

EXECUTIVE SUMMARY

WEIGHTED STUDENT FUNDING IN THE
ISRAELI EDUCATION SYSTEM

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About the Koret-Milken Institute Fellows Program

The Koret-Milken Institute Fellows Program accelerates Israel's economic growth through innovative, market-based solutions for long-term economic, social, and environmental issues. The program focuses on connecting government, philanthropic, and business resources that are vital to national growth and development.

Directed by the Milken Institute Israel Center, the Koret-Milken Institute Fellows Program awards annual fellowships to outstanding graduates of Israeli and international institutes of higher education. Fellows serve yearlong internships at the center of the nation's decision-making—the Knesset, government ministries, and other Israeli agencies—and aid policymakers by researching and developing solutions for various economic and social challenges.

In addition, fellows craft their own policy studies aimed at identifying barriers to economic and employment growth in Israel. The fellows' studies, carried out under the guidance of an experienced academic and professional staff, support legislators and regulators who shape the economic reality in Israel. The program offers the ultimate educational exercise, combining real-life work experience with applied research five days a week.

Throughout the year, fellows receive intensive training in economic policy, government processes, and research methods. They acquire tools for writing memorandums, presentations, and policy papers, and they develop management, marketing, and communication skills. The fellows participate in a weekly workshop, where they meet senior economic and government professionals, business leaders, and top academics from Israel and abroad. They also participate in an accredited MBA course that awards three graduate-level academic credits that are transferable to other universities in Israel. The course, which focuses on financial and economic innovations, is taught at the Hebrew University of Jerusalem's School of Business Administration by Professor Glenn Yago, Director of the Milken Institute Israel Center and Director of Capital Studies at the Milken Institute in California.

Fellows Program alumni can be found in senior positions in the public and private sectors. Some serve as advisers to government ministries while others work at private-sector companies or go on to advanced studies at leading universities in Israel, the United States, and Great Britain. Within the program's framework, more than 80 research papers have been published, catalyzing reforms, reducing barriers, bringing about economic growth, and improving the quality of life for Israeli citizens.

The Koret-Milken Institute Fellows Program is nonpolitical and nonpartisan. It is funded by the Koret Foundation, the Milken Institute, and other leading philanthropic organizations and individuals in the United States and Israel.

More about the program: www.kmifellows.org

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Israel's public school system caters to more than 1.5 million students. In contrast to some countries that provide funding for public education systems operated by local authorities or private providers, the system is operated directly by the government via the Ministry of Education. Consequently, the Ministry of Education is one of the largest government ministries with more than 124,000 employees, and the largest non-defense share of the Israeli budget.

National expenditure on education, including government and private spending, is equivalent to approximately 4.2% of Israel's GDP and is expected to rise to 5% of GDP upon full implementation of the "Ofek Hadash" and "Oz l'Tmura" education reforms that are meant to improve the wages of teachers and the quality of students' education.

Despite the relatively high level of education expenditure, Israel's public school system has not been able to translate the increased resources dedicated to education into improvement in educational achievement. An analysis of Israeli achievements, as gauged by comparing students' achievements to those of their peers in the Organization for Economic Co-operation and Development, shows the average score in the international PISA exam is 10% below the OECD average. Israeli students also perform weakly at the ends of the achievement scale, with the top 5% of Israeli students scoring 5% below the top 5% of students in OECD countries and the bottom 5% scoring 20% below their OECD peers.

Israel's public school system includes about 373,000 pre-primary school students ages 3-5; some 915,000 primary school students ages 6-12; and 632,000 secondary school students ages 13-18 split into lower and higher forms. Of primary education students, formal Hebrew education accounts for about 38%, formal Arab education approximately 28%, and formal religious education some 14%. Recognized informal education, including general informal education, ultra-orthodox informal education and the ultra-Orthodox school networks, account for about 21 percent of primary education, while some 5% is accounted for by unrecognized education consisting of ultra-Orthodox institutions not pedagogically supervised by the Ministry of Education.

The Israeli public school system's difficulty in meeting the challenges at hand is hardly unique and is increasingly characteristic of public school systems in many developed economies. Over the past three decades, most public school systems have displayed stagnating or deteriorating achievements despite generous budget increases. This gap between input and output reflects the elusive nature of the educational production function. While basic inputs such as teacher quality, physical resources, and teacher-pupil ratios are easily observable, it is difficult to identify additional hard to pinpoint inputs, which dramatically alter educational outputs. This difficulty is compounded by variance in domestic resources, which directly translates into educational inputs that strongly influence in-classroom teaching despite the inability to control or even observe the amount of educational resources received domestically.

These difficulties are acknowledged both by academic literature and educational policy programs. The

primary policy initiative designed to address these concerns involves adopting formulae for education funding that take into account the variance in students' abilities and access to domestic resources. Such formulae are based on **individual student funding** and **differential funding**.

Modern funding formulae no longer use classrooms as the primary funding unit, preferring to focus on the individual student. **Individual funding** provides the advantage of directly comparing inputs and outputs and granting each student a level of funding that accurately represents their individual backgrounds. **Differential funding**, meanwhile, seeks to compensate for lack of access to domestic resources, quantifying the additional requirements of underprivileged students and addressing them by directing extra funding to those in need.

In the Israeli school system, only the higher form of secondary education is funded on an individual student basis. Elementary schools and the lower form of secondary schools are funded using a class-based formula that includes a limited-differential component. The funding formula of the higher form of secondary education does not include a differential component.

An analysis of the results achieved by these budgetary funding methods shows they are unsuccessful in generating a progressive distribution of the education budget when taking into account Ministry of Education funds alone. When local authority funds are taken into consideration, the distribution of funds becomes regressive with well to do students receiving a larger share of overall spending than underprivileged pupils. Under such a distribution of resources, it is unlikely the public school system will succeed in decreasing the achievement gap between different segments of the student population, likely resulting in the increasing stratification of Israeli society and difficulties in realizing full economic potential.

In order to address the achievement gap, a new funding mechanism is recommended for elementary and first-form secondary public schools based on up-to-date academic research and geared toward maximizing the resources made available to under-privileged students. It is founded upon the following principles:

- 1. Individual student funding.** At the technical level, differential student funding is determined on a per pupil basis. It, therefore, stands to reason that actual funding also should be done on an individual basis. Additionally, by assigning each student an individual level of funds, it becomes possible to compare inputs that now are assigned on an individual basis to outputs represented by individual test scores. The ability to compare inputs and outputs is critical for assessing student responses to changes in education-finance policy.
- 2. Satisfactory base funding level.** In order to ensure that all segments of the population continue to enjoy the minimum level of funding required for completing the basic curriculum, all students would enjoy an equal level of basic funding. Additional funds, in excess of minimum requirements, will be distributed differentially.
- 3. Increase in differential funding.** The main goal of the proposed funding mechanism is

to increase the amount of resources made available to underprivileged students. Upon implementation of the proposed mechanism, underprivileged students will enjoy a 75% increase in their level of funding. This increase will be financed by reducing funding to privileged segments of the student population, thereby creating a 100% funding gap between the lowest and highest segments. By and large the funding for the majority of students, belonging to the middle segments, would not be affected.

- 4. Maximizing resources available to underprivileged students.** Additional resources would be awarded based on each student's absolute deprivation rather than by dividing the entire student body into deprivation deciles. The allocating mechanism is designed to ensure that additional resources are concentrated upon the most disadvantaged groups rather than spread across large segments of the student population.
- 5. Fiscal neutrality.** Israeli students currently receive more classroom hours than their OECD peers and will enjoy additional hours upon full implementation of the "Ofek Hadash" and "Oz l'Tmura" reforms. Therefore, it seems that improving achievements throughout the school system is not dependent upon additional resources but rather can and should be done within current budgetary constraints.

The proposed funding mechanism increases the amount of resources to be allocated using a differential method of allocation, which is achieved without increasing the overall education budget. Implementing the proposed mechanism is expected to result in a 15% decrease in funding to privileged segments of the student population, offset by a 100% increase in funding to underprivileged students.

Due to generous contributions from wealthy, local authorities, the overall level of resources made available to privileged segments of the student population is expected to far exceed the level of financing necessary to complete the basic curriculum, despite a reduction in Ministry of Education funding. All resources made available by reducing funding to privileged segments would be allocated to underprivileged segments of the student population. Therefore, the implementation of the proposed funding mechanism is expected to grant underprivileged students the resources necessary to improve their achievements without drastically altering the level of resources made available to other segments of the student population.

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