## A Comparative Study of the Effective Use of Teaching Staff in the Israeli Education System

By: Avrum Tomer and Nisan Avraham
This paper compares the data on the utilization of teaching staff in Israel as compared to other OECD countries and finds a disparity. Close examination points to the reduction of teaching staff as the best way to optimize the use of this resource.

The first chapter details the proportions of students per teacher, while the second looks at the average classroom size. The third chapter outlines hypotheses for the inefficient utilization of the teachers' workforce in Israel and the fourth summarizes the findings.

## Summary

Two education systems employing teachers at a similar yearly scale, with a similar number of school hours, would both show the same results: the less students per teaching position - the smaller the classes, and the opposite would hold as well: the smaller the classes - the smaller the predicted number of students for each teaching job.

Nonetheless, a comparative review of OECD data reveals an anomaly in the Israeli education system. In primary school education, the number of students for every full-time teaching position is lower than the OECD average, despite the classes being $30 \%$ larger. This phenomenon is similar in middle school: the number of students per full time teaching position is significantly lower than the OECD average, despite the classes being $26 \%$ larger

This anomaly could be explained if Israeli students studied more hours or if a full-time teaching job in Israel consisted of less hours, but neither is true. Primary school students in Israel do study slightly more hours than the average, but the teachers teach slightly more hours than the average as well. In middle school, Israel is close to the OECD average on both measures.

Taking into account all relevant data points for the effective use of teaching staff in addition to the amount of public spending on education per student in each state, a comparative model was constructed for the purpose of this paper.

The results of this model demonstrate that it is possible to reduce the size of classes in Israel (solely as an aspect of the effective use of teaching staff) or substantially reduce the number of teachers. This is so in primary school education and even more apparent in middle school. It indicates that comparatively, Israel does not make effective use of its manpower, namely, its teaching staff, who are the primary resource of the education system.

The following hypotheses may explain the current state of affairs:

1. The sabbatical year is a privilege unique to Israeli teachers, removing a substantial amount of the existing teaching body from active work.
2. A larger proportion of teachers on maternity leave as a result of Israel's high birthrate.
3. A large number of teaching hours dedicated to non-homeroom class periods.
4. The unique structure of the school week in Israel, consisting of six days, rather than the standard five in all other OECD countries.
5. The rigidity of the teachers' employment model that impedes their mobility and prevents tailoring of teaching positions to schools' needs.

These findings have an important implication for the growing issue of classroom density. The solutions to this can be turned towards making classes smaller or towards optimizing the utilization of the teaching staff. The latter is preferable by far for two reasons: (1) reducing class size carries extra costs, while reducing the teacher's workforce leads to greater budget efficiency besides saving money that can be, among others, redirected to greater compensation for the remaining teachers, and (2) reducing the number of teachers has a direct effect on quality, which is in turn of paramount importance for education's success.

Full Paper in Hebrew

