

Twelve Years of the National Task Force for the Advancement of Education in Israel: What Has Changed?

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Abstract

Twelve years have passed since the National Task Force for the Advancement of Education in Israel (the Dovrat Committee) submitted its recommendations to the government. During that time, the education system has gone through unprecedented change: the teachers unions have signed new agreements that changed their employment conditions and significantly improved their salaries; the Ministry of Education's budget has grown in absolute terms as well as in terms of budget per pupil; the National Authority for Measurement and Evaluation and the "Avney Rosh" Institute for training school principals have been established; and after a lengthy teachers' strike, there is slow progress towards reducing classroom crowding. These changes have been reflected in improved pupil achievement and higher satisfaction rates among teachers with their salaries and their status. In turn, there has been a rise in professionals seeking retraining in the field of education. This chapter surveys these developments in depth with an emphasis on comparing the committee's recommendations to real changes in the school system and policy.

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Introduction

The National Task Force for the Advancement of Education in Israel, better known as the Dovrat Committee, was established by the Government of Israel in September 2003. The committee was appointed by then-Prime Minister Ariel Sharon and then-Minister of Education Limor Livnat (in coordination with then-Minister of Finance Benjamin Netanyahu). The committee was to a large extent a response to widespread criticism of the Israeli education system, following what the public perceived as the failure of Israeli pupils in a series of international tests, especially TIMSS and PISA. In January 2005, the head of the task force (henceforth: the Dovrat Committee) submitted the report his team had worked on for 16 months (The National Plan for Education, 2004).

From the beginning, the committee faced resistance from the teachers' organizations and a lack of support (at times bordering on passive resistance) from the Ministry of Education's senior bureaucracy. As the work of the committee progressed, the resistance increased, and became even stronger upon the publication of its recommendations. This resistance was back by a wide range of people on educational, professional and political grounds (for example, Inbar, 2006).¹

The 13 years that have passed since the committee was appointed and the 12 years since it submitted its report are sufficient time to trace important developments in the education system and their connection to the committee's work, whether intentional or unintentional. The very establishment of the task force, the way it worked and the extent of its recommendations are unique and exceptional in the education system, and, therefore, examining the long-term effects of its recommendations is important and challenging.² This chapter will be devoted to the description of some of the developments that occurred in the education system between 2000 – three years before the committee was established – and the writing of this chapter (2016). It will examine whether there is a connection between findings and recommendations of the Dovrat Report and the developments that occurred in the education system, and if there is a connection, what is its extent.

1 For further details on the background that led to the appointment of the Dovrat Committee, its letter of appointment, its composition, and the modes of its operation, see Blass (2012).

2 A similar event, albeit with a much more modest effect, was the publication of the report *Planning Education for the 1980s*, by Dr. Elad Peled (Peled, 1975).

The findings described in this chapter indicate a measure of similarity and sometimes even correspondence between the recommendations and what actually happened, albeit with a lag of several years. This does not indicate a direct and immediate causal relationship between the committee's work and recommendations and such developments. It can be argued that the same things would have happened anyway, or that the report and its recommendations had only a marginal impact. Either way, this chapter examines which of the committee's recommendations were implemented and which were not, and accordingly attempts to judge whether the committee's work was a success or a failure.

An overview of public committees in the education system

Before the main discussion of the Dovrat Committee, we ought to take a look at what Israeli history teaches us about expectations from the work of public committees, and the chances of their recommendations becoming operative planning documents.

The Israeli education system has seen more than a few public and professional committees. The most famous committee was probably the Rimalt Committee, comprised of members of the Israeli Knesset, which recommended extensive reforms. Following the report, the education system changed from a system with two educational tiers (eight years in primary school and four years in secondary school) to a three-tiered structure: six years in primary school, three years in middle school and three years in high school. The committee also recommended extending the Compulsory Education Law through the tenth grade and establishing integrated middle schools (Rimalt, 1971). Another committee, headed by Judge Etzioni, was appointed following a long teachers' strike, and recommended significant changes in teachers' working conditions (Etzioni, 1978). The later Adler Committee dealt with the subject of the long school day. The committee worked with researchers of the Taub Center, and its recommendations were accepted at the time by Prime Minister Benjamin Netanyahu, but were not fully implemented (Adler, 1996). Three other important committees dealt with science-technology education (the Harari Committee, 1992), Jewish studies in the state schools (the Shenhar Committee, 1994), and the subject of civics studies (the Kremnitzer Committee, 1996). To these one might add the committee headed by Miriam Ben-Peretz on matriculation exams (Ben-Peretz, 1994); the Margalit Committee on special education (Margalit, 2000); and, of course, the Biton Committee for the integration of the heritage of

Middle Eastern Jews in the curriculum (the Biton Committee, 2016), which recently submitted its report.

All of the committees mentioned were comprised of leading experts and educators in the relevant fields, and submitted extensive reports that were the fruit of intensive labor. What became of them? Are they really collecting dust on unknown shelves, as many people believe, or have some of them actually made a significant contribution to the development of the system? There is not enough space in this chapter for a review that would provide an adequate answer to that question. Some say that the Ministry of Education – or actually any other government body – makes cynical use of the public committees and the prestige of those who head them, and that the main purpose of establishing them is to put off urgent decisions, or to provide a stamp of approval for decisions that have already been made. There is no doubt that such uses are prevalent. However, in many cases the work of such committees or of ministry appointed task forces makes a real contribution to the public discourse, and sometimes even influences important decisions made by the heads of the education system, whether directly or indirectly. Examples to that effect are the wage agreements signed in the wake of the Etzioni Committee, changes in the matriculation exams following the Ben-Peretz Committee, and the discussions of the long school day following the Adler Committee.

In any case, in order to reduce the frustration of those who have served in the past and will serve in the future on such committees, and to reduce the degree of public distrust in the results of their work, we must clarify the following: history indicates that a public committee operating outside of the official system is not and cannot be an operative planning body – even if the time and budget at its disposal are very generous. In order for a planning initiative by an entity as large as the education system to be realized, it has to occur within or in full cooperation with the system.

An examination of the appointment of the Dovrat Committee, the modes of its operation, and the reactions to its recommendations (Blass, 2012), indicates that the activity of the Dovrat Committee was in keeping with the insights regarding the functioning of such committees.³

3 During a discussion of the question “is comprehensive planning in the education system possible?” Shlomo Dovrat said that when Prof. Dan Gibton was asked to join the committee, he “prophesied” that at first the politicians would be enthusiastic, but once objections were raised their enthusiasm would wane, and finally they would have reservations. When Dovrat asked why it was still important for the committee to be formed, Prof. Gibton replied that research shows that between 50 and 70 percent of recommendations of public committee are implemented, if the committee works seriously, even if those who implement them do not necessarily give credit for their to the original proposers.

Therefore, the present chapter will not be a point-by-point comparison of recommendations (over 120) and their implementation, but rather we will ask to what extent the spirit of the report, the findings that arose over the course of its work, and its main recommendations, affected, and continue to affect, the Israeli education system.

1. A change in the teachers' terms of employment

The most noteworthy change that occurred in the years 2005 to 2015 was the increase in the Ministry of Education's budget. The first subject in this chapter, though, will actually be the changes that occurred during that period in teachers' terms of employment. The reason for this reverse order is twofold: first of all, the teachers are the main people who carry the burden of education, and therefore any meaningful change in the education system must be reflected by a change in their working conditions. Secondly, the change that happened in their working conditions was the main cause of the budget increase.

The Dovrat Committee focused a great deal of its work on teachers' working conditions and training. The main changes included in the committee's recommendations (as expressed by dozens of sub-recommendations and sections) were as follows:

1. A significant wage hike, with an emphasis on raising the wages of teachers at the start of their careers;
2. A change in the structure of teaching positions, requiring teachers to be present in school between 36 and 40 hours a week and to divide that time between frontal teaching in the classroom, individual tutoring and preparation time;
3. A change in the promotion track, creating ranks would be contingent on meeting various conditions, rather than on seniority and education level alone;
4. An improvement in the teacher training process by transferring the teachers' training institutions to the responsibility of the Planning and Budgeting Committee.

The members of the task force hoped that these changes would significantly improve the quality of prospective teachers, their training and their ability to stay in the profession. The fear was that the changes would lead to massive resignations among veteran and good teachers, who would consider the new framework to be a real worsening of their conditions. What actually happened? Did the hopes materialize and were the fears proven true or false?

The main changes in teachers' terms of employment were anchored in the Ofek Hadash (New Horizon) wage agreements signed with the Teachers' Union (Histadrut Hamorim) and which applied to all primary education teachers and some middle school teachers, and Oz LeTmura (Courage to Change), which applied to high school teachers and the rest of the middle school teachers. The signing of these agreements and the subsequent major changes in teachers' working conditions happened only a few years after the report was submitted (the Ofek Hadash agreement was signed in 2008 and Oz LeTmura in 2011). The main reason for the delay was the disconnect between the Ministry of Education and the Ministry of Finance and the teachers' organizations at the end of Limor Livnat's term. To a great extent that split was caused by the decision of the committee chairman not to formally and fully include the labor unions in the committee's deliberations (although he did maintain ongoing contact with them and they were aware of all of the committee's recommendations before they were published).⁴ Due to that decision and their feeling of exclusion, when the recommendations were presented to the teachers' organizations they opposed them forcefully.

As a result of the delay in reaching an agreement with teachers and the gradual implementation of the agreements, the effects of the committee's recommendations were felt belatedly. The delay can be seen by in that new teachers entering the system are still only a minority and the system has not yet fully adopted the essential changes that were proposed. Nonetheless, the first signs of change – in the area of teaching faculty on the one hand and pupil achievements on the other – are evident, even if they cannot yet be fully assessed and measured. The following sections will discuss the various changes that have occurred in the teachers' status. The data is based on the most recent Central Bureau of Statistics information that is available.⁵

4 According to a talk by Shlomo Dovrat at the Van Leer Jerusalem Institute on June 30, 2015. He believes to this day that his decision was justified, because it enabled the committee to reach consensus on the report.

5 Main Trends in Teachers' Training, David Maagan, Central Bureau of Statistics, review given at Levinsky College, Oct. 11, 2015.

Teachers' wages

One of the Dovrat Committee's main recommendations was to bring about a substantial change in teachers' wages. The purpose of the proposed change was twofold: to raise teachers' wages, which were abysmal, and to improve their status relative to employees in the marketplace as a whole, and especially in relation to employees in other occupations also requiring an academic degree. This change was actually the impetus that eventually led to the increase in the Ministry of Education's budget.

The decision to give teachers priority above other workers in the new wage agreements was made by the top echelon of the Ministry of Finance in agreement with the Histadrut labor union, who acknowledged the importance of the education system and its impact on the entire economy.⁶ Recognition of the urgent need to improve teachers' wages was based to a large extent on the cooperation between Ministry of Finance officials and members of the Dovrat Committee, as well as the direct connection between the committee's chairman and the most senior government officials: from then-Prime Minister Ariel Sharon through then-Minister of Finance Benjamin Netanyahu, then-Minister of Education Limor Livnat and the ministry's senior bureaucracy.

As the data show, there was indeed a very significant change in teachers' terms of employment following the Dovrat Committee. According to Central Bureau of Statistics data, following the new wage agreements, the real wages of teaching professionals rose 32.2 percent between 2003 and 2013, whereas the real wages of the rest of the employees in the economy rose by only 8.4 percent (Table 1).⁷

6 This is documented in a letter from then-Ministry of Education Director General Yarom Ariav to the author of this paper from May 18, 2015.

7 Most of the data about teaching personnel are based on Maagan (2015).

Table 1. Average monthly wage of teaching staff versus other employees in the labor market, 2003-2013

Real wages in 2003 prices, NIS

| Year | Nominal monthly wage | | Real monthly wage | |
|---------------|----------------------|-------------------------|-------------------|-------------------------|
| | Teaching staff | Employees in the market | Teaching staff | Employees in the market |
| 2003 | 6,591 | 6,908 | 6,591 | 6,908 |
| 2013 | 10,509 | 9,030 | 8,716 | 7,489 |
| Change | 59.4% | 30.7% | 32.2% | 8.4% |

Source: Nachum Blass, Taub Center.

Data: Central Bureau of Statistics Press Release, *Trends in Teaching Wages, 2003-2013*.

During that period, the real wages of male teachers rose by 24 percent, and of female teachers by 35 percent, whereas the wages of men and women in other occupations rose by 5 percent and 15 percent, respectively (Table 2).⁸ This sharp rise brought teachers' wages to a higher level than the average wage in the labor force. Among men, the average wage of teachers was 8 percent lower compared to other male workers in 2003, whereas in 2013 the situation reversed: teachers' wages were 8 percent higher than the average of other male employees. As for women, the wages of female teachers were already higher than those of other female workers in 2003, but the difference grew from 21 percent in 2003 to 41.2 percent in 2013.

⁸ David Maagan, *Is Overall Planning Possible in the Education System?* Planning Aspects of Teaching Personnel and Teachers' Training seminar, Van Leer Institute, November 2015.

Table 2. Average monthly real wages in teaching and in the labor market

NIS

| | Men | | | Women | | |
|---------------|------------|-----------|---------------------------|------------|------------|---------------------------|
| | Teaching | Market | Ratio of Teaching: Market | Teaching | Market | Ratio of Teaching: Market |
| 2003 | 7,735 | 8,416 | -8.1% | 6,335 | 5,232 | 21.1% |
| 2004 | 7,935 | 8,585 | -7.6% | 6,622 | 5,437 | 21.8% |
| 2005 | 8,049 | 8,677 | -7.2% | 6,672 | 5,484 | 21.7% |
| 2006 | 8,120 | 8,495 | -4.4% | 6,834 | 5,384 | 26.9% |
| 2007 | 8,868 | 9,153 | -3.1% | 7,464 | 5,876 | 27.0% |
| 2008 | 8,961 | 9,079 | -1.3% | 7,533 | 5,731 | 31.4% |
| 2009 | 8,860 | 8,716 | 1.7% | 7,564 | 5,745 | 31.7% |
| 2010 | 9,150 | 8,630 | 6.0% | 7,878 | 5,676 | 38.9% |
| 2011 | 9,194 | 8,518 | 7.9% | 8,000 | 5,636 | 42.0% |
| 2012 | 9,416 | 9,157 | 2.8% | 8,328 | 6,056 | 37.5% |
| 2013 | 9,598 | 8,860 | 8.3% | 8,529 | 6,038 | 41.2% |
| Change | 24% | 5% | | 35% | 15% | |

Source: David Maagan, Central Bureau of Statistics, 2015.

Despite this, the focus on wage gaps between teachers and other workers in the labor force is not sufficiently representative because the education level of teachers is higher than average. In order to paint a clearer picture, we must examine the disparities between teachers' wages and those of employees with academic degrees employed in other occupations. Examined in this way, male teachers still earn much less than their counterparts with academic degrees (a difference of 27 percent in 2013), whereas female teachers earn 13 percent more than their academic peers (Maagan, 2015).

Figure 1. Average monthly wage
Teachers and others with a first degree,
2013, NIS

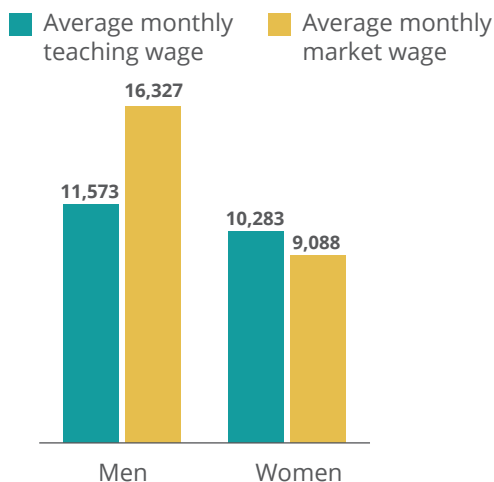


Table 3. Annual real wage per work hour, NIS

| | Men | Women | Ratio of Men:Women |
|---------------|-------------|--------------|--------------------|
| 2003 | 5,276 | 4,170 | 26.5% |
| 2004 | 5,427 | 4,431 | 22.5% |
| 2005 | 5,267 | 4,442 | 18.6% |
| 2006 | 5,453 | 4,569 | 19.4% |
| 2007 | 5,964 | 4,916 | 21.3% |
| 2008 | 5,834 | 4,937 | 18.2% |
| 2009 | 5,624 | 4,700 | 19.7% |
| 2010 | 5,766 | 4,818 | 19.7% |
| 2011 | 6,086 | 5,096 | 19.4% |
| 2012 | 5,964 | 5,024 | 18.7% |
| 2013 | 5,661 | 4,995 | 13.3% |
| Change | 7.3% | 19.8% | |

And what about wage per work hour? One of the most common arguments among teachers was and still is that the new wage agreements did not significantly improve their wages because the pay increases were linked to an increase in their number of work hours, which in effect offset the seemingly large wage increase. This argument does not take into account that following the wage agreements, teachers began to receive pay for work hours that they had previously not been paid for (such as preparation time and meetings), and, therefore, for comparative purposes, these hours must be added to the frontal teaching hours for which wages were paid in the past. An even more convincing rebuttal to the teacher's claim is based on the comparison of wages per hour, taking into account changes in the definition of a full-time position (the number of working hours that is considered full-time). This comparison shows clearly that the real wage per work hour rose between 2003 and 2013 by 7.3 percent among male teachers and by 19.8 percent among female teachers (Table 3).

Another interesting comparison is the development in wages in Israel and other the OECD countries. This comparison indicates significant improvement in Israeli teachers' wages relative to the OECD, which is even more notable considering the stagnation in teachers' wages in many OECD countries. From 2005 to 2013, the real wages of teachers in primary school education in Israel rose by 26 percent, the wages of middle school teachers rose by 19 percent, and of high school teachers by 10 percent (the gaps between the different age levels reflect the different times that wage agreements were signed).

Despite the sharp rise, teachers' wages in Israel in terms of US dollars purchasing power parity (PPP) are still significantly lower than the average wage in the OECD. For example, the wage for a primary school teacher in Israel with an academic degree and 15 years of experience in 2014 was \$28,281 in PPP terms versus OECD average of \$42,675. This is the gap in wages even after the increases and improvements mentioned above.

Table 4. Changes in teachers' wages

For teachers with an academic degree and 15 years of experience, fixed prices, Index year: 2005=100

| | Primary school | | | Middle school | | | High school | | |
|--------------|----------------|------|------|---------------|------|------|-------------|------|------|
| | 2000 | 2007 | 2013 | 2000 | 2007 | 2013 | 2000 | 2007 | 2013 |
| Israel | 99 | 103 | 126 | 99 | 102 | 119 | 100 | 102 | 110 |
| OECD average | 89 | 101 | 103 | 91 | 101 | 102 | 93 | 101 | 101 |

Source: Nachum Blass, Taub Center. Data: OECD (2015), Table D3.5a.

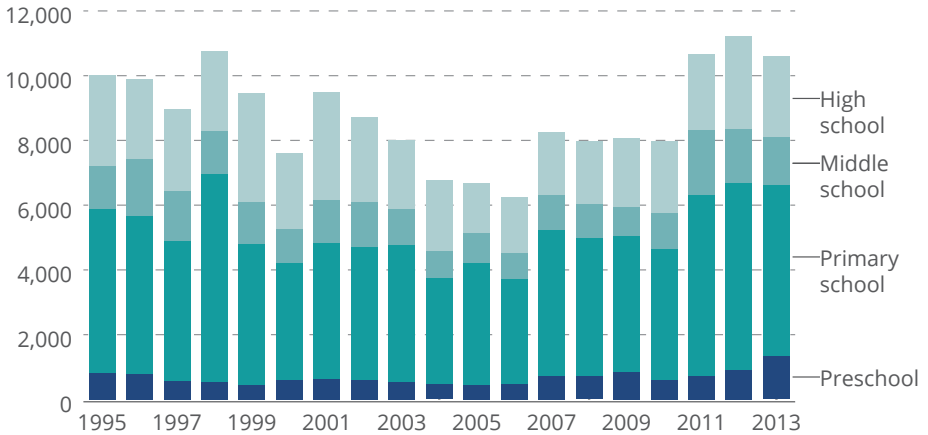
To summarize the discussion of teachers' wages, it is interesting to look at data from the Central Bureau of Statistics Social Surveys. The surveys, conducted in the years 2005 and 2013, included questions on satisfaction from various aspects of work among members of different occupation groups. A comparison of the results found that in 2005 only 33 percent of the teachers in primary school education and 49 percent of the teachers in secondary education were satisfied with their wages. On the other hand, in 2013, the figures were 59 percent and 63 percent, respectively (Central Bureau of Statistics, 2005; 2013). The drastic change can be attributed entirely to the new wage agreements signed during that period.

The patterns of joining, leaving and staying in the profession

As noted previously, one of the main goals of the national task force was to improve the quality of personnel in the education system, while simultaneously raising the profession's prestige. One of the committee's grave concerns was a reduction in the number of new candidates entering the profession and a significant exodus from the profession by teachers, especially veteran ones, out of a perception of a worsening in their employment terms. Today, we have data that enables us to examine those hopes and fears.

The number of teachers. The number of teachers in Jewish primary school education increased between 2005 and 2015 at a higher rate than the number of pupils (the number of pupils rose by 23 percent, and the number of teachers rose by 30 percent — see Appendix Table 1). In middle school, the increase in the number of pupils and teachers was identical at 10 percent, and in high school, the situation was reversed: the increase in the number of pupils was 18 percent whereas the number of teachers increased by 12 percent. In the Arab Israeli sector, the number of teachers in primary school education increased by 34 percent, whereas the number of pupils increased by only 18 percent. In middle school, the figures were 29 percent and 34 percent respectively, and in high school, the number of pupils increased 53 percent while the number of teachers increased by 67 percent (Figure 2).

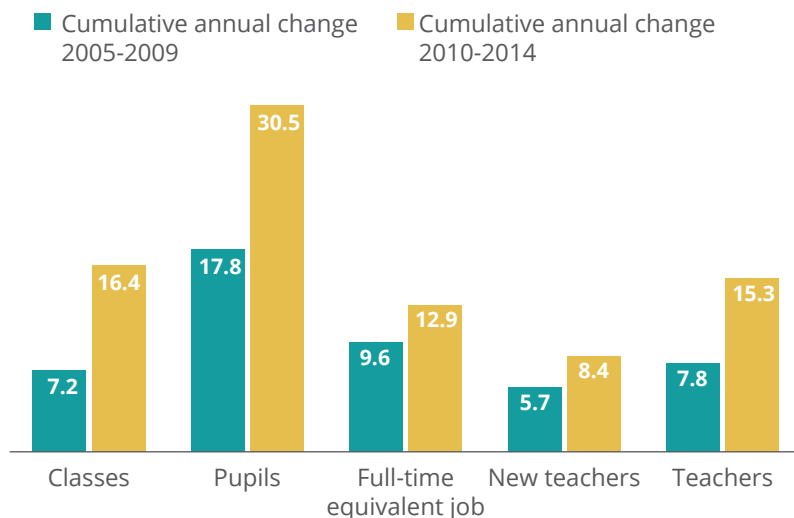
Figure 2. New teachers
By education level taught



Source: David Maagan, Central Bureau of Statistics, 2015.

The reasons for the sharp increase in the number of teachers (and as will be shown below in the number of full-time positions) are mainly due to the large increase in the number of pupils, the increase in teaching hours, and efforts by the Ministry of Education to reduce overcrowding in classrooms. Each one of those causes contributed to the increase in demand for teachers, with the contribution of each factor changing periodically and differing from one education level to the other (Figure 3).

Figure 3. Cumulative annual change in the components of the demand for teachers



Source: David Maagan, Central Bureau of Statistics, 2015.

Whatever the reasons, it appears that transitioning to the new work structure did not cause a significant walkout of teachers, and even to the contrary. The significant increase in the number of teachers indicates that the mass exodus of veteran teachers were not justified, and the changes were received well and even welcomed by the teachers.

Full- or part-time employment. The fear that teachers would reduce their hours of employment because of the new employment framework was also unfounded. Between 2005 and 2015, teachers in Jewish primary school education not only did not leave the profession because of the transition to a 36-hour work week, they even increased their work time from an average of 75 percent of a full-time position to 78 percent. In Arab Israeli education, the average position increased during that period from 80 percent of a full-time position to 85 percent.⁹ In high school education, there was a relatively

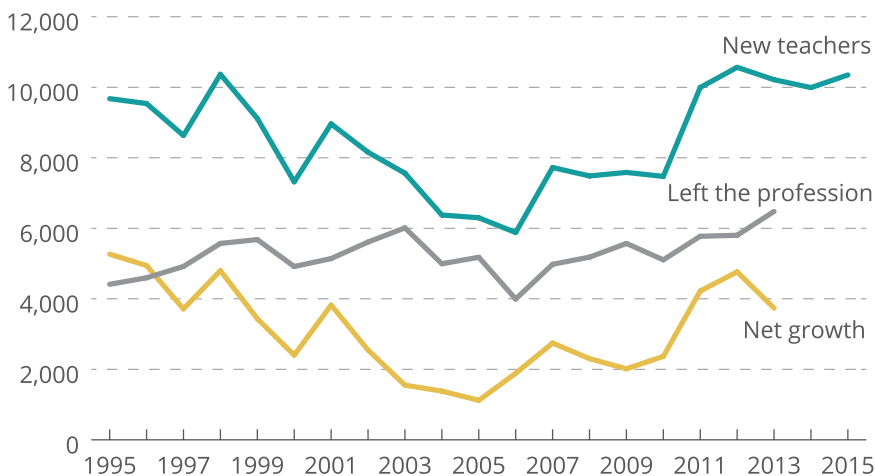
⁹ The calculation was made by dividing the number of full-time positions by the number of teachers (see Appendix Table 1). It is noteworthy that in the last three years there has actually been a minor trend to reduce employment hours at all age levels both among Jews and Arab Israelis. The reason might be the increase in the number of people wishing to join the profession.

small phenomenon of decreasing job hours, but there the transition to the Oz LeTmura framework is still not complete and we must wait a few years to see the impact of the change.

An interesting and noteworthy point is the large increase in the number of teachers and employment hours in primary school education in the Arab Israeli sector. This trend calls into question the claims of an oversupply of teachers in Arab Israeli primary education. If there were a surplus of teachers, one would expect a reduction in employment hours and not an increase (assuming that the Ministry of Education is working towards a more equal distribution of employment hours between teachers).¹⁰

Teacher attrition. One of the important indicators of teacher satisfaction from their work is attrition rates. As noted previously, concerns were raised in the deliberations of the Dovrat Committee that adoption of the committee's recommendations would lead to a walkout of teachers from the profession. The primary fear was the retirement of veteran teachers, whose average wage increase was less than that of new teachers, and who were accustomed to their previous terms of employment. In this case, too, the concerns were unfounded. The number of teachers who left the profession in 2003 was very similar to the number of teachers who left in 2012, even though there had been a significant increase in the overall number of teachers. During the entire period, there were changes in the occupational attrition rate in both directions, and they were apparently affected by changes in the general economic situation (during economic recessions, dropout levels from teaching usually decline significantly). However, it appears that, in general, there was stability or even a slight decrease in attrition rates following the committee's recommendations.

¹⁰ This subject is worthy of more thorough examination. On the one hand, there are numerous testimonies of a teacher surplus in the Arab Israeli sector, especially in the Galilee. On the other hand, statistical data about the actual increase in the number of teachers compared to the increase in the number of graduates of teachers' training institutions indicate a different picture. Another very interesting point is the number of people accepted into teaching divided by teacher training frameworks. It turns out that among recipients of teaching certificates from the universities and teachers training institutions, the rate of those who actually are employed in the profession is higher among Arab Israelis than among Jews (although levels among Arab Israeli graduates have dropped whereas among Jews they have risen among university graduates and remained more or less stable among graduates of teachers training institutions). On the other hand, among academics who attended retraining programs for teaching, there was a significant drop in the share of those employed in the profession among Arab Israelis, whereas among Jews there was a significant rise, as we shall see. For data on rates of entering teaching see Appendix Table 4.

Figure 4. New teachers and teachers leaving

Source: David Maagan, Central Bureau of Statistics, 2015.

Teacher quality. There is no agreed upon method to measure teacher quality, but the most common way is by education level and seniority – the indexes examined here. Between 2005 and 2015, there was a continuous and significant rise in the education level of teachers, and, towards the end of the period, the share of teachers with academic degrees reached approximately 90 percent for all grade levels in Jewish education, and was even higher in Arab Israeli education (Central Bureau of Statistics, Tables 8.4, 8.7 and 8.18). The share of teachers with master's degrees is also rising steadily. This rate is still higher in the Jewish sector, but the growth rate in the Arab Israeli sector is much faster.

Seniority. Between 2005 and 2015, the average seniority of teachers in the Jewish sector rose slightly in primary school education (from 15.4 to 15.6 years) and dropped in both middle school (from 18.1 to 17.4 years) and high school (from 19.6 to 18.9 years). In the Arab Israeli sector, there was a rise in seniority at all levels of education (see Appendix Table 1). Changes in average teacher seniority usually stem from the following trends: changes in the dropout rate from teaching (the lower it is the higher the average seniority), and changes in the demand for teachers that arise from growth in the system or an increase in teaching hours (the greater the demand

for teachers, the higher the number of teachers entering the system and the lower average seniority). Since it is difficult to isolate these influences, one can assume that minor changes in average seniority (as presented in Appendix Table 1) usually indicate relative stability.

Therefore, the academic attainment and seniority data for teachers indicate stability and likely even a rise in the quality of teachers in the education system (as reflected by these two indexes).

Professional satisfaction

One of the results the Dovrat Committee wished to achieve was an improvement in the profession's prestige and teachers' job satisfaction. To that end, we compared the results of the Social Survey from 2005 to results from 2013 (as we did for the question of satisfaction with wages) and arrived at interesting findings:

Teachers appear at the top the list of occupations with high job satisfaction. According to 2013 data, teachers are more satisfied with their work than engineers, software developers, lawyers, and other professionals, and teaching is ranked third in satisfaction from among all professions (95 percent in 2013 (Table 6) compared to 87 percent in 2005). It is important to point out that teachers are much more satisfied with their jobs than people who work in occupations where the average wage is much higher, including those occupations where having five matriculation units in math are an advantage (the term "five units in math" was used as an indicator of academic excellence in a widespread campaign by the Ministry of Education). Whereas among teachers 57 percent replied that they were "very satisfied" with their work, among engineers and architects only 36 percent were very satisfied with their work. Among software developers and application analysts, the figure was 47 percent, and for practical engineers and technicians it was 44 percent. Among practical engineers in the IT industries — an occupation said to be suffering from a worker shortage where salaries are high — only 34 percent were very satisfied with their work and the rate of employees who responded that they were "satisfied" or "very satisfied" was 88 percent, compared to 95 percent among teachers. In 2005, when the profiles of those who responded that they were "satisfied with their lives" were analyzed by occupation, it emerged that the share of teachers who responded positively was similar to the rate of engineers and architects, and higher than systems analysts and academic professionals in the various computer related fields. It can be assumed that levels of satisfaction have continued to growth with the general improvement in teachers' terms of employment.

Between 2005 and 2013, teachers' satisfaction ratings rose considerably: in the 2005 Social Survey, teachers came in 10th place for satisfaction with their jobs, while in 2013 they ranked in 3rd place.

In both surveys, teachers were among the professionals whose fear of losing their jobs was among the lowest. In 2013, 75 percent of the teachers were not afraid at all of losing their jobs.

Table 5. Job satisfaction by occupation, 2015

Selected occupations, percent

| Occupation | “Very satisfied” | “Satisfied” | “Very satisfied” and “satisfied” out of total in the occupation |
|--|------------------|-------------|---|
| Lecturers in higher education | 85.0 | 14.1 | 99.1 |
| Teachers (K-12) | 56.7 | 38.4 | 95.1 |
| CEOs | 51.3 | 44.4 | 95.7 |
| Managers in manufacturing, construction, and professional services | 44.5 | 48.5 | 93.1 |
| Practical engineers and technicians | 43.9 | 45.2 | 89.1 |
| Physicians and dentists | 38.1 | 51.0 | 89.0 |
| Engineers and architects | 36.0 | 58.7 | 94.6 |
| Lawyers | 35.6 | 52.4 | 87.9 |
| Nurses | 34.3 | 51.8 | 86.1 |
| Practical engineers, technicians in technology branch (ICT) | 33.9 | 53.5 | 87.4 |
| Accountants, economists, financial and investment advisers | 33.5 | 52.4 | 85.9 |
| Skilled workers in manufacturing, construction, agriculture, other | 27.3 | 49.7 | 77.0 |
| All | 38.0 | 48.0 | 86.0 |

Source: Central Bureau of Statistics, Social Survey 2013.

So far we have discussed the changes that took place among the teacher population as a whole. But it would be equally interesting to look at the changes that occurred in the teacher training institutions, and the trends in entering the field and retiring from it among new teachers.

The volume of applications to teacher training institutions. Between 2005 and 2014, the number of graduates of various training teaching programs rose by 49 percent (Maagan, 2015. There appears to have been some problem with the 2009 data, which is exceptionally low).

Table 6. Graduates in teacher training institutions

By institution

| | Total training | First degree in teaching | Academic retraining | University teaching degree | Pupils in school (thousands) |
|---------------|----------------|--------------------------|---------------------|----------------------------|------------------------------|
| 2005 | 5,737 | 3,811 | 740 | 1,186 | 1,388 |
| 2006 | 5,293 | 3,685 | 569 | 1,309 | 1,407 |
| 2007 | 5,108 | 3,578 | 593 | 937 | 1,434 |
| 2008 | 5,759 | 3,891 | 869 | 999 | 1,449 |
| 2009 | 4,964 | 3,077 | 1,028 | 859 | 1,473 |
| Change | 13% | 19% | 39% | 28% | 6% |
| 2010 | 5,755 | 3,194 | 1,705 | 856 | 1,509 |
| 2011 | 6,272 | 3,372 | 2,000 | 840 | 1,532 |
| 2012 | 6,943 | 4,034 | 1,788 | 1,121 | 1,565 |
| 2013 | 7,406 | 3,752 | 2,604 | 1,050 | 1,588 |
| 2014 | 8,572 | 4,428 | 3,087 | 1,057 | 1,618 |
| Change | 49% | 39% | 81% | 23% | 7% |

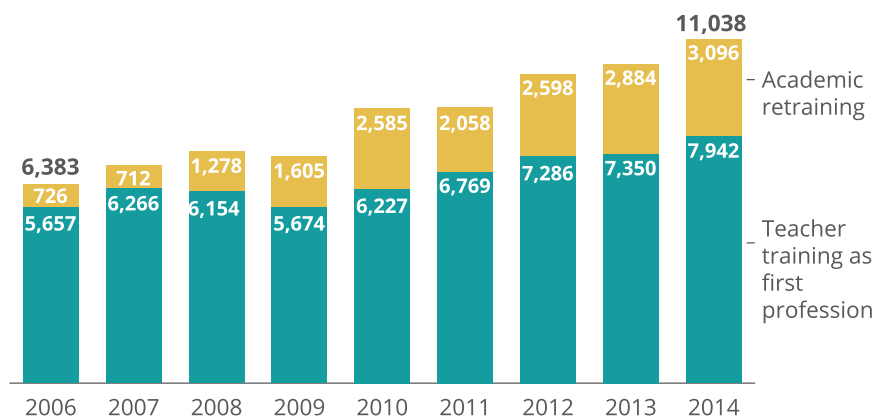
Source: David Maagan, Central Bureau of Statistics, 2015.

Especially relevant to this chapter is the 2010 data, because it reflects the effect of the new work agreements (at least three years since signing Ofek Hadash) on the desire of individuals to enter the profession. In those five years, there was a significant rise in the number of graduates of teacher training institutions (from 5,755 in 2010 to 8,572 in 2014). The most significant

increase was noted among those applying for academic retraining programs: in 2014, an 81 percent increase in the number of graduates compared to 2009, reaching more than four times the number in 2005.

The number of new students in teacher training institutions also rose during that period: from 6,383 students in 2006 to 11,038 in 2014 — a 73 percent increase (Figure 5)

Figure 5. New students in colleges of education



Source: David Maagan, Central Bureau of Statistics, 2015.

The dramatic increase in applicants with non-education academic degrees who chose to retrain for a career in teaching, requires deeper examination and explanation, which is not possible as part of the present discussion. The figures indicate that the number of adults seeking vocational retraining is on the rise. This may indicate that a large number of those pursuing a teaching career are people who already have work experience in another field who, for various reasons, now prefer to become teachers. The breakdown of retraining by sector is also surprising. Due to the difficulties Arab Israelis face in finding jobs consistent with their skills and education, higher numbers of Arab Israelis seeking retraining to be teachers might be expected. However, the breakdown by sector shows something quite different. The highest number of adults seeking professional retraining to be teachers is in Jewish state education.

Despite the absence of substantial research, there are three possible explanations for the rise in the number of people seeking retraining as

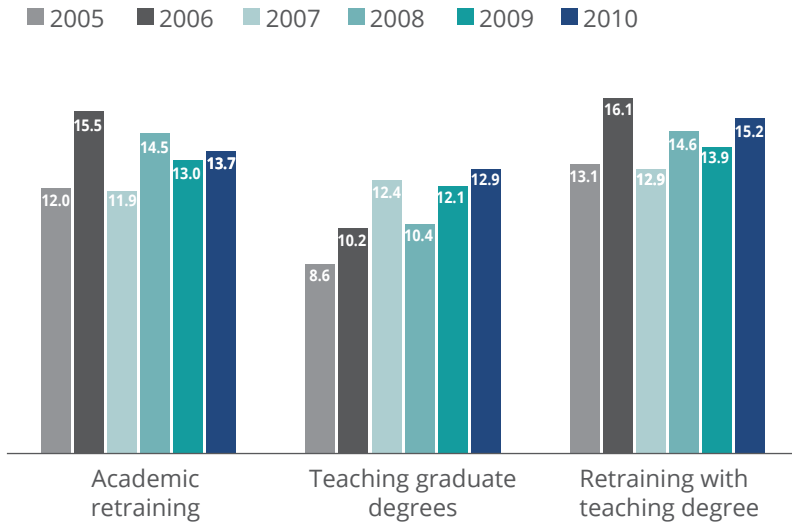
teachers. The first is that the relatively steep rise in teachers' wages improved their salary relative to other professionals. Second, the public is increasingly persuaded of the profession's relative advantages of such as a higher level of job stability and more resistance to technological changes than other occupations. A third explanation is that this profession apparently offers feelings of satisfaction and self-realization that go a long way to compensate for the difficulties and the wages, which are still low compared to other academic professions.¹¹

1. The number of those entering the teaching profession. The number of new teachers rose from 6,299 in 2005 to 9,991 in 2014 — a 58 percent increase. Since the numbers of those retiring hardly changed during that period (as will be shown in the following paragraph), the number of new teachers met the increased demand for teaching manpower created by the increase in the number of pupils, the decrease in the number of pupils per classroom, and the increase in teaching hours.
2. Young teachers leaving the profession. Given the rising number of teachers entering the system, we must also examine attrition rates in the field. Dropout rates rose over the entire period, but remained more or less stable after 2008 with the signing of the Ofek Hadash agreement. It is interesting to note that the dropout rates increased specifically among graduates of teacher training institutions, whereas university graduates they remained more or less stable, and among graduates of academic retraining programs they even dropped (because most of the retraining graduates are relatively older, as mentioned previously, this might indicate that those who opt for retraining make more judicious and determined choices).

¹¹ The discussion of the consequences of the increase in the number of people with teaching certificates who have undergone professional retraining raises additional questions about the quality of those who seek retraining. Are their academic skills (at least) higher or lower than those of people who applied for teacher training institutions in the first place, or are they people who did not find work in the profession they chose originally? Is their teacher training better or worse? In light of the fact that principals seem to prefer teachers who choose teaching as their first choice and who received their training in teacher colleges, is it really right to transfer this function to the responsibility of the Planning and Budgeting Committee?

Figure 6. Attrition rates (within three years)

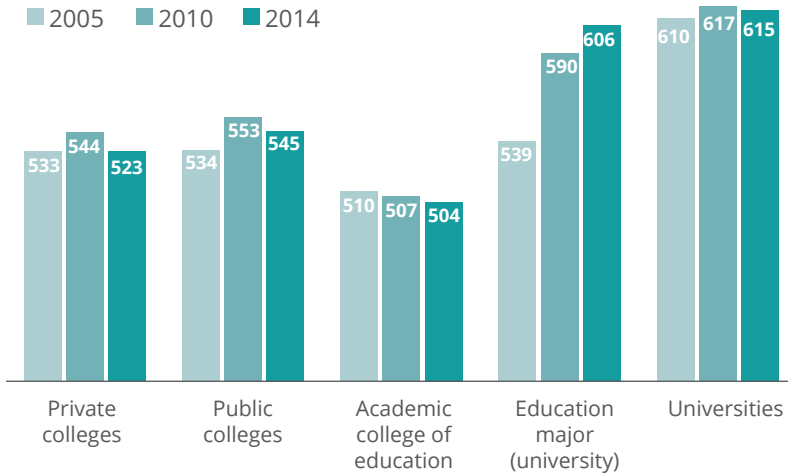
By place of training and year of entering teaching



Source: David Maagan, Central Bureau of Statistics, 2015.

The quality of the new teachers and applicants to teacher training institutions. Regarding the cognitive skills of applicants to teacher training institutions, the picture is complex. Between 2005 and 2014, the average psychometric score of first-year pupils in teacher training institutions hardly changed, whereas the scores of pupils in the university education departments rose sharply.

Figure 7. Number of first-year teaching students
By psychometric score and academic institution



Source: David Maagan, Central Bureau of Statistics, 2015

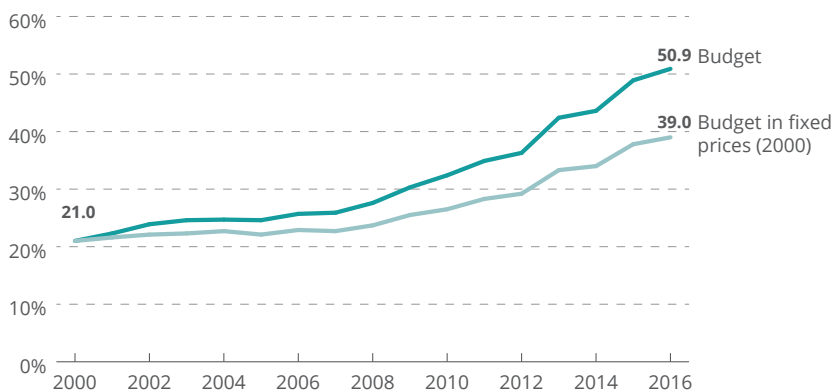
Another way to evaluate the “quality” is to examine the recruitment source of new teachers. As mentioned previously, during the period under examination, the number of people with academic degrees from different areas who turned to teaching rose significantly. This can also show confidence and goodwill by people in other professions towards the education system, as well as indirect evidence of the maintenance, or even rise, in the “quality” of those choosing to teach (since among people with degrees in other fields, psychometric scores are usually higher than needed to study teaching).

2. The development of the Ministry of Education’s budget

Increase in total budget. Between 2000 and 2016, a significant revolution occurred in the Ministry of Education’s budget. The nominal budget grew at an unprecedented rate¹² of 142 percent, and the real budget by 86 percent.

¹² Except during Yitzhak Rabin’s second term as prime minister, when there was a dramatic spike in investment in education in a single year.

Figure 8. Ministry of Education budget
Without development budget, fixed and current prices, NIS million



Source: David Maagan, Central Bureau of Statistics, 2015.

The dramatic reversal in the government’s approach to budgeting the education system is particularly noteworthy considering that at the time the committee was established there was a sense of crisis in budgeting the education system. This panic was apparent in the many press reports about “the numerous and frequent cuts in the education budget” – cuts that in most cases were minor or nonexistent.¹³

How did this budgetary revolution happen? What made it possible and did the recommendations of the Dovrat Committee affect decision makers? As in many other areas, it is difficult to assess and quantify the effects of different factors on weighty political decisions. Various factors that are cited as causes may in fact be meaningless and serve as smoke screens that cover the real causes, while factors that are overlooked could be significantly influencing causes. The same is true in this case, in which we can only point to the high

13 In the year before the appointment of the committee (2003), the Ministry of Education’s budget increased by 0.7 percent, and the number of pupils increased by 1.3 percent. In the year in which the committee operated, the ministry’s budget increased by 1.9 percent, and the number of pupils increased by only 1.7 percent. In the year after the committee’s report was submitted (2006), the ministry’s budget was cut by 2.8 percent and the number of pupils increased by 0.9 percent. That was the only year when there was a real budget cut, but in the following year the ministry’s budget increased by 3.8 percent, while the number of pupils increased by only 1.3 percent (see: Appendix Table 4).

level of similarity between the committee's recommendations and the measures that were actually taken, and see them as circumstantial evidence. Indeed, this evidence looks very substantial at first glance.

Between 2007 and 2016, several developments occurred that each contributed in its own right to the budget increase, and all appear either explicitly or implicitly in key recommendations from the Committee's report. The two main recommendations that required an addition of billions of shekels to the Ministry of Education's budget were the signing of the wage agreements with two teachers organizations and the full implementation of the Free Compulsory Education Law for ages 3-4. The others were the reduction in the number of pupils per class, an increase in the Enrichment Basket to help restore the differential budget per pupil, and the addition of a second assistant to kindergartens. Each of these recommendations required the addition of between tens and hundreds of millions of shekels.

Even though the recommendation to raise teachers' wages may have been the costliest measure proposed, the Dovrat Committee's 2005 recommendations avoided large additions to the Ministry of Education's budget because its chairman wanted to prove that the recommended changes could be made within the existing budget (Blass, 2012). This approach is highlighted in the recommendations to chapter 6 of the Committee's report:

*"The budget outline is based on preserving the education budget, in a realistic way, at the 2003 level of public expenditure [...] the budgetary outline assumes that education budget increases will match the natural growth of the population, and for the following five years, budgetary additions were greater than those detailed in the plan."*¹⁴

Not increasing the overall budget was mistakenly interpreted (or deliberately so) by the committee's critics as a recommendation to achieve maximal savings by massive teacher layoffs. Thus, it is clear why the plan to keep the existing budget alienated the two teachers' organizations and led them to resist the committee's recommendations fiercely. The resistance in turn led to a three-year delay in the implementation of the committee's recommendations, and a deep hostility between the teachers' organizations and then-Minister of Education Limor Livnat. The result was that the committee's recommendations were actually frozen until the appointment of Prof. Yuli Tamir to the office of Minister of Education. The deadlock was

¹⁴ According to Shlomo Dovrat, the committee's recommendations included an additional NIS 11 billion over five years, but for tactical reasons this could not be highlighted. In practice, this was the sum that was added to the education budget.

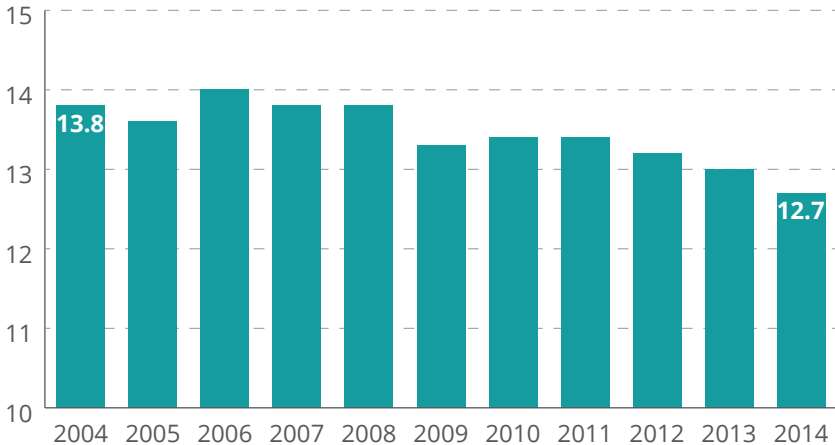
broken only after Tamir reached an agreement with then-Prime Minister Ehud Olmert on a NIS 5 billion addition to the Ministry of Education's budget (an addition that increased later) (Tamir, 2013). The subsequent Minister of Education Gideon Sa'ar and his director general Shimshon Shoshani were careful to maintain the wage agreements with the Teachers' Union, and managed to reach a similar wage agreement with the teachers' organizations (Oz LeTmura) by allowing a further increase in the budget.

The major strike by the Teachers' Association, and the social protest movement of 2011, followed by the "Sardine Protest," catalyzed the process of reducing the number of pupils per class and the addition of a second teacher's assistant.

Increase in budget per pupil. An increase in the Ministry of Education's general budget does not necessarily indicate a real increase in the budget available to the system, because we must take into account the increase in the number of pupils. In fact, from 2000 to 2015, the number of pupils in the entire education system grew by only 35 percent while the real budget grew by 86 percent. In primary school education, the increase was 31 percent, in middle school 16 percent, and in high school 27 percent. Even this comparison between the budget increase and the increase in the number of pupils can be misleading and, in order to examine whether there was a significant change in the budget inputs directly earmarked for educational activity, we must examine the budget increase per pupil – which in Ministry of Education terms is expressed by the number of weekly teaching hours per pupil. However, this is difficult to calculate because of changes in the structure of teaching job hours and the time lag between the signing of the wage agreements between the various teachers' organizations. Therefore, we will examine a different figure related to the subject: the ratio between the number of pupils and the number of full-time teaching positions.

As can be seen in Figure 9, the number of pupils per full-time teaching position dropped from 13.8 in 2007 to 12.7 in 2014 – a 9 percent drop. If we take into account that both the number of teachers and the average number of teaching hours grew considerably during that period, it is clear that the number of hours per pupil also rose – evidence of an increase in the educational input earmarked directly for pupils.

Figure 9. Average number of pupils per teacher in a full-time position



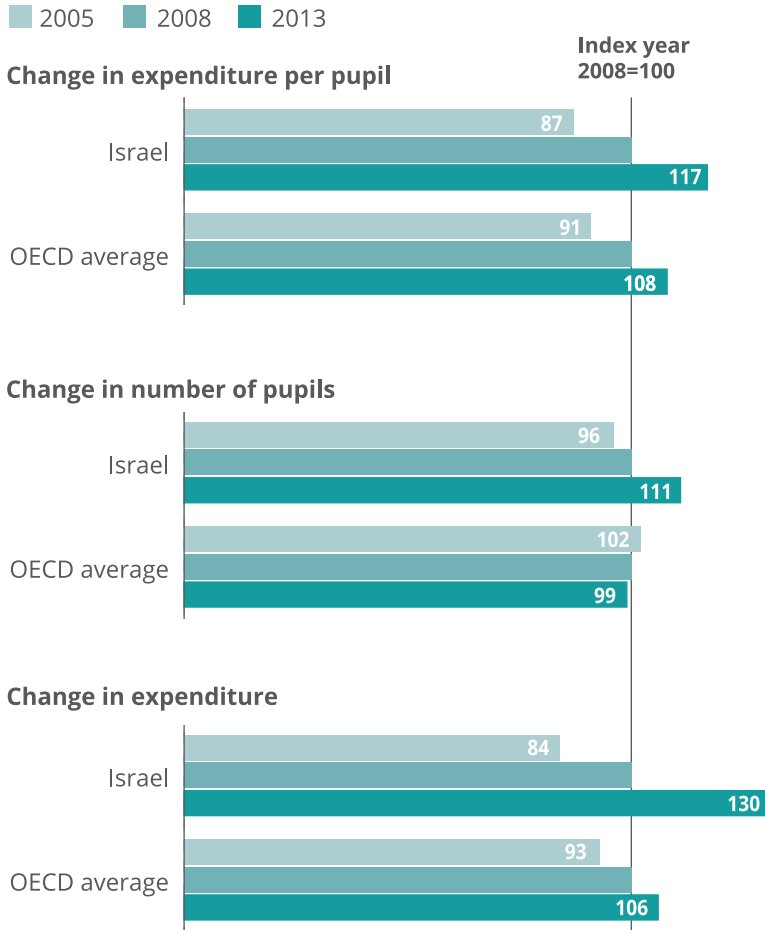
Source: David Maagan, Central Bureau of Statistics, 2015.

Increase in the share of the education budget out of the entire state budget. An increase in the share of the education budget out of the entire state budget indicates government prioritization of education. As can be seen in the figure, there has been a large jump in the share of the state budget allocated to education since 2000.

The government's increased investment in education during this period was impressive even compared to other OECD countries. Between 2005 and 2012, both overall expenditure on education and spending per pupil in Israel grew at a much faster rate than they did in other OECD countries (Figure 10).

In what areas were the budget changes focused? The answer is found by examining the breakdown of the Ministry of Education's budget between 2005 and 2014. The biggest changes occurred at the preschool level where the budget rose by 38 percent (following the implementation of the Free Compulsory Education Law for ages 3-4) and in primary education (following the implementation of the Ofek Hadash wage agreement with the Histadrut). Another sector that enjoyed a substantial increase of its budget is special education. The budgets for primary and special education each rose by about 20 percent over this period.

Figure 10. Trends in education expenditure and number of pupils
Israel and the OECD, Index year 2005=100



Source: Nachum Blass, Taub Center.

Data: Taub Center, *A Picture of the Nation 2016* (updated).

3. Developments in educational achievements¹⁵

This section will present the main data and changes in academic achievements of Israeli pupils in recent years, and examine the degree of correlation between these changes and the realization of the Dovrat Committee's recommendations.

The Meitzav (nationally standardized tests) exams

According to the report by the National Authority for Measurement and Evaluation (RAMA), "the cumulative change between 2007-2008 and 2015 indicates a rise in achievements in most of the subjects and grade levels and stability in the other subject areas" (RAMA, 2015). The rise in achievement is found both in grade 5 and in grade 8 in all the subjects that were tested, and is more prominent in grade 5 than in grade 8. However, there was a relatively rapid rise in scores between 2007 and 2011 and a stabilization in the years 2014 to 2015 (no tests were administered in 2014). To show the significance of the Meitzav exam improvements, we should note that in the NAEP exam in the US, which to a large extent resembles the Meitzav in its objectives, the improvement in achievements in reading and math in grades 4 to 8 between 2005 and 2015 was only between 1-2 percent. In Israel, on the other hand, the change in math in grade 5 between the 2008 and 2015 school years was 55 points (11 percent), in English 33 points (7 percent), and in Hebrew 64 points (13 percent). In grade 8, there was an increase of 6 percent, 3 percent and 8 percent, respectively. We are talking, of course, about national averages that do not express differences between sectors, the socioeconomic levels of schools, supervisory authority, and so on, but it is precisely these figures that emphasize the need to recognize the significant progress of the system overall, and the task of continuing the progress with greater emphasis on weaker groups and on reducing educational gaps.

¹⁵ Most of the contents of this section are based on Blass (2014). The data about the Meitzav (nationally standardized tests) and matriculation exams has been updated, whereas the discussion of pupil achievements on international exams has largely been summarized and only the main results are presented here.

Table 7. Average scores in reading and math, 2007 and 2015**Metizav exams in Israel, NAEP exams in the United States**

| Subject | Average score 2007 | Average score 2015 | Change from 2007 to 2015 |
|-----------------------|--------------------|--------------------|--------------------------|
| Reading skills | | | |
| Israel (grade 5) | 492 | 537 | 9.1% |
| US (grade 4) | 221 | 223 | 0.9% |
| Israel (grade 8) | 500 | 558 | 11.6% |
| US (grade 8) | 264 | 265 | 0.4% |
| Math skills | | | |
| Israel (grade 5) | 490 | 545 | 13.1% |
| US (grade 4) | 240 | 240 | 0.0% |
| Israel (grade 8) | 500 | 532 | 6.4% |
| US (grade 8) | 281 | 282 | 0.4% |

Source: Nachum Blass, Taub Center.

Data: Ministry of Education; NAEP.

What caused the rapid rise in the first period compared to the relative stability in the second bearing in mind that the Ministry of Education budget increased continuously over the entire period? One possible explanation is that the budget increases relevant to the pupil population that participates in the Meitzav exams occurred primarily in the first period. The main budget growth for grades 5 through 8 (tested in the Meitzav exams) was in 2007 to 2011, with the gradual move to Ofek Hadash. In these years the budget for primary education level rose by 42 percent, while from 2011 to 2014, it rose by only about 13 percent (since 2014, the budget for middle schools was combined with primary school budgets — a move that makes comparative analysis very difficult. In any case, grade 8 classes that are in the middle schools received a budget increase only in 2011, with the signing of the Oz LeTmurah agreement.)

An abstract by RAMA (2015) includes an indicator that determines when the change is small and when it is large (although it indicates annual change,

it appears to be useful for a multi-year perspective as well). According to the indicator, any change of over 20 points (4-5 percent compared to the previous status) is considered large, and any change of over 30 points (6 percent or more) is very large. Using this indicator, it is apparent that, in most of the subjects, the change was very substantial.

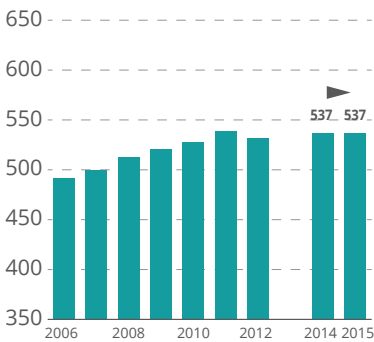
These figures are national averages and do not reflect differences between sectors, socioeconomic levels of schools, school supervisory authorities, and the like. The figures highlight the strides that have been made in the system on one hand, and the need to continue that progress with an emphasis on weaker pupils groups and narrowing gaps, on the other.

Figure 11. Pupil achievement on the Meitzav exams

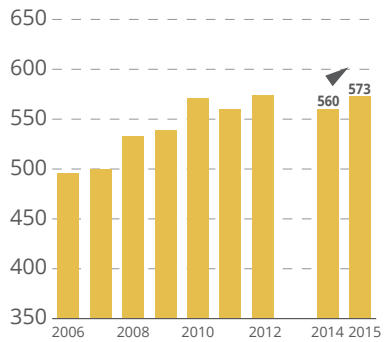
Overall school population, multi-year moving average

Grade 5

Language arts

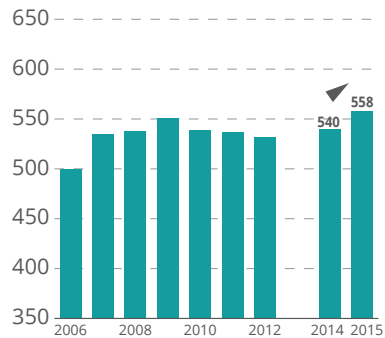


Arabic



Grade 8

Language arts



Arabic

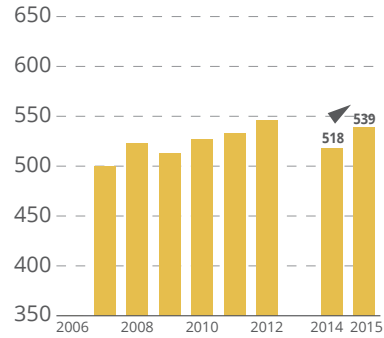
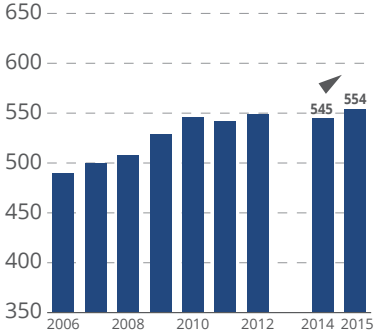


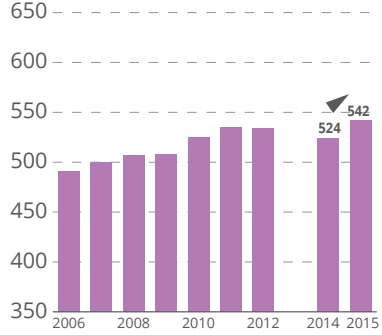
Figure 11. (continued) Pupil achievement on the Meitzav exams
Overall school population, multi-year moving average

Grade 5

Math

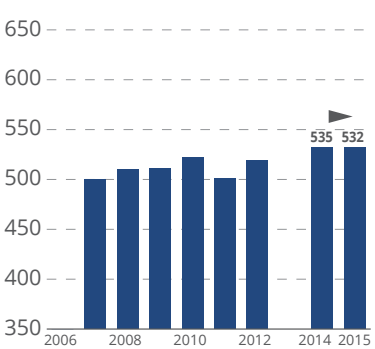


English (second language)

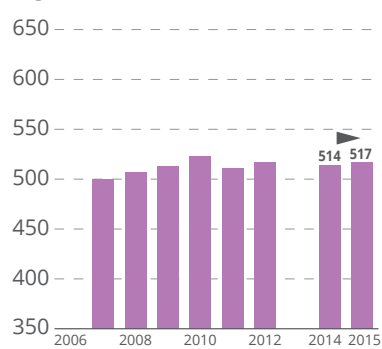


Grade 8

Math

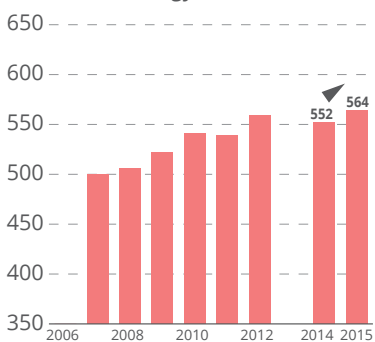


English (second language)



Grade 8

Science/Technology



Source: RAMA (2015).

The matriculation exams

According to Ministry of Education figures,¹⁶ the share of pupils who qualified for matriculation certificates out of the entire cohort rose from 46 percent in 2006 to 56 percent in 2015. That increase is substantial, and even more noteworthy considering the large increase in the number of boys and girls who are not studying the official state curriculum and do not take the matriculation exams (Haredim and Arab Israelis of East Jerusalem, whose rate out of the entire population increased from 12 percent in 2004 to 19 percent in 2014).¹⁷

Among the main groups of pupils who do take the matriculation exams (both the Jewish and Arab Israeli pupils in state and state religious education), the level of entitlement exceeds 75 percent among Jews, and 56 percent among Arab Israelis. It is important to stress that the level of entitlement for matriculation measured at the end of high school, which was 66.5 percent of all twelfth graders and 56 percent of the entire cohort in 2015, is not a final figure. A substantial number of those who fail matriculation exams at the end of grade 12 (25 percent) repeat the tests and earn the certificate after high school. The level of entitlement that correctly reflects the trends in terms of the education system (without Haredim and residents of East Jerusalem) is currently over 60 percent.¹⁸ Some argue that the rise in entitlement level is a result of decreases in the exam difficulty, but this claim has yet to be proven. We also know that the share of pupils in grade 12, the share of pupils in study programs of more difficult academic content (4-5 units in the Israeli terms), the share of pupils taking the matriculation exams, and the share of those who pass them – all objective, measurable metrics – have risen over the years which may indicate an actual improvement in the education system.

16 Press release 1.8.2016 <http://edu.gov.il/special/ExcellenceFramework/National-report/Pages/tmuna.aspx>.

17 The cohort of Haredim and Arab Israelis of East Jerusalem in 2014 includes 17,000 pupils in the Haredi sector, about half of whom attend institutions that do not prepare their pupils for matriculation, and another 7,000 pupils in East Jerusalem, most of whom study and take matriculation exams following the Jordanian curriculum. This must be taken into account when referring to the share of pupils who earned matriculation certificates out of the cohort. One must also bear in mind that half of Haredim go to schools that prepare them for matriculation exams. Out of Haredi pupils who go to schools that prepare them for matriculation, though, less than half actually take the tests, and out of those who do, only one-third actually qualify for matriculation certificates.

18 One indication of the level of entitlement is that according to Central Bureau of Statistics data, 63 percent of the 25-34-year-old cohort had 13 years of education or more in 2012.

Israel's standing in international tests

From the perspective of Israel's achievements in international tests, we can also note significant progress. The achievements of Israeli pupils in the TIMSS exam¹⁹ between 2007 and 2011 improved, both in terms of ranking and in terms of scores.²⁰ Of the 21 countries that participated in all of the TIMSS tests for grade 8 since 1999, Israel is the country that improved its average grade most impressively. Its ranking also rose the sharpest, and the rate of pupils classified as “weak” dropped from 25 percent in 2007 to 13 percent in 2011. These results may not be astonishing when comparing the level of the achievements of Israeli pupils to the level of pupils in other countries, but they are certainly impressive when we talk about improvement in achievement within Israel.

The results of the 2011 PIRLS tests²¹ were similar to the results of the 2011 TIMSS exam. Israel came in 2nd after Iran in terms of improving its score, and 3rd after the US and UK in terms of improving its ranking. Here, too, Israel's achievements are still low relative to most countries, but a definite improvement is evident.

In the PISA tests, Israel is in 4th place in terms of improving its pupils' scores, out of only 10 countries (of a total of 26) who improved their scores. In terms of changing its ranking, Israel is ranked in ninth place, out of the 12 countries that improved their ranking.²² Furthermore, if we look at the rates of pupils at the lowest levels of achievements in sciences, we see that Israel reduced that rate considerably (second only to Poland). If we look at the rate of pupils at the highest levels, here, too, Israel's improvement was in the 3rd place (after Poland and Korea). In light of all of this, it does not appear that Israel's situation — which, let us not forget, was poor in terms of

19 In this test, which is the oldest of the international tests, pupils in grades 4 and 8 are tested in math and science. Israel only participates in the test for grade 8.

20 Such large leaps in scores and ranking are very rare, and are not often repeated in the following test. Upon the publication of these results a heated argument erupted regarding what led to the large jump in Israeli pupils' scores and Israel's ranking on the scale of international achievements, see Blass (2014).

21 The PIRLS tests examine reading literacy and are designed for a younger age group (grades 4 and 5).

22 It is noteworthy that the countries that stood out the most negatively were Australia, whose pupils' scores dropped 29 points and whose ranking dropped from the 5th to the 9th place, and New Zealand, whose pupils' scores dropped 37 points and whose ranking dropped from the 3rd to the 11th place. Since the early 1990s, these two countries have undergone far-reaching educational reforms in the spirit of neoliberalism.

its pupils' achievements relative to the other countries in the early 2000's — has worsened compared to other countries, and the contrary might be true.

It is hard to determine whether there is a connection between the significant improvement in pupil achievements and the recommendations of the Dovrat Committee. However, the committee's recommendations apparently did have an influence on the increase in resources available to the education system, on the number of teachers, and on working procedures in schools, expressed by a more consistent presence of teachers in the schools and the addition of hundreds of thousands of individual tutoring hours. The educational research literature unanimously agrees that the quality of educational personnel is the school factor with the most influence on pupils' academic and educational achievements. Everything said to this point indicates that there was a major improvement in working conditions, wages and teacher satisfaction levels. Apparently, the quality of educational manpower in Israel has also risen as a result — even though at this point the improvement is most evident in primary and middle school, where the wage agreements were signed earlier.

Opinions are more divided about the role of budgetary resources in improving achievements. There is full agreement, though, that a minimal threshold of budgetary resources is a necessary condition for the system to function well. It is important to note that the three pupil populations that received substantial resource investments achieved higher results than expected considering their socioeconomic profiles. This is most evident for pupils in the state religious education system, who in most areas and subjects reached similar achievements to pupils in Jewish state education, even though their average socioeconomic background profiles are lower than those of their counterparts in the state education system. One explanation is that pupils in the state religious education system have enjoyed higher budgets than their counterparts in the state education system for many years, both in terms of budget per class and in terms of budget per pupil, and they also study in smaller classes. The second group is Druze pupils, who attain much higher achievements than their Arab Israeli counterparts. Here, one explanation might be the decision to include all of the Druze communities in the long school day program, an advantage which their Arab Israeli counterparts did not have.

The third group is Ethiopian pupils who, as shown in a previous Taub Center study, over a short time reached similar educational achievements to those of the Arab Israeli pupils — a considerable achievement considering that the vast majority of their parents and some of the pupils themselves came to Israel only a few years ago. The investment per pupil of Ethiopian

origin is higher by orders of magnitude than the investment in other pupils, even pupils of the same “Nurture Index” level.

Of course there may be other valid explanations for the success of each one of these groups of pupils. However, one cannot ignore the long-standing budgetary priority these population groups have enjoyed and the possible impact of this on their achievements.

4. Organizational and institutional changes

The Dovrat Committee had both a direct, immediate impact and an indirect impact on some important decisions not previously reviewed.

The establishment of the National Authority for Measurement and Evaluation (RAMA). Until the committee was appointed, the Ministry of Education had an internal unit responsible for evaluating its activities and programs. Likewise, the Office of the Chief Scientist was responsible for initiating and ordering evaluation studies from external agencies. The Dovrat Committee recommended establishing an external and independent evaluation agency headed by a figure with academic standing and prestige. That recommendation was fully implemented with the establishment of the National Authority for Measurement and Evaluation (RAMA), which Prof. Michal Beller was called upon to head. Evaluation of the various activities and programs run and initiated by the Ministry of Education were transferred to its responsibility. RAMA also took responsibility for Israel’s participation in international studies. Following this development, the internal evaluation unit in the ministry was discontinued and the activities of the Office of the Chief Scientist were reduced.

The founding of RAMA led to the institutionalization of the internal control and monitoring processes, which is exemplified best by the national Meitzav exams. These exams are standardized achievement tests which allow comparison of achievements over years — in reading, math, English, and science in grades 5 and 8, as well as questionnaires on the school’s educational climate.²³ The Meitzav exams and responsibility for international tests may be the core of RAMA’s activity but are only part of their operations. Among its other activities are conducting research and monitoring the transfer to employment frameworks set forth by the new work agreements (employee

23 Although there were national achievement tests in the past which began back when Prof. Yosef Bashi was the chief scientist, they were not calibrated, and did not permit an examination of progress from year to year. They were also not administered on a regular basis.

satisfaction, use of the individual tutoring hours and so on), developing criteria for the promotion of teaching personnel, and developing criteria for the functional abilities of pupils with special needs. There is no doubt that the establishment of RAMA contributed significantly to the Ministry of Education's quality of administration and operation by enabling its heads to rely on research-based data.

Establishing the Israel Institute for School Leadership (Avney Rosha).

The Dovrat Committee assigned great importance to the role of principals in the academic and educational process in the schools. The action-items that arose from the committee were the need to provide unique training, establish entrance thresholds for the job, and establish a separate wage scale. As part of implementing the recommendations, a new body called Avney Rosha was founded, whose job was to identify potential principals, train them for management, assist new principals, and provide support and professional enrichment to veteran principals. A senior educational figure, Ms. Yehudit Shalvi, was appointed to head Avney Rosha, and Mr. Yitzhak Danziger, one of the initiators of the Dovrat Committee and one of its members, was added to its Board of Directors as a representative of the Rothschild Foundation, and thus continued to represent the spirit of the Dovrat Committee in the institute. The Avney Rosha Institute has trained many hundreds of principals over the years and continues to contribute to strengthening the education system.

These two organizational and institutional developments can be directly attributed to the committee's recommendations. In addition, we will explore two more indirect effects of the recommendations.

The establishment of the nonprofit Hakol Hinuch for the Advancement of Education in Israel and the appointment of Rabbi Shay Piron as Minister of Education. One of the most active and prominent members of the Dovrat Committee was Rabbi Shay Piron, who was the principal of a religious girls high school in Petach Tikva at the time of his appointment to the committee. During the committee's work, a strong friendship and mutual appreciation grew between him and the committee chairman, which eventually led to establishing the Hakol Hinuch nonprofit organization and the appointment of Piron as its director. The organization made its goal to garner public support on several issues: reducing educational gaps, passing a public education law, promoting the status of the professions of teacher and principal, and leading high profile public campaigns on several issues.

The organization drew public attention to the issue of the discriminatory treatment of Ethiopian pupils in state religious education in Petach Tikva, and marshalled a widespread lobby in support of passing the Public Education Law. These campaigns contributed to Rabbi Piron's rise as a public presence and as a leading educational figure in the Yesh Atid (political party) list, as well as his subsequent appointment as Minister of Education.

During the short time he served as the Minister of Education, Rabbi Piron tried to promote the issues that arose in the Dovrat Committee's deliberations and were reflected by its recommendations, such as changes in curriculum content and a return to the differential per pupil budgeting method. Ultimately the recommendations of the team established by Rabbi Piron did not significantly change the existing budgeting method, but added about 50,000 net hours to the Enrichment Basket (a supplement that the Ministry of Finance undertook to budget) and another 100,000 hours diverted from other items in the Ministry of Education's budget, some of which were "transferring from one pocket to another."²⁴ The final results of this process are yet to be determined. It remains to be seen whether the significant 50 percent prioritization between the weakest pupil and the strongest pupil is indeed created, as recommended by the interministerial team that examined the subject.²⁵

Transferring responsibility for the teacher training institutions to the Planning and Budgeting Committee. One of the committee's most important recommendations was to transfer responsibility for the operation and budgeting of the teacher training institutions to the Planning and Budgeting Committee. This recommendation was not unique to the committee and was made frequently in other places as well. However, the

24 For instance, the decision to reduce the compensation for class size significantly reduced budgeting for the Bedouin sector, whereas the supplement to the Enrichment Basket added many hours to that sector.

25 However, one can say that the Dovrat Committee's approach to the desirable size of the gap between the weakest and strongest pupil was accepted in principle, and is expressed both by the systemic program for the economic integration of the Arab Israeli community (July 2016, p. 86) that sets forth a target of a 60 percent gap between the weakest and the strongest pupil, and by the draft of the Economic Arrangements Law, that talks about expanding the differential standard method to the high school level, and cites a target gap of 50 percent. Another budgetary recommendation of the Dovrat Committee, that occasionally appears on the public agenda, is cancellation of the matching system that provides for a uniform contribution to government budgets in certain educational expenditures by the local authorities. The recommendation calls for replacing this system with a differential contribution depending on the local authority's socioeconomic ranking.

resistance to it, which was both practical and connected to professional prestige, did not allow for its realization. In the past few years, the proposal has been gaining momentum and several institutions, including Beit Berl, Levinsky College and the Oranim College, are already in transition.

Conclusion

This chapter highlights the major changes that have occurred in the education system since the Dovrat Committee submitted its recommendations in 2005. Not all of the committee's recommendations were implemented – several central recommendations were rejected due to education and political system considerations, and some were simply not carried out. Thus, for example, the recommendation to establish regional educational areas, which the committee members considered very central, was not even considered seriously in any forum. The committee members were apparently not aware that the relationship between local politics and education would make the proposal unfeasible. The (failed) attempt at cooperation between communities in other areas was also not taken into account by the committee members. The recommendation to operate the long school day in the entire system was not implemented either, even though changes in the structure of teachers' employment hours could have made that possible. In addition, the Public Education Law, one of the cornerstones of the committee's recommendations, got stuck in the Knesset and does not look as if it will be pushed forward in the foreseeable future. Among the other important recommendations not yet implemented, we can list the general core curriculum; maintaining pedagogical continuity by recombining middle and primary school; the pedagogical revolution for preschool (despite the implementation of the Compulsory Education Law for ages 3-4); pedagogical revitalization and implementation of meaningful learning (although there are signs of movement in that direction); reorganization of the education system; and, streamlining and improving the effectiveness of the administrative bodies.

Along with the numerous recommendations that were not realized, the recommendations that were accepted and those which are in the process of partial or advanced implementation are important and significant landmarks in the history of the Israeli education system. The effort invested in the committee's work, and especially the leadership and determination of its chair, are worthy of the appreciation and gratitude of everyone who cares about education in Israel.

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Appendix

Appendix Table 1. Number of pupils and teachers and their characteristics, 2004-2015 school years

| | Primary school | | | Middle school | | | High school | | |
|--|----------------|-----------|------------|---------------|-----------|------------|-------------|-----------|------------|
| | 2004-2005 | 2014-2015 | Change (%) | 2004-2005 | 2014-2015 | Change (%) | 2004-2005 | 2014-2015 | Change (%) |
| Jewish education | | | | | | | | | |
| Growth in the number of pupils (thousands) | 787 | 971 | 31.2 | 256 | 281 | 1.10 | 348 | 409 | 1.18 |
| FTE | 33,619 | 46,430 | 1.38 | 17,831 | 17,429 | 0.98 | 26,010 | 28,490 | 1.10 |
| Total teaching staff | 45,600 | 59,491 | 1.30 | 22,873 | 25,124 | 1.19 | 33,397 | 37,496 | 1.12 |
| Academic level pay grade (%) | 65.5 | 86.5 | 1.32 | 87.6 | 95.9 | 1.09 | 70.7 | 73.4 | 1.04 |
| 2 nd degree or higher pay grade (%) | 16.4 | 25.1 | 1.53 | 32.8 | 43.8 | 1.34 | 81.0 | 8.9 | 1.11 |
| Part-time position as percent of FTE | 0.74 | 0.78 | 1.06 | 0.78 | 0.69 | 0.89 | 0.78 | 0.76 | 0.98 |
| Average tenure in teaching | 15.4 | 15.6 | 1.091 | 18.1 | 17.4 | 0.96 | 19.6 | 18.9 | 0.97 |
| Arab Israeli education | | | | | | | | | |
| Growth in the number of pupils (thousands) | 210,359 | 249,056 | 1.18 | 66,403 | 85,951 | 1.29 | 64,550 | 99,111 | 1.53 |
| FTE | 11,797 | 16,785 | 1.42 | 4,551 | 6,365 | 1.40 | 5,054 | 7,974 | 1.58 |
| Total teaching staff | 14,671 | 19,690 | 1.34 | 5,207 | 7,515 | 1.44 | 5,383 | 9,992 | 1.67 |
| Academic level pay grade (%) | 59.0 | 92.8 | 1.57 | 79.2 | 97.0 | 1.22 | 78.9 | 91.1 | 1.15 |
| 2 nd degree or higher pay grade (%) | 5.7 | 17.0 | 2.97 | 15.3 | 26.1 | 1.71 | 20.6 | 30.3 | 1.47 |
| Part-time position as percent of FTE | 0.80 | 0.85 | 1.06 | 0.87 | 0.85 | 0.97 | 0.94 | 0.89 | 0.97 |
| Average tenure in teaching | 11.9 | 13.8 | 1.16 | 13.4 | 13.9 | 1.04 | 13.4 | 13.5 | 1.01 |

Source: For pupils: Ministry of Education, <http://meyda.education.gov.il/files/MinhalCalcala/NetunimTashha4.pdf>; for teachers, Central Bureau of Statistics, *Statistical Abstract of Israel*.

Appendix Table 2. Rates of those entering teaching
By population group and academic institution type, percent

| | Teaching degree from university | | Teaching degree | | Academic retraining program | |
|-------------------|---------------------------------|------|-----------------|------|-----------------------------|------|
| | Arab Israelis | Jews | Arab Israelis | Jews | Arab Israelis | Jews |
| 2005 | 85.4 | 69.5 | 89.8 | 73.4 | 83.4 | 67.4 |
| 2006 | 86.0 | 71.9 | 87.0 | 71.4 | 77.7 | 70.6 |
| 2007 | 87.0 | 69.7 | 79.1 | 73.0 | 76.0 | 73.9 |
| 2008 | 85.1 | 77.2 | 86.0 | 74.0 | 72.9 | 74.9 |
| 2009 | 83.1 | 77.4 | 84.1 | 73.4 | 64.9 | 74.6 |
| 2010 | 82.2 | 76.2 | 72.4 | 72.6 | 62.7 | 72.9 |
| 2011 | 83.3 | 78.8 | 73.5 | 71.2 | 50.0 | 76.8 |
| Change (%) | -2% | 13% | -18% | -3% | -40% | 12% |

Source: David Maagan, Central Bureau of Statistics, 2015.

Appendix Table 3. Rate of growth in the number of pupils and budget and the difference between them

| Year | Growth rate: Pupils | Growth rate: Budget | Difference: Pupils - Budget |
|------|---------------------|---------------------|-----------------------------|
| 2002 | 1.9% | 1.4% | 0.5% |
| 2003 | 1.3% | 0.7% | 0.6% |
| 2004 | 1.7% | 1.9% | -0.2% |
| 2005 | 0.9% | -2.8% | 3.7% |
| 2006 | 1.3% | 3.8% | -2.5% |

Source: David Maagan, Central Bureau of Statistics, 2015.

Data: Analysis of budget data.

