In Chile, pre-K and K12 institutions receive funding according to school attendance. However, it might be the case that institutions over-report attendance. To analyze such behavior, we use a dataset of inspections visits to check whether attendance is correctly reported. Although the inspectors cannot observe what attendance would be in their absence, we can observe if an institution has an unusual low attendance in the inspection day.

**Results**

Inspection visits analysis show evidence of over-reporting. Such behavior is better summarized by the following figures, which show the changes in attendance with respect to the last week levels and two weeks around the inspection visit. An inspector “visit today” event induces a decrease in preschool attendance around 12.6% (equivalent to 6.1 ghost students). Interestingly, among schools we also find attendance is correct but it might be the case that institutions over-report attendance. To analyze such behavior, we use a database of inspections visits to check whether attendance without inspections would be “parallel” across institutions in the same region.

In this section, we focus on understanding the attributes that characterize those institutions that over-report. To do so, we will estimate a first difference model that estimates over-reporting by institution and year for every region ($i = 1, ..., I$) and year (2011 to 2016):  

$$
\Delta \ln(y_{it}) = \delta_0 + \delta_1 W_{it} + \delta_2 W_{it-1} + \delta_3 W_{it-2} + \epsilon_{it}
$$

(1)

For each region we include a daily fixed effect ($\gamma_t$). As a result, we have three estimated coefficients for every “visited institution-year” combination. The following table presents the predictors of the identified level of over-reporting at each institution. The results reject the hypothesis that for-profit institutions over-report at similar rates as other institutions. In addition, institutions with high share of low-SES students also over-report more.

<table>
<thead>
<tr>
<th>Variables</th>
<th>$\delta_1$</th>
<th>$\delta_2$</th>
<th>$\delta_3$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private subsidized</td>
<td>0.0535</td>
<td>0.00887***</td>
<td>0.00846***</td>
</tr>
<tr>
<td>Over-report 5%&lt;x&lt;10%</td>
<td>-0.331***</td>
<td>-0.0801***</td>
<td>-0.0764***</td>
</tr>
<tr>
<td>Pre-K</td>
<td>0.0359</td>
<td>0.0223</td>
<td>0.0233</td>
</tr>
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<td>Pre-K</td>
<td>0.0359</td>
<td>0.0223</td>
<td>0.0233</td>
</tr>
<tr>
<td>K12</td>
<td>0.0535</td>
<td>0.00887***</td>
<td>0.00846***</td>
</tr>
</tbody>
</table>

Tab. 1: Heterogeneity in over-reporting

In addition, we can test whether the over-reporting rates are correlated with the achievement levels of the institution and according to the accountability quality (does not vary, results not shown here). The results (following table) show that conditional achievement and over-reporting have a negative correlation.

<table>
<thead>
<tr>
<th>Variables</th>
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<td>0.00887***</td>
<td>0.00846***</td>
</tr>
</tbody>
</table>

Tab. 2: Achievement across over-reporting groups

**Conclusions**

Attendance incentives results in deviation of funds through attendance over-reporting. Such practice is more prevalent in for-profit and low-achievement institutions, which casts doubts about the efficiency of attendance incentives.

**References**


Jacob, B. A., & Levitt, S. D. (2003). Rotten apples: An investigation of the prevalence and predic-
tors of teacher cheating.

nal of Political Economy, 115(2), 206–249.


**Literature review**

In a seminal paper, Jacob and Levitt, 2003 analyze manipulation of standardized tests in the Chicago Public School system and its relation to accountability. Berry Cullen and Reback, 2006 and González et al., 2017 show that schools manipulate the sample of students taking tests. Borcan et al., 2017 provide evidence of bribes to manipulate test results in Romania. In Uganda, Reinikka and Svensson, 2004 and Reinikka and Svensson, 2011 show that local authorities capture large shares of resources intended to education services. A different literature focuses on the effects of audits to public funds. Olken, 2007 find that audits reduce missing expenditures in Indonesian villages. In Brazil, Avis et al., 2017 find that audits produce a general decrease in irregularities in municipalities. Ferraz et al., 2012 also find that municipalities with detected irregularities have less educational inputs and lower test scores than municipalities without detected irregularities.