shows little systematic evidence of stronger policy responses in the "right" direction by struggling government primary schools than by other government primary schools. One potential exception is in the sphere of Narrowing the curriculum, where we find that poorly performing government primary schools report a statistically significant increase relative to similar government primary schools in the highest-performing group. An examination of the results of our individual policy regressions (a selection of individual policy results are provided in Table 10) shows that this effect - which is in the context of reductions at poorly performing schools in minimum time requirements for most subjects, both tested and non-tested, as shown in Table 7 - is driven by disproportionate drops in the likelihood of minimum time being allocated to non-tested subjects such as science. Hence, this apparent devotion of relatively more time to tested subjects in poorly performing schools results not from more time being devoted to literacy and numeracy, but by even less time being devoted to non-tested subjects, in an environment in which the time allocated to every subject is declining relative to what is observed in higher-performing schools.

There is some evidence that relative to similar but better-performing schools, underperforming government primary schools - but not poorly performing schools - increased policies to improve Lowperforming teachers. When we delve within this sphere to individual policies and practices (Table 10), we find that this effect is driven by increasing the assignment of mentors and lead teachers, and by additional professional development. Underperforming government primary schools, however, saw relative reductions in Teacher assigned time across the board, but mostly in terms of time to collaboratively review and monitor student performance. Relative to all other schools, poorly performing schools have responded by increasing Assistance in the classroom. This was driven by relative increases in the use of teacher assistants, parents/volunteers and coaches/lead teachers.

While the inverse probability weighting we apply during estimation should compensate for any bias arising from heterogeneous responses by schools across states, locations, sectors and school types, it may not necessarily overcome potential sample selection bias. If responding to the survey is a direct function of the responses to the surveys (i.e., a function of the dependent variables in our regressions), then our regression estimates may still be biased. The direction of bias in this case is likely to be attenuation in regression coefficients (Goldberger, 1981). On the other hand, if responding
is simply a function of the observable characteristics of schools, then our regression estimates will not be biased if we control for those observable characteristics, which in our case include the fully interacted set of indicators of state, location, sector and school type.

One common approach to overcoming sample selection bias is to use Heckman's (1979) technique. This technique essentially regards sample selection bias as an omitted variable bias, and controls for it by including in the suite of independent variables a selection term, the inverse Mills ratio, based on estimates from an equation estimating the probability of sample selection. We take that approach and recover estimates (Table 9a) close to the ones reported in Table 9. ${ }^{16}$ Indeed, the Narrowing the curriculum response is more evident in these estimates.

As noted at the end of Appendix B, the principal leading the government primary school may have changed between surveys in over $30 \%$ of cases. A new principal may change how the school is run, or may simply respond differently to the questions than the previous principal even in cases where nothing has been changed. Either way, we would expect more volatility in answers among schools that experienced a change in principal than among schools that did not. To address this concern, we performed a robustness check on these results where we use data only from government primary schools whose principal was clearly the same in our two survey years (see Table 9b). When we confine ourselves to estimating effects among these schools, the results are consistent with those reported in Table 9.

In an additional robustness exercise, where we group government primary schools into performance bands based on quartiles of initial scores rather than on dark red flags (Table 11), we continue to find increases amongst more poorly performing government primary schools in policies and practices related to teacher management, including observation and assistance in the classroom. As in our main results, we also find evidence of narrowing the curriculum, and no student-centred responses in the "right" direction, although the relative likelihood of using smaller classes for gifted students falls.

[^13]As noted in footnote 4, Tasmania and Western Australia (WA) had internet-based reporting of government school test score outcomes prior to My School. If My School is the causal driver of the small number of responses among low-performing schools we observe in Table 9, we would expect that such responses should be less evident in Tasmania and Western Australia. We attempt to test this working hypothesis by estimating models where we include all the variables included in Table 9 plus interactions of an indicator of the school being located in Tasmania or WA with both DR1 and DR2. The estimates based on this extension are presented in Table 12.

First looking at the estimates on the standard indicators of DR1 and DR2, note that these are quite similar to the estimates in Table 9. These denote responses among government primary schools located in all states except Tasmania and WA. Excluding these "early adopter" states thus does not affect our findings to any notable extent. However, due to small sample sizes (only 15\% of our 2012 responder schools are located in these two states), the estimates on the interactions of the indicator for Tasmania / WA with DR1 and DR2 are quite noisy. We are thus reticent to rely on those estimates to tell us anything useful regarding the hypothesis that responses are likely to be less evident in these states.

Having analysed government primary schools, Table 13 reports analogous results for all schools. In this broader sample, we again find some differences between regular and low-performing schools in the spheres of Narrowing the curriculum, Teacher assigned time and Assistance in the classroom. We also analyse responses among the three spheres relevant only to non-government schools, as shown at the bottom of the table. Among these three spheres, there is a significant relative increase in Assessment of teachers among poorly performing non-government schools. ${ }^{17}$

A selection (based on spheres where significant responses are observed) of individual policy and practice responses among all schools are provided in Table 14. The main driver of the negative Teacher assigned time response is time to collaboratively review and monitor student performance. Among non-government schools, the Assessment of teachers response is driven by increases in peer evaluation.

[^14]The robustness exercise of grouping schools into performance quartiles also yields similar results for all schools (Table 15), with narrowing the curriculum and assistance in the classroom both on the relative rise amongst more poorly performing schools. In addition, the relative fall in school climate that is present but insignificant in our main results becomes significant when using quartiles to generate performance groups.

In Tables 16 and 17, we report the results of estimating equations where we accommodate different performance-based responses for the three school sectors, by interacting the initial performance indicators (relative to similar and all schools respectively) with school sector. Results indicate that of the 7 (of 18 total) spheres in which poorly performing independent schools show statistically significant changes relative to better performing independent schools, all changes except for an increase in teacher dismissals are in the "wrong" direction (including fewer policies to improve poorly performing teachers, worse school climate, larger class sizes, reduced teacher time outside class hours, and decreased teacher assessment). Poorly performing Catholic schools show mixed responses, with some trends in the "wrong" direction but also some reductions in class sizes and an increase in teacher assessments. Poorly performing government schools, by contrast, show increases relative to better-performing government schools in policies to improve poorly performing teachers, observation of teachers in the classroom, and assistance in the classroom. Despite the direction of change for poorly performing independent schools, underperforming independent schools show some relative changes in the "right" direction - including teacher time spent outside school hours, and hours of homework assigned.

Our focus thus far has been on trying to understand whether schools that were revealed to be poorly or underperforming on My School responded in substantive ways. It may be of additional interest to understand how schools revealed to be high performing responded to My School. We perform a parallel exercise to Equations 1 and 2 to examine responses at the top end of the school performance distribution. In this case, we construct an indicator DG1 isolating those schools with dark green flag (denoting performance "substantially above" other schools) percentages above zero up to $20 \%$ to denote overperforming schools, and a second indicator DG2 isolating those schools with dark green flags of $20 \%$ or higher to denote high-performing schools. In both cases, we set these indicators
to zero if the school had any dark red flags, to isolate those schools that are more clearly performing well.

The results in Table 18 show that high-performing schools were much less likely to have narrowed the curriculum to focus on tested subjects, more likely to have increased policies to improve low performing teachers, less likely to feel that state control had increased, had an improved school climate, and were much less likely to have dismissed a teacher.

## (iv) Subject targeting

In an environment with binding budget constraints, principals may be unable to increase resources and emphasis on all NAPLAN-tested learning domains at the same time. However, if schools are performing worse in one tested area relative to another, constrained principals may reallocate resources towards the lower performing subject area. To investigate whether this type of targeted response occurred, we combine the NAPLAN test score information and the responses of school principals to subject-specific policies and practices into two separate areas: numeracy and literacy. NAPLAN covers one numeracy domain and four literacy domains: reading, grammar/punctuation, writing and spelling. In our surveys, we asked questions regarding one numeracy-related subject (mathematics) and two literacy-related subjects (reading and writing).

Our measure of subject-specific performance for numeracy was constructed as the average of the numeracy $\times$ grade $\times$ cohort normalised test scores across all tested grades in a school and over the 2008 and 2009 cohorts (years). For literacy, we calculated the average of the domain $\times$ grade $\times$ cohort normalised test scores across the four literacy-related testing domains and over all tested grades in a school and over the 2008 and 2009 cohorts. Two sets of normalised measures were constructed, using raw scores for similar and for all schools when constructing the normalisations. We then defined our "relative performance" measure (RP) as simply the numeracy score minus the literacy score, with a higher value on this measure indicating a stronger performance in numeracy relative to literacy.

We constructed our measure of stronger emphasis in policy spheres on numeracy relative to literacy (RE) based on principals' responses on the following subject-specific questions, where all variables are indicators.

- Reduced class size for subject: regular students.
- Reduced class size for subject: students with learning difficulties.
- Reduced class size for subject: students from an English as a Second Language (ESL) background.
- Minimum time required spent on subject each week.
- Typically, a minimum amount of time is spent on the subject each week. ${ }^{18}$

We combine responses to these subject-specific questions by normalising individual responses to be mean-zero and with a standard deviation of one across all schools, and then constructing the simple average for each school of its normalised responses within each subject-specific category (mathematics for numeracy, and the combination of reading and writing for literacy). Our measure of relative emphasis in mathematics relative to literacy in terms of policies and practices is then simply the numeracy index minus the literacy index.

Our equation to estimate school-level policy responses in terms of relative emphasis on numeracy compared to literacy based on school-level relative performance in numeracy compared to literacy is as follows:

$$
\begin{equation*}
R E_{t}=\alpha+\beta \cdot R P_{t-1}+X_{t-1} \cdot \Psi+\varepsilon_{t} \tag{3}
\end{equation*}
$$

Here, $R E_{t}$ is relative emphasis on numeracy versus literacy subjects as revealed in the 2012 survey, $R P_{t-1}$ is relative performance in numeracy versus literacy NAPLAN domains over 2008 and 2009, and $X_{t-1}$ includes $R E_{t-1}$ (relative emphasis in 2009) and a number of school-level indicators and characteristics measured in 2009: the relevant fully interacted set of state $\times$ location $\times$ sector $\times$ type indicators, ICSEA, LBOTE percentage, Indigenous percentage, and enrolment count. The $\beta$ coefficient is expected to be negative if schools respond to relatively poor performance in numeracy (literacy) by placing more emphasis on numeracy (literacy) relative to literacy (numeracy) in the policy arena.

[^15]The results from estimating Equation (3) are shown in Table 19. For government primary schools only, there is evidence of targeted policy responses to poor performance in one subject relative to the other in the expected direction. Such responses are not evident when we estimate the model for all schools together, which may indicate a more binding budget constraint for government schools than for independent and Catholic schools, and/or more responsiveness in poorly performing government schools than in poorly performing schools in other sectors to the demonstrated learning needs of their students.

## (v) Principals' perceptions of the My School website

Given the somewhat controversial nature of the My School website, particularly among teachers, we ended our 2012 survey by asking principals whether they believed that the introduction of the My School website had had a positive, negative, or neutral effect on their school. Overall, $67 \%$ of school principals responded that the My School website had had a neutral effect on their school, 24\% said that it had had a negative effect, and $8 \%$ said it had had a positive effect (Table 20). ${ }^{19}$ Among government primary schools, the schools that had higher proportions of dark red flags against their scores had less positive views of My School. Across school sectors, government schools were least positive, while independent schools were most positive.

To investigate whether a school's reported performance on My School and its principal's perceptions of My School were related, we estimated ordered logit models of the three response values for the question about perception of My School (negative, neutral, and positive) on schools’ initial normalised scores on the NAPLAN tests. We included in a single model both normalised scores using the all-school comparisons and normalised scores using the similar-school comparisons, both calculated as averages over the 2008 and 2009 school years.

Results reveal that poor performance relative to similar schools was a key driver of negative perceptions by principals of the My School website (Table 21). Principals of schools with low NAPLAN test scores relative to similar schools were more likely to report that the My School website had had a negative effect on their school. Specifically, the principal of a school that was one standard

[^16]deviation lower than average in terms of initial performance was 5 percentage points more likely to respond that My School had had a negative effect. ${ }^{20}$ This finding is consistent with the conjecture that prior to My School, parents and other stakeholders may already have had a reasonable idea about a school's level of absolute performance, but that My School provided new information to parents about school performance relative to similar schools, potentially leading to uncomfortable conversations at the school level.

## IV. Concluding remarks

Based on targeted surveys of school principals before and after the policy change, we generate the first evidence for Australia of the impact on schools' policies and practices from the one-shot increase in school accountability represented by the 2010 launch of Australia's My School website. In the study closest to ours, evaluating changes to Florida school accountability, Rouse et al. (2013) find that poorly performing schools "are more likely to focus on low-performing students, lengthen the amount of time devoted to instruction, adopt different ways to organize the day and learning environment of the students and teachers, increase resources available to teachers, and decrease principal control." By contrast, we find little systematic evidence of a pattern whereby schools that were revealed to have lower levels of performance systematically responded by changing their policies and practices relative to other schools in directions clearly aligned with improving student performance. While we do see some positive relative changes in policies and practices at struggling schools related to teacher support and incentives, we see almost no relative changes to student-focused policies and practices, and the direction of change in minimum class time and time assigned to teacher preparation is the opposite of what intuitively should support student learning. Despite observing few changes overall, we do observe the most positive trajectories of change in poorly performing government schools, and the least positive trajectories in poorly-performing independent schools.

We also find mild evidence of policy targeting towards the learning domain (whether numeracy or literacy) on which a government primary school performed relatively worse, perhaps

[^17]indicating the presence of binding resource constraints among such schools. We find that the typical principal perceived the My School website to have had a neutral effect on his or her school, with principals of lower-performing schools more likely than principals of other schools to report negative perceptions of test score reporting.

Is our evidence of weak accountability effects in response to My School explained by weak incentives for Australian principals, or by rigidities in the policy-setting environment? Freeman et al. (2014) draw on the 2013 edition of the OECD's Teaching and Learning International Survey (TALIS) data to report that $95 \%$ of Australian school principals (compared to $89 \%$ for OECD nations on average) stated that in the preceding 12 months, they had "used student performance and student evaluation results (including national/international assessments) to develop the school's educational goals and programmes" (p. 45). This indicates a stance of above-average willingness on the part of Australian principals to make changes to school practices in line with student performance data. This responsiveness could be driven by principals’ career incentives, a desire to minimize complaints from parents and other stakeholders (discussed on p. 1546-47 of Andrabi, Das and Khwaja 2017), and/or a simple desire to try to meet students' learning needs.

Evidence of Australian principals’ ability to shape their schools can be drawn from that same TALIS survey only a few years earlier. Jensen (2010) reports (p. 12) that Australia is the fourth lowest in the OECD in terms of the share of teachers who report that "the most effective teachers [in their school] receive the greatest monetary or non-monetary rewards," and in terms of the proportion of teachers who believe they would receive some recognition if they were to improve the quality of their teaching, or (as a separate question) if they were to innovate in their teaching. Fewer than one in ten Australian teachers agreed with these each of these three statements separately. This indicates a possible breakdown in the chain from initial student performance and principals' intent to take responsive action, through to the implementation of responsive change, at least in policies and practices that relate directly to teacher performance.

Another possibility is that it takes time for school principals to adapt to a sudden change in public scrutiny. It may be the case that in a high-information environment such as the United States, school principals respond swiftly to changes in the perceived ranking of their school. Yet when a
system such as Australia's moves from providing very little comparable school information to providing substantial information, it may take more than a few years for school principals to react. Notwithstanding the dramatic change in available test score information that occurred in 2010, developing a culture of responding to NAPLAN results may be something that occurs over decades.

Despite the caveats on our results - most importantly, our reliance on principals' choice of whether to respond to our surveys - the results of our surveys are directly relevant to education policymakers. Our results indicate that poorly performing Australian schools have what appear to be worse policies and practices than other schools, and are falling behind in terms of time devoted to instruction and teacher preparation. Overall, our findings indicate that there is scope to improve struggling Australian schools via resourcing and policy decisions that better enable them to adapt their overall and student-centred policies and practices to improve outcomes for all students.

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Table 1: Government primary schools, response variable means in 2009

| Policy sphere / variable | No dark red | $\begin{gathered} \hline 0<\text { dark red } \\ <20 \% \\ \hline \end{gathered}$ | $\begin{gathered} 20 \%+\text { dark } \\ \text { red } \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| Policies to improve low-performing students |  |  |  |
| Recommend grade retention | 0.18 | 0.17 | 0.14 |
| Provide additional tutoring in class | 0.73 | 0.73 | 0.82 |
| Provide additional tutoring outside class | 0.06 | 0.02 | 0.04 |
| Provide Saturday classes | 0.00 | 0.00 | 0.00 |
| Develop individual learning plans | 0.97 | 0.99 | 0.94 |
| Other policy not listed | 0.42 | 0.40 | 0.38 |
| Lengthening instructional time |  |  |  |
| Average length of school day for middle grade (minutes) | 371.9 | 372.7 | 368.3 |
| Reduced class size for subject |  |  |  |
| Regular students: Mathematics | 0.40 | 0.35 | 0.42 |
| Regular students: Reading | 0.37 | 0.30 | 0.45 |
| Regular students: Writing | 0.31 | 0.27 | 0.39 |
| Students with academic difficulties: Mathematics | 0.54 | 0.52 | 0.49 |
| Students with academic difficulties: Reading | 0.65 | 0.59 | 0.54 |
| Students with academic difficulties: Writing | 0.45 | 0.48 | 0.50 |
| Students with English as a second language: Mathematics | 0.30 | 0.27 | 0.23 |
| Students with English as a second language: Reading | 0.38 | 0.29 | 0.26 |
| Students with English as a second language: Writing | 0.31 | 0.27 | 0.25 |
| Narrowing of curriculum |  |  |  |
| Minimum time required: Mathematics | 0.77 | 0.84 | 0.68 |
| Minimum time required: Writing | 0.68 | 0.78 | 0.64 |
| Minimum time required: Reading | 0.75 | 0.75 | 0.68 |
| No minimum required time: Science | 0.55 | 0.63 | 0.53 |
| No minimum required time: Art | 0.44 | 0.51 | 0.54 |
| No minimum required time: Social Studies | 0.59 | 0.61 | 0.61 |
| No minimum required time: Physical Education | 0.28 | 0.24 | 0.27 |
| Policies to improve low-performing teachers |  |  |  |
| Increase supervision | 0.80 | 0.81 | 0.78 |
| Assign a teacher's aide | 0.05 | 0.10 | 0.20 |
| Assign a mentor or leading teacher | 0.73 | 0.62 | 0.61 |
| Provide additional professional development | 0.89 | 0.94 | 0.91 |
| Provide coaching from the principal | 0.56 | 0.62 | 0.70 |
| Other policy not listed | 0.24 | 0.28 | 0.29 |
| Teacher assigned time (hours/week) |  |  |  |
| to collaboratively plan curriculum and assessment | 1.13 | 1.08 | 0.90 |
| to collaboratively review / monitor student performance | 1.03 | 0.99 | 0.94 |
| for class planning | 2.40 | 2.58 | 2.04 |
| Teacher control (1 = no influence / 4 = complete control) |  |  |  |
| Establishing curriculum | 2.89 | 2.90 | 2.83 |
| Hiring new full-time teachers | 1.98 | 1.87 | 1.53 |
| Budget spending | 2.59 | 2.60 | 2.55 |
| Teacher evaluation | 2.38 | 2.09 | 2.21 |

Table 1: Government primary schools, response variable means in 2009 (continued)

| Policy sphere / variable | No dark red | $\begin{gathered} \hline 0<\text { dark red } \\ <20 \% \\ \hline \end{gathered}$ | $\begin{gathered} \hline 20 \%+ \\ \text { dark red } \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| State control (1 = no influence / 4 = complete control) |  |  |  |
| Establishing curriculum | 3.24 | 3.37 | 3.26 |
| Hiring new full-time teachers | 2.99 | 3.27 | 3.57 |
| Budget spending | 2.43 | 2.59 | 2.26 |
| Teacher evaluation | 2.08 | 2.05 | 2.14 |
| Principal control (1 = no influence / 4 = complete control) |  |  |  |
| Establishing curriculum | 2.92 | 3.01 | 2.83 |
| Hiring new full-time teachers | 2.86 | 2.71 | 2.43 |
| Budget spending | 3.25 | 3.22 | 3.07 |
| Teacher evaluation | 3.43 | 3.43 | 3.51 |
| School climate |  |  |  |
| Most parents closely monitor instructional program (a) | 2.60 | 2.26 | 2.25 |
| Most parents help children with homework (a) | 2.79 | 2.52 | 2.05 |
| Teachers recognized for improved student performance (a) | 3.25 | 3.36 | 3.22 |
| Require parents to sign children's homework (1 = yes) | 0.34 | 0.28 | 0.29 |
| Teachers have low expectations of students - reversed (a) | 3.73 | 3.49 | 3.32 |
| Frequency principal interaction with parents: Phone (b) | 3.25 | 3.21 | 3.10 |
| Frequency principal interaction with parents: In-person (b) | 3.57 | 3.55 | 3.45 |
| Reduced class size for gifted students |  |  |  |
| Mathematics | 0.33 | 0.39 | 0.23 |
| Reading | 0.25 | 0.33 | 0.29 |
| Writing | 0.24 | 0.28 | 0.25 |
| Teacher time spent outside school hours (weekly minutes) |  |  |  |
| On class preparation, grading, parent conferences, meetings | 478.1 | 459.6 | 475.5 |
| With students on activities: music, sport, tutoring, field trips | 93.2 | 88.3 | 57.4 |
| Teachers observed in the classroom |  |  |  |
| Principal observed a teacher's lesson (c) | 3.27 | 3.43 | 3.19 |
| Specialist or leading teacher critiqued a teacher's lesson (c) | 2.11 | 1.97 | 2.15 |
| Another teacher observed a teacher's lesson (c) | 2.75 | 2.74 | 2.48 |
| Assistance in the classroom |  |  |  |
| Teaching assistants, at least one hour/day | 0.79 | 0.85 | 0.94 |
| Parents/volunteers, at least two hours/week | 0.90 | 0.89 | 0.85 |
| Additional teacher, at least one day/week | 0.60 | 0.65 | 0.71 |
| Coach/lead teacher, at least 4 hours/week | 0.28 | 0.27 | 0.33 |
| Teaching assistants, at least one hour/day (all classrooms) | 0.06 | 0.18 | 0.36 |
| Parents/volunteers, at least two hours/week (all classrooms) | 0.06 | 0.05 | 0.06 |
| Additional teacher, at least one day/week (all classrooms) | 0.10 | 0.11 | 0.15 |
| Coach/lead teacher, at least 4 hours/week (all classrooms) | 0.05 | 0.06 | 0.05 |
| Homework time expected for tested subjects |  |  |  |
| Average minutes/night: Mathematics | 10.8 | 9.3 | 9.5 |
| Average minutes/night: Reading | 15.1 | 11.9 | 12.0 |
| Average minutes/night: Writing | 5.3 | 5.0 | 9.3 |

Notes for Table 1: "Dark red" refers to the percentage of all NAPLAN test scores in a school being identified as substantially below other schools. If the score is more than 0.5 of a standard deviation below other schools, it is considered substantially below. These averages were constructed after weighting by the probability of responding to our survey by location-state-sector-type of schools. (a) $1=$ strongly disagree $/ 4=$ strongly agree. (b) $1=$ none, $2=1-3,3=4-6,4=7-9,5=10+$. (c) in this academic year, $0=$ never, $1=$ once, $2=2-3,3=4-5,4$ $=6+$.

Table 2: Government primary school characteristics by per cent dark red

| Variable | No dark red | $0<$ dark red $<20 \%$ | $20 \%+$ dark red |
| :--- | :---: | :---: | :---: |
| Number of students | 360.1 | $279.8^{* * *}$ | $238.1^{* * *}$ |
|  | $(215.8)$ | $(203.8)$ | $(190.8)$ |
| ICSEA score | $1,051.2$ | $997.8^{* * *}$ | $945.6^{* * *}$ |
|  | $(67.4)$ | $(47.5)$ | $(79.6)$ |
| Indigenous (\%) | 2.43 | $4.70^{* * *}$ | $12.70^{* * *}$ |
|  | $(3.17)$ | $(5.46)$ | $(14.77)$ |
| LBOTE in 2010 (\%) | 22.6 | $16.3^{* * *}$ | $11.5^{* * *}$ |
|  | $(23.8)$ | $(24.1)$ | $(18.7)$ |
| Observations | 377 | 176 | 291 |

Notes: Percent dark red based on comparisons with all other schools. All characteristics apart from Language Background Other Than English (LBOTE) are relevant to 2009, and all information is drawn from ACARA data. One, two and three asterisks denote statistically significant differences between the group of schools in the given column and schools that have no dark red indicators, based on $t$-tests (all estimated using weights).

Table 3: Differences by performance, government primary schools, policy sphere indices in 2009

| Policy sphere | $0<$ dark red $<20 \%$ | 20\%+ dark red |
| :---: | :---: | :---: |
| Policies to improve low-performing students | -0.011 | -0.032 |
|  | (0.032) | (0.027) |
| Lengthening instructional time | 0.045 | -0.196** |
|  | (0.108) | (0.091) |
| Reduced class size for subject | -0.087 | -0.051 |
|  | (0.170) | (0.141) |
| Narrowing of curriculum | 0.095 | -0.059 |
|  | (0.085) | (0.076) |
| Policies to improve low-performing teachers | 0.048 | 0.103** |
|  | (0.048) | (0.041) |
| Teacher assigned time (hours/week) | 0.006 | -0.171* |
|  | (0.131) | (0.102) |
| Teacher control | -0.040 | -0.207* |
|  | (0.134) | (0.120) |
| State control | 0.178 | 0.211** |
|  | (0.116) | (0.103) |
| Principal control | -0.031 | -0.225* |
|  | (0.129) | (0.115) |
| School climate | -0.097* | $-0.178 * * *$ |
|  | (0.050) | $(0.043)$ |
| Reduced class size for gifted students | 0.182 | -0.035 |
|  | (0.194) | (0.161) |
| Teacher time spent outside school hours | -0.044 | -0.134 |
|  | (0.159) | (0.139) |
| Teachers observed in the classroom | 0.012 | -0.080 |
|  | (0.072) | (0.062) |
| Assistance in the classroom | 0.090** | 0.202*** |
|  | (0.041) | (0.035) |
| Homework time expected for tested subjects | -0.237* | -0.089 |
|  | (0.132) | (0.117) |

Notes: Each row of estimates is based on a weighted regression of the policy sphere index measure on indicators for the percentage of NAPLAN test scores in the school in 2008 and 2009 flagged dark red - significantly below other schools - using schools with no dark red flags as the baseline (omitted) category. Robust standard errors on the coefficient estimates are provided in parentheses.

Table 3a: Differences by performance, government primary schools, policy sphere indices in 2009, quartiles of initial average normalised scores

|  |  | Quartile |  |
| :--- | :---: | :---: | :---: |
| Policy sphere | 2nd highest | 2nd lowest | lowest |
| Policies to improve low-performing students | 0.0520 | -0.0166 | -0.0279 |
|  | $(0.034)$ | $(0.035)$ | $(0.034)$ |
| Lengthening instructional time | -0.0182 | -0.154 | $-0.277^{* *}$ |
|  | $(0.116)$ | $(0.119)$ | $(0.115)$ |
| Reduced class size for subject | -0.170 | -0.0343 | -0.111 |
|  | $(0.197)$ | $(0.193)$ | $(0.191)$ |
| Narrowing of curriculum | 0.0862 | $0.176^{*}$ | -0.0191 |
|  | $(0.087)$ | $(0.098)$ | $(0.094)$ |
| Policies to improve low-performing teachers | 0.0345 | $0.140^{* * *}$ | $0.191^{* * *}$ |
|  | $(0.051)$ | $(0.052)$ | $(0.051)$ |
| Teacher assigned time (hours/week) | -0.0373 | -0.181 | $-0.265^{* *}$ |
|  | $(0.132)$ | $(0.135)$ | $(0.131)$ |
| Teacher control | -0.068 | 0.053 | -0.187 |
|  | $(0.156)$ | $(0.155)$ | $(0.147)$ |
| State control | 0.119 | 0.136 | 0.153 |
|  | $(0.136)$ | $(0.134)$ | $(0.128)$ |
| Principal control | -0.0972 | 0.0437 | -0.228 |
| School climate | $(0.150)$ | $(0.149)$ | $(0.141)$ |
|  | -0.084 | -0.067 | $-0.232^{* * *}$ |
| Reduced class size for gifted students | $(0.054)$ | $(0.055)$ | $(0.054)$ |
|  | -0.283 | -0.142 | -0.167 |
| Teacher time spent outside school hours | $(0.225)$ | $(0.220)$ | $(0.218)$ |
| Teachers observed in the classroom | -0.180 | $-0.330^{*}$ | -0.194 |
|  | $(0.164)$ | $(0.185)$ | $(0.174)$ |
| Assistance in the classroom | 0.101 | $0.136^{*}$ | 0.010 |
|  | $(0.078)$ | $(0.080)$ | $(0.078)$ |
| Homework time expected for tested subjects | $0.086^{*}$ | $0.109^{* *}$ | $0.276^{* * *}$ |
|  | $(0.044)$ | $(0.045)$ | $(0.044)$ |

Notes: Each row of estimates is based on a weighted regression of the sphere index measure on indicators for the percentage of NAPLAN test scores in the school in 2008 and 2009 flagged dark red - significantly below other schools - using schools with no dark red flags as the baseline (omitted) category. Robust standard errors on the coefficient estimates are provided in parentheses.

Table 4: Differences by performance, all schools, policy sphere indices in 2009

| Policy sphere | $0<$ dark red < 20\% | 20\%+ dark red |
| :---: | :---: | :---: |
| Policies to improve low-performing students | -0.040 | -0.058** |
|  | (0.029) | (0.025) |
| Lengthening instructional time | -0.252*** | $-0.508^{* * *}$ |
|  | (0.076) | (0.066) |
| Reduced class size for subject | -0.234** | -0.088 |
|  | (0.118) | (0.099) |
| Narrowing of curriculum | 0.060 | 0.002 |
|  | (0.063) | (0.057) |
| Policies to improve low-performing teachers | 0.040 | 0.101*** |
|  | (0.032) | (0.029) |
| Teacher assigned time (hours/week) | -0.064 | -0.308*** |
|  | (0.122) | (0.105) |
| Teacher control | 0.033 | -0.166* |
|  | (0.094) | (0.085) |
| State control | 0.407*** | 0.606*** |
|  | (0.107) | (0.096) |
| Principal control | -0.160* | -0.433*** |
|  | (0.095) | (0.086) |
| School climate | -0.010 | -0.130*** |
|  | (0.040) | (0.035) |
| Reduced class size for gifted students | -0.062 | -0.060 |
|  | (0.142) | (0.119) |
| Teacher time spent outside school hours | -0.043 | 0.000 |
|  | (0.111) | (0.097) |
| Teachers observed in the classroom | -0.074 | -0.063 |
|  | (0.050) | (0.044) |
| Assistance in the classroom | 0.099*** | 0.172*** |
|  | (0.029) | (0.026) |
| Homework time expected for tested subjects | -0.231* | -0.286** |
|  | (0.128) | (0.116) |
| Teacher incentives | -0.011 | -0.011 |
|  | (0.069) | (0.091) |
| Assessment of teachers | 0.169* | 0.066 |
|  | (0.088) | (0.104) |
| Teacher dismissal frequency | -0.103 | -0.388 |
|  | (0.237) | (0.345) |

Notes: Each row of estimates is based on a weighted regression of the policy sphere index measure on indicators for the percentage of NAPLAN test scores in the school in 2008 and 2009 flagged dark red - significantly below other schools - using schools with no dark red flags as the baseline (omitted) category. Robust standard errors on the coefficient estimates are provided in parentheses.

Table 4a: Differences by performance, all schools, policy sphere indices in 2009, quartiles of initial average normalised scores

| Policy sphere | Quartile |  |  |
| :---: | :---: | :---: | :---: |
|  | 2nd highest | 2nd lowest | lowest |
| Policies to improve low-performing students | 0.035 | -0.026 | -0.023 |
|  | (0.031) | (0.031) | (0.031) |
| Lengthening instructional time | -0.320*** | -0.454*** | -0.684*** |
|  | (0.081) | (0.081) | (0.081) |
| Reduced class size for subject | 0.063 | -0.108 | -0.047 |
|  | (0.134) | (0.129) | (0.130) |
| Narrowing of curriculum | 0.157** | 0.200*** | 0.020 |
|  | (0.064) | (0.066) | (0.067) |
| Policies to improve low-performing teachers | 0.066* | 0.089** | 0.172*** |
|  | (0.034) | (0.035) | (0.035) |
| Teacher assigned time (hours/week) | -0.016 | -0.172 | -0.260* |
|  | (0.129) | (0.134) | (0.133) |
| Teacher control | 0.042 | 0.069 | -0.089 |
|  | (0.108) | (0.103) | (0.102) |
| State control | -0.052 | 0.542*** | 0.646*** |
|  | (0.119) | (0.114) | (0.113) |
| Principal control | -0.136 | -0.189* | -0.446*** |
|  | (0.111) | (0.106) | (0.105) |
| School climate | -0.038 | -0.062 | $-0.221^{* * *}$ |
|  | (0.042) | (0.043) | (0.043) |
| Reduced class size for gifted students | -0.0693 | -0.167 | -0.112 |
|  | (0.161) | (0.154) | (0.156) |
| Teacher time spent outside school hours | -0.268** | -0.278** | -0.114 |
|  | (0.111) | (0.117) | (0.116) |
| Teachers observed in the classroom | 0.053 | 0.056 | 0.059 |
|  | (0.053) | (0.054) | (0.054) |
| Assistance in the classroom | 0.051* | 0.010 | 0.179*** |
|  | (0.031) | (0.031) | (0.032) |
| Homework time expected for tested subjects | -0.069 | -0.298** | -0.311** |
|  | (0.148) | (0.142) | (0.140) |
| Teacher incentives | -0.159*** | -0.066 | -0.042 |
|  | (0.058) | (0.074) | (0.116) |
| Assessment of teachers | -0.088 | -0.042 | 0.070 |
|  | (0.080) | (0.094) | (0.122) |
| Teacher dismissal frequency | -0.261 | -0.174 | -0.037 |
|  | (0.181) | (0.243) | (0.593) |

Notes: Each row of estimates is based on a weighted regression of the sphere index measure on indicators for the percentage of NAPLAN test scores in the school in 2008 and 2009 flagged dark red - significantly below other schools - using schools with no dark red flags as the baseline (omitted) category. Robust standard errors on the coefficient estimates are provided in parentheses.

Table 5: By school sector, response variable means in 2009

| Policy sphere / variable | Government | Independent | Catholic |
| :--- | :---: | :---: | :---: |
| Policies to improve low-performing students |  |  |  |
| Recommend grade retention | 0.17 | 0.27 | 0.15 |
| Provide additional tutoring in class | 0.77 | 0.84 | 0.77 |
| Provide additional tutoring outside class | 0.12 | 0.31 | 0.16 |
| Provide Saturday classes | 0.00 | 0.03 | 0.01 |
| Develop individual learning plans | 0.97 | 0.95 | 0.98 |
| Other policy not listed | 0.38 | 0.34 | 0.35 |
| Lengthening instructional time |  |  |  |
| Average length of school day for middle grade (minutes) | 372.7 | 390.3 | 383.4 |
| Reduced class size for subject |  |  |  |
| Regular students: Mathematics | 0.35 | 0.38 | 0.38 |
| Regular students: Reading | 0.35 | 0.33 | 0.35 |
| Regular students: Writing | 0.31 | 0.33 | 0.32 |
| Students with academic difficulties: Mathematics | 0.51 | 0.66 | 0.55 |
| Students with academic difficulties: Reading | 0.57 | 0.62 | 0.61 |
| Students with academic difficulties: Writing | 0.49 | 0.59 | 0.54 |
| Students with English as a second language: Mathematics | 0.23 | 0.19 | 0.19 |
| Students with English as a second language: Reading | 0.29 | 0.22 | 0.26 |
| Students with English as a second language: Writing | 0.27 | 0.22 | 0.23 |
| Narrowing of curriculum |  |  |  |
| Minimum time required: Mathematics | 0.79 | 0.52 | 0.89 |
| Minimum time required: Writing | 0.67 | 0.43 | 0.86 |
| Minimum time required: Reading | 0.72 | 0.51 | 0.86 |
| No minimum required time: Science | 0.49 | 0.61 | 0.34 |
| No minimum required time: Art | 0.51 | 0.57 | 0.33 |
| No minimum required time: Social Studies | 0.54 | 0.61 | 0.31 |
| No minimum required time: Physical Education | 0.25 | 0.37 | 0.16 |
| Policies to improve low-performing teachers |  |  |  |
| Increase supervision |  |  |  |
| Assign a teacher's aide | 0.87 | 2.37 | 2.32 |

Table 5: By school sector, response variable means in 2009 (continued)

| Policy sphere / variable | Government | Independent | Catholic |
| :---: | :---: | :---: | :---: |
| State control (1 = no influence / 4 = complete control) |  |  |  |
| Establishing curriculum | 3.22 | 2.69 | 2.85 |
| Hiring new full-time teachers | 3.15 | 1.12 | 1.44 |
| Budget spending | 2.49 | 1.40 | 1.65 |
| Teacher evaluation | 2.13 | 1.30 | 1.59 |
| Principal control (1 = no influence / 4 = complete control) |  |  |  |
| Establishing curriculum | 2.87 | 3.06 | 2.89 |
| Hiring new full-time teachers | 2.66 | 3.45 | 3.48 |
| Budget spending | 3.20 | 3.23 | 3.32 |
| Teacher evaluation | 3.41 | 3.41 | 3.45 |
| School climate |  |  |  |
| Most parents closely monitor instructional program (a) | 2.39 | 3.08 | 2.62 |
| Most parents help children with homework (a) | 2.43 | 2.70 | 2.90 |
| Teachers recognized for improved student performance (a) | 3.24 | 3.13 | 2.96 |
| Require parents to sign children's homework (1 = yes) | 0.29 | 0.54 | 0.56 |
| Teachers have low expectations of students - reversed (a) | 3.51 | 3.80 | 3.68 |
| Frequency principal interaction with parents: Phone (b) | 3.04 | 3.00 | 3.05 |
| Frequency principal interaction with parents: In-person (b) | 3.27 | 2.91 | 3.23 |
| Reduced class size for gifted students |  |  |  |
| Mathematics | 0.27 | 0.46 | 0.27 |
| Reading | 0.26 | 0.36 | 0.27 |
| Writing | 0.23 | 0.41 | 0.19 |
| Teacher time spent outside school hours (weekly minutes) |  |  |  |
| On class preparation, grading, parent conferences, meetings | 488.8 | 443.0 | 436.6 |
| With students on activities: music, sport, tutoring, field trips | 98.1 | 108.6 | 55.2 |
| Teachers observed in the classroom |  |  |  |
| Principal observed a teacher's lesson (c) | 3.30 | 2.89 | 3.00 |
| Specialist or leading teacher critiqued a teacher's lesson (c) | 2.13 | 2.44 | 2.20 |
| Another teacher observed a teacher's lesson (c) | 2.77 | 2.94 | 2.72 |
| Assistance in the classroom |  |  |  |
| Teaching assistants, at least one hour/day | 0.86 | 0.89 | 0.97 |
| Parents/volunteers, at least two hours/week | 0.74 | 0.78 | 0.71 |
| Additional teacher, at least one day/week | 0.63 | 0.62 | 0.66 |
| Coach/lead teacher, at least 4 hours/week | 0.29 | 0.32 | 0.34 |
| Teaching assistants, at least one hour/day (all classrooms) | 0.20 | 0.11 | 0.16 |
| Parents/volunteers, at least two hours/week (all classrooms) | 0.07 | 0.06 | 0.05 |
| Additional teacher, at least one day/week (all classrooms) | 0.13 | 0.13 | 0.10 |
| Coach/lead teacher, at least 4 hours/week (all classrooms) | 0.04 | 0.05 | 0.03 |
| Homework time expected for tested subjects |  |  |  |
| Average minutes/night: Mathematics | 11.5 | 15.1 | 14.8 |
| Average minutes/night: Reading | 13.3 | 16.5 | 14.9 |
| Average minutes/night: Writing | 8.0 | 11.6 | 12.1 |

Table 5: By school sector, response variable means in 2009 (continued)

| Policy sphere / variable | Government | Independent | Catholic |
| :--- | :---: | :---: | :---: |
| Teacher incentives |  |  |  |
| Leadership position | 0.55 | 0.42 |  |
| Choice of class | 0.05 | 0.04 |  |
| Release time from teaching | 0.22 | 0.17 |  |
| Attendance at conferences and workshops | 0.43 | 0.32 |  |
| Other non-financial incentive not listed | 0.19 | 0.13 |  |
| Offer financial incentives of any form | 0.35 | 0.11 |  |
| Assessment of teachers (importance of) |  |  |  |
| Direct observation by a school leader (b) | 3.53 | 3.47 |  |
| Peer evaluation (b) | 3.03 | 3.02 |  |
| Test scores of students (reversed) (b) | 2.77 | 2.67 |  |
| External evaluation (b) | 1.94 | 2.00 |  |
| Teacher dismissal frequency |  |  |  |
| Dismissed or counselled a teacher to leave in the last 3 years | 0.76 | 0.37 |  |

Notes: These averages were constructed after weighting by the probability of responding to our survey by location-state-sector-type of schools. (a) $1=$ strongly disagree / $4=$ strongly agree. (b) $1=$ none, $2=1-3,3=4-6$, $4=7-9,5=10+$. (c) in this academic year, $0=$ never, $1=$ once, $2=2-3,3=4-5,4=6+$.

Table 6: Differences by school sector, policy sphere indices in 2009

| Policy sphere | Independent | Catholic |
| :---: | :---: | :---: |
| Policies to improve low-performing students | $\begin{gathered} 0.186 * * * \\ (0.034) \end{gathered}$ | $\begin{gathered} 0.024 \\ (0.027) \end{gathered}$ |
| Lengthening instructional time | $\begin{gathered} 0.962 * * * \\ (0.088) \end{gathered}$ | $\begin{gathered} 0.584^{* * *} \\ (0.071) \end{gathered}$ |
| Reduced class size for subject | $\begin{gathered} 0.026 \\ (0.137) \end{gathered}$ | $\begin{gathered} 0.006 \\ (0.114) \end{gathered}$ |
| Narrowing of curriculum | $\begin{gathered} -0.148 * * \\ (0.067) \end{gathered}$ | $\begin{gathered} -0.074 \\ (0.060) \end{gathered}$ |
| Policies to improve low-performing teachers | $\begin{gathered} 0.054 \\ (0.040) \end{gathered}$ | $\begin{aligned} & 0.074^{*} \\ & (0.032) \end{aligned}$ |
| Teacher assigned time (hours/week) | $\begin{gathered} 0.414^{* * *} \\ (0.148) \end{gathered}$ | $\begin{gathered} 0.134 \\ (0.108) \end{gathered}$ |
| Teacher control | $\begin{gathered} 0.005 \\ (0.123) \end{gathered}$ | $\begin{gathered} -0.114 \\ (0.096) \end{gathered}$ |
| State control | $\begin{gathered} -1.274^{* * *} \\ (0.110) \end{gathered}$ | $\begin{gathered} -0.939 * * * \\ (0.086) \end{gathered}$ |
| Principal control | $\begin{gathered} 0.306^{* *} \\ (0.122) \end{gathered}$ | $\begin{gathered} 0.304 * * * \\ (0.095) \end{gathered}$ |
| School climate | $\begin{gathered} 0.102^{* *} \\ (0.049) \end{gathered}$ | $\begin{gathered} 0.174 * * * \\ (0.038) \end{gathered}$ |
| Reduced class size for gifted students | $\begin{gathered} 0.369^{* *} \\ (0.161) \end{gathered}$ | $\begin{gathered} -0.001 \\ (0.135) \end{gathered}$ |
| Teacher time spent outside school hours | $\begin{gathered} -0.026 \\ (0.118) \end{gathered}$ | $\begin{gathered} -0.230^{* *} \\ (0.108) \end{gathered}$ |
| Teachers observed in the classroom | $\begin{aligned} & -0.015 \\ & (0.060) \end{aligned}$ | $\begin{aligned} & -0.086^{*} \\ & (0.047) \end{aligned}$ |
| Assistance in the classroom | $\begin{gathered} 0.001 \\ (0.038) \end{gathered}$ | $\begin{gathered} 0.016 \\ (0.030) \end{gathered}$ |
| Homework time expected for tested subjects | $\begin{gathered} 0.355^{* *} \\ (0.166) \end{gathered}$ | $\begin{aligned} & 0.315^{* *} \\ & (0.123) \end{aligned}$ |
| Teacher incentives | $\begin{gathered} 0.242 * * * \\ (0.051) \end{gathered}$ |  |
| Assessment of teachers | $\begin{gathered} 0.050 \\ (0.070) \end{gathered}$ |  |
| Teacher dismissal frequency | $\begin{gathered} 0.770 * * * \\ (0.146) \\ \hline \end{gathered}$ |  |

[^18]Table 7: Government primary schools, change in variable means 2009 to 2012

| Policy sphere / variable | No dark red | $\begin{gathered} \hline 0<\text { dark red } \\ <20 \% \\ \hline \end{gathered}$ | $\begin{gathered} 20 \%+\text { dark } \\ \text { red } \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| Policies to improve low-performing students |  |  |  |
| Recommend grade retention | -0.06 | 0.04 | -0.03 |
| Provide additional tutoring in class | -0.06 | -0.04 | -0.09 |
| Provide additional tutoring outside class | 0.00 | 0.01 | 0.03 |
| Provide Saturday classes | 0.00 | 0.00 | 0.00 |
| Develop individual learning plans | 0.02 | -0.01 | 0.05 |
| Other policy not listed | -0.02 | -0.02 | 0.10 |
| Lengthening instructional time |  |  |  |
| Average length of school day for middle grade (minutes) | -0.04 | -1.46 | 0.41 |
| Reduced class size for subject |  |  |  |
| Regular students: Mathematics | 0.08 | 0.24 | -0.09 |
| Regular students: Reading | 0.08 | 0.25 | -0.06 |
| Regular students: Writing | 0.07 | 0.23 | -0.05 |
| Students with academic difficulties: Mathematics | 0.02 | 0.06 | 0.07 |
| Students with academic difficulties: Reading | -0.05 | 0.13 | 0.08 |
| Students with academic difficulties: Writing | 0.08 | 0.13 | 0.06 |
| Students with English as a second language: Mathematics | 0.06 | -0.12 | -0.19 |
| Students with English as a second language: Reading | -0.01 | -0.06 | -0.12 |
| Students with English as a second language: Writing | 0.06 | -0.03 | -0.10 |
| Narrowing of curriculum |  |  |  |
| Minimum time required: Mathematics | 0.08 | 0.00 | -0.16 |
| Minimum time required: Writing | 0.09 | -0.07 | -0.31 |
| Minimum time required: Reading | 0.04 | -0.07 | -0.16 |
| No minimum required time: Science | -0.05 | -0.14 | 0.27 |
| No minimum required time: Art | -0.04 | 0.00 | 0.30 |
| No minimum required time: Social Studies | 0.03 | -0.07 | 0.25 |
| No minimum required time: Physical Education | -0.03 | 0.06 | 0.31 |
| Policies to improve low-performing teachers |  |  |  |
| Increase supervision | 0.07 | 0.02 | 0.05 |
| Assign a teacher's aide | 0.04 | 0.04 | 0.00 |
| Assign a mentor or leading teacher | -0.01 | 0.04 | 0.14 |
| Provide additional professional development | 0.03 | -0.05 | -0.02 |
| Provide coaching from the principal | 0.08 | 0.10 | 0.03 |
| Other policy not listed | 0.06 | 0.10 | -0.02 |
| Teacher assigned time (hours/week) |  |  |  |
| to collaboratively plan curriculum and assessment | -0.11 | 0.10 | -0.15 |
| to collaboratively review and monitor student performance | 0.00 | -0.11 | -0.26 |
| for class planning | 0.35 | 0.11 | 0.49 |
| Teacher control ( $1=$ no influence / $4=$ complete control) |  |  |  |
| Establishing curriculum | -0.15 | -0.15 | -0.27 |
| Hiring new full-time teachers | 0.20 | -0.13 | 0.19 |
| Budget spending | 0.04 | -0.04 | 0.18 |
| Teacher evaluation | -0.19 | 0.28 | 0.15 |

Table 7: Government primary schools, change in variable means 2009 to 2012 (continued)

| Policy sphere / variable | No dark red | $\begin{gathered} \hline 0<\text { dark red } \\ <20 \% \\ \hline \end{gathered}$ | $\begin{gathered} \hline 20 \%+ \\ \text { dark red } \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| State control ( $1=$ no influence / 4 = complete control) |  |  |  |
| Establishing curriculum | -0.18 | 0.08 | 0.09 |
| Hiring new full-time teachers | -0.44 | -0.14 | -0.24 |
| Budget spending | -0.33 | -0.13 | -0.31 |
| Teacher evaluation | -0.36 | 0.48 | 0.29 |
| Principal control ( $1=$ no influence / 4 = complete control) |  |  |  |
| Establishing curriculum | -0.05 | -0.22 | 0.09 |
| Hiring new full-time teachers | 0.08 | 0.21 | 0.43 |
| Budget spending | 0.10 | -0.05 | 0.14 |
| Teacher evaluation | 0.08 | 0.10 | -0.19 |
| School climate |  |  |  |
| Most parents closely monitor instructional program (a) | 0.01 | 0.20 | -0.16 |
| Most parents help children with homework (a) | 0.06 | 0.12 | -0.03 |
| Teachers recognized for improved student performance (a) | -0.30 | -0.15 | 0.11 |
| Require parents to sign children's homework ( $1=$ yes) | 0.00 | 0.07 | 0.03 |
| Teachers have low expectations of students - reversed (a) | -0.03 | 0.18 | 0.14 |
| Frequency principal interaction with parents: Phone (b) | 0.00 | -0.17 | -0.06 |
| Frequency principal interaction with parents: In-person (b) | -0.06 | -0.10 | 0.07 |
| Reduced class size for gifted students |  |  |  |
| Mathematics | 0.17 | -0.04 | 0.14 |
| Reading | 0.07 | 0.00 | 0.01 |
| Writing | 0.09 | -0.03 | 0.00 |
| Teacher time spent outside school hours (weekly minutes) |  |  |  |
| On class preparation, grading, parent conferences, meetings | 90.6 | 52.1 | 121.9 |
| With students on activities: music, sport, tutoring, field trips | 64.6 | 30.4 | -9.3 |
| Teachers observed in the classroom |  |  |  |
| Principal observed a teacher's lesson (c) | 0.08 | -0.26 | -0.05 |
| Specialist or leading teacher critiqued a teacher's lesson (c) | -0.02 | -0.35 | 0.12 |
| Another teacher observed a teacher's lesson (c) | 0.05 | 0.04 | 0.08 |
| Assistance in the classroom |  |  |  |
| Teaching assistants, at least one hour/day | 0.01 | 0.02 | 0.04 |
| Parents/volunteers, at least two hours/week | 0.03 | -0.08 | -0.05 |
| Additional teacher, at least one day/week | -0.01 | -0.06 | -0.08 |
| Coach/lead teacher, at least 4 hours/week | 0.00 | 0.07 | 0.11 |
| Teaching assistants, at least one hour/day (all classrooms) | 0.03 | 0.01 | 0.08 |
| Parents/volunteers, at least two hours/week (all classrooms) | -0.02 | 0.09 | 0.03 |
| Additional teacher, at least one day/week (all classrooms) | 0.04 | 0.02 | 0.04 |
| Coach/lead teacher, at least 4 hours/week (all classrooms) | 0.04 | -0.02 | 0.11 |
| Homework time expected for tested subjects |  |  |  |
| Average minutes/night: Mathematics | -0.93 | 2.29 | -2.04 |
| Average minutes/night: Reading | -1.19 | 1.32 | 0.80 |
| Average minutes/night: Writing | 0.49 | 2.19 | -8.81 |

Notes for Table 7: "Dark red" refers to the percentage of all NAPLAN test scores in a school being identified as substantially below other schools. If the score is more than 0.5 of a standard deviation below other schools, it is considered substantially below. These average changes were constructed after weighting by the probability of responding to our surveys by location-state-sector-type of schools. (a) $1=$ strongly disagree / $4=$ strongly agree. (b) $1=$ none, $2=1-3,3=4-6,4=7-9,5=10+$. (c) in this academic year, $0=$ never, $1=$ once, $2=2-3,3=4-5,4$ $=6+$.

Table 8: Tests of changes in policy spheres, 2009 to 2012

|  | Government |  | Independent | Catholic |
| :--- | :---: | :---: | :---: | :---: |
| Policy sphere | Primary | all |  |  |
|  |  |  |  |  |
| Policies to improve low-performing students | -0.019 | -0.008 | -0.058 | -0.052 |
|  | $(0.019)$ | $(0.018)$ | $(0.068)$ | $(0.036)$ |
| Lengthening instructional time | 0.012 | 0.018 | 0.115 | 0.059 |
|  | $(0.023)$ | $(0.032)$ | $(0.085)$ | $(0.042)$ |
| Reduced class size for subject | 0.054 | 0.023 | 0.029 | -0.093 |
|  | $(0.096)$ | $(0.079)$ | $(0.157)$ | $(0.150)$ |
| Narrowing of curriculum | 0.049 | -0.017 | -0.065 | $0.194^{*}$ |
|  | $(0.053$ | $(0.047)$ | $0.115)$ | $(0.102)$ |
| Policies to improve low-performing teachers | $0.096^{* * *}$ | $0.077^{* * *}$ | 0.007 | -0.044 |
|  | $(0.028)$ | $(0.023)$ | $(0.052)$ | $(0.034)$ |
| Teacher assigned time (hours/week) | 0.040 | -0.001 | -0.145 | 0.329 |
|  | $(0.075)$ | $(0.075)$ | $(0.154)$ | $(0.428)$ |
| Teacher control | -0.010 | -0.021 | $-0.361^{* *}$ | -0.053 |
|  | $(0.075)$ | $(0.060)$ | $(0.142)$ | $(0.111)$ |
| State control | -0.070 | $-0.131^{* *}$ | $-0.294^{*}$ | 0.042 |
|  | $(0.070)$ | $(0.061)$ | $(0.172)$ | $(0.108)$ |
| Principal control | 0.034 | 0.053 | -0.078 | 0.099 |
|  | $(0.078)$ | $(0.064)$ | $(0.158)$ | $(0.124)$ |
| School climate | -0.013 | -0.022 | $-0.110^{*}$ | -0.040 |
|  | $(0.027)$ | $(0.024)$ | $(0.062)$ | $(0.046)$ |
| Reduced class size for gifted students | 0.086 | 0.057 | -0.047 | -0.109 |
|  | $(0.118)$ | $(0.100)$ | $(0.312)$ | $(0.185)$ |
| Teacher time spent outside school hours | $0.219^{* *}$ | $0.211^{* *}$ | 0.216 | 0.073 |
|  | $(0.105)$ | $(0.088)$ | $(0.162)$ | $(0.131)$ |
| Teachers observed in the classroom | -0.028 | -0.014 | -0.048 | 0.044 |
|  | $(0.038)$ | $(0.032)$ | $(0.077)$ | $(0.057)$ |
| Assistance in the classroom | $0.053^{* *}$ | $0.039^{*}$ | $0.096^{*}$ | $0.105^{* * *}$ |
|  | $(0.27)$ | $(0.022)$ | $(0.053)$ | $(0.034)$ |
| Homework time expected for tested subjects | -0.018 | 0.014 | -0.099 | 0.094 |
|  | $(0.084)$ | $(0.083)$ | $(0.213)$ | $(0.076)$ |
| Teacher incentives |  |  | $-0.105^{*}$ | 0.024 |
|  |  | $(0.062)$ | $(0.044)$ |  |
| Assessment of teachers |  | 0.040 | $0.137^{*}$ |  |
| Teacher dismissal frequency |  |  | $0.097)$ | $(0.078)$ |
|  |  |  | -0.259 | 0.165 |
|  |  | $(0.189)$ | $(0.111)$ |  |

[^19]Table 9: Effect of initial performance on policies and practices, government primary schools

| Policy sphere | similar schools |  | all schools |  |
| :--- | :---: | :---: | :---: | :---: |
|  | DR1 | DR2 | DR1 | DR2 |
| Policies to improve low-performing students | 0.003 | -0.042 | 0.014 | 0.056 |
|  | $(0.048)$ | $(0.072)$ | $(0.057)$ | $(0.065)$ |
| Lengthening instructional time | -0.007 | 0.044 | $-0.126^{*}$ | -0.025 |
|  | $(0.054)$ | $(0.069)$ | $(0.062)$ | $(0.059)$ |
| Reduced class size for subject | -0.248 | -0.267 | -0.135 | -0.096 |
|  | $(0.166)$ | $(0.251)$ | $(0.200)$ | $(0.202)$ |
| Narrowing of curriculum | 0.136 | $0.273^{* *}$ | -0.050 | 0.173 |
|  | $(0.100)$ | $(0.127)$ | $(0.108)$ | $(0.120)$ |
| Policies to improve low-performing teachers | $0.114^{* *}$ | 0.000 | 0.057 | 0.109 |
|  | $(0.053)$ | $(0.086)$ | $(0.064)$ | $(0.070)$ |
| Teacher assigned time (hours/week) | $-0.407^{* *}$ | -0.152 | -0.100 | -0.150 |
|  | $(0.167)$ | $(0.129)$ | $(0.188)$ | $(0.138)$ |
| Teacher control | -0.003 | 0.083 | -0.172 | -0.098 |
|  | $(0.153)$ | $(0.198)$ | $(0.151)$ | $(0.161)$ |
| State control | $0.278^{*}$ | 0.008 | $0.289^{*}$ | 0.025 |
|  | $(0.159)$ | $(0.242)$ | $(0.163)$ | $(0.215)$ |
| Principal control | -0.114 | -0.103 | -0.284 | -0.186 |
|  | $(0.212)$ | $(0.204)$ | $(0.200)$ | $(0.167)$ |
| School climate | -0.007 | -0.061 | -0.018 | 0.002 |
|  | $(0.078)$ | $(0.091)$ | $(0.107)$ | $(0.089)$ |
| Reduced class size for gifted students | -0.072 | -0.355 | 0.149 | 0.045 |
|  | $(0.210)$ | $(0.246)$ | $(0.272)$ | $(0.252)$ |
| Teacher time spent outside school hours | -0.077 | -0.203 | -0.001 | -0.106 |
|  | $(0.144)$ | $(0.290)$ | $(0.166)$ | $(0.194)$ |
| Teachers observed in the classroom | 0.037 | 0.045 | 0.065 | 0.121 |
|  | $(0.072)$ | $(0.105)$ | $(0.087)$ | $(0.092)$ |
| Assistance in the classroom | 0.091 | -0.005 | $0.104^{*}$ | $0.146^{* *}$ |
|  | $(0.060)$ | $(0.069)$ | $(0.059)$ | $(0.063)$ |
| Homework time expected for tested subjects | 0.051 | -0.165 | 0.045 | -0.085 |
|  | $(0.178)$ | $(0.228)$ | $(0.160)$ | $(0.125)$ |

[^20]Table 9a: Effect of initial performance on policies and practices, government primary schools, including a Heckman selection term

| Policy sphere | similar schools |  | all schools |  |
| :--- | :---: | :---: | :---: | :---: |
|  | DR1 | DR2 | DR1 | DR2 |
| Policies to improve low-performing students | -0.022 | -0.089 | -0.018 | -0.002 |
|  | $(0.049)$ | $(0.074)$ | $(0.057)$ | $(0.067)$ |
| Lengthening instructional time | 0.002 | 0.065 | -0.076 | 0.022 |
|  | $(0.054)$ | $(0.072)$ | $(0.063)$ | $(0.064)$ |
| Reduced class size for subject | -0.290 | -0.377 | -0.100 | -0.125 |
|  | $(0.184)$ | $(0.283)$ | $(0.229)$ | $(0.274)$ |
| Narrowing of curriculum | $0.193^{* *}$ | $0.346^{* *}$ | 0.048 | $0.312^{* *}$ |
| Policies to improve low-performing teachers | $(0.104)$ | $(0.161)$ | $(0.108)$ | $(0.148)$ |
|  | 0.071 | -0.003 | 0.050 | 0.059 |
| Teacher assigned time (hours/week) | $(0.054)$ | $(0.086)$ | $(0.062)$ | $(0.072)$ |
|  | $-0.370^{* *}$ | -0.094 | -0.052 | -0.102 |
| Teacher control | $(0.172)$ | $(0.138)$ | $(0.201)$ | $(0.155)$ |
|  | 0.005 | 0.130 | -0.198 | -0.048 |
| State control | $(0.156)$ | $(0.169)$ | $(0.161)$ | $(0.147)$ |
|  | $0.338^{* *}$ | 0.083 | $0.365^{* *}$ | 0.156 |
| Principal control | $(0.163)$ | $(0.271)$ | $(0.176)$ | $(0.229)$ |
| School climate | -0.168 | -0.254 | -0.283 | $-0.302^{*}$ |
|  | $(0.218)$ | $(0.207)$ | $(0.222)$ | $(0.167)$ |
| Reduced class size for gifted students | -0.002 | -0.101 | -0.039 | 0.023 |
|  | $(0.078)$ | $(0.088)$ | $(0.109)$ | $(0.084)$ |
| Teacher time spent outside school hours | -0.150 | $-0.522^{*}$ | 0.024 | -0.185 |
|  | $(0.241)$ | $(0.285)$ | $(0.274)$ | $(0.293)$ |
| Teachers observed in the classroom | -0.066 | -0.407 | -0.044 | -0.161 |
|  | $(0.156)$ | $(0.468)$ | $(0.202)$ | $(0.237)$ |
| Assistance in the classroom | 0.021 | 0.032 | 0.041 | 0.075 |
|  | $(0.076)$ | $(0.110)$ | $(0.091)$ | $(0.103)$ |
| Homework time expected for tested subjects | 0.085 | -0.017 | 0.099 | $0.120^{*}$ |
|  | $(0.060)$ | $(0.070)$ | $(0.062)$ | $(0.067)$ |
|  | 0.036 | -0.126 | 0.074 | -0.071 |
|  | $(0.174)$ | $(0.220)$ | $(0.136)$ | $(0.145)$ |

[^21]Table 9b: Effect of initial performance on policies and practices, government primary schools, same principal responding in each survey

| Policy sphere | similar schools |  | all schools |  |
| :--- | :---: | :---: | :---: | :---: |
|  | DR1 | DR2 | DR1 | DR2 |
| Policies to improve low-performing students | -0.008 | -0.099 | 0.001 | -0.018 |
|  | $(0.061)$ | $(0.094)$ | $(0.072)$ | $(0.100)$ |
| Lengthening instructional time | 0.015 | 0.076 | -0.106 | 0.026 |
|  | $(0.087)$ | $(0.115)$ | $(0.096)$ | $(0.102)$ |
| Reduced class size for subject | -0.298 | $-0.525^{*}$ | -0.216 | -0.244 |
|  | $(0.215)$ | $(0.285)$ | $(0.229)$ | $(0.325)$ |
| Narrowing of curriculum | 0.139 | $0.361^{* *}$ | 0.032 | $0.304^{*}$ |
|  | $(0.142)$ | $(0.156)$ | $(0.099)$ | $(0.160)$ |
| Policies to improve low-performing teachers | 0.048 | -0.009 | 0.068 | 0.061 |
|  | $(0.066)$ | $(0.103)$ | $(0.082)$ | $(0.093)$ |
| Teacher assigned time (hours/week) | -0.392 | -0.178 | -0.198 | -0.161 |
|  | $(0.313)$ | $(0.225)$ | $(0.369)$ | $(0.193)$ |
| Teacher control | -0.352 | 0.189 | -0.124 | -0.348 |
|  | $(0.219)$ | $(0.267)$ | $(0.170)$ | $(0.256)$ |
| State control | 0.253 | -0.199 | 0.115 | 0.070 |
|  | $(0.189)$ | $(0.282)$ | $(0.221)$ | $(0.403)$ |
| Principal control | -0.366 | -0.256 | -0.157 | -0.324 |
| School climate | $(0.313)$ | $(0.309)$ | $(0.226)$ | $(0.313)$ |
|  | -0.117 | -0.051 | 0.047 | -0.035 |
| Reduced class size for gifted students | $(0.093)$ | $(0.094)$ | $(0.102)$ | $(0.101)$ |
|  | -0.039 | $-0.507 * *$ | -0.147 | -0.191 |
| Teacher time spent outside school hours | $(0.307)$ | $(0.249)$ | $(0.271)$ | $(0.372)$ |
|  | -0.070 | -0.060 | 0.095 | 0.007 |
| Teachers observed in the classroom | $(0.189)$ | $(0.212)$ | $(0.187)$ | $(0.278)$ |
|  | 0.025 | 0.074 | 0.104 | $0.285^{* *}$ |
| Assistance in the classroom | $(0.094)$ | $(0.129)$ | $(0.112)$ | $(0.115)$ |
|  | 0.073 | -0.002 | 0.109 | 0.109 |
| Homework time expected for tested subjects | $(0.069)$ | $(0.090)$ | $(0.071)$ | $(0.081)$ |
|  | 0.320 | -0.076 | 0.095 | -0.180 |
|  | $(0.346)$ | $(0.369)$ | $(0.247)$ | $(0.248)$ |

[^22]Table 10: Effect of initial performance on selected individual policies and practices, government primary schools

| Policy sphere / variable | similar schools |  | all schools |  |
| :---: | :---: | :---: | :---: | :---: |
|  | DR1 | DR2 | DR1 | DR2 |
| Narrowing of curriculum |  |  |  |  |
| Minimum time required: Mathematics | $\begin{gathered} -0.325 \\ (0.244) \end{gathered}$ | $\begin{gathered} 0.579 \\ (0.354) \end{gathered}$ | $\begin{aligned} & -0.334 \\ & (0.325) \end{aligned}$ | $\begin{aligned} & -0.580^{*} \\ & (0.312) \end{aligned}$ |
| Minimum time required: Writing | $\begin{gathered} 0.064 \\ (0.228) \end{gathered}$ | $\begin{aligned} & -0.036 \\ & (0.329) \end{aligned}$ | $\begin{gathered} -0.396 \\ (0.289) \end{gathered}$ | $\begin{gathered} -0.599 * * \\ (0.265) \end{gathered}$ |
| Minimum time required: Reading | $\begin{gathered} -0.035 \\ (0.226) \end{gathered}$ | $\begin{gathered} 0.335 \\ (0.313) \end{gathered}$ | $\begin{aligned} & -0.378 \\ & (0.296) \end{aligned}$ | $\begin{gathered} -0.272 \\ (0.266) \end{gathered}$ |
| No minimum required time: Science | $\begin{aligned} & 0.464^{*} \\ & (0.256) \end{aligned}$ | $\begin{gathered} 0.393 \\ (0.380) \end{gathered}$ | $\begin{gathered} 0.182 \\ (0.335) \end{gathered}$ | $\begin{aligned} & 0.695^{* *} \\ & (0.326) \end{aligned}$ |
| No minimum required time: Art | $\begin{gathered} 0.312 \\ (0.246) \end{gathered}$ | $\begin{aligned} & 0.580^{*} \\ & (0.341) \end{aligned}$ | $\begin{gathered} 0.355 \\ (0.318) \end{gathered}$ | $\begin{gathered} 0.673^{* *} \\ (0.291) \end{gathered}$ |
| No minimum required time: Social Studies | $\begin{gathered} 0.339 \\ (0.262) \end{gathered}$ | $\begin{aligned} & -0.041 \\ & (0.372) \end{aligned}$ | $\begin{gathered} -0.004 \\ (0.336) \end{gathered}$ | $\begin{gathered} 0.456 \\ (0.311) \end{gathered}$ |
| No minimum required time: Physical Education | $\begin{gathered} 0.136 \\ (0.265) \end{gathered}$ | $\begin{gathered} 0.099 \\ (0.359) \end{gathered}$ | $\begin{gathered} 0.223 \\ (0.333) \end{gathered}$ | $\begin{gathered} 0.841^{* * *} \\ (0.307) \end{gathered}$ |
| Policies to improve low-performing teachers |  |  |  |  |
| Increase supervision | $\begin{gathered} 0.062 \\ (0.104) \end{gathered}$ | $\begin{aligned} & -0.149 \\ & (0.130) \end{aligned}$ | $\begin{aligned} & -0.057 \\ & (0.118) \end{aligned}$ | $\begin{gathered} 0.025 \\ (0.115) \end{gathered}$ |
| Assign a teacher's aide | $\begin{gathered} 0.042 \\ (0.110) \end{gathered}$ | $\begin{gathered} 0.039 \\ (0.138) \end{gathered}$ | $\begin{gathered} 0.076 \\ (0.124) \end{gathered}$ | $\begin{gathered} 0.097 \\ (0.121) \end{gathered}$ |
| Assign a mentor or leading teacher | $\begin{gathered} 0.324^{* *} * \\ (0.102) \end{gathered}$ | $\begin{gathered} 0.140 \\ (0.128) \end{gathered}$ | $\begin{aligned} & 0.216^{*} \\ & (0.116) \end{aligned}$ | $\begin{gathered} 0.415^{* * *} \\ (0.112) \end{gathered}$ |
| Provide additional professional development | $\begin{gathered} 0.315 * * * \\ (0.112) \end{gathered}$ | $\begin{aligned} & -0.004 \\ & (0.141) \end{aligned}$ | $\begin{gathered} -0.024 \\ (0.128) \end{gathered}$ | $\begin{gathered} 0.165 \\ (0.124) \end{gathered}$ |
| Provide coaching from the principal | $\begin{gathered} 0.058 \\ (0.111) \end{gathered}$ | $\begin{aligned} & -0.056 \\ & (0.139) \end{aligned}$ | $\begin{gathered} 0.068 \\ (0.125) \end{gathered}$ | $\begin{gathered} 0.015 \\ (0.122) \end{gathered}$ |
| Other policy not listed | $\begin{aligned} & -0.117 \\ & (0.120) \end{aligned}$ | $\begin{gathered} 0.027 \\ (0.150) \end{gathered}$ | $\begin{gathered} 0.065 \\ (0.136) \end{gathered}$ | $\begin{gathered} -0.062 \\ (0.132) \end{gathered}$ |
| Teacher assigned time (hours/week) to collaboratively plan curriculum and assessment | $\begin{aligned} & -0.276 \\ & (0.211) \end{aligned}$ | $\begin{aligned} & -0.147 \\ & (0.225) \end{aligned}$ | $\begin{gathered} 0.021 \\ (0.261) \end{gathered}$ | $\begin{aligned} & -0.220 \\ & (0.207) \end{aligned}$ |
| to collaboratively review and monitor student performance | $\begin{gathered} -0.595^{* *} \\ (0.260) \end{gathered}$ | $\begin{aligned} & -0.165 \\ & (0.256) \end{aligned}$ | $\begin{aligned} & -0.091 \\ & (0.301) \end{aligned}$ | $\begin{aligned} & -0.141 \\ & (0.264) \end{aligned}$ |
| for class planning | $\begin{aligned} & -0.349 \\ & (0.365) \end{aligned}$ | $\begin{aligned} & -0.144 \\ & (0.391) \end{aligned}$ | $\begin{gathered} -0.230 \\ (0.439) \end{gathered}$ | $\begin{gathered} -0.088 \\ (0.372) \end{gathered}$ |

Table 10: Effect of initial performance on selected individual policies and practices, government primary schools (continued)

| Policy sphere / variable | similar schools |  | all schools |  |
| :---: | :---: | :---: | :---: | :---: |
|  | DR1 | DR2 | DR1 | DR2 |
| State control (1 = no influence / 4 = complete control) |  |  |  |  |
| State control of establishing curriculum | $\begin{aligned} & 0.555^{*} \\ & (0.298) \end{aligned}$ | $\begin{aligned} & -0.363 \\ & (0.395) \end{aligned}$ | $\begin{gathered} 0.246 \\ (0.305) \end{gathered}$ | $\begin{gathered} -0.010 \\ (0.331) \end{gathered}$ |
| State control of hiring new full-time teachers | $\begin{gathered} 0.259 \\ (0.240) \end{gathered}$ | $\begin{gathered} 0.414 \\ (0.315) \end{gathered}$ | $\begin{gathered} 0.209 \\ (0.253) \end{gathered}$ | $\begin{gathered} 0.217 \\ (0.272) \end{gathered}$ |
| State control of budget spending | $\begin{gathered} 0.137 \\ (0.338) \end{gathered}$ | $\begin{aligned} & -0.125 \\ & (0.486) \end{aligned}$ | $\begin{gathered} 0.488 \\ (0.331) \end{gathered}$ | $\begin{gathered} -0.068 \\ (0.374) \end{gathered}$ |
| State control of teacher evaluation | $\begin{gathered} 0.162 \\ (0.304) \end{gathered}$ | $\begin{gathered} 0.106 \\ (0.408) \end{gathered}$ | $\begin{gathered} 0.213 \\ (0.306) \end{gathered}$ | $\begin{gathered} -0.037 \\ (0.335) \end{gathered}$ |
| Assistance in the classroom |  |  |  |  |
| Teaching assistants, at least one hour/day | $\begin{aligned} & 0.172^{*} \\ & (0.100) \end{aligned}$ | $\begin{aligned} & 0.281^{* *} \\ & (0.123) \end{aligned}$ | $\begin{gathered} 0.294^{* *} \\ (0.114) \end{gathered}$ | $\begin{gathered} 0.267 * * \\ (0.109) \end{gathered}$ |
| Parents/volunteers, at least two hours/week | $\begin{gathered} 0.028 \\ (0.109) \end{gathered}$ | $\begin{gathered} -0.215 \\ (0.135) \end{gathered}$ | $\begin{gathered} 0.013 \\ (0.125) \end{gathered}$ | $\begin{gathered} 0.067 \\ (0.121) \end{gathered}$ |
| Additional teacher, at least one day/week | $\begin{aligned} & -0.132 \\ & (0.114) \end{aligned}$ | $\begin{gathered} -0.286^{* *} \\ (0.146) \end{gathered}$ | $\begin{gathered} -0.015 \\ (0.134) \end{gathered}$ | $\begin{gathered} -0.034 \\ (0.127) \end{gathered}$ |
| Coach/leading teacher, at least 4 hours/week | $\begin{gathered} 0.205^{*} * \\ (0.103) \end{gathered}$ | $\begin{gathered} 0.113 \\ (0.130) \end{gathered}$ | $\begin{gathered} 0.173 \\ (0.118) \end{gathered}$ | $\begin{gathered} 0.331 * * * \\ (0.116) \end{gathered}$ |
| Teaching assistants, at least one hour/day (all classrooms) | $\begin{gathered} 0.027 \\ (0.093) \end{gathered}$ | $\begin{gathered} 0.141 \\ (0.114) \end{gathered}$ | $\begin{gathered} 0.166 \\ (0.106) \end{gathered}$ | $\begin{aligned} & 0.175^{*} \\ & (0.101) \end{aligned}$ |
| Parents/volunteers, at least two hours/week <br> (all classrooms) | $\begin{gathered} 0.176 \\ (0.111) \end{gathered}$ | $\begin{gathered} 0.016 \\ (0.137) \end{gathered}$ | $\begin{gathered} 0.258^{* *} \\ (0.127) \end{gathered}$ | $\begin{aligned} & 0.206^{*} \\ & (0.122) \end{aligned}$ |
| Additional teacher, at least one day/week (all classrooms) | $\begin{aligned} & -0.082 \\ & (0.120) \end{aligned}$ | $\begin{aligned} & -0.275^{*} \\ & (0.154) \end{aligned}$ | $\begin{gathered} -0.096 \\ (0.140) \end{gathered}$ | $\begin{aligned} & -0.203 \\ & (0.133) \end{aligned}$ |
| Coach/leading teacher, at least 4 hours/week (all classrooms) | $\begin{gathered} 0.338 * * \\ (0.151) \\ \hline \end{gathered}$ | $\begin{gathered} 0.185 \\ (0.193) \end{gathered}$ | $\begin{gathered} 0.039 \\ (0.176) \\ \hline \end{gathered}$ | $\begin{gathered} 0.358^{* *} \\ (0.171) \\ \hline \end{gathered}$ |

Notes: Each pair of estimates in the table is drawn from a separate OLS regression. See text for full details about the specifications employed. In all models, the dependent variable is the policy measure in 2012, and the same policy measure in 2009 is included as a covariate along with the relevant indicators of school performance (either with respect to all schools or with respect to similar schools). DR1 denotes "Dark Red" proportions above zero but below 0.2. DR2 denotes "Dark Red" proportions of 0.2 and above. The full set of state by location fixed effects are included along with the following additional school-specific covariates: school size, Indigenous percentage, ICSEA score (all measured in 2009) and LBOTE percentage (measured in 2010). White robust standard errors are provided in parentheses.

Table 11: Effect of initial performance on policies and practices, government primary schools, using quartiles of scaled scores

| Policy sphere | Similar schools |  |  | All schools |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2nd highest | 2nd lowest | lowest | 2nd highest | 2nd lowest | lowest |
| Policies to improve low-performing students | $\begin{gathered} 0.035 \\ (0.062) \end{gathered}$ | $\begin{gathered} 0.057 \\ (0.067) \end{gathered}$ | $\begin{gathered} 0.004 \\ (0.070) \end{gathered}$ | $\begin{aligned} & 0.111^{*} \\ & (0.064) \end{aligned}$ | $\begin{gathered} 0.090 \\ (0.077) \end{gathered}$ | $\begin{gathered} 0.098 \\ (0.093) \end{gathered}$ |
| Lengthening instructional time | $\begin{gathered} 0.025 \\ (0.067) \end{gathered}$ | $\begin{gathered} 0.083 \\ (0.073) \end{gathered}$ | $\begin{gathered} 0.082 \\ (0.072) \end{gathered}$ | $\begin{gathered} -0.019 \\ (0.074) \end{gathered}$ | $\begin{gathered} -0.006 \\ (0.080) \end{gathered}$ | $\begin{gathered} 0.055 \\ (0.093) \end{gathered}$ |
| Reduced class size for subject | $\begin{aligned} & -0.173 \\ & (0.209) \end{aligned}$ | $\begin{gathered} 0.118 \\ (0.261) \end{gathered}$ | $\begin{aligned} & -0.506^{*} \\ & (0.197) \end{aligned}$ | $\begin{aligned} & -0.240 \\ & (0.374) \end{aligned}$ | $\begin{aligned} & -0.573 \\ & (0.419) \end{aligned}$ | $\begin{aligned} & -0.307 \\ & (0.444) \end{aligned}$ |
| Narrowing of curriculum | $\begin{gathered} 0.073 \\ (0.123) \end{gathered}$ | $\begin{gathered} 0.165 \\ (0.133) \end{gathered}$ | $\begin{gathered} 0.442 * * * \\ (0.136) \end{gathered}$ | $\begin{gathered} 0.196 \\ (0.126) \end{gathered}$ | $\begin{gathered} 0.279 \\ (0.181) \end{gathered}$ | $\begin{gathered} 0.463 * * \\ (0.187) \end{gathered}$ |
| Policies to improve low-performing teachers | $\begin{gathered} 0.008 \\ (0.063) \end{gathered}$ | $\begin{aligned} & -0.017 \\ & (0.076) \end{aligned}$ | $\begin{gathered} 0.035 \\ (0.072) \end{gathered}$ | $\begin{aligned} & -0.009 \\ & (0.070) \end{aligned}$ | $\begin{aligned} & -0.053 \\ & (0.084) \end{aligned}$ | $\begin{gathered} 0.032 \\ (0.096) \end{gathered}$ |
| Teacher assigned time (hours/week) | $\begin{gathered} 0.058 \\ (0.176) \end{gathered}$ | $\begin{gathered} -0.049 \\ (0.227) \end{gathered}$ | $\begin{gathered} -0.041 \\ (0.193) \end{gathered}$ | $\begin{gathered} 0.199 \\ (0.240) \end{gathered}$ | $\begin{gathered} 0.098 \\ (0.205) \end{gathered}$ | $\begin{aligned} & -0.150 \\ & (0.246) \end{aligned}$ |
| Teacher control | $\begin{gathered} -0.060 \\ (0.212) \end{gathered}$ | $\begin{gathered} 0.005 \\ (0.252) \end{gathered}$ | $\begin{aligned} & -0.060 \\ & (0.268) \end{aligned}$ | $\begin{gathered} 0.072 \\ (0.249) \end{gathered}$ | $\begin{aligned} & -0.007 \\ & (0.245) \end{aligned}$ | $\begin{gathered} -0.073 \\ (0.265) \end{gathered}$ |
| State control | $\begin{aligned} & -0.309 \\ & (0.227) \end{aligned}$ | $\begin{gathered} -0.177 \\ (0.261) \end{gathered}$ | $\begin{gathered} -0.264 \\ (0.273) \end{gathered}$ | $\begin{gathered} 0.046 \\ (0.217) \end{gathered}$ | $\begin{gathered} 0.165 \\ (0.273) \end{gathered}$ | $\begin{gathered} 0.075 \\ (0.272) \end{gathered}$ |
| Principal control | $\begin{gathered} 0.098 \\ (0.240) \end{gathered}$ | $\begin{gathered} -0.055 \\ (0.380) \end{gathered}$ | $\begin{gathered} 0.042 \\ (0.264) \end{gathered}$ | $\begin{gathered} -0.174 \\ (0.226) \end{gathered}$ | $\begin{gathered} 0.059 \\ (0.283) \end{gathered}$ | $\begin{gathered} -0.129 \\ (0.239) \end{gathered}$ |
| School climate | $\begin{aligned} & -0.125 \\ & (0.122) \end{aligned}$ | $\begin{gathered} -0.105 \\ (0.125) \end{gathered}$ | $\begin{aligned} & -0.196 \\ & (0.127) \end{aligned}$ | $\begin{gathered} -0.090 \\ (0.100) \end{gathered}$ | $\begin{aligned} & -0.111 \\ & (0.117) \end{aligned}$ | $\begin{aligned} & -0.062 \\ & (0.145) \end{aligned}$ |
| Reduced class size for gifted students | $\begin{aligned} & -0.672 * * \\ & (0.257) \end{aligned}$ | $\begin{gathered} 0.106 \\ (0.389) \end{gathered}$ | $\begin{gathered} -0.598 * * \\ (0.256) \end{gathered}$ | $\begin{aligned} & -0.298 \\ & (0.329) \end{aligned}$ | $\begin{gathered} -0.127 \\ (0.375) \end{gathered}$ | $\begin{aligned} & -0.478 \\ & (0.390) \end{aligned}$ |
| Teacher time spent outside school hours | $\begin{gathered} 0.240 \\ (0.246) \end{gathered}$ | $\begin{aligned} & -0.144 \\ & (0.214) \end{aligned}$ | $\begin{gathered} 0.120 \\ (0.223) \end{gathered}$ | $\begin{gathered} 0.158 \\ (0.173) \end{gathered}$ | $\begin{gathered} 0.211 \\ (0.256) \end{gathered}$ | $\begin{gathered} 0.026 \\ (0.345) \end{gathered}$ |
| Teachers observed in the classroom | $\begin{gathered} 0.014 \\ (0.106) \end{gathered}$ | $\begin{gathered} 0.106 \\ (0.117) \end{gathered}$ | $\begin{gathered} 0.109 \\ (0.114) \end{gathered}$ | $\begin{gathered} 0.157 \\ (0.109) \end{gathered}$ | $\begin{gathered} 0.250^{* *} \\ (0.123) \end{gathered}$ | $\begin{aligned} & 0.269^{*} \\ & (0.152) \end{aligned}$ |
| Assistance in the classroom | $\begin{gathered} -0.050 \\ (0.064) \end{gathered}$ | $\begin{gathered} 0.032 \\ (0.070) \end{gathered}$ | $\begin{gathered} 0.051 \\ (0.076) \end{gathered}$ | $\begin{gathered} 0.053 \\ (0.068) \end{gathered}$ | $\begin{aligned} & 0.128^{*} \\ & (0.075) \end{aligned}$ | $\begin{aligned} & 0.192^{*} \\ & (0.103) \end{aligned}$ |
| Homework time expected for tested subjects | $\begin{gathered} 0.094 \\ (0.186) \\ \hline \end{gathered}$ | $\begin{aligned} & 0.404^{*} \\ & (0.230) \\ & \hline \end{aligned}$ | $\begin{gathered} 0.220 \\ (0.191) \\ \hline \end{gathered}$ | $\begin{gathered} 0.142 \\ (0.201) \\ \hline \end{gathered}$ | $\begin{gathered} 0.120 \\ (0.214) \\ \hline \end{gathered}$ | $\begin{gathered} 0.070 \\ (0.189) \\ \hline \end{gathered}$ |

Notes: Each triple of estimates in the table is drawn from a separate set of weighted seemingly unrelated regressions. In all models, the dependent variable is the policy measure in 2012, and the same policy measure in 2009 is included as a covariate along with the relevant quantiles of scaled score indicators of school performance (either with respect to all schools or with respect to similar schools). The full set of state by location fixed effects are included along with the following additional school-specific covariates: school size, Indigenous percentage, ICSEA score (all measured in 2009) and LBOTE percentage (measured in 2010).

Table 12: Effect of initial performance on policies and practices, government primary schools, by state "early adoption"

|  | Similar schools |  |  |  | All schools |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Tasmania / WA times |  |  |  |  |  | Tasmania / WA times |  |
| Policy sphere | DR1 | DR2 | DR1 | DR2 | DR1 | DR2 | DR1 | DR2 |
| Policies to improve low-performing students | $\begin{gathered} -0.007 \\ (0.054) \end{gathered}$ | $\begin{gathered} -0.006 \\ (0.084) \end{gathered}$ | $\begin{gathered} 0.045 \\ (0.107) \end{gathered}$ | $\begin{gathered} -0.197 \\ (0.121) \end{gathered}$ | $\begin{gathered} -0.002 \\ (0.061) \end{gathered}$ | $\begin{gathered} 0.068 \\ (0.071) \end{gathered}$ | $\begin{gathered} 0.117 \\ (0.131) \end{gathered}$ | $\begin{gathered} -0.057 \\ (0.106) \end{gathered}$ |
| Lengthening instructional time | $\begin{gathered} 0.008 \\ (0.058) \end{gathered}$ | $\begin{gathered} 0.017 \\ (0.075) \end{gathered}$ | $\begin{aligned} & -0.087 \\ & (0.159) \end{aligned}$ | $\begin{gathered} 0.146 \\ (0.185) \end{gathered}$ | $\begin{gathered} -0.154^{* *} \\ (0.066) \end{gathered}$ | $\begin{aligned} & -0.041 \\ & (0.062) \end{aligned}$ | $\begin{gathered} 0.233 \\ (0.181) \end{gathered}$ | $\begin{gathered} 0.146 \\ (0.150) \end{gathered}$ |
| Reduced class size for subject | $\begin{aligned} & -0.376^{* *} \\ & (0.176) \end{aligned}$ | $\begin{aligned} & -0.418 \\ & (0.305) \end{aligned}$ | $\begin{aligned} & 0.801^{*} \\ & (0.448) \end{aligned}$ | $\begin{aligned} & 0.868^{*} \\ & (0.524) \end{aligned}$ | $\begin{aligned} & -0.259 \\ & (0.214) \end{aligned}$ | $\begin{aligned} & -0.212 \\ & (0.226) \end{aligned}$ | $\begin{aligned} & 1.045 * * \\ & (0.504) \end{aligned}$ | $\begin{gathered} 0.637 \\ (0.415) \end{gathered}$ |
| Narrowing of curriculum | $\begin{gathered} 0.137 \\ (0.106) \end{gathered}$ | $\begin{gathered} 0.236 \\ (0.146) \end{gathered}$ | $\begin{gathered} 0.141 \\ (0.167) \end{gathered}$ | $\begin{gathered} 0.213 \\ (0.216) \end{gathered}$ | $\begin{aligned} & -0.006 \\ & (0.118) \end{aligned}$ | $\begin{gathered} 0.154 \\ (0.129) \end{gathered}$ | $\begin{aligned} & -0.338 \\ & (0.331) \end{aligned}$ | $\begin{gathered} 0.154 \\ (0.197) \end{gathered}$ |
| Policies to improve low-performing teachers | $\begin{aligned} & 0.109^{*} \\ & (0.059) \end{aligned}$ | $\begin{aligned} & -0.058 \\ & (0.099) \end{aligned}$ | $\begin{gathered} 0.078 \\ (0.124) \end{gathered}$ | $\begin{gathered} 0.336^{* *} \\ (0.171) \end{gathered}$ | $\begin{gathered} 0.025 \\ (0.070) \end{gathered}$ | $\begin{gathered} 0.098 \\ (0.077) \end{gathered}$ | $\begin{aligned} & 0.273^{*} \\ & (0.157) \end{aligned}$ | $\begin{gathered} 0.110 \\ (0.128) \end{gathered}$ |
| Teacher assigned time (hours/week) | $\begin{aligned} & -0.442^{* *} \\ & (0.185) \end{aligned}$ | $\begin{aligned} & -0.189 \\ & (0.133) \end{aligned}$ | $\begin{gathered} 0.145 \\ (0.504) \end{gathered}$ | $\begin{gathered} 0.185 \\ (0.430) \end{gathered}$ | $\begin{gathered} 0.020 \\ (0.183) \end{gathered}$ | $\begin{aligned} & -0.127 \\ & (0.138) \end{aligned}$ | $\begin{aligned} & -0.592 \\ & (0.663) \end{aligned}$ | $\begin{aligned} & -0.135 \\ & (0.588) \end{aligned}$ |
| Teacher control | $\begin{aligned} & -0.061 \\ & (0.167) \end{aligned}$ | $\begin{aligned} & -0.004 \\ & (0.245) \end{aligned}$ | $\begin{aligned} & 0.507^{*} \\ & (0.299) \end{aligned}$ | $\begin{gathered} 0.417 \\ (0.338) \end{gathered}$ | $\begin{gathered} -0.247 \\ (0.157) \end{gathered}$ | $\begin{aligned} & -0.118 \\ & (0.172) \end{aligned}$ | $\begin{gathered} 0.713 \\ (0.520) \end{gathered}$ | $\begin{gathered} 0.440 \\ (0.519) \end{gathered}$ |
| State control | $\begin{gathered} 0.256 \\ (0.172) \end{gathered}$ | $\begin{gathered} -0.254 \\ (0.276) \end{gathered}$ | $\begin{gathered} 0.349 \\ (0.401) \end{gathered}$ | $\begin{gathered} 1.119 * * * \\ (0.359) \end{gathered}$ | $\begin{aligned} & 0.386 * * \\ & (0.177) \end{aligned}$ | $\begin{gathered} -0.102 \\ (0.224) \end{gathered}$ | $\begin{gathered} -0.442 \\ (0.362) \end{gathered}$ | $\begin{gathered} 0.939 * * * \\ (0.317) \end{gathered}$ |
| Principal control | $\begin{gathered} -0.193 \\ (0.227) \end{gathered}$ | $\begin{gathered} -0.162 \\ (0.240) \end{gathered}$ | $\begin{gathered} 0.641 \\ (0.462) \end{gathered}$ | $\begin{gathered} 0.317 \\ (0.438) \end{gathered}$ | $\begin{aligned} & -0.364^{*} \\ & (0.206) \end{aligned}$ | $\begin{gathered} -0.251 \\ (0.163) \end{gathered}$ | $\begin{gathered} 0.890 \\ (0.742) \end{gathered}$ | $\begin{gathered} 0.956 \\ (0.723) \end{gathered}$ |
| School climate | $\begin{gathered} 0.021 \\ (0.086) \end{gathered}$ | $\begin{aligned} & -0.083 \\ & (0.098) \end{aligned}$ | $\begin{aligned} & -0.195 \\ & (0.194) \end{aligned}$ | $\begin{gathered} 0.007 \\ (0.176) \end{gathered}$ | $\begin{gathered} 0.002 \\ (0.124) \end{gathered}$ | $\begin{gathered} 0.013 \\ (0.096) \end{gathered}$ | $\begin{gathered} 0.004 \\ (0.193) \end{gathered}$ | $\begin{gathered} -0.082 \\ (0.168) \end{gathered}$ |
| Reduced class size for gifted students | $\begin{gathered} -0.129 \\ (0.241) \end{gathered}$ | $\begin{gathered} -0.676^{* *} \\ (0.266) \end{gathered}$ | $\begin{aligned} & 0.586^{*} \\ & (0.350) \end{aligned}$ | $\begin{aligned} & 1.423^{* * *} \\ & (0.552) \end{aligned}$ | $\begin{gathered} 0.126 \\ (0.304) \end{gathered}$ | $\begin{gathered} -0.124 \\ (0.294) \end{gathered}$ | $\begin{gathered} 0.335 \\ (0.381) \end{gathered}$ | $\begin{aligned} & 0.736^{*} \\ & (0.385) \end{aligned}$ |
| Teacher time spent outside school hours | $\begin{gathered} 0.002 \\ (0.156) \end{gathered}$ | $\begin{gathered} -0.297 \\ (0.370) \end{gathered}$ | $\begin{gathered} -0.827^{* * *} \\ (0.273) \end{gathered}$ | $\begin{gathered} 0.186 \\ (0.508) \end{gathered}$ | $\begin{aligned} & -0.093 \\ & (0.182) \end{aligned}$ | $\begin{aligned} & -0.083 \\ & (0.213) \end{aligned}$ | $\begin{gathered} 0.836 * * * \\ (0.245) \end{gathered}$ | $\begin{gathered} 0.001 \\ (0.234) \end{gathered}$ |
| Teachers observed in the classroom | $\begin{gathered} 0.080 \\ (0.079) \end{gathered}$ | $\begin{gathered} 0.095 \\ (0.121) \end{gathered}$ | $\begin{aligned} & -0.342^{*} \\ & (0.185) \end{aligned}$ | $\begin{aligned} & -0.341 \\ & (0.212) \end{aligned}$ | $\begin{gathered} 0.080 \\ (0.094) \end{gathered}$ | $\begin{gathered} 0.144 \\ (0.100) \end{gathered}$ | $\begin{aligned} & -0.158 \\ & (0.226) \end{aligned}$ | $\begin{gathered} -0.173 \\ (0.190) \end{gathered}$ |
| Assistance in the classroom | $\begin{gathered} 0.099 \\ (0.067) \end{gathered}$ | $\begin{gathered} 0.010 \\ (0.079) \end{gathered}$ | $\begin{gathered} -0.069 \\ (0.128) \end{gathered}$ | $\begin{gathered} -0.097 \\ (0.130) \end{gathered}$ | $\begin{gathered} 0.092 \\ (0.065) \end{gathered}$ | $\begin{gathered} 0.181^{* * *} \\ (0.070) \end{gathered}$ | $\begin{gathered} 0.031 \\ (0.128) \end{gathered}$ | $\begin{aligned} & -0.226^{*} \\ & (0.123) \end{aligned}$ |
| Homework time expected for tested subjects | $\begin{gathered} -0.069 \\ (0.189) \\ \hline \end{gathered}$ | $\begin{array}{r} -0.344 \\ (0.234) \\ \hline \end{array}$ | $\begin{gathered} 0.943^{* * *} \\ (0.321) \\ \hline \end{gathered}$ | $\begin{gathered} 0.949^{* *} \\ (0.393) \\ \hline \end{gathered}$ | $\begin{array}{r} -0.043 \\ (0.165) \\ \hline \end{array}$ | $\begin{gathered} -0.161 \\ (0.121) \\ \hline \end{gathered}$ | $\begin{gathered} 1.008^{* * *} \\ (0.295) \\ \hline \end{gathered}$ | $\begin{gathered} 1.057 * * * \\ (0.318) \end{gathered}$ |

Notes: Each set of four estimates in the table is drawn from a separate set of weighted seemingly unrelated regressions. See the notes to table 9 and the text for further details.

Table 13: Effect of initial performance on policies and practices, all schools

| Policy sphere | similar schools |  | all schools |  |
| :---: | :---: | :---: | :---: | :---: |
|  | DR1 | DR2 | DR1 | DR2 |
| Policies to improve low-performing students | 0.016 | -0.018 | 0.025 | 0.040 |
|  | (0.029) | (0.046) | (0.037) | (0.040) |
| Lengthening instructional time | 0.004 | 0.047 | -0.255*** | -0.014 |
|  | (0.069) | (0.091) | (0.077) | (0.077) |
| Reduced class size for subject | -0.246* | -0.008 | -0.190 | -0.021 |
|  | (0.131) | (0.258) | (0.179) | (0.178) |
| Narrowing of curriculum | 0.075 | 0.222** | -0.060 | 0.112 |
|  | (0.091) | (0.113) | (0.098) | (0.102) |
| Policies to improve low-performing teachers | 0.043 | 0.019 | 0.029 | 0.104* |
|  | (0.042) | (0.074) | (0.049) | (0.059) |
| Teacher assigned time (hours/week) | -0.390*** | -0.171* | -0.220 | -0.096 |
|  | (0.105) | (0.089) | (0.154) | (0.112) |
| Teacher control | 0.055 | 0.112 | -0.132 | -0.139 |
|  | (0.125) | (0.175) | (0.124) | (0.144) |
| State control | 0.068 | -0.053 | 0.219* | -0.089 |
|  | (0.114) | (0.195) | (0.132) | (0.183) |
| Principal control | 0.081 | -0.049 | -0.219 | -0.134 |
|  | (0.169) | (0.189) | (0.167) | (0.161) |
| School climate | -0.047 | -0.108 | -0.126 | -0.080 |
|  | (0.066) | (0.081) | (0.082) | (0.079) |
| Reduced class size for gifted students | -0.084 | -0.067 | 0.099 | 0.149 |
|  | (0.172) | (0.246) | (0.242) | (0.211) |
| Teacher time spent outside school hours | -0.099 | -0.153 | 0.138 | -0.047 |
|  | (0.140) | (0.279) | (0.164) | (0.188) |
| Teachers observed in the classroom | 0.040 | 0.044 | 0.089 | 0.133* |
|  | (0.057) | (0.088) | (0.068) | (0.074) |
| Assistance in the classroom | 0.050 | 0.041 | 0.048 | 0.124** |
|  | (0.048) | (0.059) | (0.046) | (0.053) |
| Homework time expected for tested subjects | -0.101 | -0.307* | 0.068 | -0.121 |
|  | (0.126) | (0.166) | (0.127) | (0.123) |
| Teacher incentives | 0.033 | -0.223 | -0.056 | -0.216 |
|  | (0.083) | (0.175) | (0.072) | (0.136) |
| Assessment of teachers | -0.019 | 1.608*** | 0.152 | 0.436 |
|  | (0.187) | (0.160) | (0.215) | (0.428) |
| Teacher dismissal frequency | 0.229 | 0.980 | 0.732* | 0.365 |
|  | (0.316) | (0.742) | (0.400) | (0.564) |

[^23]Table 13a: Effect of initial performance on policies and practices, all schools, including a Heckman selection term

| Policy sphere | similar schools |  | all schools |  |
| :---: | :---: | :---: | :---: | :---: |
|  | DR1 | DR2 | DR1 | DR2 |
| Policies to improve low-performing students | $\begin{gathered} \hline-0.001 \\ (0.029) \end{gathered}$ | $\begin{aligned} & -0.061 \\ & (0.048) \end{aligned}$ | $\begin{gathered} \hline 0.005 \\ (0.036) \end{gathered}$ | $\begin{gathered} 0.002 \\ (0.041) \end{gathered}$ |
| Lengthening instructional time | $\begin{gathered} 0.006 \\ (0.073) \end{gathered}$ | $\begin{gathered} 0.070 \\ (0.100) \end{gathered}$ | $\begin{gathered} -0.232 * * * \\ (0.083) \end{gathered}$ | $\begin{gathered} 0.022 \\ (0.086) \end{gathered}$ |
| Reduced class size for subject | $\begin{gathered} -0.309 * * \\ (0.151) \end{gathered}$ | $\begin{gathered} -0.091 \\ (0.280) \end{gathered}$ | $\begin{gathered} -0.190 \\ (0.199) \end{gathered}$ | $\begin{gathered} -0.075 \\ (0.234) \end{gathered}$ |
| Narrowing of curriculum | $\begin{gathered} 0.112 \\ (0.097) \end{gathered}$ | $\begin{aligned} & 0.251^{*} \\ & (0.141) \end{aligned}$ | $\begin{gathered} 0.035 \\ (0.104) \end{gathered}$ | $\begin{aligned} & 0.208^{*} \\ & (0.121) \end{aligned}$ |
| Policies to improve low-performing teachers | $\begin{gathered} 0.010 \\ (0.042) \end{gathered}$ | $\begin{gathered} 0.010 \\ (0.076) \end{gathered}$ | $\begin{gathered} 0.012 \\ (0.048) \end{gathered}$ | $\begin{gathered} 0.068 \\ (0.059) \end{gathered}$ |
| Teacher assigned time (hours/week) | $\begin{gathered} -0.389 * * * \\ (0.110) \end{gathered}$ | $\begin{aligned} & -0.174^{*} \\ & (0.096) \end{aligned}$ | $\begin{gathered} -0.217 \\ (0.166) \end{gathered}$ | $\begin{gathered} -0.082 \\ (0.128) \end{gathered}$ |
| Teacher control | $\begin{gathered} 0.076 \\ (0.129) \end{gathered}$ | $\begin{gathered} 0.135 \\ (0.155) \end{gathered}$ | $\begin{aligned} & -0.119 \\ & (0.140) \end{aligned}$ | $\begin{gathered} -0.091 \\ (0.139) \end{gathered}$ |
| State control | $\begin{gathered} 0.099 \\ (0.119) \end{gathered}$ | $\begin{gathered} -0.056 \\ (0.204) \end{gathered}$ | $\begin{aligned} & 0.262^{*} \\ & (0.138) \end{aligned}$ | $\begin{gathered} -0.035 \\ (0.185) \end{gathered}$ |
| Principal control | $\begin{gathered} 0.063 \\ (0.179) \end{gathered}$ | $\begin{gathered} -0.084 \\ (0.197) \end{gathered}$ | $\begin{aligned} & -0.206 \\ & (0.185) \end{aligned}$ | $\begin{gathered} -0.182 \\ (0.167) \end{gathered}$ |
| School climate | $\begin{gathered} -0.037 \\ (0.066) \end{gathered}$ | $\begin{aligned} & -0.137^{*} \\ & (0.079) \end{aligned}$ | $\begin{aligned} & -0.151^{*} \\ & (0.084) \end{aligned}$ | $\begin{gathered} -0.068 \\ (0.077) \end{gathered}$ |
| Reduced class size for gifted students | $\begin{gathered} -0.203 \\ (0.202) \end{gathered}$ | $\begin{gathered} -0.235 \\ (0.262) \end{gathered}$ | $\begin{gathered} -0.017 \\ (0.229) \end{gathered}$ | $\begin{gathered} -0.071 \\ (0.244) \end{gathered}$ |
| Teacher time spent outside school hours | $\begin{gathered} -0.104 \\ (0.151) \end{gathered}$ | $\begin{gathered} -0.263 \\ (0.433) \end{gathered}$ | $\begin{gathered} 0.111 \\ (0.192) \end{gathered}$ | $\begin{gathered} -0.083 \\ (0.232) \end{gathered}$ |
| Teachers observed in the classroom | $\begin{gathered} 0.028 \\ (0.060) \end{gathered}$ | $\begin{gathered} 0.024 \\ (0.092) \end{gathered}$ | $\begin{gathered} 0.076 \\ (0.071) \end{gathered}$ | $\begin{gathered} 0.099 \\ (0.081) \end{gathered}$ |
| Assistance in the classroom | $\begin{gathered} 0.062 \\ (0.050) \end{gathered}$ | $\begin{gathered} 0.042 \\ (0.061) \end{gathered}$ | $\begin{gathered} 0.064 \\ (0.048) \end{gathered}$ | $\begin{gathered} 0.135^{* *} \\ (0.056) \end{gathered}$ |
| Homework time expected for tested subjects | $\begin{aligned} & -0.100 \\ & (0.128) \end{aligned}$ | $\begin{aligned} & -0.287^{*} \\ & (0.166) \end{aligned}$ | $\begin{gathered} 0.107 \\ (0.126) \end{gathered}$ | $\begin{gathered} -0.122 \\ (0.125) \end{gathered}$ |
| Teacher incentives | $\begin{gathered} 0.049 \\ (0.091) \end{gathered}$ | $\begin{aligned} & -0.234 \\ & (0.189) \end{aligned}$ | $\begin{aligned} & -0.068 \\ & (0.082) \end{aligned}$ | $\begin{gathered} -0.190 \\ (0.144) \end{gathered}$ |
| Assessment of teachers | $\begin{aligned} & -0.120 \\ & (0.185) \end{aligned}$ | $\begin{gathered} 1.693^{* * *} \\ (0.137) \end{gathered}$ | $\begin{gathered} 0.162 \\ (0.202) \end{gathered}$ | $\begin{gathered} 0.529 \\ (0.440) \end{gathered}$ |
| Teacher dismissal frequency | $\begin{gathered} 0.374 \\ (0.346) \end{gathered}$ | $\begin{aligned} & 1.601^{*} \\ & (0.862) \end{aligned}$ | $\begin{gathered} 0.250 \\ (0.570) \end{gathered}$ | $\begin{gathered} 0.636 \\ (0.640) \end{gathered}$ |

Notes: Each pair of estimates is drawn from a separate set of weighted seemingly unrelated regressions. See text for details. In all models, the dependent variable is the policy measure in 2012, with the same policy measure in 2009 included as a covariate along with indicators of school performance (either with respect to all schools or similar schools). DR1 denotes "Dark Red" proportions above zero but below 0.2. DR2 denotes "Dark Red" proportions of 0.2 and above. The full set of state-location-type-sector fixed effects are included along with: school size, Indigenous percentage, ICSEA score (all measured in 2009) and LBOTE percentage (measured in 2010). A Heckman selection term, based on the full set of state by location fixed effects, school size, Indigenous percentage, ICSEA score (all measured in 2009) and LBOTE percentage (measured in 2010), is also included.

Table 14: Effect of initial performance on individual policies and practices, all schools

| Policy sphere / variable | similar schools |  | all schools |  |
| :---: | :---: | :---: | :---: | :---: |
|  | DR1 | DR2 | DR1 | DR2 |
| Narrowing of curriculum |  |  |  |  |
| Minimum time required: Mathematics | -0.283 | 0.491 | -0.423 | -0.467* |
|  | (0.211) | (0.307) | (0.281) | (0.265) |
| Minimum time required: Writing | 0.026 | 0.054 | -0.549** | -0.371 |
|  | (0.210) | (0.295) | (0.263) | (0.236) |
| Minimum time required: Reading | -0.109 | 0.404 | -0.529** | -0.112 |
|  | (0.199) | (0.278) | (0.262) | (0.232) |
| No minimum required time: Science | 0.369 | 0.286 | 0.284 | 0.492* |
|  | (0.225) | (0.335) | (0.296) | (0.283) |
| No minimum required time: Art | 0.194 | 0.361 | 0.424 | 0.321 |
|  | (0.223) | (0.306) | (0.291) | (0.260) |
| No minimum required time: Social Studies | 0.237 | -0.105 | 0.082 | 0.300 |
|  | (0.228) | (0.326) | (0.295) | (0.272) |
| No minimum required time: Physical Education | 0.092 | 0.065 | 0.291 | 0.620** |
|  | (0.236) | (0.324) | (0.304) | (0.276) |
| Policies to improve low-performing teachers |  |  |  |  |
| Increase supervision | 0.003 | -0.192* | -0.042 | -0.002 |
|  | (0.086) | (0.114) | (0.097) | (0.099) |
| Assign a teacher's aide | -0.062 | 0.185 | 0.006 | 0.164 |
|  | (0.084) | (0.113) | (0.095) | (0.097) |
| Assign a mentor or leading teacher | 0.219*** | 0.088 | 0.184** | 0.358*** |
|  | (0.081) | (0.109) | (0.091) | (0.094) |
| Provide additional professional development | 0.181* | -0.001 | -0.020 | 0.112 |
|  | (0.095) | (0.127) | (0.107) | (0.110) |
| Provide coaching from the principal | -0.004 | -0.096 | -0.004 | -0.012 |
|  | (0.085) | (0.113) | (0.095) | (0.098) |
| Other policy not listed | -0.078 | 0.133 | 0.048 | 0.003 |
|  | $(0.094)$ | $(0.126)$ | $(0.106)$ | (0.109) |
| Teacher assigned time (hours/week) |  |  |  |  |
| to collaboratively plan curriculum and assessment | -0.273 | -0.161 | -0.109 | -0.155 |
|  | (0.210) | (0.243) | (0.264) | (0.223) |
| to collaboratively review and monitor student performance | -0.686*** | -0.281 | -0.346 | -0.100 |
|  | (0.217) | (0.227) | (0.254) | (0.235) |
| for class planning | -0.211 | -0.070 | -0.205 | -0.033 |
|  | (0.165) | (0.190) | (0.193) | (0.176) |

Table 14: Effect of initial performance on individual policies and practices, all schools (continued)

|  | similar schools |  |  | all schools |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Policy sphere / variable | DR1 | DR2 | DR1 | DR2 |  |
| State control ( $1=$ no influence / 4 = complete control) |  |  |  |  |  |
| State control of establishing curriculum | 0.159 | -0.421 | 0.347 | -0.191 |  |
|  | $(0.241)$ | $(0.361)$ | $(0.252)$ | $(0.289)$ |  |
|  | 0.075 | 0.186 | 0.096 | 0.282 |  |
| State control of hiring new full-time teachers | $(0.161)$ | $(0.238)$ | $(0.174)$ | $(0.200)$ |  |
|  | 0.063 | -0.127 | 0.247 | -0.145 |  |
| State control of budget spending | $(0.225)$ | $(0.335)$ | $(0.231)$ | $(0.271)$ |  |
|  | -0.022 | 0.150 | 0.184 | -0.302 |  |
| State control of teacher evaluation | $(0.258)$ | $(0.377)$ | $(0.258)$ | $(0.300)$ |  |
|  |  |  |  |  |  |
| Assistance in the classroom | $0.153^{*}$ | $0.315^{* * *}$ | $0.249 * * *$ | $0.295^{* * *}$ |  |
| Teaching assistants, at least one hour/day | $(0.079)$ | $(0.104)$ | $(0.089)$ | $(0.090)$ |  |
|  | -0.021 | -0.143 | 0.032 | 0.040 |  |
| Parents/volunteers, at least two hours/week | $(0.070)$ | $(0.093)$ | $(0.079)$ | $(0.081)$ |  |
|  | -0.120 | -0.112 | 0.097 | 0.038 |  |
| Additional teacher, at least one day/week | $(0.088)$ | $(0.120)$ | $(0.101)$ | $(0.102)$ |  |
|  | 0.136 | 0.108 | 0.058 | $0.301^{* * *}$ |  |
| Coach/leading teacher, at least 4 hours/week | $(0.085)$ | $(0.115)$ | $(0.096)$ | $(0.100)$ |  |
|  | 0.044 | $0.170^{*}$ | 0.123 | 0.134 |  |
| Teaching assistants, at least one hour/day | $(0.075)$ | $(0.098)$ | $(0.084)$ | $(0.085)$ |  |
| (all classrooms) | 0.070 | 0.087 | 0.079 | 0.156 |  |
| Parents/volunteers, at least two hours/week | $(0.092)$ | $(0.122)$ | $(0.104)$ | $(0.106)$ |  |
| (all classrooms) | -0.106 | $-0.268^{* *}$ | $-0.199^{*}$ | $-0.263^{* *}$ |  |
| Additional teacher, at least one day/week | $(0.096)$ | $(0.131)$ | $(0.109)$ | $(0.110)$ |  |
| (all classrooms) | $0.242^{* *}$ | 0.173 | -0.053 | $0.288^{* *}$ |  |
| Coach/leading teacher, at least 4 hours/week | $(0.118)$ | $(0.159)$ | $(0.134)$ | $(0.137)$ |  |
| (all classrooms) |  |  |  |  |  |
| Assessment of teachers | 0.196 | 1.103 | -0.106 | 0.422 |  |
| Direct observation by a school leader (d) | $(0.416)$ | $(1.086)$ | $(0.430)$ | $(0.743)$ |  |
|  | 0.133 | $3.835^{* * *}$ | $1.078^{* *}$ | 1.139 |  |
| Peer evaluation (d) | $(0.471)$ | $(1.360)$ | $(0.497)$ | $(0.866)$ |  |
|  | -0.690 | 1.284 | -0.519 | 0.249 |  |
| Student test scores (d) | $(0.550)$ | $(1.276)$ | $(0.576)$ | $(0.927)$ |  |
|  | 0.287 | 0.210 | 0.155 | -0.067 |  |
| External evaluation (d) | $(0.433)$ | $(1.159)$ | $(0.449)$ | $(0.799)$ |  |
|  |  |  |  |  |  |

Notes: Each pair of estimates in the table is drawn from a separate OLS regression. See text for full details about the specifications employed. In all models, the dependent variable is the policy measure in 2012, and the same policy measure in 2009 is included as a covariate along with the relevant indicators of school performance (either with respect to all schools or with respect to similar schools). DR1 denotes "Dark Red" proportions above zero but below 0.2. DR2 denotes "Dark Red" proportions of 0.2 and above. The full set of state by location fixed effects are included along with the following additional school-specific covariates: school size, Indigenous percentage, ICSEA score (all measured in 2009) and LBOTE percentage (measured in 2010). White robust standard errors are provided in parentheses.

Table 15: Effect of initial performance on policies and practices, all schools, using quantiles of scaled scores

|  | Similar schools |  |  | All schools |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Domain | 2nd highest | 2nd lowest | lowest | 2nd highest | 2nd lowest | lowest |
| Policies to improve low-performing students | $\begin{aligned} & -0.017 \\ & (0.041) \end{aligned}$ | $\begin{gathered} -0.003 \\ (0.045) \end{gathered}$ | $\begin{gathered} -0.024 \\ (0.046) \end{gathered}$ | $\begin{aligned} & -0.007 \\ & (0.047) \end{aligned}$ | $\begin{gathered} 0.021 \\ (0.055) \end{gathered}$ | $\begin{gathered} 0.005 \\ (0.064) \end{gathered}$ |
| Lengthening instructional time | $\begin{gathered} 0.029 \\ (0.091) \end{gathered}$ | $\begin{gathered} 0.034 \\ (0.092) \end{gathered}$ | $\begin{gathered} -0.034 \\ (0.096) \end{gathered}$ | $\begin{gathered} -0.010 \\ (0.101) \end{gathered}$ | $\begin{gathered} 0.009 \\ (0.110) \end{gathered}$ | $\begin{gathered} 0.009 \\ (0.127) \end{gathered}$ |
| Reduced class size for subject | $\begin{gathered} -0.074 \\ (0.215) \end{gathered}$ | $\begin{gathered} 0.062 \\ (0.204) \end{gathered}$ | $\begin{gathered} -0.245 \\ (0.197) \end{gathered}$ | $\begin{gathered} 0.084 \\ (0.324) \end{gathered}$ | $\begin{aligned} & -0.459 \\ & (0.342) \end{aligned}$ | $\begin{aligned} & -0.184 \\ & (0.368) \end{aligned}$ |
| Narrowing of curriculum | $\begin{gathered} 0.012 \\ (0.111) \end{gathered}$ | $\begin{gathered} 0.065 \\ (0.122) \end{gathered}$ | $\begin{gathered} 0.315^{* *} \\ (0.134) \end{gathered}$ | $\begin{gathered} 0.308^{* * *} \\ (0.106) \end{gathered}$ | $\begin{gathered} 0.535 * * * \\ (0.157) \end{gathered}$ | $\begin{gathered} 0.499 * * * \\ (0.153) \end{gathered}$ |
| Policies to improve low-performing teachers | $\begin{gathered} -0.026 \\ (0.048) \end{gathered}$ | $\begin{gathered} -0.050 \\ (0.052) \end{gathered}$ | $\begin{gathered} 0.029 \\ (0.055) \end{gathered}$ | $\begin{aligned} & -0.090^{*} \\ & (0.055) \end{aligned}$ | $\begin{aligned} & -0.097 \\ & (0.067) \end{aligned}$ | $\begin{gathered} -0.023 \\ (0.077) \end{gathered}$ |
| Teacher assigned time (hours/week) | $\begin{gathered} 0.075 \\ (0.165) \end{gathered}$ | $\begin{gathered} -0.136 \\ (0.159) \end{gathered}$ | $\begin{gathered} 0.042 \\ (0.172) \end{gathered}$ | $\begin{gathered} 0.021 \\ (0.139) \end{gathered}$ | $\begin{gathered} 0.092 \\ (0.152) \end{gathered}$ | $\begin{gathered} -0.104 \\ (0.191) \end{gathered}$ |
| Teacher control | $\begin{aligned} & -0.269^{*} \\ & (0.160) \end{aligned}$ | $\begin{gathered} 0.050 \\ (0.171) \end{gathered}$ | $\begin{aligned} & -0.200 \\ & (0.195) \end{aligned}$ | $\begin{gathered} 0.195 \\ (0.219) \end{gathered}$ | $\begin{gathered} -0.080 \\ (0.228) \end{gathered}$ | $\begin{aligned} & -0.073 \\ & (0.259) \end{aligned}$ |
| State control | $\begin{aligned} & -0.343^{* *} \\ & (0.152) \end{aligned}$ | $\begin{aligned} & -0.401^{* *} \\ & (0.153) \end{aligned}$ | $\begin{gathered} -0.191 \\ (0.175) \end{gathered}$ | $\begin{aligned} & -0.029 \\ & (0.178) \end{aligned}$ | $\begin{gathered} 0.206 \\ (0.176) \end{gathered}$ | $\begin{aligned} & -0.137 \\ & (0.233) \end{aligned}$ |
| Principal control | $\begin{gathered} 0.084 \\ (0.170) \end{gathered}$ | $\begin{gathered} 0.216 \\ (0.208) \end{gathered}$ | $\begin{aligned} & -0.080 \\ & (0.218) \end{aligned}$ | $\begin{gathered} 0.076 \\ (0.228) \end{gathered}$ | $\begin{aligned} & -0.120 \\ & (0.281) \end{aligned}$ | $\begin{aligned} & -0.178 \\ & (0.285) \end{aligned}$ |
| School climate | $\begin{aligned} & -0.148^{*} \\ & (0.089) \end{aligned}$ | $\begin{aligned} & -0.139 \\ & (0.091) \end{aligned}$ | $\begin{gathered} -0.263^{* *} \\ (0.098) \end{gathered}$ | $\begin{gathered} -0.247 * * * \\ (0.079) \end{gathered}$ | $\begin{gathered} -0.247 * * * \\ (0.093) \end{gathered}$ | $\begin{gathered} -0.308^{* * *} \\ (0.111) \end{gathered}$ |
| Reduced class size for gifted students | $\begin{aligned} & -0.341 \\ & (0.234) \end{aligned}$ | $\begin{gathered} -0.118 \\ (0.276) \end{gathered}$ | $\begin{aligned} & -0.252 \\ & (0.221) \end{aligned}$ | $\begin{gathered} 0.017 \\ (0.304) \end{gathered}$ | $\begin{aligned} & -0.320 \\ & (0.304) \end{aligned}$ | $\begin{aligned} & -0.139 \\ & (0.343) \end{aligned}$ |
| Teacher time spent outside school hours | $\begin{gathered} 0.028 \\ (0.244) \end{gathered}$ | $\begin{aligned} & -0.343^{*} \\ & (0.207) \end{aligned}$ | $\begin{gathered} -0.078 \\ (0.218) \end{gathered}$ | $\begin{gathered} 0.150 \\ (0.171) \end{gathered}$ | $\begin{gathered} 0.167 \\ (0.245) \end{gathered}$ | $\begin{gathered} -0.078 \\ (0.305) \end{gathered}$ |
| Teachers observed in the classroom | $\begin{gathered} -0.016 \\ (0.082) \end{gathered}$ | $\begin{aligned} & 0.138^{*} \\ & (0.083) \end{aligned}$ | $\begin{aligned} & 0.145^{*} \\ & (0.085) \end{aligned}$ | $\begin{gathered} -0.113 \\ (0.080) \end{gathered}$ | $\begin{gathered} 0.099 \\ (0.088) \end{gathered}$ | $\begin{gathered} 0.063 \\ (0.112) \end{gathered}$ |
| Assistance in the classroom | $\begin{gathered} -0.010 \\ (0.048) \end{gathered}$ | $\begin{gathered} 0.007 \\ (0.051) \end{gathered}$ | $\begin{gathered} 0.082 \\ (0.059) \end{gathered}$ | $\begin{gathered} 0.055 \\ (0.053) \end{gathered}$ | $\begin{gathered} 0.043 \\ (0.059) \end{gathered}$ | $\begin{gathered} 0.179 * * \\ (0.081) \end{gathered}$ |
| Homework time expected for tested subjects | $\begin{aligned} & -0.263 * \\ & (0.155) \end{aligned}$ | $\begin{gathered} 0.199 \\ (0.172) \end{gathered}$ | $\begin{gathered} -0.451^{* *} \\ (0.182) \end{gathered}$ | $\begin{aligned} & -0.418^{*} \\ & (0.226) \end{aligned}$ | $\begin{aligned} & -0.415 \\ & (0.263) \end{aligned}$ | $\begin{gathered} -0.355 \\ (0.235) \end{gathered}$ |
| Teacher incentives | $\begin{gathered} 0.064 \\ (0.095) \end{gathered}$ | $\begin{gathered} -0.217 * * * \\ (0.084) \end{gathered}$ | $\begin{aligned} & -0.125 \\ & (0.124) \end{aligned}$ | $\begin{gathered} 0.096 \\ (0.082) \end{gathered}$ | $\begin{gathered} 0.038 \\ (0.098) \end{gathered}$ | $\begin{gathered} -0.139 \\ (0.147) \end{gathered}$ |
| Assessment of teachers | $\begin{gathered} -0.440 \\ (0.277) \end{gathered}$ | $\begin{gathered} -0.641^{* * *} \\ (0.206) \end{gathered}$ | $\begin{gathered} 0.083 \\ (0.433) \end{gathered}$ | $\begin{aligned} & -0.245 \\ & (0.252) \end{aligned}$ | $\begin{aligned} & -0.532 * \\ & (0.320) \end{aligned}$ | $\begin{gathered} 0.370 \\ (0.480) \end{gathered}$ |
| Teacher dismissal frequency | $\begin{gathered} 0.005 \\ (0.428) \\ \hline \end{gathered}$ | $\begin{gathered} -0.049 \\ (0.400) \\ \hline \end{gathered}$ | $\begin{gathered} 0.691 \\ (0.545) \end{gathered}$ | $\begin{gathered} 0.836 * * \\ (0.396) \\ \hline \end{gathered}$ | $\begin{gathered} 0.333 \\ (0.542) \end{gathered}$ | $\begin{gathered} 0.524 \\ (0.942) \\ \hline \end{gathered}$ |

Table 16: Effect of initial performance on school policies by sector, similar school comparison

| Policy Sphere | DR1 | DR2 | Independent times |  | Catholic times |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | DR1 | DR2 | DR1 | DR2 |
| Policies to improve low-performing students | $\begin{gathered} 0.008 \\ (0.039) \end{gathered}$ | $\begin{aligned} & -0.031 \\ & (0.058) \end{aligned}$ | $\begin{gathered} 0.040 \\ (0.201) \end{gathered}$ | $\begin{gathered} 0.167 \\ (0.258) \end{gathered}$ | $\begin{gathered} 0.029 \\ (0.088) \end{gathered}$ | $\begin{gathered} 0.166 \\ (0.171) \end{gathered}$ |
| Lengthening instructional time | $\begin{gathered} 0.018 \\ (0.058) \end{gathered}$ | $\begin{gathered} 0.055 \\ (0.074) \end{gathered}$ | $\begin{aligned} & -0.006 \\ & (0.174) \end{aligned}$ | $\begin{aligned} & -0.549 \\ & (0.512) \end{aligned}$ | $\begin{aligned} & -0.109 \\ & (0.079) \end{aligned}$ | $\begin{gathered} 0.203 \\ (0.151) \end{gathered}$ |
| Reduced class size for subject | $\begin{aligned} & -0.236 \\ & (0.147) \end{aligned}$ | $\begin{gathered} -0.007 \\ (0.260) \end{gathered}$ | $\begin{gathered} -0.482 \\ (0.394) \end{gathered}$ |  | $\begin{gathered} 0.074 \\ (0.341) \end{gathered}$ |  |
| Narrowing of curriculum | $\begin{gathered} 0.111 \\ (0.092) \end{gathered}$ | $\begin{aligned} & 0.224^{* *} \\ & (0.112) \end{aligned}$ | $\begin{gathered} -0.444 \\ (0.458) \end{gathered}$ |  | $\begin{gathered} -0.818^{* * *} \\ (0.130) \end{gathered}$ |  |
| Policies to improve low-performing teachers | $\begin{gathered} 0.076 \\ (0.047) \end{gathered}$ | $\begin{gathered} 0.016 \\ (0.078) \end{gathered}$ | $\begin{aligned} & -0.063 \\ & (0.121) \end{aligned}$ | $\begin{gathered} 0.178 \\ (0.252) \end{gathered}$ | $\begin{aligned} & -0.236^{* *} \\ & (0.107) \end{aligned}$ | $\begin{gathered} 0.198 \\ (0.218) \end{gathered}$ |
| Teacher assigned time (hours/week) | $\begin{gathered} -0.423^{* * *} \\ (0.116) \end{gathered}$ | $\begin{gathered} -0.182^{* *} \\ (0.090) \end{gathered}$ | $\begin{gathered} 0.320 \\ (0.377) \end{gathered}$ |  | $\begin{gathered} 0.221 \\ (0.171) \end{gathered}$ | $\begin{gathered} 0.024 \\ (0.337) \end{gathered}$ |
| Teacher control | $\begin{gathered} 0.005 \\ (0.146) \end{gathered}$ | $\begin{gathered} 0.098 \\ (0.177) \end{gathered}$ | $\begin{gathered} 0.348 * * \\ (0.173) \end{gathered}$ | $\begin{gathered} 0.562 \\ (1.242) \end{gathered}$ | $\begin{gathered} 0.232 \\ (0.255) \end{gathered}$ |  |
| State control | $\begin{gathered} 0.084 \\ (0.136) \end{gathered}$ | $\begin{aligned} & -0.048 \\ & (0.197) \end{aligned}$ | $\begin{gathered} 0.083 \\ (0.232) \end{gathered}$ | $\begin{gathered} 0.340 \\ (1.548) \end{gathered}$ | $\begin{aligned} & -0.113 \\ & (0.229) \end{aligned}$ |  |
| Principal control | $\begin{aligned} & -0.037 \\ & (0.189) \end{aligned}$ | $\begin{aligned} & -0.080 \\ & (0.193) \end{aligned}$ | $\begin{gathered} 0.636^{* *} \\ (0.258) \end{gathered}$ | $\begin{gathered} 2.052 \\ (1.968) \end{gathered}$ | $\begin{gathered} 0.595 \\ (0.391) \end{gathered}$ |  |
| School climate | $\begin{gathered} -0.038 \\ (0.070) \end{gathered}$ | $\begin{gathered} -0.090 \\ (0.082) \end{gathered}$ | $\begin{gathered} 0.210 \\ (0.295) \end{gathered}$ | $\begin{gathered} -0.593^{* * *} \\ (0.164) \end{gathered}$ | $\begin{gathered} -0.056 \\ (0.219) \end{gathered}$ | $\begin{gathered} -0.032 \\ (0.259) \end{gathered}$ |
| Reduced class size for gifted students | $\begin{aligned} & -0.106 \\ & (0.193) \end{aligned}$ | $\begin{gathered} -0.074 \\ (0.247) \end{gathered}$ | $\begin{gathered} -0.192 \\ (0.716) \end{gathered}$ |  | $\begin{gathered} 0.266 \\ (0.372) \end{gathered}$ |  |
| Teacher time spent outside school hours | $\begin{aligned} & -0.117 \\ & (0.144) \end{aligned}$ | $\begin{gathered} -0.175 \\ (0.298) \end{gathered}$ | $\begin{gathered} 0.422 \\ (0.925) \end{gathered}$ | $\begin{gathered} 0.418 \\ (0.879) \end{gathered}$ | $\begin{aligned} & 0.458^{* *} \\ & (0.181) \end{aligned}$ |  |
| Teachers observed in the classroom | $\begin{gathered} 0.007 \\ (0.063) \end{gathered}$ | $\begin{gathered} 0.048 \\ (0.091) \end{gathered}$ | $\begin{gathered} 0.460 * * \\ (0.188) \end{gathered}$ | $\begin{aligned} & -0.532^{*} \\ & (0.311) \end{aligned}$ | $\begin{gathered} 0.114 \\ (0.178) \end{gathered}$ | $\begin{gathered} 0.199 \\ (0.486) \end{gathered}$ |
| Assistance in the classroom | $\begin{aligned} & 0.091^{*} \\ & (0.055) \end{aligned}$ | $\begin{gathered} 0.031 \\ (0.061) \end{gathered}$ | $\begin{aligned} & -0.217 * \\ & (0.127) \end{aligned}$ | $\begin{gathered} 0.281 \\ (0.231) \end{gathered}$ | $\begin{gathered} -0.259 * * \\ (0.123) \end{gathered}$ | $\begin{gathered} 0.475 * * * \\ (0.155) \end{gathered}$ |
| Homework time expected for tested subjects | $\begin{aligned} & -0.064 \\ & (0.143) \end{aligned}$ | $\begin{aligned} & -0.297 * \\ & (0.168) \end{aligned}$ | $\begin{gathered} 0.000 \\ (0.242) \end{gathered}$ | $\begin{gathered} 0.090 \\ (1.259) \end{gathered}$ | $\begin{aligned} & -0.292 \\ & (0.364) \end{aligned}$ |  |
| Teacher incentives |  |  | $\begin{gathered} 0.195 \\ (0.205) \end{gathered}$ | $\begin{aligned} & -0.068 \\ & (0.257) \end{aligned}$ | $\begin{aligned} & -0.209 \\ & (0.205) \end{aligned}$ | $\begin{gathered} -0.326 \\ (0.335) \end{gathered}$ |
| Assessment of teachers |  |  | $\begin{gathered} 0.256 \\ (0.676) \end{gathered}$ | $\begin{gathered} 1.658^{* * *} \\ (0.166) \end{gathered}$ | $\begin{gathered} -0.314 \\ (0.671) \end{gathered}$ |  |
| Teacher dismissal frequency |  |  | $\begin{gathered} 0.293 \\ (0.435) \\ \hline \end{gathered}$ | $\begin{aligned} & 0.972^{*} \\ & (0.498) \\ & \hline \end{aligned}$ | $\begin{gathered} -0.084 \\ (0.610) \\ \hline \end{gathered}$ |  |

Table 17: Effect of initial performance on school policies by sector, all school comparison

|  |  |  | Independent times |  | Catholic times |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Policy Sphere | DR1 | DR2 | DR1 | DR2 | DR1 | DR2 |
| Policies to improve low-performing students | $\begin{gathered} 0.052 \\ (0.048) \end{gathered}$ | $\begin{gathered} 0.063 \\ (0.051) \end{gathered}$ | $\begin{gathered} 0.082 \\ (0.191) \end{gathered}$ | $\begin{gathered} 0.013 \\ (0.224) \end{gathered}$ | $\begin{gathered} -0.217^{* *} \\ (0.095) \end{gathered}$ | $\begin{aligned} & -0.090 \\ & (0.101) \end{aligned}$ |
| Lengthening instructional time | $\begin{array}{r} -0.274 \\ (0.171) \end{array}$ | $\begin{gathered} -0.010 \\ (0.065) \end{gathered}$ | $\begin{aligned} & -0.247 \\ & (0.321) \end{aligned}$ | $\begin{aligned} & -0.408 \\ & (0.287) \end{aligned}$ | $\begin{gathered} 0.187 \\ (0.201) \end{gathered}$ | $\begin{gathered} 0.036 \\ (0.129) \end{gathered}$ |
| Reduced class size for subject | $\begin{gathered} -0.129 \\ (0.189) \end{gathered}$ | $\begin{gathered} 0.006 \\ (0.180) \end{gathered}$ |  | $\begin{gathered} -1.443^{* * *} \\ (0.275) \end{gathered}$ | $\begin{aligned} & -0.546 \\ & (0.552) \end{aligned}$ | $\begin{aligned} & 0.962^{*} \\ & (0.571) \end{aligned}$ |
| Narrowing of curriculum | $\begin{aligned} & -0.058 \\ & (0.098) \end{aligned}$ | $\begin{gathered} 0.125 \\ (0.104) \end{gathered}$ | $\begin{gathered} -0.431 \\ (0.456) \end{gathered}$ |  | $\begin{aligned} & -0.865^{*} \\ & (0.497) \end{aligned}$ | $\begin{aligned} & -0.496 \\ & (0.326) \end{aligned}$ |
| Policies to improve low-performing teachers | $\begin{gathered} 0.030 \\ (0.057) \end{gathered}$ | $\begin{gathered} 0.130^{* *} \\ (0.062) \end{gathered}$ | $\begin{aligned} & 0.215^{*} \\ & (0.124) \end{aligned}$ | $\begin{aligned} & -0.305^{*} \\ & (0.164) \end{aligned}$ | $\begin{aligned} & -0.092 \\ & (0.117) \end{aligned}$ | $\begin{aligned} & -0.295^{* *} \\ & (0.142) \end{aligned}$ |
| Teacher assigned time (hours/week) | $\begin{aligned} & -0.209 \\ & (0.164) \end{aligned}$ | $\begin{aligned} & -0.105 \\ & (0.113) \end{aligned}$ | $\begin{gathered} 0.057 \\ (0.384) \end{gathered}$ |  | $\begin{gathered} 0.148 \\ (0.249) \end{gathered}$ | $\begin{aligned} & 0.633^{*} \\ & (0.340) \end{aligned}$ |
| Teacher control | $\begin{aligned} & -0.101 \\ & (0.136) \end{aligned}$ | $\begin{aligned} & -0.116 \\ & (0.147) \end{aligned}$ | $\begin{aligned} & 0.309^{*} \\ & (0.163) \end{aligned}$ | $\begin{gathered} 0.304 \\ (1.180) \end{gathered}$ | $\begin{gathered} -0.394 \\ (0.267) \end{gathered}$ | $\begin{gathered} -0.710^{* *} \\ (0.345) \end{gathered}$ |
| State control | $\begin{gathered} 0.181 \\ (0.137) \end{gathered}$ | $\begin{aligned} & -0.069 \\ & (0.187) \end{aligned}$ | $\begin{gathered} 0.727^{* * *} \\ (0.158) \end{gathered}$ | $\begin{gathered} 0.135 \\ (1.592) \end{gathered}$ | $\begin{gathered} 0.333 \\ (0.513) \end{gathered}$ | $\begin{gathered} -0.607^{* *} \\ (0.306) \end{gathered}$ |
| Principal control | $\begin{array}{r} -0.201 \\ (0.177) \end{array}$ | $\begin{gathered} -0.150 \\ (0.165) \end{gathered}$ | $\begin{gathered} 0.867 * * * \\ (0.206) \end{gathered}$ | $\begin{gathered} 1.487 \\ (2.073) \end{gathered}$ | $\begin{aligned} & -0.401 \\ & (0.478) \end{aligned}$ | $\begin{gathered} 0.279 \\ (0.374) \end{gathered}$ |
| School climate | $\begin{aligned} & -0.082 \\ & (0.090) \end{aligned}$ | $\begin{gathered} -0.077 \\ (0.081) \end{gathered}$ | $\begin{aligned} & -0.121 \\ & (0.260) \end{aligned}$ | $\begin{gathered} -0.387 * * * \\ (0.134) \end{gathered}$ | $\begin{gathered} 0.139 \\ (0.266) \end{gathered}$ | $\begin{aligned} & 0.338^{* *} \\ & (0.143) \end{aligned}$ |
| Reduced class size for gifted students | $\begin{gathered} 0.167 \\ (0.265) \end{gathered}$ | $\begin{gathered} 0.183 \\ (0.213) \end{gathered}$ |  | $\begin{gathered} -1.890^{* * *} \\ (0.349) \end{gathered}$ | $\begin{gathered} -0.260 \\ (0.447) \end{gathered}$ | $\begin{gathered} 2.024 * * * \\ (0.468) \end{gathered}$ |
| Teacher time spent outside school hours | $\begin{gathered} 0.068 \\ (0.168) \end{gathered}$ | $\begin{gathered} -0.022 \\ (0.195) \end{gathered}$ | $\begin{gathered} 1.206 * * * \\ (0.426) \end{gathered}$ | $\begin{aligned} & -0.697 * \\ & (0.423) \end{aligned}$ | $\begin{aligned} & -0.367 \\ & (1.060) \end{aligned}$ | $\begin{gathered} 0.480^{* *} \\ (0.202) \end{gathered}$ |
| Teachers observed in the classroom | $\begin{gathered} 0.081 \\ (0.075) \end{gathered}$ | $\begin{aligned} & 0.154^{* *} \\ & (0.078) \end{aligned}$ | $\begin{gathered} 0.175 \\ (0.192) \end{gathered}$ | $\begin{aligned} & -0.371 \\ & (0.379) \end{aligned}$ | $\begin{gathered} -0.008 \\ (0.194) \end{gathered}$ | $\begin{gathered} -0.209 \\ (0.231) \end{gathered}$ |
| Assistance in the classroom | $\begin{aligned} & 0.105^{* *} \\ & (0.053) \end{aligned}$ | $\begin{gathered} 0.162^{* * *} \\ (0.056) \end{gathered}$ | $\begin{aligned} & -0.026 \\ & (0.132) \end{aligned}$ | $\begin{aligned} & -0.230 \\ & (0.174) \end{aligned}$ | $\begin{aligned} & -0.395 * * * \\ & (0.106) \end{aligned}$ | $\begin{gathered} -0.436^{* *} \\ (0.176) \end{gathered}$ |
| Homework time expected for tested subjects | $\begin{gathered} 0.026 \\ (0.137) \end{gathered}$ | $\begin{gathered} -0.126 \\ (0.125) \end{gathered}$ | $\begin{gathered} 1.266 * * * \\ (0.189) \end{gathered}$ | $\begin{gathered} -0.423 \\ (1.211) \end{gathered}$ | $\begin{gathered} 0.212 \\ (0.495) \end{gathered}$ | $\begin{gathered} -0.067 \\ (0.187) \end{gathered}$ |
| Teacher incentives |  |  | $\begin{gathered} 0.168 \\ (0.160) \end{gathered}$ | $\begin{aligned} & -0.206 \\ & (0.298) \end{aligned}$ | $\begin{aligned} & -0.298^{*} \\ & (0.176) \end{aligned}$ | $\begin{gathered} 0.000 \\ (0.308) \end{gathered}$ |
| Assessment of teachers |  |  | $\begin{gathered} 0.417 \\ (0.740) \end{gathered}$ | $\begin{gathered} -1.460^{* * *} \\ (0.365) \end{gathered}$ | $\begin{aligned} & -0.205 \\ & (0.703) \end{aligned}$ | $\begin{gathered} 2.378^{* * *} \\ (0.336) \end{gathered}$ |
| Teacher dismissal frequency |  |  | $\begin{aligned} & 0.752^{*} \\ & (0.446) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.801^{*} \\ & (0.483) \\ & \hline \end{aligned}$ | $\begin{gathered} 0.042 \\ (0.708) \\ \hline \end{gathered}$ | $\begin{array}{r} -0.906 \\ (1.185) \\ \hline \end{array}$ |

Notes for Table 15: Each triple of estimates in the table is drawn from a separate set of weighted seemingly unrelated regressions. In all models, the dependent variable is the policy measure in 2012, and the same policy measure in 2009 is included as a covariate along with the relevant quantiles of scaled score indicators of school performance (either with respect to all schools or with respect to similar schools). The full set of state by location by type by sector fixed effects are included along with the following additional school-specific covariates: school size, Indigenous percentage, ICSEA score (all measured in 2009) and LBOTE percentage (measured in 2010).

Notes for Table 16: Each row of estimates is drawn from a separate set of seemingly unrelated regressions. The dependent variable in each separate regression is the policy in 2012, and the same policy in 2009 is included as a covariate along with the two indicators of school performance relative to all schools, plus the interactions of the indicators of school performance with indicators for independent schools and Catholic schools. DR1 denotes "Dark Red" proportions above zero but below 0.2. DR2 denotes "Dark Red" proportions of 0.2 and above. The full set of state by location by sector by type fixed effects are included along with the following: school size, Indigenous percentage, ICSEA score (all measured in 2009) and LBOTE percentage (measured in 2010)

Notes for Table 17: Each row of estimates is drawn from a separate set of seemingly unrelated regressions. The dependent variable in each separate regression is the policy in 2012, and the same policy in 2009 is included as a covariate along with the two indicators of school performance relative to all schools, plus the interactions of the indicators of school performance with indicators for independent schools and Catholic schools. DR1 denotes "Dark Red" proportions above zero but below 0.2. DR2 denotes "Dark Red" proportions of 0.2 and above. The full set of state by location by sector by type fixed effects are included along with the following: school size, Indigenous percentage, ICSEA score (all measured in 2009) and LBOTE percentage (measured in 2010).

Table 18: Effect of high initial performance on all school policies and practices

|  | similar schools |  | all schools |  |
| :--- | :---: | :---: | :---: | :---: |
| Policy sphere | DG1 | DG2 | DG1 | DG2 |
|  |  |  |  |  |
| Policies to improve low-performing students | 0.038 | -0.004 | -0.005 | -0.004 |
|  | $(0.038)$ | $(0.053)$ | $(0.038)$ | $(0.056)$ |
| Lengthening instructional time | 0.009 | 0.030 | 0.069 | 0.052 |
|  | $(0.089)$ | $(0.095)$ | $(0.102)$ | $(0.099)$ |
| Reduced class size for subject | -0.019 | 0.481 | 0.255 | 0.522 |
|  | $(0.208)$ | $(0.345)$ | $(0.332)$ | $(0.354)$ |
| Narrowing of curriculum | $-0.357^{* * *}$ | $-0.185^{*}$ | -0.150 | $-0.252^{* *}$ |
|  | $(0.076)$ | $(0.105)$ | $0.121)$ | $(0.115)$ |
| Policies to improve low-performing teachers | 0.019 | $0.126^{* *}$ | -0.043 | $0.113^{*}$ |
|  | $(0.045)$ | $(0.056)$ | $(0.051)$ | $(0.059)$ |
| Teacher assigned time (hours/week) | $0.271^{*}$ | 0.036 | 0.078 | 0.054 |
|  | $(0.159)$ | $(0.131)$ | $(0.209)$ | $(0.134)$ |
| Teacher control | -0.079 | 0.105 | -0.203 | 0.063 |
|  | $(0.152)$ | $(0.203)$ | $(0.178)$ | $(0.211)$ |
| State control | 0.112 | -0.189 | $-0.405^{*}$ | $-0.246^{*}$ |
|  | $(0.134)$ | $(0.127)$ | $(0.243)$ | $(0.138)$ |
| Principal control | -0.230 | 0.225 | -0.142 | 0.179 |
|  | $(0.145)$ | $(0.210)$ | $0.266)$ | $(0.219)$ |
| School climate | 0.118 | $0.177^{* *}$ | 0.116 | $0.223^{* * *}$ |
| Reduced class size for gifted students | $(0.088)$ | $(0.072)$ | $(0.080)$ | $(0.073)$ |
|  | 0.170 | 0.323 | -0.128 | 0.331 |
| Teacher time spent outside school hours | $(0.329)$ | $(0.253)$ | $(0.217)$ | $(0.257)$ |
|  | 0.236 | -0.098 | -0.047 | -0.110 |
| Teachers observed in the classroom | $(0.172)$ | $(0.191)$ | $(0.193)$ | $(0.223)$ |
| Assistance in the classroom | -0.044 | -0.050 | -0.051 | -0.067 |
|  | $(0.076)$ | $(0.081)$ | $(0.095)$ | $(0.086)$ |
| Homework time expected for tested subjects | 0.009 | $-0.083^{*}$ | 0.007 | -0.081 |
| Teacher incentives | $(0.050)$ | $(0.050)$ | $(0.052)$ | $(0.054)$ |
|  | $(0.130$ | 0.346 | -0.023 | 0.332 |
| Assessment of teachers | $(0.221)$ | $(0.177)$ | $(0.224)$ |  |
| Teacher dismissal frequency | -0.017 | 0.109 | -0.068 | 0.077 |
|  | $(0.084)$ | $(0.093)$ | $(0.076)$ | $(0.100)$ |
|  | -0.071 | 0.269 | 0.073 | 0.285 |
|  | $(0.331)$ | $(0.230)$ | $0.232)$ | $(0.240)$ |
|  | 0.347 | $-0.672^{* *}$ | 0.113 | -0.618 |
|  | $(0.315)$ | $(0.337)$ | $(0.296)$ | $(0.382)$ |

Notes: Each pair of estimates is drawn from a separate set of weighted seemingly unrelated regressions. In all models, the dependent variable is the policy measure in 2012, and the same policy measure in 2009 is included as a covariate along with the relevant indicators of school performance (either with respect to all schools or similar schools). DG1 denotes "Dark Green" proportions above zero but below 0.2. DG2 denotes "Dark Green" proportions of 0.2 and above. Both these indicators were set to zero if the school had any Dark Red flags. The full set of state by location by sector by type fixed effects are included along with: school size, Indigenous percentage, ICSEA score (all measured in 2009) and LBOTE percentage (measured in 2010).

Table 19: Effect of initial relative performance on subject-specific policies and practices

|  | similar schools | all schools |
| :--- | :---: | :---: |
| Government primary schools | $-0.339^{* *}$ | $-0.283^{*}$ |
|  | $(0.152)$ | $(0.152)$ |
| All schools | -0.143 | -0.083 |
|  | $(0.202)$ | $(0.208)$ |

Notes: Each estimate in the table is drawn from a separate OLS regression. See text for full details about the specifications employed. In all models, the dependent variable is the relative emphasis on numeracy versus literacy subjects in 2012. The coefficient reported is on the relative performance in numeracy versus literacy domains in the school averaged over 2008 and 2009. The other variables included in the regression are the relative emphasis on numeracy versus literacy subjects in 2009, state by location by type by sector fixed effects (where relevant), school size, Indigenous percentage, ICSEA score (all measured in 2009) and LBOTE percentage (measured in 2010). White-robust standard errors are provided in parentheses.

Table 20: Principals' perceptions of the My School website (percentage by response)

|  | Negative | Neutral | Positive |
| :--- | :---: | :---: | :---: |
| All schools | 24.4 | 67.4 | 8.2 |
| Government primary schools |  |  |  |
| All | 26.0 | 66.6 | 7.4 |
| No dark red | 24.5 | 66.6 | 8.9 |
| 0 < dark red < 20\% | 27.1 | 64.1 | 8.8 |
| 20\% plus dark red | 28.8 | 64.4 | 6.9 |
|  |  |  |  |
| By Sector (all school types) |  |  |  |
| Government | 25.4 | 67.6 | 7.0 |
| Independent | 18.8 | 64.7 | 16.5 |
| Catholic | 22.5 | 67.8 | 10.8 |

Notes: Dark red percentages for government primary schools were based on the all-school comparisons over the 2008 and 2009 academic years. Weighted percentages provided.

Table 21: Principals' perceptions of My School: ordered logit average marginal effects

|  | Negative | Neutral | Positive |
| :--- | :---: | :---: | :---: |
| All school comparison normalised scores | -0.024 | 0.013 | 0.011 |
|  | $(0.043)$ | $(0.023)$ | $(0.019)$ |
| Similar school comparison normalised scores | $-0.198^{* * *}$ | $0.109^{* * *}$ | $0.089^{* * *}$ |
|  | $(0.069)$ | $(0.039)$ | $(0.033)$ |

Notes: The table reports average marginal effects on the three potential responses from a weighted ordered logit estimation on both normalised scores. Average normalised scores were constructed over the 2008 and 2009 academic years. White-robust standard errors are reported in parentheses.

## APPENDICES

## Appendix A: Screenshots of My School NAPLAN results page for two schools

## My School

| Find a school | Glossary | More information | Contact us | Search by school, suburb, town or postcode | Go |
| :--- | :--- | :--- | :--- | :--- | :--- |

School profile
School finances
NAPLAN
Results in graphs
Results in numbers
Results in bands
Student gain
Similar schools
VET in schools
Local schools

Randwick Public School, Randwick, NSW

Results in numbers
The National Assessment Program - Literacy and Numeracy (NAPLAN) assesses all students in Australian schools in Years 3, 5, 7 and 9. For more information visit the NAPLAN website.

The chart below displays average NAPLAN scores for each domain. The selected school's scores are displayed in blue. Also displayed are average scores for statistically similar schools (SIM) and all Australian schools (ALL). The coloured bars indicate whether the selected school's scores are above, close to, or below the other scores.


How to interpret this chart

SIM schools serving students from statistically similar badkrounds ALL Australian schools' average
.. Student population below reporting threshold
$\square$ Year level not tested

Selected school's average is
substantially above
$\square$ above
$\square$ close to
$\square$ below

- substantially below
- average of schools serving students from statistically similar socio-educational badkrounds (SIM box)
- average of all Australian schools (ALL box)


| Home | About | Resources | Clossary | Contact us | Search by school, suburb, town or postcode | G0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Results in numbers |  |  |  |  |  |  |

## School profile

School finances
NAPLAN
Results in graphs
Results in numbers
Results in bands
Student gain
Similar schools
VET in schools
Senior secondary
Local schools Student attendance

The National Assessment Program - Literacy and Numeracy (NAPLAN) assesses all students in Australian schools in Years 3, 5, 7 and 9. For more information visit the NAPLAN website.

The chart below displays average NAPLAN scores for each domain. The selected school's scores are displayed in blue. Also displayed are average scores for statistically similar schools (SIM) and all Australian schools (ALL). The coloured bars indicate whether the selected school's scores are above, close to, or below the other scores.

| 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 201 | 201 | 2016 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Colour Scheme Red \& Green $\boldsymbol{V}$ Submit $\quad$ Alternate view: Results ingraphs |  |  |  |  |  |  |  |  |  |  |
|  | Reading |  | Writing |  | Spelling |  | Grammar and Punctuation |  | Numeracy |  |
| Year 7 | $\begin{gathered} 493 \\ 483-504 \end{gathered}$ |  | $\begin{gathered} 478 \\ 466-490 \end{gathered}$ |  | $\begin{gathered} 510 \\ 499-521 \end{gathered}$ |  | $\begin{gathered} 502 \\ 490-515 \end{gathered}$ |  | $\begin{gathered} 508 \\ 497-518 \end{gathered}$ |  |
|  | $\begin{gathered} \text { SIM } \\ 505 \\ 498-513 \end{gathered}$ | $\begin{aligned} & \text { ALLL } \\ & 541 \end{aligned}$ | $\begin{gathered} \hline \text { SIM } \\ 479 \\ 470-487 \end{gathered}$ | $\begin{gathered} \text { ALL } \\ 51 \end{gathered}$ | $\begin{gathered} \hline \text { SIM } \\ 512 \\ 504-520 \end{gathered}$ | $\begin{aligned} & \text { ALL } \\ & 543 \end{aligned}$ | $\begin{gathered} \hline \text { SIM } \\ 500 \\ 492-509 \end{gathered}$ | $\begin{aligned} & \text { ALL } \\ & 540 \end{aligned}$ | $\begin{gathered} \text { SIM } \\ 511 \\ 503-519 \end{gathered}$ | $\begin{aligned} & \text { ALL } \\ & 550 \end{aligned}$ |
| Year 9 | $\begin{array}{r} 525 \\ 513-537 \\ \hline \end{array}$ |  | $\begin{gathered} 498 \\ 483-513 \end{gathered}$ |  | $\begin{gathered} 554 \\ 542-567 \end{gathered}$ |  | $\begin{gathered} 513 \\ 500-526 \end{gathered}$ |  | $\begin{gathered} 555 \\ 544-566 \end{gathered}$ |  |
|  | $\begin{gathered} \hline \text { SIM } \\ 546 \\ 538-553 \end{gathered}$ | $\begin{aligned} & \text { ALL } \\ & 581 \end{aligned}$ | $\begin{gathered} \hline \text { SIM } \\ 507 \\ 498-517 \end{gathered}$ | $\begin{aligned} & \text { ALL } \\ & 549 \end{aligned}$ | $\begin{gathered} \hline \text { SIM } \\ 547 \\ 540-555 \end{gathered}$ | $\begin{aligned} & \text { ALL } \\ & 580 \end{aligned}$ | $\begin{gathered} \text { SIM } \\ 534 \\ 526-543 \end{gathered}$ | $\begin{aligned} & \text { ALL } \\ & 569 \end{aligned}$ | $\begin{gathered} \hline \text { SIM } \\ 555 \\ 548-562 \end{gathered}$ | $\begin{aligned} & \text { ALL } \\ & 589 \end{aligned}$ |

How to interpret this chart
SIM schools serving students from statistically similar backgrounds
ALL Australian schools' average
$\square$ Student population below reporting threshold
$\square$ Year level not tested

```
Selected school's average is
substantially above
\square \text { above}
\square \text { close to}
\square \mp@code { b e l o w }
| substantially below
```

- average of schools serving students from statistically similar socioeducational backgrounds (SIM box)
- average of all Australian schools (ALL box)

| Colour shows if the selected school's average is above or below statistically similar schools' average | Selected average |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  | Margin of error at 90 per |
|  |  |  | evel of |
|  | 449 |  | Colour shows if the selected school's average is above or below the |
|  | SIM |  |  |
|  | 年 475 | 420 | Australian schools' average |
|  | $\uparrow$ | $\uparrow$ |  |
| Average and margin of error at 90 Australian schools' average per cent level of confidence for statistically similar schools |  |  |  |

Tell me more

## Appendix B: Survey implementation

## (i) 2009 Survey

The initial survey was undertaken in the second half of 2009, with responses collected from 11 October 2009 until 29 January 2010 (only 1.4\% of responses were collected in January 2010, and all prior to the start of the 2010 school year). The entire population of Australian schools was included in the initial survey frame. The list of contact details for schools was provided by the Commonwealth Department of Education, Employment and Workplace Relations (DEEWR). This list included both government / public schools and private schools (Catholic and independent), and covered all school levels (primary, secondary and combined) including special schools (schools for children with learning disabilities).

School principals were initially sent a letter inviting them to complete our survey. The letter included a link to a website where the survey could be completed online. The letter also included a six digit school-specific code provided by us that the school principal was required to enter in order to complete the survey. This school-specific code allowed us to track completion closely. Follow-up emails were sent to schools several days after the mailing of the initial letter. Schools that had not responded to the survey after the first contact were recontacted up to two more times spaced approximately one month apart via letters and follow-up emails to improve response rates.

There were five different versions of the survey sent to schools via random allocation. All five versions had a standard set of questions (a core module), with four out of five versions also having a small number of additional questions (additional modules). We chose to use several versions of the survey in order to reduce the response burden of individual school principals. Our aim was to keep survey completion time below 25 minutes.

Certain survey questions were only asked of private schools (Catholic and independent), as they were most relevant for those schools (regarding tuition fees charged, incentives provided to teachers, et cetera).

The response rate for the initial survey was approximately $21 \%$. In total, 1,959 schools completed the 2009 survey. In the vast majority of cases (96\%), the school principal completed the
survey. Another member of the school leadership team (deputy principal, registrant) answered on the school's behalf in the remaining $4 \%$ of cases.
(ii) 2012 Survey

The follow-up survey in 2012 was undertaken in the second half of 2012, with responses collected from 22 July 2012 until 20 December 2012. All 1,959 schools that responded to the initial survey in 2009 were approached to complete this second survey, but 30 of those initial responders had closed or merged with other schools in the intervening period. Thus 1,929 schools still operating as separate entities were potentially able to complete the 2012 survey. Schools were sent the same version of the survey that they completed in 2009, allowing the tracking of responses over time. The 2012 survey included a small number of new questions (not in the 2009 survey) specifically about the My School website. This website was not brought online until 2010.

School principals were again sent letters inviting them to complete our survey online, and again follow-up emails were sent several days later. Initial non-respondents were sent reminder letters and emails up to three more times (early in September, October and November). All schools that completed the 2012 survey were entered into a prize draw (if they chose to do so) for an education support package of the choosing of the school up to a value of $\$ 2,000$. This prize draw was offered as an extra inducement to improve response rates for the follow-up survey.

As an extra measure to improve response rates, non-respondent schools were contacted by phone by the research team during the second half of November and early December in 2012. In many of the cases where a survey was completed in response to these phone calls, school principals answered the questionnaire directly over the phone rather than via the internet. Phone completions comprised just less than 5\% of all 2012 survey completions.

The response rate for the 2012 follow-up survey was approximately 58\% (after removal of schools that had closed or merged prior to 2012). In total, 1,122 schools completed the 2012 survey, at least partially. For this 2012 survey, 93\% of responses were completed by the school principal.

Given that the school principal was not always the responder to our two surveys, it is not elementary to determine from our data whether a school experienced a change in principal between
survey years. The principal was the responder to both surveys in only $89 \%$ of schools. Among this $89 \%, 2 \%$ of schools had principals that did not provide their name in at least one of the two surveys. Of the remaining $87 \%$, around $71 \%$ of principals were the same in both surveys. This "same principal" proportion varied from a low of $68 \%$ in government schools, to $76 \%$ in Catholic schools, up to $84 \%$ in independent schools. For comparison, Helal and Coelli (2016) found that the rate of year-to-year principal changes among Victorian government primary schools was around 15\%, a little higher than the change over three years we observe of $32 \%$.

Table B1: School characteristics by respondent status - 2009 survey

| Variable | Respondents | Nonrespondents | p -value for difference | Contro amount | diff. <br> p -value |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Number of students | 378.4 | 383.0 | 0.612 | -7.5 | 0.255 |
|  | (353.3) | (354.4) |  |  |  |
| ICSEA score | 1,004.7 | 1000.0 | 0.059 | 2.2 | 0.288 |
|  | (91.9) | (103.4) |  |  |  |
| Indigenous (\%) | 6.89 | 8.47 | 0.0002 | -0.72 | 0.024 |
|  | (14.54) | (17.99) |  |  |  |
| LBOTE in 2010 (\%) | 16.50 | 17.33 | 0.178 | 0.03 | 0.956 |
|  | (23.02) | (23.87) |  |  |  |
| Government (\%) <br> Catholic (\%) <br> Independent (\%) | 70.3 | 71.3 | 0.414 |  |  |
|  | 19.4 | 18.1 | 0.196 |  |  |
|  | 10.3 | 10.6 | 0.672 |  |  |
| Primary (\%) <br> Secondary (\%) <br> Combined (\%) | 69.3 | 70.4 | 0.349 |  |  |
|  | 16.5 | 15.2 | 0.180 |  |  |
|  | 14.2 | 14.4 | 0.871 |  |  |
| Metropolitan (\%) <br> Provincial (\%) | 53.5 | 54.8 | 0.293 |  |  |
|  | 39.2 | 38.2 | 0.451 |  |  |
| Remote (\%) | 4.6 | 3.7 | 0.073 |  |  |
| Very remote (\%) | 2.8 | 3.3 | 0.279 |  |  |
| Average normalised scores | -0.060 | -0.070 | 0.442 | 0.008 | 0.465 |
|  | (0.448) | (0.532) |  |  |  |
| Observations | 1,872 | 7,279 |  |  |  |

Notes: Special schools are excluded from both columns. All characteristics apart from Language Background Other Than English (LBOTE) are relevant to 2009, and most information is drawn from ACARA data. The Average normalised scores were constructed by first normalising all school average test scores for each specific testing domain $\times$ grade $\times$ cohort grouping (for example, reading results for students in grade 3 in 2008) by subtracting the overall Australian mean score for the same grouping and dividing by the overall Australian standard deviation. We then take the simple average of those normalised scores within a school for 2009.

Tests of differences in characteristics were either t-tests of means (for quantitative variables) or z -score tests of proportions (for qualitative variables). Standard deviations are provided in parentheses. The controlled difference amount and p-value in the last two columns were constructed after controlling for state by sector by location by school type fixed effects using standard OLS regression and robust standard errors.

Data are not available for all schools, as ACARA does not provide information for schools with extremely small student numbers. In such cases, we add in data on sector, type and location for all small schools from information provided by DEEWR or from our own collection efforts; the number of observations for which data on other variables is available differs by variable but ranges from $87 \%$ (for average normalised scores) to $97 \%$ (number of students) of the count of total observation shown in the final row of the table.

Table B2: School characteristics by respondent status - 2012 (among 2009 respondents)

| Variable | Respondents | Nonrespondents | $p$-value for difference | Controlle amount | ifference <br> p-value |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Number of students | 408.8 | 361.6 | 0.006 | 11.1 | 0.392 |
|  | (369.4) | (348.1) |  |  |  |
| ICSEA score | 1,008.5 | 997.2 | 0.010 | 0.21 | 0.951 |
|  | (89.1) | (94.7) |  |  |  |
| Indigenous (\%) | 6.95 | 8.40 | 0.050 | -0.10 | 0.853 |
|  | (14.33) | (15.25) |  |  |  |
| LBOTE (\%) | 17.43 | 15.02 | 0.026 | 0.12 | 0.900 |
|  | (23.84) | (21.88) |  |  |  |
| Government (\%) | 66.8 | 74.5 | 0.0003 |  |  |
| Catholic (\%) <br> Independent (\%) | 22.4 | 15.8 | 0.0004 |  |  |
|  | 10.8 | 9.7 | 0.4500 |  |  |
| Primary (\%) <br> Secondary (\%) <br> Combined (\%) | 66.8 | 72.6 | 0.008 |  |  |
|  | 18.4 | 13.8 | 0.010 |  |  |
|  | 14.9 | 13.6 | 0.436 |  |  |
| Metropolitan (\%)Provincial (\%) | 56.1 | 49.4 | 0.004 |  |  |
|  | 36.9 | 42.6 | 0.014 |  |  |
| Remote (\%) | 4.4 | 4.9 | 0.652 |  |  |
| Very remote (\%) | 2.5 | 3.2 | 0.396 |  |  |
| Average normalised scores | -0.067 | -0.110 | 0.071 | -0.014 | 0.478 |
|  | (0.47) | (0.48) |  |  |  |
| Observations | 1,062 | 780 |  |  |  |

Notes: Special schools were excluded. All characteristics are 2012 measures from ACARA. LBOTE = Language Background Other Than English. The Average normalised scores were constructed by first normalising all school average test scores for each specific testing domain $\times$ grade $\times$ cohort grouping (for example, reading results for students in grade 3 in 2008) by subtracting the overall Australian mean score for the same grouping and dividing by the overall Australian standard deviation. We then take the simple average of those normalised scores within a school for 2009.

Tests of differences in characteristics were either t-tests of means (for quantitative variables) or z -score tests of proportions (for qualitative variables). Standard deviations are provided in parentheses. The controlled difference amount and p-value in the last two columns were constructed after controlling for state by sector by location by school type fixed effects using standard OLS regression and robust standard errors.
Data are not available for all schools, as ACARA does not provide information for schools with extremely small student numbers. In such cases, we add in data on sector, type and location for all small schools from information provided by DEEWR or from our own collection efforts; the number of observations for which data on other variables is available differs by variable but ranges from 89\% (for average normalised scores) to $98 \%$ (LBOTE) of the count of total observation shown in the final row of the table.

## Appendix C - Full Set of Survey Instruments

Core module, 2009

## Survey of Australian School Principals

We are conducting a major national survey of primary and secondary school principals. It includes government and non-government schools. We hope the information gathered from this study will contribute to a better understanding of how schools make internal decisions and thereby, contribute to better education policies at the state and federal level.

Your participation is completely voluntary. All responses to this survey will be kept strictly confidential, to the fullest extent permitted by Australian law.

You do not have to answer any questions you do not wish to. Your school will never be identified by name or any other manner that could allow another researcher, government official, or member of the public to infer its identity.

If you have any questions about your rights as a study participant, please contact:
Human Ethics Officer, Research Office,
The Australian National University, Canberra ACT 0200,
Email: human.ethics.officer@anu.edu.au Telephone: 026125 7945.
If you have any questions about the survey or the research project, please contact us at schoolsurvey@anu.edu.au

We want to thank you in advance for your help with this important research.
Do you wish to continue?
Yes
No

1. Please fill out the following information about the person completing this survey:

First Name
$\square$
Last Name
2. Are you the principal or are you another member of leadership team at [\%\%501 :schoolname \%\%]?

I am the principal
I am a member of the school leadership team
3. Please tell us how many years you have been:

In the field of education
As a principal
As the principal of [\%\%501:schoolname \%\%]

4. Would you like to receive a copy of the survey report?

Yes
No
5. Please fill in the email address where you would like the survey report to be sent.

## Email Address

6. Please tell us about the student composition of your school. What is the total number of students currently $\square$ enrolled in your school?
Approximately how many students in your school
 are Indigenous?

Approximately how many students in your school
 are from a non-English speaking background?

Approximately how many full-time teachers are in $\square$ your school?
7. In addition to the teachers, are any of the following staff resources available at your school?

|  |  |  |  |
| :---: | :---: | :---: | :---: |
| Paid teaching assistant for at least one hour a day |  |  |  |
| Parent or volunteer(s) for at least two hours per week |  |  |  |
| Another teacher on at least one day per week |  |  |  |
| Coach or leading teacher for at least four hours per week |  |  |  |

8. According to our information, the lowest grade taught at [\%\%501:schoolname \%\%] is [\%\%504: lowest_grade \%\%] and the highest grade is [\%\%526:highest_grade \%\%]. Is this correct?

Correct
Incorrect
9. Do you require parents/guardians of students in your school to sign their children's completed homework on a regular basis?

Yes
No
10. Please indicate how many of the following types of interactions you have with parents/guardians in an average week. Please exclude forms and newsletters.

|  | Exchanges per week |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | - | $\underset{\sim}{?}$ | $\begin{aligned} & \varphi \\ & \dot{+} \end{aligned}$ | $\underset{\sim}{\infty}$ | + |
| Phone call, written note, or email exchanges |  |  |  |  |  |
| Face-to-face interactions |  |  |  |  |  |

11. During this academic year, how often has each of the following occurred?

|  |  | ※ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| You observed a teacher conducting a lesson. |  |  |  |  |  |
| A specialist, leading teacher, or coach modelled or critiqued one of your teachers' lessons. |  |  |  |  |  |
| One of your teachers observed another teacher conducting a lesson. |  |  |  |  |  |

12. Approximately, what percentage of teachers in your school are union members? $\square$
13. If a voluntary contribution is requested from parents, please state the annual amount that is requested.
Please include voluntary fees for building funds, $\mathrm{P} \& \mathrm{Cs}$ and $\mathrm{P} \& F \mathrm{~s}$.

14. Last year, what percentage of parents made some voluntary contribution?
15. Of those parents who made some contribution, what was the average voluntary contribution?
16. Excluding voluntary contributions, how much additional revenue does your school raise annually through other sources of income (e.g. fetes, business sponsorship, parking fees)?
17. What special measures does your school take to try to improve low-performing teachers? Select all that apply.

Supervise teachers more closely
Assign an aide to teachers
Assign teachers to mentors or leading teachers
Provide additional professional development for individual teachers
Coaching from yourself
Other - Please describe:
18. What special measures does your school take to try to improve the performance of lowperforming students? Select all that apply.

Recommend to parents that the student repeat the grade
Additional tutoring during regular school hours
Before-school or after-school tutoring paid for by the school
Saturday classes
Develop an individual learning plan for the student
Other - Please describe: $\square$

Complete this section only if: "sector" matches one of the following: 'Catholic', 'Independent'
19. Now we would like to ask you the official fees that students pay per year in whole dollars in the following grades.

| [\%\%504:lowest_grade \%\%] | $\square$ |
| :--- | :---: |
| [\%\%532:median \%\%] | $\square$ |
| [\%\%526:highest_grade \%\%] | $\square$ |

20. What discounts or bursaries are available on the official fees?

|  | Percent of students who get this discount | Typical amount of the discount (as \% of fees) | Not Applicable |
| :---: | :---: | :---: | :---: |
| Sibling discount |  |  |  |
| Discount for children from lowincome families |  |  |  |
| Discount for Indigenous students |  |  |  |
| Discount for children of staff members |  |  |  |
| Other discount - please report here and describe in the comment box below: |  |  |  |

Please describe the other type of discounts or bursaries you reported on above.
21. Please estimate the lowest and highest salary paid for teachers with the following characteristics.

|  | Lowest Salary in whole dollars | Highest Salary in whole dollars |
| :--- | :--- | :--- |
| A teacher with an undergraduate degree |  |  |
| and no teaching experience? |  |  |
| A teacher with an undergraduate degree <br> and ten years' experience? |  |  |
| A teacher with a master's degree and ten <br> years' experience? |  |  |

22. Are prospective students required to sit a diagnostic or entry test for admission into your school?

Yes
No
23. Does your school use any of the following incentives to reward teacher performance? Select all that apply.

Special leadership position/assignment ( mentor teacher, curriculum dev.)
Choice of class
Release time from teaching
Attendance at conferences and workshops
Other incentives - Please describe
24. Which of the following types of compensation does your school use to reward teacher performance?

Permanent increase to base salary
One-off performance bonus
Both types of rewards
25. What percentage of teachers typically receive permanent increases to their base salary?
26. What percentage of a teacher's salary does the average permanent increase to the base salary represent?
27. What percentage of teachers typically receive a one-off performance bonus?
28. What percentage of a teacher's salary does the average one-off bonus represent?
29. If you could make one change to improve the operation of the school, what would it be?
$\square$
30. What barriers do you face in making the change you described in the previous question?
$\square$
31. If you could make one change to improve student learning at this school, what would it be?
$\square$
32. What barriers do you face in making the change you described in the previous question?
$\square$
33. What use does your school make of information from NAPLAN tests?
$\square$
34. Is there anything about your school's personnel practice that is not covered above and that you think is relevant for our project?
$\square$

Module 1, 2009

## Survey of Australian School Principals

We are conducting a major national survey of primary and secondary school principals. It includes government and non-government schools. We hope the information gathered from this study will contribute to a better understanding of how schools make internal decisions and thereby, contribute to better education policies at the state and federal level.

Your participation is completely voluntary. All responses to this survey will be kept strictly confidential, to the fullest extent permitted by Australian law.

You do not have to answer any questions you do not wish to. Your school will never be identified by name or any other manner that could allow another researcher, government official, or member of the public to infer its identity.

If you have any questions about your rights as a study participant, please contact:
Human Ethics Officer, Research Office,
The Australian National University, Canberra ACT 0200,
Email: human.ethics.officer@anu.edu.au Telephone: 026125 7945.
If you have any questions about the survey or the research project, please contact us at schoolsurvey@anu.edu.au

We want to thank you in advance for your help with this important research.
Do you wish to continue?
Yes
No

1. Please fill out the following information about the person completing this survey:

First Name
$\square$
Last Name
2. Are you the principal or are you another member of the leadership team at [\%\%501:schoolname \%\%]?

I am the principal
I am a member of the school leadership team
3. Please tell us how many years you have been:

In the field of education
As a principal
As the principal of [\%\%501:schoolname \%\%]

4. Would you like to receive a copy of the survey report?

Yes
No
5. Please fill in the email address where you would like the survey report to be sent.

## Email Address

6. Please tell us about the student composition of your school. What is the total number of students currently $\square$ enrolled in your school?

Approximately how many students in your school
 are Indigenous?

Approximately how many students in your school
 are from a non-English speaking background?
Approximately how many full-time teachers are in $\square$ your school?
7. In addition to the teachers, are any of the following staff resources available at your school?

|  |  |  |  |
| :---: | :---: | :---: | :---: |
| Paid teaching assistant for at least one hour a day |  |  |  |
| Parent or volunteer(s) for at least two hours per week |  |  |  |
| Another teacher on at least one day per week |  |  |  |
| Coach or leading teacher for at least four hours per week |  |  |  |

8. According to our information, the lowest grade taught at [\%\%501:schoolname \%\%] is [\%\%504: lowest_grade \%\%] and the highest grade is [\%\%526:highest_grade \%\%]. Is this correct?

Correct
Incorrect
9. Do you require parents/guardians of students in your school to sign their children's completed homework on a regular basis?

Yes
No
10. Please indicate how many of the following types of interactions you have with parents/guardians in an average week. Please exclude forms and newsletters.

|  | Exchanges per week |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | - | $\underset{\sim}{r}$ | $\begin{aligned} & \varphi \\ & \dot{\top} \end{aligned}$ | $\underset{\sim}{\infty}$ | + |
| Phone call, written note, or email exchanges |  |  |  |  |  |
| Face-to-face interactions |  |  |  |  |  |

11. During this academic year, how often has each of the following occurred?

|  |  | ※ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| You observed a teacher conducting a lesson. |  |  |  |  |  |
| A specialist, leading teacher, or coach modelled or critiqued one of your teachers' lessons. |  |  |  |  |  |
| One of your teachers observed another teacher conducting a lesson. |  |  |  |  |  |

12. Approximately, what percentage of teachers in your school are union members? $\square$
13. If a voluntary contribution is requested from parents, please state the annual amount that is requested.
Please include voluntary fees for building funds, $\mathrm{P} \& \mathrm{Cs}$ and $\mathrm{P} \& F \mathrm{~s}$.

14. Last year, what percentage of parents made some voluntary contribution?
15. Of those parents who made some contribution, what was the average voluntary contribution?
16. Excluding voluntary contributions, how much additional revenue does your school raise annually through other sources of income (e.g. fetes, business sponsorship, parking fees)?
17. What special measures does your school take to try to improve low-performing teachers? Select all that apply.

Supervise teachers more closely
Assign an aide to teachers
Assign teachers to mentors or leading teachers
Provide additional professional development for individual teachers
Coaching from yourself
Other - Please describe:
18. What special measures does your school take to try to improve the performance of lowperforming students? Select all that apply.

Recommend to parents that the student repeat the grade
Additional tutoring during regular school hours
Before-school or after-school tutoring paid for by the school
Saturday classes
Develop an individual learning plan for the student
Other - Please describe: $\square$

Complete this section only if: "sector" matches one of the following: 'Catholic', 'Independent'
19. Now we would like to ask you the official fees that students pay per year in whole dollars in the following grades.

| [\%\%504:lowest_grade \%\%] | $\square$ |
| :--- | :---: |
| [\%\%532:median \%\%] | $\square$ |
| [\%\%526:highest_grade \%\%] | $\square$ |

20. What discounts or bursaries are available on the official fees?

|  | Percent of students who get this discount | Typical amount of the discount (as \% of fees) | Not Applicable |
| :---: | :---: | :---: | :---: |
| Sibling discount |  |  |  |
| Discount for children from lowincome families |  |  |  |
| Discount for Indigenous students |  |  |  |
| Discount for children of staff members |  |  |  |
| Other discount - please report here and describe in the comment box below: |  |  |  |

Please describe the other type of discounts or bursaries you reported on above.
21. Please estimate the lowest and highest salary paid for teachers with the following characteristics.

|  | Lowest salary in whole dollars | Highest salary in whole dollars |
| :--- | :--- | :--- |
| A teacher with an undergraduate degree |  |  |
| and no teaching experience? |  |  |
| A teacher with an undergraduate degree <br> and ten years' experience? |  |  |
| A teacher with a master's degree and ten <br> years' experience? |  |  |

22. Are prospective students required to sit a diagnostic or entry test for admission into your school?

Yes
No
23. Does your school use any of the following incentives to reward teacher performance? Select all that apply.

Special leadership position/assignment (mentor teacher, curriculum dev.)
Choice of class
Release time from teaching
Attendance at conferences and workshops
Other incentives - Please describe
24. Which of the following types of compensation does your school use to reward teacher performance?

Permanent increase to base salary
One-off performance bonus
Both types of rewards
25. What percentage of teachers typically receive permanent increases to their base salary?
26. What percentage of a teacher's salary does the average permanent increase to the base salary represent?
27. What percentage of teachers typically receive a one-off performance bonus?
28. What percentage of a teacher's salary does the average one-off bonus represent?
29. How important are the following factors to you in assessing teacher performance/merit?

|  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Direct observation by yourself or another member of the school leadership team |  |  |  |  |
| Peer evaluation |  |  |  |  |
| Test scores of students |  |  |  |  |
| External evaluation |  |  |  |  |

30. For students attending [\%\%532:median \%\%], what time does the school day typically start and finish?

|  | Morning Starting Time | Afternoon Finishing Time |
| :--- | :--- | :--- |
| Please record time |  |  |

31. How much time do your students typically spend on the following subjects in an average week?

|  | Hours and | Minutes per Week | No minimum required time |
| :---: | :---: | :---: | :---: |
| Maths |  |  |  |
| Writing |  |  |  |
| Science |  |  |  |
| Reading |  |  |  |
| Art and Music |  |  |  |
| Social Studies |  |  |  |
| PE/Sport |  |  |  |

32. In an average week, approximately how much time, if any, do your teachers get for collaborative planning with other teachers in the school on:

|  | Hours Per Week |
| :--- | :--- |
| Curriculum and assessment |  |
| Monitoring and review of student performance |  |

33. In an average week, about how many hours per week do your teachers get for class preparation?
34. Please indicate the extent to which you agree or disagree with the following statements:

|  |  |  |  |
| :--- | :---: | :---: | :---: |
| Because of the national assessment program, teachers in this school spend more time on topics or skills |  |  |  |
| that are tested on NAPLAN. |  |  |  |
| Because of the national assessment program, teachers in this school spend more time on topics or skills |  |  |  |
| that are NOT tested on NAPLAN. |  |  |  |

35. If you could make one change to improve the operation of the school, what would it be?
$\square$
36. What barriers do you face in making the change you described in the previous question?
$\square$
37. If you could make one change to improve student learning at this school, what would it be?
$\square$
38. What barriers do you face in making the change you described in the previous question?
$\square$
39. What use does your school make of information from NAPLAN tests?
$\square$
40. Is there anything about your school's personnel practice that is not covered above and that you think is relevant for our project?
$\square$

Module 2, 2009

## Survey of Australian School Principals

We are conducting a major national survey of primary and secondary school principals. It includes government and non-government schools. We hope the information gathered from this study will contribute to a better understanding of how schools make internal decisions and thereby, contribute to better education policies at the state and federal level.

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If you have any questions about your rights as a study participant, please contact:
Human Ethics Officer, Research Office,
The Australian National University, Canberra ACT 0200,
Email: human.ethics.officer@anu.edu.au Telephone: 026125 7945.
If you have any questions about the survey or the research project, please contact us at schoolsurvey@anu.edu.au

We want to thank you in advance for your help with this important research.
Do you wish to continue?
Yes
No

1. Please fill out the following information about the person completing this survey:

First Name
$\square$
Last Name
2. Are you the principal or are you another member of the leadership team at [\%\%501:schoolname \%\%]?

I am the principal
I am a member of the school leadership team
3. Please tell us how many years you have been:

In the field of education
As a principal
As the principal of [\%\%501:schoolname \%\%]

4. Would you like to receive a copy of the survey report?

Yes
No
5. Please fill in the email address where you would like the survey report to be sent.

## Email Address

6. Please tell us about the student composition of your school. What is the total number of students currently $\square$ enrolled in your school?

Approximately how many students in your school
 are Indigenous?

Approximately how many students in your school
 are from a non-English speaking background?

Approximately how many full-time teachers are in $\square$ your school?
7. In addition to the teachers, are any of the following staff resources available at your school?

|  |  |  |  |
| :---: | :---: | :---: | :---: |
| Paid teaching assistant for at least one hour a day |  |  |  |
| Parent or volunteer(s) for at least two hours per week |  |  |  |
| Another teacher on at least one day per week |  |  |  |
| Coach or leading teacher for at least four hours per week |  |  |  |

8. According to our information, the lowest grade taught at [\%\%501:schoolname \%\%] is [\%\%504: lowest_grade \%\%] and the highest grade is [\%\%526:highest_grade \%\%]. Is this correct?

Correct
Incorrect
9. Do you require parents/guardians of students in your school to sign their children's completed homework on a regular basis?

Yes
No
10. Please indicate how many of the following types of interactions you have with parents/guardians in an average week. Please exclude forms and newsletters.

|  | Exchanges per week |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | - | $\underset{\sim}{r}$ | $\begin{aligned} & \varphi \\ & \dot{\top} \end{aligned}$ | $\underset{\sim}{\infty}$ | + |
| Phone call, written note, or email exchanges |  |  |  |  |  |
| Face-to-face interactions |  |  |  |  |  |

11. During this academic year, how often has each of the following occurred?

|  |  | ※ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| You observed a teacher conducting a lesson. |  |  |  |  |  |
| A specialist, leading teacher, or coach modelled or critiqued one of your teachers' lessons. |  |  |  |  |  |
| One of your teachers observed another teacher conducting a lesson. |  |  |  |  |  |

12. Approximately, what percentage of teachers in your school are union members? $\square$
13. If a voluntary contribution is requested from parents, please state the annual amount that is requested.
Please include voluntary fees for building funds, $\mathrm{P} \& \mathrm{Cs}$ and $\mathrm{P} \& F \mathrm{~s}$.

14. Last year, what percentage of parents made some voluntary contribution?
15. Of those parents who made some contribution, what was the average voluntary contribution?
16. Excluding voluntary contributions, how much additional revenue does your school raise annually through other sources of income (e.g. fetes, business sponsorship, parking fees)?
17. What special measures does your school take to try to improve low-performing teachers? Select all that apply.

Supervise teachers more closely
Assign an aide to teachers
Assign teachers to mentors or leading teachers
Provide additional professional development for individual teachers
Coaching from yourself
Other - Please describe:
18. What special measures does your school take to try to improve the performance of lowperforming students? Select all that apply.

Recommend to parents that the student repeat the grade
Additional tutoring during regular school hours
Before-school or after-school tutoring paid for by the school
Saturday classes
Develop an individual learning plan for the student
Other - Please describe: $\square$

Complete this section only if: "sector" matches one of the following: 'Catholic', 'Independent'
19. Now we would like to ask you the official fees that students pay per year in whole dollars in the following grades.

| [\%\%504:lowest_grade \%\%] | $\square$ |
| :--- | :---: |
| [\%\%532:median \%\%] | $\square$ |
| [\%\%526:highest_grade \%\%] | $\square$ |

20. What discounts or bursaries are available on the official fees?

|  | Percent of students who get this discount | Typical amount of the discount (as \% of fees) | Not Applicable |
| :---: | :---: | :---: | :---: |
| Sibling discount |  |  |  |
| Discount for children from lowincome families |  |  |  |
| Discount for Indigenous students |  |  |  |
| Discount for children of staff members |  |  |  |
| Other discount - please report here and describe in the comment box below: |  |  |  |

Please describe the other type of discounts or bursaries you reported on above.
21. Please estimate the lowest and highest salary paid for teachers with the following characteristics.

|  | Lowest salary in whole dollars | Highest salary in whole dollars |
| :--- | :--- | :--- |
| A teacher with an undergraduate degree |  |  |
| and no teaching experience? |  |  |
| A teacher with an undergraduate degree <br> and ten years' experience? |  |  |
| A teacher with a master's degree and ten <br> years' experience? |  |  |

22. Are prospective students required to sit a diagnostic or entry test for admission into your school?

Yes
No
23. Does your school use any of the following incentives to reward teacher performance? Select all that apply.

Special leadership position/assignment ( mentor teacher, curriculum dev.)
Choice of class
Release time from teaching
Attendance at conferences and workshops
Other incentives - Please describe
24. Which of the following types of compensation does your school use to reward teacher performance?

Permanent increase to base salary
One-off performance bonus
Both types of rewards
25. What percentage of teachers typically receive permanent increases to their base salary?
26. What percentage of a teacher's salary does the average permanent increase to the base salary represent?
27. What percentage of teachers typically receive a one-off performance bonus?
28. What percentage of a teacher's salary does the average one-off bonus represent?
29. During the last three academic years, were any of the following types of teachers at your school dismissed or counselled to leave for poor performance?

Teachers with three or fewer years of experience
Teachers with more than three years of experience
Teachers with less than and more than three years of experience
30. What percent of teachers with three or fewer years of experience were dismissed or counselled out?
31. What percent of teachers with more than three years of experience were dismissed or counselled out?
32. For students attending [\%\%532:median \%\%], what time does the school day typically start and finish?

|  | Morning Starting Time | Afternoon Finishing Time |
| :--- | :--- | :--- |
| Please record times |  |  |

33. Does your school have a policy on the minimum amount of time [\%\%532:median \%\%] students must spend on the following academic subjects? If "Yes," indicate the minimum number of hours per week.

|  | Hours and | Minutes per Week | No minimum required time |
| :---: | :---: | :---: | :---: |
| Maths |  |  |  |
| Reading |  |  |  |
| Writing |  |  |  |
| Art and Music |  |  |  |
| Science |  |  |  |
| Social Studies |  |  |  |
| PE/Sport |  |  |  |

34. In an average week, how much time beyond regular school hours, does the typical teacher in your school spend in the following school-related activities?

|  | Hours | Minutes |
| :---: | :---: | :---: |
| Activities that involve student interaction, such as field trips, music instruction, sports coaching, or tutoring |  |  |
| Other activities that <u>do not </u>directly include students, such as class preparation, grading papers, parent conferences, attending meetings |  |  |

35. Please indicate the extent to which you agree or disagree with the following statements:

|  | $\begin{aligned} & \text { तo } \\ & \text { 응 } \\ & \text { 응 } \\ & \text { 心. } \end{aligned}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Public reporting of school-level NAPLAN results leads teachers in this school to spend less time with the lowest-performing students. |  |  |  |  |
| Public reporting of school-level NAPLAN results leads teachers in this school to spend less time with the highest-performing students. |  |  |  |  |
| My school's NAPLAN results are an accurate reflection of its overall quality. |  |  |  |  |
| Most teachers in this school have low academic expectations for students. |  |  |  |  |
| Most parents/guardians of students in this school help with their homework assignments. |  |  |  |  |

36. If you could make one change to improve the operation of the school, what would it be?
$\square$
37. What barriers do you face in making the change you described in the previous question?
$\square$
38. If you could make one change to improve student learning at this school, what would it be?
$\square$
39. What barriers do you face in making the change you described in the previous question?
$\square$
40. What use does your school make of information from NAPLAN tests?
$\square$
41. Is there anything about your school's personnel practice that is not covered above and that you think is relevant for our project?

Module 3, 2009

## Survey of Australian School Principals

We are conducting a major national survey of primary and secondary school principals. It includes government and non-government schools. We hope the information gathered from this study will contribute to a better understanding of how schools make internal decisions and thereby, contribute to better education policies at the state and federal level.

Your participation is completely voluntary. All responses to this survey will be kept strictly confidential, to the fullest extent permitted by Australian law.

You do not have to answer any questions you do not wish to. Your school will never be identified by name or any other manner that could allow another researcher, government official, or member of the public to infer its identity.

If you have any questions about your rights as a study participant, please contact:
Human Ethics Officer, Research Office,
The Australian National University, Canberra ACT 0200,
Email: human.ethics.officer@anu.edu.au Telephone: 026125 7945.
If you have any questions about the survey or the research project, please contact us at schoolsurvey@anu.edu.au

We want to thank you in advance for your help with this important research.
Do you wish to continue?
Yes
No

1. Please fill out the following information about the person completing this survey:

First Name
$\square$
Last Name
2. Are you the principal or are you another member of the leadership team at [\%\%501:schoolname \%\%]?

I am the principal
I am a member of the school leadership team
3. Please tell us how many years you have been:

In the field of education
As a principal
As the principal of [\%\%501:schoolname \%\%]

4. Would you like to receive a copy of the survey report?

Yes
No
5. Please fill in the email address where you would like the survey report to be sent.

## Email Address

6. Please tell us about the student composition of your school. What is the total number of students currently $\square$ enrolled in your school?

Approximately how many students in your school
 are Indigenous?

Approximately how many students in your school
 are from a non-English speaking background?

Approximately how many full-time teachers are in $\square$ your school?
7. In addition to the teachers, are any of the following staff resources available at your school?

|  |  |  |  |
| :---: | :---: | :---: | :---: |
| Paid teaching assistant for at least one hour a day |  |  |  |
| Parent or volunteer(s) for at least two hours per week |  |  |  |
| Another teacher on at least one day per week |  |  |  |
| Coach or leading teacher for at least four hours per week |  |  |  |

8. According to our information, the lowest grade taught at [\%\%501:schoolname \%\%] is [\%\%504: lowest_grade \%\%] and the highest grade is [\%\%526:highest_grade \%\%]. Is this correct?

Correct
Incorrect
9. Do you require parents/guardians of students in your school to sign their children's completed homework on a regular basis?

Yes
No
10. Please indicate how many of the following types of interactions you have with parents/guardians in an average week. Please exclude forms and newsletters.

|  | Exchanges per week |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | - | $\underset{\sim}{?}$ | $\begin{aligned} & \varphi \\ & \dot{+} \end{aligned}$ | $\underset{\sim}{\infty}$ | + |
| Phone call, written note, or email exchanges |  |  |  |  |  |
| Face-to-face interactions |  |  |  |  |  |

11. During this academic year, how often has each of the following occurred?

|  |  | ※ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| You observed a teacher conducting a lesson. |  |  |  |  |  |
| A specialist, leading teacher, or coach modelled or critiqued one of your teachers' lessons. |  |  |  |  |  |
| One of your teachers observed another teacher conducting a lesson. |  |  |  |  |  |

12. Approximately, what percentage of teachers in your school are union members? $\square$
13. If a voluntary contribution is requested from parents, please state the annual amount that is requested.
Please include voluntary fees for building funds, $\mathrm{P} \& \mathrm{Cs}$ and $\mathrm{P} \& F \mathrm{~s}$.

14. Last year, what percentage of parents made some voluntary contribution?
15. Of those parents who made some contribution, what was the average voluntary contribution?
16. Excluding voluntary contributions, how much additional revenue does your school raise annually through other sources of income (e.g. fetes, business sponsorship, parking fees)?
17. What special measures does your school take to try to improve low-performing teachers? Select all that apply.

Supervise teachers more closely
Assign an aide to teachers
Assign teachers to mentors or leading teachers
Provide additional professional development for individual teachers
Coaching from yourself
Other - Please describe:
18. What special measures does your school take to try to improve the performance of lowperforming students? Select all that apply.

Recommend to parents that the student repeat the grade
Additional tutoring during regular school hours
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Saturday classes
Develop an individual learning plan for the student
Other - Please describe: $\square$

Complete this section only if: "sector" matches one of the following: 'Catholic', 'Independent'
19. Now we would like to ask you the official fees that students pay per year in whole dollars in the following grades.

| [\%\%504:lowest_grade \%\%] | $\square$ |
| :--- | :---: |
| [\%\%532:median \%\%] | $\square$ |
| [\%\%526:highest_grade \%\%] | $\square$ |

20. What discounts or bursaries are available on the official fees?

|  | Percent of students who get this discount | Typical amount of the discount (as \% of fees) | Not Applicable |
| :---: | :---: | :---: | :---: |
| Sibling discount |  |  |  |
| Discount for children from lowincome families |  |  |  |
| Discount for Indigenous students |  |  |  |
| Discount for children of staff members |  |  |  |
| Other discount - please report here and describe in the comment box below: |  |  |  |

Please describe the other type of discounts or bursaries you reported on above.
21. Please estimate the lowest and highest salary paid for teachers with the following characteristics.

|  | Lowest salary in whole dollars | Highest salary in whole dollars |
| :--- | :--- | :--- | :--- |
| A teacher with an undergraduate degree |  |  |
| and no teaching experience? |  |  |
| A teacher with an undergraduate degree |  |  |
| and ten years' experience? |  |  |

22. Are prospective students required to sit a diagnostic or entry test for admission into your school?

Yes
No
23. Does your school use any of the following incentives to reward teacher performance? Select all that apply.

Special leadership position/assignment (mentor teacher, curriculum dev.)
Choice of class
Release time from teaching
Attendance at conferences and workshops
Other incentives - Please describe
24. Which of the following types of compensation does your school use to reward teacher performance?

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28. What percentage of a teacher's salary does the average one-off bonus represent?
29. During the last three academic years, were any of the following types of teachers at your school dismissed or counselled to leave for poor performance?

Teachers with three or fewer years of experience
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32. For students attending [\%\%532:median \%\%], what time does the school day typically start and finish?

|  | Morning Starting Time | Afternoon Finishing Time |
| :--- | :--- | :--- |
| Please record times |  |  |

33. Using a scale from 1 to 4 , where 1 is "No influence" and 4 is "Complete control," indicate how much actual influence each of the following actors has on decisions concerning the following activities in your school.
a. Establishing curriculum

|  |  | $\sim$ | m |  |
| :---: | :---: | :---: | :---: | :---: |
| State/territory education department |  |  |  |  |
| Principal |  |  |  |  |
| Teachers at this school |  |  |  |  |
| Parents |  |  |  |  |

b. Hiring new full-time teachers

|  |  | $\sim$ | $\cdots$ |  |
| :---: | :---: | :---: | :---: | :---: |
| State/territory education department |  |  |  |  |
| Principal |  |  |  |  |
| Teachers at this school |  |  |  |  |
| Parents |  |  |  |  |

c. Deciding how this school's budget will be spent

|  |  | $\sim$ | m |  |
| :---: | :---: | :---: | :---: | :---: |
| State/territory education department |  |  |  |  |
| Principal |  |  |  |  |
| Teachers at this school |  |  |  |  |
| Parents |  |  |  |  |

## d. Evaluating teachers

|  |  |  |  | 0 |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | 0 |  |  | 0 |
| 0.0 |  |  |  |  |

34. On an average school night, how much time does your school expect [\%\%532:median \%\%] students to spend on homework in the following subjects?

|  | Minutes Per Night | Not Applicable |
| :--- | :--- | :--- | :--- |
| Maths |  |  |
| Reading |  |  |
| Writing |  |  |
| All other subjects |  |  |

35. If you could make one change to improve the operation of the school, what would it be?
$\square$
36. What barriers do you face in making the change you described in the previous question?
$\square$
37. If you could make one change to improve student learning at this school, what would it be?
$\square$
38. What barriers do you face in making the change you described in the previous question?
$\square$
39. What use does your school make of information from NAPLAN tests?
$\square$
40. Is there anything about your school's personnel practice that is not covered above and that you think is relevant for our project?
$\square$

Module 4, 2009

## Survey of Australian School Principals

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If you have any questions about your rights as a study participant, please contact:
Human Ethics Officer, Research Office,
The Australian National University, Canberra ACT 0200,
Email: human.ethics.officer@anu.edu.au Telephone: 026125 7945.
If you have any questions about the survey or the research project, please contact us at schoolsurvey@anu.edu.au

We want to thank you in advance for your help with this important research.
Do you wish to continue?
Yes
No

1. Please fill out the following information about the person completing this survey:

First Name
$\square$
Last Name
2. Are you the principal or are you another member of the leadership team at [\%\%501:schoolname \%\%]?

I am the principal
I am a member of the school leadership team
3. Please tell us how many years you have been:

In the field of education
As a principal
As the principal of [\%\%501:schoolname \%\%]

4. Would you like to receive a copy of the survey report?

Yes
No
5. Please fill in the email address where you would like the survey report to be sent.

Email Address
6. Please tell us about the student composition of your school. What is the total number of students currently $\square$ enrolled in your school?

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 are Indigenous?

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 are from a non-English speaking background?
Approximately how many full-time teachers are in $\square$ your school?
7. In addition to the teachers, are any of the following staff resources available at your school?

|  |  |  |  |
| :---: | :---: | :---: | :---: |
| Paid teaching assistant for at least one hour a day |  |  |  |
| Parent or volunteer(s) for at least two hours per week |  |  |  |
| Another teacher on at least one day per week |  |  |  |
| Coach or leading teacher for at least four hours per week |  |  |  |

8. According to our information, the lowest grade taught at [\%\%501:schoolname \%\%] is [\%\%504: lowest_grade \%\%] and the highest grade is [\%\%526:highest_grade \%\%]. Is this correct?

Correct
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9. Do you require parents/guardians of students in your school to sign their children's completed homework on a regular basis?

Yes
No
10. Please indicate how many of the following types of interactions you have with parents/guardians in an average week. Please exclude forms and newsletters.

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| :---: | :---: | :---: | :---: | :---: | :---: |
|  | - | $\underset{\sim}{?}$ | $\begin{aligned} & \varphi \\ & \dot{+} \end{aligned}$ | $\underset{\sim}{\infty}$ | + |
| Phone call, written note, or email exchanges |  |  |  |  |  |
| Face-to-face interactions |  |  |  |  |  |

11. During this academic year, how often has each of the following occurred?

|  |  | ※ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| You observed a teacher conducting a lesson. |  |  |  |  |  |
| A specialist, leading teacher, or coach modelled or critiqued one of your teachers' lessons. |  |  |  |  |  |
| One of your teachers observed another teacher conducting a lesson. |  |  |  |  |  |

12. Approximately, what percentage of teachers in your school are union members? $\square$
13. If a voluntary contribution is requested from parents, please state the annual amount that is requested.
Please include voluntary fees for building funds, $\mathrm{P} \& \mathrm{Cs}$ and $\mathrm{P} \& F \mathrm{~s}$.

14. Last year, what percentage of parents made some voluntary contribution?
$\square$
15. Of those parents who made some contribution, what was the average voluntary contribution?
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Complete this section only if: "sector" matches one of the following: 'Catholic', 'Independent'
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| [\%\%504:lowest_grade \%\%] | $\square$ |
| :--- | :---: |
| [\%\%532:median \%\%] | $\square$ |
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20. What discounts or bursaries are available on the official fees?

|  | Percent of students who get this discount | Typical amount of the discount (as \% of fees) | Not Applicable |
| :---: | :---: | :---: | :---: |
| Sibling discount |  |  |  |
| Discount for children from lowincome families |  |  |  |
| Discount for Indigenous students |  |  |  |
| Discount for children of staff members |  |  |  |
| Other discount - please report here and describe in the comment box below: |  |  |  |

Please describe the other type of discounts or bursaries you reported on above.
21. Please estimate the lowest and highest salary paid for teachers with the following characteristics.

|  | Lowest Salary in whole dollars | Highest Salary in whole dollars |
| :--- | :--- | :--- |
| A teacher with an undergraduate degree |  |  |
| and no teaching experience? |  |  |
| A teacher with an undergraduate degree <br> and ten years' experience? |  |  |
| A teacher with a master's degree and ten <br> years' experience? |  |  |

22. Are prospective students required to sit a diagnostic or entry test for admission into your school?

Yes
No
23. Does your school use any of the following incentives to reward teacher performance? Select all that apply.

Special leadership position/assignment (mentor teacher, curriculum dev.)
Choice of class
Release time from teaching
Attendance at conferences and workshops
Other incentives - Please describe
24. Which of the following types of compensation does your school use to reward teacher performance?

Permanent increase to base salary
One-off performance bonus
Both types of rewards
25. What percentage of teachers typically receive permanent increases to their base salary?
26. What percentage of a teacher's salary does the average permanent increase to the base salary represent?
27. What percentage of teachers typically receive a one-off performance bonus?
28. What percentage of a teacher's salary does the average one-off bonus represent?
29. How important are the following factors to you in assessing teacher performance/merit?

|  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Direct observation by yourself or another member of the school leadership team |  |  |  |  |
| Peer evaluation |  |  |  |  |
| Test scores of students |  |  |  |  |
| External evaluation |  |  |  |  |

30. For students attending [\%\%532:median \%\%], what time does the school day typically start and finish?

|  | Morning Starting Time | Afternoon Finishing Time |
| :--- | :--- | :--- |
| Please record times |  |  |

31. In order to give extra attention to particular subjects, such as maths, some schools use additional school staff to teach that subject so that the effective class size (number of students per teacher) for that subject is smaller than it is for other subjects.

- We are not referring to grouping you may do within the classroom, but to a restructuring of staff and student class assignments into smaller instructional sections for particular subjects. - We are also not referring to supplemental instruction, but to regular instruction.

Do any of your students receive regular instruction from a teacher in smaller sections in any subject?

## Yes

No
32.

What is the typical number of students per teacher when gifted students receive regular instruction in smaller sections... (Check "Not Applicable" if gifted students do not receive instruction in smaller sections for that subject.)

|  |  |  |  | students per teacher | Not Applicable |
| :--- | :--- | :--- | :---: | :---: | :---: |
|  | in maths? |  |  |  |  |
| in reading? |  |  |  |  |  |
|  |  |  |  |  |  |
| in writing? |  |  |  |  |  |

33. What is the typical number of students per teacher when students having academic difficulties receive regular instruction in smaller sections... (Check "Not Applicable" if students with academic difficulties do not receive instruction in smaller sections for that subject.)

|  | students per teacher | Not Applicable |
| :---: | :---: | :---: |
| in maths? |  |  |
| in reading? |  |  |
| in writing? |  |  |

34. 

What is the typical number of students per teacher when ESL students receive regular instruction in smaller sections... (Check "Not Applicable" if ESL students do not receive instruction in smaller sections for that subject.)

|  |  |  |  | students per teacher | Not Applicable |
| :--- | :--- | :--- | :---: | :---: | :---: |
| in maths? |  |  |  |  |  |
| in reading? |  |  |  |  |  |
| in writing? |  |  |  |  |  |

35. What is the typical number of students per teacher when regular students receive regular instruction in smaller sections... (Check "Not Applicable" if regular students do not receive instruction in smaller sections for that subject.)

|  | students per teacher | Not Applicable |
| :---: | :---: | :---: |
| in maths? |  |  |
| in reading? |  |  |
| in writing? |  |  |

36. How important are the following criteria when evaluating an applicant for a teaching position in your school?

|  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Proficiency in a second language |  |  |  |  |
| Previous teaching experience |  |  |  |  |
| The NAPLAN results at the school where the applicant last taught |  |  |  |  |
| University specialisation in subject to be taught |  |  |  |  |
| Teacher's own grades from university |  |  |  |  |
| Racial/ethnic match between applicant and students |  |  |  |  |
| Applicant's understanding of the particular needs of students at this school |  |  |  |  |
| Applicant's performance in teaching a sample lesson |  |  |  |  |

37. If you could make one change to improve the operation of the school, what would it be?
$\square$
38. What barriers do you face in making the change you described in the previous question?
$\square$
39. If you could make one change to improve student learning at this school, what would it be?
$\square$
40. What barriers do you face in making the change you described in the previous question?

41. What use does your school make of information from NAPLAN tests?
$\square$
42. Is there anything about your school's personnel practice that is not covered above and that you think is relevant for our project?
$\square$

Core Module, 2012

## Survey of Australian School Principals 2012

We are conducting a major national survey of primary and secondary school principals. It includes government and non-government schools. We hope the information gathered from this study will contribute to a better understanding of how schools make internal decisions and thereby, contribute to better education policies at the state and federal level.

Your participation is completely voluntary. All responses to this survey will be kept strictly confidential, to the fullest extent permitted by Australian law.

You do not have to answer any questions you do not wish to. Your school will never be identified by name or any other manner that could allow another researcher, government official, or member of the public to infer its identity.

If you have any questions about your rights as a study participant, please contact:

Ethics Secretariat, Grants Management Office, University of New South Wales, SYDNEY, NSW, 2052,
Email: ethics.sec@unsw.edu.au Telephone: 0293854234.

If you have any questions about the survey or the research project, please contact us at schoolsurvey@asps2012.org

We want to thank you in advance for your help with this important research.

Do you wish to continue?

- Yes

O No

## Hidden Values

1. Please fill out the following information about the person completing this survey:

First Name
$\square$

Last Name
$\square$
2. Are you the principal or are you another member of leadership team at [\% $\% 501$ :schoolname \%\%]?

- Iam the principal
- I am a member of the school leadership team

4. Please tell us about the student composition of your school.

What is the total number of students currently enrolled in your school? $\square$
Approximately how many students in your school are Indigenous? $\square$
Approximately how many students in your school are from a non-English speaking background? $\square$
Approximately how many full-time teachers are in your school? $\square$
5. In addition to the teachers, are any of the following staff resources available at your school?

|  | Yes, in all <br> classrooms | Yes, in some <br> classrooms | Not in any <br> classrooms |
| :--- | :---: | :---: | :---: |
| Paid teaching assistant for at least <br> one hour a day | 0 |  | 0 |
| Parent or volunteer(s) for at least two <br> hours per week |  |  |  |
| Another teacher on at least one day <br> per week |  |  |  |
| Coach or leading teacher for at least <br> four hours per week |  |  |  |

6. Please tell us about the range of grades of students taught at your school.

If the lowest grade taught is prior to year 1 (e.g. kindergarten, prep), please enter a zero (O). For example, if your school is a primary school teaching students from a pre-year one preperatory grade to grade 6 , enter 0,3 and 6 for the lowest, middle and highest grades respectively.

Lowest grade taught is year: $\square$
Middle grade taught is year: $\square$
Highest grade taught is year: $\square$
7. Do you require parents/guardians of students in your school to sign their children's completed homework on a regular basis?Yes

- No

8. Please indicate how many of the following types of interactions you have with parents/guardians in an average week. Please exclude forms and newsletters.

|  | Exchanges per week |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | 0 | $1-3$ | $4-6$ | $7-9$ | $10+$ |
| Phone call, written note, or email <br> exchanges | 0 | 0 | 0 | 0 | 0 |
| Face-to-face interactions | 0 | 0 | 0 | 0 | 0 |

9. During this academic year, how often has each of the following occurred?

|  | Never | Once | $2-3$ <br> times | 4 -5 times | $>5$ times |
| :--- | :---: | :---: | :---: | :---: | :---: |
| You observed a teacher <br> conducting a lesson. | 0 | 0 |  |  |  |
| A specialist, leading teacher, or <br> coach modelled or critiqued one <br> of your teachers' lessons. | 0 | 0 | 0 | 0 |  |
| One of your teachers observed <br> another teacher conducting a <br> lesson. | 0 | 0 | 0 | 0 |  |

10. Approximately, what percentage of teachers in your school are union members?
$\square$
11. If a voluntary contribution is requested from parents, please state the annual amount that is requested.
Please include voluntary fees for building funds, P\&Cs and P\&Fs.
\$ $\square$ per parent per year in whole dollars
12. Last year, what percentage of parents made some voluntary contribution?

13. Of those parents who made some contribution, what was the average voluntary contribution?
\$ $\square$ per parent per year in whole dollars
14. Excluding voluntary contributions, how much additional revenue does your school raise annually through other sources of income (e.g. fetes, business sponsorship, parking fees)?
\$ $\square$ in total per year in whole dollars
15. What special measures does your school take to try to improve low-performing teachers? Select all that apply.

Supervise teachers more closely
Assign an aide to teachers
Assign teachers to mentors or leading teachers
Provide additional professional development for individual teachers
$\square$ Coaching from yourself
$\square$ Other - Please describe: $\square$
16. What special measures does your school take to try to improve the performance of lowperforming students? Select all that apply.

Recommend to parents that the student repeat the grade
Additional tutoring during regular school hours
$\square$ Before-school or after-school tutoring paid for by the school
$\square$ Saturday classes
$\square$ Develop an individual learning plan for the student
$\square$ Other - Please describe: $\square$
17. Now we would like to ask you the official fees that students pay per year in whole dollars in the following grades.

Lowest grade taught (year [question("option value"), id="729", option="10067"]) $\square$
Middle grade taught (year [question("option value"), id="729", option="10068"]) $\square$

Highest grade taught (year [question("option value"), id="729", option="10069"])
18. What discounts or bursaries are available on the official fees?

|  | Percent of students who <br> get this discount | Typical amount of the <br> discount (as \% of fees) | Not <br> Applicable |  |
| :--- | :---: | :---: | :---: | :---: |
| Sibling discount | $\square$ |  | $\square$ | $\square$ |
| Discount for children <br> from low-income <br> families | $\square$ |  | $\square$ | $\square$ |
| Discount for <br> Indigenous students | $\square$ |  | $\square$ | $\square$ |
| Discount for children <br> of staff members | $\square$ | $\square$ | $\square$ | $\square$ |
| Other discount - <br> please report here <br> and describe in the <br> comment box below: | $\square$ |  | $\square$ | $\square$ |

Please describe the other type of discounts or bursaries you reported on above.
$\square$
19. Please estimate the lowest and highest salary paid for teachers with the following characteristics.

|  | Lowest Salary in <br> whole dollars | Highest Salary in <br> whole dollars |
| :--- | :--- | :--- |
| A teacher with an undergraduate degree and <br> no teaching experience? |  |  |
| A teacher with an undergraduate degree and <br> ten years' experience? |  |  |
| A teacher with a master's degree and ten <br> years' experience? | $\square$ | $\square$ |

20. Are prospective students required to sit a diagnostic or entry test for admission into your school?Yes

- No

21. Does your school use any of the following incentives to reward teacher performance? Select all that apply.

Special leadership position/assignment ( mentor teacher, curriculum dev.)
Choice of class
Release time from teaching
Attendance at conferences and workshops

Other incentives - Please describe $\square$
22. Which of the following types of compensation does your school use to reward teacher performance?Permanent increase to base salaryOne-off performance bonus

- Both types of rewards

23. If you could make one change to improve the operation of the school, what would it be?
$\square$
24. What barriers do you face in making the change you described in the previous question?
$\square$
25. If you could make one change to improve student learning at this school, what would it be?
$\square$
26. What barriers do you face in making the change you described in the previous question?
$\square$
27. What use does your school make of information from NAPLAN tests?
$\square$
28. Overall, do you think that the introduction of the My Schools website has had a positive, negative, or neutral effect on your school?Positive EffectNeutral EffectNegative Effect
29. Please provide some details of how, if at all, the introduction of the My Schools website has affected your school.
$\square$
30. Is there anything about your school's personnel practice that is not covered above and that you think is relevant for our project?
$\square$

## New Page

31. Would you like your school entered into the draw to win an education support package up to the value of $\$ 2,000$ ?

- Yes

O No

## Thank You!

Thank you for assisting us with this important survey. Your time and effort are greatly appreciated.

If you have any questions about the research or about any of the questions contained in the questionnaire, please feel free to contact the research team at: schoolsurvey@asps2012.org

Module 1, 2012

## Survey of Australian School Principals 2012

We are conducting a major national survey of primary and secondary school principals. It includes government and non-government schools. We hope the information gathered from this study will contribute to a better understanding of how schools make internal decisions and thereby, contribute to better education policies at the state and federal level.

Your participation is completely voluntary. All responses to this survey will be kept strictly confidential, to the fullest extent permitted by Australian law.

You do not have to answer any questions you do not wish to. Your school will never be identified by name or any other manner that could allow another researcher, government official, or member of the public to infer its identity.

If you have any questions about your rights as a study participant, please contact:

Ethics Secretariat, Grants Management Office,
University of New South Wales, SYDNEY, NSW, 2052,
Email: ethics.sec@unsw.edu.au Telephone: 0293854234.

If you have any questions about the survey or the research project, please contact us at schoolsurvey@asps2012.org

We want to thank you in advance for your help with this important research.

Do you wish to continue?

- Yes

O No

## Hidden Values

1. Please fill out the following information about the person completing this survey:

First Name
$\square$

Last Name
$\square$
2. Are you the principal or are you another member of the leadership team at [\%\%501:schoolname \%\%]?

- Iam the principal
- I am a member of the school leadership team

4. Please tell us about the student composition of your school.

What is the total number of students currently enrolled in your school? $\square$
Approximately how many students in your school are Indigenous? $\square$
Approximately how many students in your school are from a non-English speaking background? $\square$
Approximately how many full-time teachers are in your school? $\square$
5. In addition to the teachers, are any of the following staff resources available at your school?

|  | Yes, in all <br> classrooms | Yes, in some <br> classrooms | Not in any <br> classrooms |
| :--- | :---: | :---: | :---: |
| Paid teaching assistant for at least <br> one hour a day | 0 |  | 0 |
| Parent or volunteer(s) for at least two <br> hours per week |  |  |  |
| Another teacher on at least one day <br> per week |  |  |  |
| Coach or leading teacher for at least <br> four hours per week |  |  |  |

6. Please tell us about the range of grades of students taught at your school.

If the lowest grade taught is prior to year 1 (e.g. kindergarten, prep), please enter a zero (O). For example, if your school is a primary school teaching students from a pre-year one preperatory grade to grade 6 , enter 0,3 and 6 for the lowest, middle and highest grades respectively.

Lowest grade taught is year: $\square$
Middle grade taught is year: $\square$
Highest grade taught is year: $\square$
7. Do you require parents/guardians of students in your school to sign their children's completed homework on a regular basis?Yes

- No

8. Please indicate how many of the following types of interactions you have with parents/guardians in an average week. Please exclude forms and newsletters.

|  | Exchanges per week |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | 0 | $1-3$ | $4-6$ | $7-9$ | $10+$ |
| Phone call, written note, or email <br> exchanges | 0 | 0 | 0 | 0 | 0 |
| Face-to-face interactions | 0 | 0 | 0 | 0 | 0 |

9. During this academic year, how often has each of the following occurred?

|  | Never | Once | $2-3$ <br> times | 4 -5 times | $>5$ times |
| :--- | :---: | :---: | :---: | :---: | :---: |
| You observed a teacher <br> conducting a lesson. | 0 | 0 |  |  |  |
| A specialist, leading teacher, or <br> coach modelled or critiqued one <br> of your teachers' lessons. | 0 | 0 | 0 | 0 |  |
| One of your teachers observed <br> another teacher conducting a <br> lesson. | 0 | 0 | 0 | 0 |  |

10. Approximately, what percentage of teachers in your school are union members?
$\square$
11. If a voluntary contribution is requested from parents, please state the annual amount that is requested.
Please include voluntary fees for building funds, P\&Cs and P\&Fs.
\$ $\square$ per parent per year in whole dollars
12. Last year, what percentage of parents made some voluntary contribution?

13. Of those parents who made some contribution, what was the average voluntary contribution?
\$ $\square$ per parent per year in whole dollars
14. Excluding voluntary contributions, how much additional revenue does your school raise annually through other sources of income (e.g. fetes, business sponsorship, parking fees)?
\$ $\square$ in total per year in whole dollars
15. What special measures does your school take to try to improve low-performing teachers? Select all that apply.

Supervise teachers more closely
Assign an aide to teachers
Assign teachers to mentors or leading teachers
Provide additional professional development for individual teachers
$\square$ Coaching from yourself
$\square$ Other - Please describe: $\square$
16. What special measures does your school take to try to improve the performance of lowperforming students? Select all that apply.

Recommend to parents that the student repeat the grade
Additional tutoring during regular school hours
$\square$ Before-school or after-school tutoring paid for by the school
$\square$ Saturday classes
$\square$ Develop an individual learning plan for the student
$\square$ Other - Please describe: $\square$
17. Now we would like to ask you the official fees that students pay per year in whole dollars in the following grades.

Lowest grade taught (year [question("option value"), id="782", option="10075"]) $\square$
Middle grade taught (year [question("option value"), id="782", option="10076"]) $\square$

Highest grade taught (year [question("option value"), id="782", option="10077"])
18. What discounts or bursaries are available on the official fees?

|  | Percent of students who <br> get this discount | Typical amount of the <br> discount (as \% of fees) | Not <br> Applicable |  |
| :--- | :---: | :---: | :---: | :---: |
| Sibling discount | $\square$ |  | $\square$ | $\square$ |
| Discount for children <br> from low-income <br> families | $\square$ |  | $\square$ | $\square$ |
| Discount for <br> Indigenous students | $\square$ |  | $\square$ | $\square$ |
| Discount for children <br> of staff members | $\square$ | $\square$ | $\square$ | $\square$ |
| Other discount - <br> please report here <br> and describe in the <br> comment box below: | $\square$ |  | $\square$ | $\square$ |

Please describe the other type of discounts or bursaries you reported on above.
$\square$
19. Please estimate the lowest and highest salary paid for teachers with the following characteristics.

|  | Lowest salary in <br> whole dollars | Highest salary in <br> whole dollars |
| :--- | :--- | :--- |
| A teacher with an undergraduate degree and <br> no teaching experience? |  |  |
| A teacher with an undergraduate degree and <br> ten years' experience? |  |  |
| A teacher with a master's degree and ten <br> years' experience? | $\square$ | $\square$ |

20. Are prospective students required to sit a diagnostic or entry test for admission into your school?Yes

- No

21. Does your school use any of the following incentives to reward teacher performance? Select all that apply.

Special leadership position/assignment (mentor teacher, curriculum dev.)
Choice of class
Release time from teaching
Attendance at conferences and workshops

Other incentives - Please describe $\square$
22. Which of the following types of compensation does your school use to reward teacher performance?

- Permanent increase to base salary

O One-off performance bonus

- Both types of rewards

23. How important are the following factors to you in assessing teacher performance/merit?

|  | Not important | Somewhat <br> important | Important | Very important |
| :--- | :---: | :---: | :---: | :---: |
| Direct observation by <br> yourself or another <br> member of the school <br> leadership team | 0 |  |  |  |
| Peer evaluation |  |  |  |  |
| Test scores of <br> students | 0 | 0 |  |  |
| External evaluation | 0 | 0 | 0 | 0 |

24. For students attending year [question("option value"), id="782", option="10076"], what time does the school day typically start and finish?

Please record time
25. How much time do your students typically spend on the following subjects in an average week?

|  | Hours and | Minutes per Week | No minimum required time |
| :--- | :---: | :---: | :---: |
| Maths | $\square$ | $\square$ | $\square$ |
| Writing | $\square$ |  | $\square$ |

26. In an average week, approximately how much time, if any, do your teachers get for collaborative planning with other teachers in the school on:

|  | Hours Per Week |
| :--- | :---: |
| Curriculum and assessment | $\square$ |
| Monitoring and review of student <br> performance | $\square$ |

27. In an average week, about how many hours per week do your teachers get for class preparation?
$\square$ hours per week
28. Please indicate the extent to which you agree or disagree with the following statements:

| Strongly <br> disagree | Somewhat <br> disagree | Somewhat | Strongly |
| :--- | :---: | :---: | :---: |
| agree | agree |  |  |

```
Because of the national assessment program, teachers in this school spend more time on topics or skills that are tested on NAPLAN.
```

Because of the national assessment program, teachers in this school spend more time on topics or skills that are NOT tested on NAPLAN.

I worry about the security of my job because of the performance of my students on NAPLAN.

Most parents/guardians of my students closely monitor the instructional program in classrooms in this school. In this school, teachers are recognized for teaching that improves student performance.
29. If you could make one change to improve the operation of the school, what would it be?
$\square$
30. What barriers do you face in making the change you described in the previous question?
$\square$
31. If you could make one change to improve student learning at this school, what would it be?
$\square$
32. What barriers do you face in making the change you described in the previous question?
$\square$
33. What use does your school make of information from NAPLAN tests?
$\square$
34. Overall, do you think that the introduction of the My Schools website has had a positive, negative, or neutral effect on your school?Positive EffectNeutral EffectNegative Effect
35. Please provide some details of how, if at all, the introduction of the My Schools website has affected your school.
$\square$
36. Is there anything about your school's personnel practice that is not covered above and that you think is relevant for our project?
$\square$

## New Page

37. Would you like your school entered into the draw to win an education support package up to the value of $\$ 2,000$ ?

- Yes
- No


## Thank You!

Thank you for assisting us with this important survey. Your time and effort are greatly appreciated.
If you have any questions about the research or about any of the questions contained in the questionnaire, please

Module 2, 2012

## Survey of Australian School Principals 2012

We are conducting a major national survey of primary and secondary school principals. It includes government and non-government schools. We hope the information gathered from this study will contribute to a better understanding of how schools make internal decisions and thereby, contribute to better education policies at the state and federal level.

Your participation is completely voluntary. All responses to this survey will be kept strictly confidential, to the fullest extent permitted by Australian law.

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Email: ethics.sec@unsw.edu.au Telephone: 0293854234.

If you have any questions about the survey or the research project, please contact us at schoolsurvey@asps2012.org

We want to thank you in advance for your help with this important research.

Do you wish to continue?

- Yes

O No

## Hidden Values

1. Please fill out the following information about the person completing this survey:

First Name
$\square$

Last Name
$\square$
2. Are you the principal or are you another member of the leadership team at [\%\%501:schoolname \%\%]?

- Iam the principal
- I am a member of the school leadership team

4. Please tell us about the student composition of your school.

What is the total number of students currently enrolled in your school? $\square$
Approximately how many students in your school are Indigenous? $\square$
Approximately how many students in your school are from a non-English speaking background? $\square$
Approximately how many full-time teachers are in your school? $\square$
5. In addition to the teachers, are any of the following staff resources available at your school?

|  | Yes, in all <br> classrooms | Yes, in some <br> classrooms | Not in any <br> classrooms |
| :--- | :---: | :---: | :---: |
| Paid teaching assistant for at least <br> one hour a day | 0 |  | 0 |
| Parent or volunteer(s) for at least two <br> hours per week |  |  |  |
| Another teacher on at least one day <br> per week |  |  |  |
| Coach or leading teacher for at least <br> four hours per week |  |  |  |

6. Please tell us about the range of grades of students taught at your school.

If the lowest grade taught is prior to year 1 (e.g. kindergarten, prep), please enter a zero (O). For example, if your school is a primary school teaching students from a pre-year one preperatory grade to grade 6 , enter 0,3 and 6 for the lowest, middle and highest grades respectively.

Lowest grade taught is year: $\square$
Middle grade taught is year: $\square$
Highest grade taught is year: $\square$
7. Do you require parents/guardians of students in your school to sign their children's completed homework on a regular basis?Yes

- No

8. Please indicate how many of the following types of interactions you have with parents/guardians in an average week. Please exclude forms and newsletters.

|  | Exchanges per week |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | 0 | $1-3$ | $4-6$ | $7-9$ | $10+$ |
| Phone call, written note, or email <br> exchanges | 0 | 0 | 0 | 0 | 0 |
| Face-to-face interactions | 0 | 0 | 0 | 0 | 0 |

9. During this academic year, how often has each of the following occurred?

|  | Never | Once | $2-3$ <br> times | 4 -5 times | $>5$ times |
| :--- | :---: | :---: | :---: | :---: | :---: |
| You observed a teacher <br> conducting a lesson. | 0 | 0 |  |  |  |
| A specialist, leading teacher, or <br> coach modelled or critiqued one <br> of your teachers' lessons. | 0 | 0 | 0 | 0 |  |
| One of your teachers observed <br> another teacher conducting a <br> lesson. | 0 | 0 | 0 | 0 |  |

10. Approximately, what percentage of teachers in your school are union members?
$\square$
11. If a voluntary contribution is requested from parents, please state the annual amount that is requested.
Please include voluntary fees for building funds, P\&Cs and P\&Fs.
\$ $\square$ per parent per year in whole dollars
12. Last year, what percentage of parents made some voluntary contribution?

13. Of those parents who made some contribution, what was the average voluntary contribution?
\$ $\square$ per parent per year in whole dollars
14. Excluding voluntary contributions, how much additional revenue does your school raise annually through other sources of income (e.g. fetes, business sponsorship, parking fees)?
\$ $\square$ in total per year in whole dollars
15. What special measures does your school take to try to improve low-performing teachers? Select all that apply.

Supervise teachers more closely
Assign an aide to teachers
Assign teachers to mentors or leading teachers
Provide additional professional development for individual teachers
$\square$ Coaching from yourself
$\square$ Other - Please describe: $\square$
16. What special measures does your school take to try to improve the performance of lowperforming students? Select all that apply.

Recommend to parents that the student repeat the grade
Additional tutoring during regular school hours
$\square$ Before-school or after-school tutoring paid for by the school
$\square$ Saturday classes
$\square$ Develop an individual learning plan for the student
$\square$ Other - Please describe: $\square$
17. Now we would like to ask you the official fees that students pay per year in whole dollars in the following grades.

Lowest grade taught (year [question("option value"), id="805", option="10076"]) $\square$
Middle grade taught (year [question("option value"), id="805", option="10077"]) $\square$

Highest grade taught (year [question("option value"), id="805", option="10078"])
18. What discounts or bursaries are available on the official fees?

|  | Percent of students who <br> get this discount | Typical amount of the <br> discount (as \% of fees) | Not <br> Applicable |  |
| :--- | :---: | :---: | :---: | :---: |
| Sibling discount | $\square$ |  | $\square$ | $\square$ |
| Discount for children <br> from low-income <br> families | $\square$ |  | $\square$ | $\square$ |
| Discount for <br> Indigenous students | $\square$ |  | $\square$ | $\square$ |
| Discount for children <br> of staff members | $\square$ | $\square$ | $\square$ | $\square$ |
| Other discount - <br> please report here <br> and describe in the <br> comment box below: | $\square$ |  | $\square$ | $\square$ |

Please describe the other type of discounts or bursaries you reported on above.
$\square$
19. Please estimate the lowest and highest salary paid for teachers with the following characteristics.

|  | Lowest salary in <br> whole dollars | Highest salary in <br> whole dollars |
| :--- | :--- | :--- |
| A teacher with an undergraduate degree and <br> no teaching experience? |  |  |
| A teacher with an undergraduate degree and <br> ten years' experience? |  |  |
| A teacher with a master's degree and ten <br> years' experience? | $\square$ | $\square$ |

20. Are prospective students required to sit a diagnostic or entry test for admission into your school?
21. Does your school use any of the following incentives to reward teacher performance? Select all that apply.

Special leadership position/assignment ( mentor teacher, curriculum dev.)
Choice of class
Release time from teaching
Attendance at conferences and workshops

Other incentives - Please describe $\square$
22. Which of the following types of compensation does your school use to reward teacher performance?

- Permanent increase to base salary

O One-off performance bonus

- Both types of rewards

23. During the last three academic years, were any of the following types of teachers at your school dismissed or counselled to leave for poor performance?Teachers with three or fewer years of experience

- Teachers with more than three years of experience
- Teachers with less than and more than three years of experience

24. For students attending year [question("option value"), id="805", option="10077"], what time does the school day typically start and finish?

|  | Morning Starting Time | Afternoon Finishing Time |
| :--- | :--- | :--- |
| Please record times |  |  |

25. Does your school have a policy on the minimum amount of time year [question("option value"),
id="805", option="10077"] students must spend on the following academic subjects? If "Yes," indicate the minimum number of hours per week.

|  | Hours and | Minutes per Week | No minimum required time |
| :--- | :---: | :---: | :---: |
| Maths | $\square$ | $\square$ | $\square$ |
| Reading | $\square$ | $\square$ | $\square$ |
| Writing | $\square$ | $\square$ | $\square$ |
| Art and Music | $\square$ | $\square$ | $\square$ |
| Science | $\square$ | $\square$ | $\square$ |
| Social Studies | $\square$ | $\square$ | $\square$ |
| PE/Sport | $\square$ | $\square$ | $\square$ |

26. In an average week, how much time beyond regular school hours, does the typical teacher in your school spend in the following school-related activities?

|  | Hours | Minutes |
| :--- | :--- | :--- |
| Activities that involve student interaction, such as field <br> trips, music instruction, sports coaching, or tutoring | $\square$ |  |
| Other activities that do not directly include students, such <br> as class preparation, grading papers, parent conferences, <br> attending meetings | $\square$ |  |

27. Please indicate the extent to which you agree or disagree with the following statements:

| Strongly | Somewhat | Somewhat | Strongly |
| :--- | :---: | :---: | :---: |
| disagree | disagree | agree | agree |

Public reporting of school-level NAPLAN results leads teachers in this school to spend less time with the lowest-performing students.

Public reporting of school-level NAPLAN results leads teachers in this school to spend less time with the highest-performing students.

My school's NAPLAN results are an accurate reflection of its overall quality.

Most teachers in this school have low academic expectations for students.

Most parents/guardians of students in this school help with their homework assignments.
28. If you could make one change to improve the operation of the school, what would it be?
$\square$
29. What barriers do you face in making the change you described in the previous question?
$\square$
30. If you could make one change to improve student learning at this school, what would it be?
$\square$
31. What barriers do you face in making the change you described in the previous question?
$\square$
32. What use does your school make of information from NAPLAN tests?
$\square$
33. Overall, do you think that the introduction of the My Schools website has had a positive, negative, or neutral effect on your school?Positive EffectNeutral EffectNegative Effect
34. Please provide some details of how, if at all, the introduction of the My Schools website has affected your school.
$\square$
35. Is there anything about your school's personnel practice that is not covered above and that you think is relevant for our project?
$\square$

## New Page

36. Would you like your school entered into the draw to win an education support package up to the value of $\$ 2,000$ ?YesNo

## Thank You!

Thank you for assisting us with this important survey. Your time and effort are greatly appreciated.

If you have any questions about the research or about any of the questions contained in the questionnaire, please feel free to contact the research team at: schoolsurvey@asps2012.org

Module 3, 2012

## Survey of Australian School Principals 2012

We are conducting a major national survey of primary and secondary school principals. It includes government and non-government schools. We hope the information gathered from this study will contribute to a better understanding of how schools make internal decisions and thereby, contribute to better education policies at the state and federal level.

Your participation is completely voluntary. All responses to this survey will be kept strictly confidential, to the fullest extent permitted by Australian law.

You do not have to answer any questions you do not wish to. Your school will never be identified by name or any other manner that could allow another researcher, government official, or member of the public to infer its identity.

If you have any questions about your rights as a study participant, please contact:

Ethics Secretariat, Grants Management Office,
University of New South Wales, SYDNEY, NSW, 2052,
Email: ethics.sec@unsw.edu.au Telephone: 0293854234.

If you have any questions about the survey or the research project, please contact us at schoolsurvey@asps2012.org

We want to thank you in advance for your help with this important research.

Do you wish to continue?

- Yes

O No

## Hidden Values

1. Please fill out the following information about the person completing this survey:

First Name
$\square$

Last Name
$\square$
2. Are you the principal or are you another member of the leadership team at [\%\%501:schoolname \%\%]?

- Iam the principal
- I am a member of the school leadership team

4. Please tell us about the student composition of your school.

What is the total number of students currently enrolled in your school? $\square$
Approximately how many students in your school are Indigenous? $\square$
Approximately how many students in your school are from a non-English speaking background? $\square$
Approximately how many full-time teachers are in your school? $\square$
5. In addition to the teachers, are any of the following staff resources available at your school?

|  | Yes, in all <br> classrooms | Yes, in some <br> classrooms | Not in any <br> classrooms |
| :--- | :---: | :---: | :---: |
| Paid teaching assistant for at least <br> one hour a day | 0 |  | 0 |
| Parent or volunteer(s) for at least two <br> hours per week |  |  |  |
| Another teacher on at least one day <br> per week |  |  |  |
| Coach or leading teacher for at least <br> four hours per week |  |  |  |

6. Please tell us about the range of grades of students taught at your school.

If the lowest grade taught is prior to year 1 (e.g. kindergarten, prep), please enter a zero (O). For example, if your school is a primary school teaching students from a pre-year one preperatory grade to grade 6 , enter 0,3 and 6 for the lowest, middle and highest grades respectively.

Lowest grade taught is year: $\square$
Middle grade taught is year: $\square$
Highest grade taught is year: $\square$
7. Do you require parents/guardians of students in your school to sign their children's completed homework on a regular basis?Yes

- No

8. Please indicate how many of the following types of interactions you have with parents/guardians in an average week. Please exclude forms and newsletters.

|  | Exchanges per week |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | 0 | $1-3$ | $4-6$ | $7-9$ | $10+$ |
| Phone call, written note, or email <br> exchanges | 0 | 0 | 0 | 0 | 0 |
| Face-to-face interactions | 0 | 0 | 0 | 0 | 0 |

9. During this academic year, how often has each of the following occurred?

|  | Never | Once | $2-3$ <br> times | 4 -5 times | $>5$ times |
| :--- | :---: | :---: | :---: | :---: | :---: |
| You observed a teacher <br> conducting a lesson. | 0 | 0 |  |  |  |
| A specialist, leading teacher, or <br> coach modelled or critiqued one <br> of your teachers' lessons. | 0 | 0 | 0 | 0 |  |
| One of your teachers observed <br> another teacher conducting a <br> lesson. | 0 | 0 | 0 | 0 |  |

10. Approximately, what percentage of teachers in your school are union members?
$\square$
11. If a voluntary contribution is requested from parents, please state the annual amount that is requested.
Please include voluntary fees for building funds, P\&Cs and P\&Fs.
\$ $\square$ per parent per year in whole dollars
12. Last year, what percentage of parents made some voluntary contribution?

13. Of those parents who made some contribution, what was the average voluntary contribution?
\$ $\square$ per parent per year in whole dollars
14. Excluding voluntary contributions, how much additional revenue does your school raise annually through other sources of income (e.g. fetes, business sponsorship, parking fees)?
\$ $\square$ in total per year in whole dollars
15. What special measures does your school take to try to improve low-performing teachers? Select all that apply.

Supervise teachers more closely
Assign an aide to teachers
Assign teachers to mentors or leading teachers
Provide additional professional development for individual teachers
$\square$ Coaching from yourself
$\square$ Other - Please describe: $\square$
16. What special measures does your school take to try to improve the performance of lowperforming students? Select all that apply.

Recommend to parents that the student repeat the grade
Additional tutoring during regular school hours
$\square$ Before-school or after-school tutoring paid for by the school
$\square$ Saturday classes
$\square$ Develop an individual learning plan for the student
$\square$ Other - Please describe: $\square$
17. Now we would like to ask you the official fees that students pay per year in whole dollars in the following grades.

Lowest grade taught (year [question("option value"), id="777", option="10088"]) $\square$
Middle grade taught (year [question("option value"), id="777", option="10089"])

Highest grade taught (year [question("option value"), id="777", option="10090"])
18. What discounts or bursaries are available on the official fees?

|  | Percent of students who <br> get this discount | Typical amount of the <br> discount (as \% of fees) | Not <br> Applicable |  |
| :--- | :---: | :---: | :---: | :---: |
| Sibling discount | $\square$ |  | $\square$ | $\square$ |
| Discount for children <br> from low-income <br> families | $\square$ |  | $\square$ | $\square$ |
| Discount for <br> Indigenous students | $\square$ |  | $\square$ | $\square$ |
| Discount for children <br> of staff members | $\square$ | $\square$ | $\square$ | $\square$ |
| Other discount - <br> please report here <br> and describe in the <br> comment box below: | $\square$ |  | $\square$ | $\square$ |

Please describe the other type of discounts or bursaries you reported on above.
$\square$
19. Please estimate the lowest and highest salary paid for teachers with the following characteristics.

|  | Lowest salary in <br> whole dollars | Highest salary in <br> whole dollars |
| :--- | :--- | :--- |
| A teacher with an undergraduate degree and <br> no teaching experience? |  |  |
| A teacher with an undergraduate degree and <br> ten years' experience? |  |  |
| A teacher with a master's degree and ten <br> years' experience? | $\square$ | $\square$ |

20. Are prospective students required to sit a diagnostic or entry test for admission into your school?Yes

- No

21. Does your school use any of the following incentives to reward teacher performance? Select all that apply.

Special leadership position/assignment (mentor teacher, curriculum dev.)
Choice of class
Release time from teaching
Attendance at conferences and workshops

Other incentives - Please describe $\square$
22. Which of the following types of compensation does your school use to reward teacher performance?Permanent increase to base salaryOne-off performance bonus

- Both types of rewards

23. During the last three academic years, were any of the following types of teachers at your school dismissed or counselled to leave for poor performance?Teachers with three or fewer years of experienceTeachers with more than three years of experience

- Teachers with less than and more than three years of experience

24. For students attending year [question("option value"), id="777", option="10089"], what time does the school day typically start and finish?

|  | Morning <br> Starting Time | Afternoon <br> Finishing Time |
| :--- | :---: | :---: |
| Please record times | $\square$ |  |

25. Using a scale from 1 to 4 , where 1 is "No influence" and 4 is "Complete control," indicate how much actual influence each of the following actors has on decisions concerning the following activities in your school.
a. Establishing curriculum
$\left.\begin{array}{|l|c|c|c|c|}\hline & \begin{array}{c}1-\text { No } \\ \text { influence }\end{array} & 2 & & 3\end{array} \begin{array}{c}\text { 4- Complete } \\ \text { control }\end{array}\right]$
b. Hiring new full-time teachers

|  | $\begin{gathered} 1-\text { No } \\ \text { influence } \end{gathered}$ | 2 | 3 | 4 - Complete control |
| :---: | :---: | :---: | :---: | :---: |
| State/territory education department | 0 | 0 | 0 | $\bigcirc$ |
| Principal | 0 | 0 | 0 | 0 |
| Teachers at this school | 0 | 0 | 0 | 0 |
| Parents | - | O | 0 | $\bigcirc$ |

c. Deciding how this school's budget will be spent

|  | $1 \text { - No }$ <br> Influence | 2 | 3 | 4 - Complete Control |
| :---: | :---: | :---: | :---: | :---: |
| State/territory education department | 0 | $\bigcirc$ | 0 | $\bigcirc$ |
| Principal | 0 | 0 | 0 | 0 |
| Teachers at this school | $\bigcirc$ | $\bigcirc$ | 0 | $\bigcirc$ |
| Parents | $\bigcirc$ | O | 0 | $\bigcirc$ |

d. Evaluating teachers

|  | $1-$ No <br> Influence | 2 | 3 | 4 - Complete <br> Control |
| :--- | :---: | :---: | :---: | :---: |
| State/territory education <br> department | 0 | 0 | 0 | 0 |

26. On an average school night, how much time does your school expect year [question("option value"), id="777", option="10089"] students to spend on homework in the following subjects?

|  | Minutes Per Night | Not Applicable |
| :--- | :---: | :---: |
| Maths | $\square$ | $\square$ |
| Reading | $\square$ | $\square$ |
| Writing | $\square$ | $\square$ |
| All other subjects | $\square$ | $\square$ |

27. If you could make one change to improve the operation of the school, what would it be?
$\square$
28. What barriers do you face in making the change you described in the previous question?
$\square$
29. If you could make one change to improve student learning at this school, what would it be?
$\square$
30. What barriers do you face in making the change you described in the previous question?
$\square$
$\square$
31. Overall, do you think that the introduction of the My Schools website has had a positive, negative, or neutral effect on your school?Positive EffectNeutral EffectNegative Effect
32. Please provide some details of how, if at all, the introduction of the My Schools website has affected your school.
$\square$
33. Is there anything about your school's personnel practice that is not covered above and that you think is relevant for our project?
$\square$

## New Page

35. Would you like your school entered into the draw to win an education support package up to the value of $\$ 2,000$ ?Yes

- No


## Thank You!

Thank you for assisting us with this important survey. Your time and effort are greatly appreciated.

If you have any questions about the research or about any of the questions contained in the questionnaire, please feel free to contact the research team at: schoolsurvey@asps2012.org

Module 4, 2012

## Survey of Australian School Principals 2012

We are conducting a major national survey of primary and secondary school principals. It includes government and non-government schools. We hope the information gathered from this study will contribute to a better understanding of how schools make internal decisions and thereby, contribute to better education policies at the state and federal level.

Your participation is completely voluntary. All responses to this survey will be kept strictly confidential, to the fullest extent permitted by Australian law.

You do not have to answer any questions you do not wish to. Your school will never be identified by name or any other manner that could allow another researcher, government official, or member of the public to infer its identity.

If you have any questions about your rights as a study participant, please contact:

Ethics Secretariat, Grants Management Office,
University of New South Wales, SYDNEY, NSW, 2052,
Email: ethics.sec@unsw.edu.au Telephone: 0293854234.

If you have any questions about the survey or the research project, please contact us at schoolsurvey@asps2012.org

We want to thank you in advance for your help with this important research.

Do you wish to continue?

- Yes

O No

## Hidden Values

1. Please fill out the following information about the person completing this survey:

First Name
$\square$

Last Name
$\square$
2. Are you the principal or are you another member of the leadership team at [\%\%501:schoolname \%\%]?

- Iam the principal
- I am a member of the school leadership team

4. Please tell us about the student composition of your school.

What is the total number of students currently enrolled in your school? $\square$
Approximately how many students in your school are Indigenous? $\square$
Approximately how many students in your school are from a non-English speaking background? $\square$
Approximately how many full-time teachers are in your school? $\square$
5. In addition to the teachers, are any of the following staff resources available at your school?

|  | Yes, in all <br> classrooms | Yes, in some <br> classrooms | Not in any <br> classrooms |
| :--- | :---: | :---: | :---: |
| Paid teaching assistant for at least <br> one hour a day | 0 |  | 0 |
| Parent or volunteer(s) for at least two <br> hours per week |  |  |  |
| Another teacher on at least one day <br> per week |  |  |  |
| Coach or leading teacher for at least <br> four hours per week |  |  |  |

6. Please tell us about the range of grades of students taught at your school.

If the lowest grade taught is prior to year 1 (e.g. kindergarten, prep), please enter a zero (O). For example, if your school is a primary school teaching students from a pre-year one preperatory grade to grade 6 , enter 0,3 and 6 for the lowest, middle and highest grades respectively.

Lowest grade taught is year: $\square$
Middle grade taught is year: $\square$
Highest grade taught is year: $\square$
7. Do you require parents/guardians of students in your school to sign their children's completed homework on a regular basis?Yes

- No

8. Please indicate how many of the following types of interactions you have with parents/guardians in an average week. Please exclude forms and newsletters.

|  | Exchanges per week |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | 0 | $1-3$ | $4-6$ | $7-9$ | $10+$ |
| Phone call, written note, or email <br> exchanges | 0 | 0 | 0 | 0 | 0 |
| Face-to-face interactions | 0 | 0 | 0 | 0 | 0 |

9. During this academic year, how often has each of the following occurred?

|  | Never | Once | $2-3$ <br> times | 4 -5 times | $>5$ times |
| :--- | :---: | :---: | :---: | :---: | :---: |
| You observed a teacher <br> conducting a lesson. | 0 | 0 |  |  |  |
| A specialist, leading teacher, or <br> coach modelled or critiqued one <br> of your teachers' lessons. | 0 | 0 | 0 | 0 |  |
| One of your teachers observed <br> another teacher conducting a <br> lesson. | 0 | 0 | 0 | 0 |  |

10. Approximately, what percentage of teachers in your school are union members?
$\square$
11. If a voluntary contribution is requested from parents, please state the annual amount that is requested.
Please include voluntary fees for building funds, P\&Cs and P\&Fs.
\$ $\square$ per parent per year in whole dollars
12. Last year, what percentage of parents made some voluntary contribution?

13. Of those parents who made some contribution, what was the average voluntary contribution?
\$ $\square$ per parent per year in whole dollars
14. Excluding voluntary contributions, how much additional revenue does your school raise annually through other sources of income (e.g. fetes, business sponsorship, parking fees)?
\$ $\square$ in total per year in whole dollars
15. What special measures does your school take to try to improve low-performing teachers? Select all that apply.

Supervise teachers more closely
Assign an aide to teachers
Assign teachers to mentors or leading teachers
Provide additional professional development for individual teachers
$\square$ Coaching from yourself
$\square$ Other - Please describe: $\square$
16. What special measures does your school take to try to improve the performance of lowperforming students? Select all that apply.

Recommend to parents that the student repeat the grade
Additional tutoring during regular school hours
$\square$ Before-school or after-school tutoring paid for by the school
$\square$ Saturday classes
$\square$ Develop an individual learning plan for the student
$\square$ Other - Please describe: $\square$
17. Now we would like to ask you the official fees that students pay per year in whole dollars in the following grades.

Lowest grade taught (year [question("option value"), id="783", option="10083"]) $\square$
Middle grade taught (year [question("option value"), id="783", option="10084"])

Highest grade taught (year [question("option value"), id="783", option="10085"])
18. What discounts or bursaries are available on the official fees?

|  | Percent of students who <br> get this discount | Typical amount of the <br> discount (as \% of fees) | Not <br> Applicable |  |
| :--- | :---: | :---: | :---: | :---: |
| Sibling discount | $\square$ |  | $\square$ | $\square$ |
| Discount for children <br> from low-income <br> families | $\square$ |  | $\square$ | $\square$ |
| Discount for <br> Indigenous students | $\square$ |  | $\square$ | $\square$ |
| Discount for children <br> of staff members | $\square$ | $\square$ | $\square$ | $\square$ |
| Other discount - <br> please report here <br> and describe in the <br> comment box below: | $\square$ |  | $\square$ | $\square$ |

Please describe the other type of discounts or bursaries you reported on above.
$\square$
19. Please estimate the lowest and highest salary paid for teachers with the following characteristics.

|  | Lowest Salary in <br> whole dollars | Highest Salary in <br> whole dollars |
| :--- | :--- | :--- |
| A teacher with an undergraduate degree and <br> no teaching experience? |  |  |
| A teacher with an undergraduate degree and <br> ten years' experience? |  |  |
| A teacher with a master's degree and ten <br> years' experience? | $\square$ | $\square$ |

20. Are prospective students required to sit a diagnostic or entry test for admission into your school?Yes

- No

21. Does your school use any of the following incentives to reward teacher performance? Select all that apply.

Special leadership position/assignment (mentor teacher, curriculum dev.)
Choice of class
Release time from teaching
Attendance at conferences and workshops

Other incentives - Please describe $\square$
22. Which of the following types of compensation does your school use to reward teacher performance?

- Permanent increase to base salary

O One-off performance bonus

- Both types of rewards

23. How important are the following factors to you in assessing teacher performance/merit?

|  | Not important | Somewhat <br> important | Important | Very important |
| :--- | :---: | :---: | :---: | :---: |
| Direct observation by <br> yourself or another <br> member of the school <br> leadership team | 0 |  |  |  |
| Peer evaluation |  |  |  |  |
| Test scores of <br> students | 0 | 0 |  |  |
| External evaluation | 0 | 0 | 0 | 0 |

24. For students attending year [question("option value"), id="783", option="10084"], what time does the school day typically start and finish?
$\square$
$\square$
25. In order to give extra attention to particular subjects, such as maths, some schools use additional school staff to teach that subject so that the effective class size (number of students per teacher) for that subject is smaller than it is for other subjects.

- We are not referring to grouping you may do within the classroom, but to a restructuring of staff and student class assignments into smaller instructional sections for particular subjects.
- We are also not referring to supplemental instruction, but to regular instruction.

Do any of your students receive regular instruction from a teacher in smaller sections in any subject?Yes

- No

26. How important are the following criteria when evaluating an applicant for a teaching position in your school?

|  | Not important | Somewhat important | Important | Very important |
| :---: | :---: | :---: | :---: | :---: |
| Proficiency in a second language | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Previous teaching experience | 0 | 0 | 0 | 0 |
| The NAPLAN results at the school where the applicant last taught | 0 | 0 | 0 | 0 |
| University specialisation in subject to be taught | 0 | 0 | 0 | 0 |
| Teacher's own grades from university | 0 | 0 | 0 | 0 |
| Racial/ethnic match between applicant and students | 0 | 0 | 0 | 0 |
| Applicant's understanding of the particular needs of students at this school | 0 | 0 | 0 | 0 |
| Applicant's performance in teaching a sample lesson | 0 | $\bigcirc$ | 0 | 0 |

27. If you could make one change to improve the operation of the school, what would it be?
$\square$
28. What barriers do you face in making the change you described in the previous question?
$\square$
29. If you could make one change to improve student learning at this school, what would it be?
$\square$
30. What barriers do you face in making the change you described in the previous question?
$\square$
31. What use does your school make of information from NAPLAN tests?
$\square$
32. Overall, do you think that the introduction of the My Schools website has had a positive, negative, or neutral effect on your school?Positive EffectNeutral EffectNegative Effect
33. Please provide some details of how, if at all, the introduction of the My Schools website has affected your school.
$\square$
34. Is there anything about your school's personnel practice that is not covered above and that you think is relevant for our project?
$\square$

## New Page

35. Would you like your school entered into the draw to win an education support package up to the value of $\$ 2,000$ ?YesNo

## Thank You!

Thank you for assisting us with this important survey. Your time and effort are greatly appreciated.
If you have any questions about the research or about any of the questions contained in the questionnaire, please feel free to contact the research team at: schoolsurvey@asps2012.orq


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    IZA Discussion Papers often represent preliminary work and are circulated to encourage discussion. Citation of such a paper should account for its provisional character. A revised version may be available directly from the author.

[^2]:    * This project would not have been undertaken without David Figlio, who helped initiate the broad project that underpins this paper, including design and implementation of the 2009 survey. Our thanks go to Van Dao, Narin Chhun and the rest of the ACARA team for their support in extracting and explaining the NAPLAN data, and Kenneth Mease for advice on survey design. We also thank Gordon Leslie, Su-Min Lim, and Joseph Madden for superior research assistance, and the University of New South Wales and the University of Melbourne for financial support. All errors remain ours and all views expressed herein are ours, and not those of ACARA or any other institution.

[^3]:    ${ }^{1}$ Figlio and Ladd (2015) and Figlio and Loeb (2010) provide surveys of this large literature. Some standalone analyses include Carnoy and Loeb (2002), Chiang (2009), Dee and Jacob (2011), Deming et al. (2016), Figlio and Rouse (2006), Hanushek and Raymond (2004), Hussain (2013), Neal and Schanzenbach (2010), Reback et al. (2014), Rockoff and Turner (2010), Rouse et al. (2013) and West and Peterson (2006).
    ${ }^{2}$ For instance, numerous studies (e.g., Booher-Jennings, 2005; Haney, 2000; and Neal and Schanzenbach, 2010) show that schools subject to accountability pressure concentrate their energies on high-stakes rather than lowstakes subjects, teach skills that are valuable for the specific tests with which they are assessed rather than other potentially important skills, and emphasize the education of students most likely to contribute either positively or negatively to the school's rating. Other research demonstrates that schools facing accountability pressure attempt to affect outcomes through exclusions of selected students from testing (Cullen and Reback, 2006; Figlio and Getzler, 2006; Coelli and Foster, 2017), selective discipline (Figlio, 2006), changing school meal plans on the day of the test (Figlio and Winicki, 2005) or even outright cheating (Jacob and Levitt, 2003).

[^4]:    ${ }^{3}$ Specifically, the average number of unique daily visitors was 7,976 in 2010, 2,700 in 2011, 2,390 in 2012, 2101 in 2013, 2,700 in 2014, 2,376 in 2015, 2,221 in 2016 and 3,510 in 2017 (figures provided by ACARA). ${ }^{4}$ Prior to the My School launch, school-level test scores were reported in Tasmania and Western Australia, though the Western Australian data was only presented in graphical form. In addition, some states reported school-level grade 12 results. At a local level, schools were permitted to report their results in their annual reports, but few did so, and these data were not compiled in any comparable form for parents and other stakeholders.

[^5]:    ${ }^{5}$ In 2008 and 2009, direct reports of parental education and occupation were not collected. Measures of average education and occupation in the post code where the family lived were used as proxies in those years.

    6 "Similar" schools were identified using ACARA's Index of Community Socio-Educational Advantage (ICSEA). The three components of parental occupation and education, remoteness, and Indigenous student percentage are combined to form the ICSEA score for each school in a manner that best predicts student test scores (ACARA, 2014).

[^6]:    ${ }^{7}$ Australian primary schools generally cover grades from a pre-grade one year (kindergarten or preparatory grade) to grade 6 or grade 7 , depending on the state. High schools then cover grades 7 or 8 to grade 12. In some cases, the high school grades may be split into a junior school for grades 7 through 10 , and a senior high school or "college" for grades 11 and 12. The number of grades given the NAPLAN test at a school ranges from one grade, in some high schools that offer education from grades 8 to 12 only, up to four grades in schools that offer education over all grades from grade 1 or below up to grade 12, referred to as 'combined schools'.

[^7]:    ${ }^{8}$ Although we also surveyed special schools, which provide education solely for students with learning and other disabilities, such schools are unlikely to respond to the My School website as test score information on such schools is not provided on My School, and most of the students at such schools are not required to sit NAPLAN tests.

[^8]:    ${ }^{9}$ Note that the statistics provided in Tables B1 and B2 are not weighted by school size. The slightly negative means of the averaged normalised scores observed for both groups are due to the normalisations being constructed using the means and standard deviations in test scores constructed using all individual Australian students. Generally, students in larger schools perform better on NAPLAN tests. In the unweighted means provided in Tables B1 and B2, the higher test scores among students in larger schools are essentially being underweighted at the student level. These average normalised scores have cross-school means much closer to zero when calculated using weights based on the number of students in a school sitting the NAPLAN tests.

[^9]:    ${ }^{10}$ This reduction in dimensionality also assists in minimizing the well-known problem of the build-up of Type I errors when conducting multiple tests at once, for which a variety of corrections have been proposed (e.g., Lix and Sajobi 2010).
    ${ }^{11}$ Due to the similarity in our questionnaires, many of the spheres we look at correspond to analogous domains in Rouse et al. (2013).

[^10]:    ${ }^{12}$ The questions on teacher incentives, assessment of teachers, and teacher dismissal frequency were only asked of principals at non-government schools in our survey, as such interventions were difficult if not impossible for local leadership to provide in Australian government schools at the time of the surveys.
    ${ }^{13}$ A discussion of inverse probability weighting can be found in Hogan and Lancaster (2004).

[^11]:    ${ }^{14}$ The resultant standard error is essentially the square root of the weighted sum (weighted by the $\sigma_{j}$ 's) of the variances and covariances among the individual $\beta_{j}^{i}$ estimates within each sphere.

[^12]:    ${ }^{15}$ The overall Australian means and standard deviations were sourced directly from ACARA annual reports.

[^13]:    ${ }^{16}$ In the absence of reasonable instruments for selection, our selection term is identified by functional form alone.

[^14]:    ${ }^{17}$ These findings are robust to the inclusion of the Heckman selection term (Table 13a).

[^15]:    ${ }^{18} \mathrm{Yes} /$ no answers to this question about specific subjects were collected only from random subsets of school principals using our additional survey modules.

[^16]:    ${ }^{19}$ Percentages do not add to $100 \%$ due to rounding.

[^17]:    ${ }^{20}$ This calculation employs the cross-school standard deviation of these average normalised scores (similar schools comparison) of approximately 0.27 .

[^18]:    Notes: Each row of estimates is based on a regression of the policy sphere index measure on indicators for school sector - Catholic and independent - using government schools as the baseline (omitted) category for all domains except Teacher incentives, for which Catholic schools serve as the baseline (omitted) category. Standard errors on the coefficient estimates are provided in parentheses.

[^19]:    Notes: Standard errors on the mean changes are provided in parentheses.

[^20]:    Notes: Each pair of estimates in the table is drawn from a separate set of weighted seemingly unrelated regressions. See text for full details about the specifications employed. In all models, the dependent variable is the policy measure in 2012, and the same policy measure in 2009 is included as a covariate along with the relevant indicators of school performance (either with respect to all schools or with respect to similar schools). DR1 denotes "Dark Red" proportions above zero but below 0.2, i.e. underperforming schools. DR2 denotes "Dark Red" proportions of 0.2 and above, i.e. poorly performing schools. The full set of state by location fixed effects are included along with the following additional school-specific covariates: school size, Indigenous percentage, ICSEA score (all measured in 2009) and LBOTE percentage (measured in 2010).

[^21]:    Notes: Each pair of estimates in the table is drawn from a separate set of weighted seemingly unrelated regressions. See text for full details about the specifications employed. In all models, the dependent variable is the policy measure in 2012, and the same policy measure in 2009 is included as a covariate along with the relevant indicators of school performance (either with respect to all schools or with respect to similar schools). DR1 denotes "Dark Red" proportions above zero but below 0.2, i.e. underperforming schools. DR2 denotes "Dark Red" proportions of 0.2 and above, i.e. poorly performing schools. The full set of state by location fixed effects are included along with the following additional school-specific covariates: school size, Indigenous percentage, ICSEA score (all measured in 2009) and LBOTE percentage (measured in 2010). A Heckman selection term, based on the full set of state by location fixed effects, school size, Indigenous percentage, ICSEA score (all measured in 2009) and LBOTE percentage (measured in 2010), is also included.

[^22]:    Notes: Each pair of estimates in the table is drawn from a separate set of weighted seemingly unrelated regressions. See text for full details about the specifications employed. In all models, the dependent variable is the policy measure in 2012, and the same policy measure in 2009 is included as a covariate along with the relevant indicators of school performance (either with respect to all schools or with respect to similar schools). DR1 denotes "Dark Red" proportions above zero but below 0.2, i.e. underperforming schools. DR2 denotes "Dark Red" proportions of 0.2 and above, i.e. poorly performing schools. The full set of state by location fixed effects are included along with the following additional school-specific covariates: school size, Indigenous percentage, ICSEA score (all measured in 2009) and LBOTE percentage (measured in 2010). These estimates are based on the subset of government primary schools where the same principal answered in each survey.

[^23]:    Notes: Each pair of estimates in the table is drawn from a separate set of weighted seemingly unrelated regressions. See text for full details about the specifications employed. In all models, the dependent variable is the policy measure in 2012, and the same policy measure in 2009 is included as a covariate along with the relevant indicators of school performance (either with respect to all schools or with respect to similar schools). DR1 denotes "Dark Red" proportions above zero but below 0.2. DR2 denotes "Dark Red" proportions of 0.2 and above. The full set of state by location by type by sector fixed effects are included along with the following additional school-specific covariates: school size, Indigenous percentage, ICSEA score (all measured in 2009) and LBOTE percentage (measured in 2010).

