

**Literature review on Indicators on Teachers and Teaching
in the Education System^(*)**

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(Abstract)

The general educational literature and research is united in the belief that the central component and major influence on the results of the education system activities is the quality of the teachers. As such, there is wide agreement that the role of the teacher is much more complex today and places greater demands on teachers than ever in the past. These are more or less the only subjects regarding teachers and teaching on which there is agreement. There is a particular lack of consensus as to what constitutes a “good teacher”: what are the variables that most influence the quality of a teacher, what are the reasons that people enter teacher training, what are the most efficacious training method, what are the factors for obtaining a teaching position after training completion, and the reasons for remaining in or dropping out of the teaching profession. This review deals with a description of the indicators that relate to teaching manpower, with an emphasis on two central issues:

- A. The quality of teaching manpower
- B. The factors that influence supply and demand for teachers

The first part of the survey describes the problems connected to educational indicators in general and those relating to teaching, in particular. After this, the review goes on to a detailed description of indicators that are generally accepted in Europe, the US and Israel. In the section about supply and demand for teachers, we related to viewpoints involved in projecting supply and demands as well as the difficulties in making relevant comparisons of salaries and working conditions of teachers relative to other professions, or of teachers in one country versus those in another.

^(*)The Initiative for Applied Research in Education's *The Expert Committee on Guidelines for Revising the System of Education Indicators in Israel* commissioned the scientific survey.
– The findings are in the author's own words and the conclusions reached are his own.
– Any mention or quote from the survey must be referenced in the following manner: Blass N. (2008), Literature review on Indicators on Teachers and Teaching in the Education System, a Survey Commissioned by the Expert Committee on Guidelines for Revising the System of Education Indicators in Israel.
<http://education.academy.ac.il/English/>

The most noteworthy conclusion of the first part of the review, which dealt with an estimate of the quality of teachers, is that the ability of the accepted variables to assess teacher and teaching quality – and particularly the predictive value of education level and seniority – is extremely limited. The alternative, measuring the quality of teachers by the achievements of their students, is also problematic – both operationally and professionally. The most notable conclusion of the second part of the review is that while there is a weak correlation between teacher education level and seniority and quality of teaching, the relation between conditions of employment like salary, hours, the structure of the work time and the desire to teach is quite weak. Due to this, projecting supply and demand for teachers relying on these indicators is also problematic.

Despite all of this, gathering indicators of education level, seniority, age and other teacher characteristics, on the one hand, and data on employment condition and other factors that influence entry, longevity and exit from teaching is of great importance since these are the factors that have the greatest influence on salary. They are also important for planning manpower policy on the national and local level.

Main recommendations relating to indicators of educational manpower in Israel:

- A. The existing and most well-known indicators in Israel (mainly those relating to education level of teachers and their seniority, as well as the means of teaching training) are also accepted in the rest of the developed countries. Their contribution to evaluating the quality of manpower is limited, though. Nevertheless, if one wants to create indicators to advance the field, one must find additional variables whose correlation to the quality of teachers is significant.
- B. The multiplicity of factors that influence demand for teachers on the one hand and the supply of teachers on the other hand, makes projecting on the macro level difficult if not nearly impossible. This fact does not negate the need for finding indicators that can be used by decision makers in education for purposes of following up changes in general levels of supply and demand. Along with this, the development of indicators on the local level or even the school level can assist local authorities to predict supply and demand with greater precision, and allow them to prepare for expected changes.
- C. There is room for development of indicators that follow the influence of changes in salary levels and working conditions on willingness to enter and remain in the teaching profession. It is especially important to try to assess the differential influence of incentives and rewards on different groups of teachers and thus to match the appropriate indicator.
- D. Another especially important subject related to indicators and their use is the issue of control over the selection of which indicators will be collected, and the method and timing of their publication. In all likelihood, the sole funding agent (if not the only one, at least the major funder) will be the Ministry of Education or some other government ministry. There is a great temptation on

their part to influence both the selection of indicators that will be used as well as the manner and timing of their being publicized. Every effort should be made not to allow this and to prevent control by an interested party in setting the indicators that will be used or for the manner and timing of their publication.

- E. There are large gaps in the infrastructure that is required for data gathering for creating good follow-up indicators of the quality of teaching manpower, and the variances in demand and supply of this manpower. In addition, there are difficulties in coordination between the Ministry of Education and the Central Bureau of Statistics and within the Ministry of Education itself, that are the result of different definitions for the same variables, different methods of information gathering as well as varying methods of data analysis. Coordination between all the parties and the creation of a single system that will serve everyone and on an on-going basis requires a “macro” vision, a departure from the usual ways of working, and a reevaluation of the existing data system and its collection.