

POLICY PAPER SERIES

TRENDS IN THE DEVELOPMENT
OF THE EDUCATION SYSTEM

Nachum Blass

Policy Paper No. 2012.10

מגמות בהתפתחות מערכת החינוך

נחום בלס

נייר מדיניות מס' 2012.10

All errors are the author's own. The views expressed herein are those of the authors and do not necessarily reflect the views of the Taub Center for Social Policy Studies in Israel.

Short sections of text, not to exceed two paragraphs, may be quoted without explicit permission provided that full credit is given to the source.

Trends in the Development of the Educational System

Nachum Blass*

Abstract

The analysis of the educational system's development in this chapter focuses on the demographic changes taking place within the system. The initial part of the chapter shows that while Haredi (ultra-Orthodox) and Arab Israeli shares of the pupil populations are growing, there appears to be a recent slowdown in this growth. An examination is conducted on how this trend is reflected in changes in the distribution of the preschool population. The second part of the chapter concentrates on the national expenditure on education. In recent years, there has been a large increase in education spending – although spending per pupil relative to GDP per capita has been falling further and further behind the OECD average. The final section deals with the expected impact of the Trajtenberg Commission's recommendations in the field of pre-primary education against the background of the latest developments in the budgetary realm and in relation to the OECD countries.

* Nachum Blass, Senior Researcher, Taub Center. I would like to thank Dalit Nachshon-Sharon for her comments and editing, and Yulia Cogan for preparing the graphs. In various parts of the research for this chapter I was assisted by the Taub Center researchers Sagit Azary-Viesel, Haim Bleikh and Kyrill Shraberman, and I am very grateful to them.

In the chapters on the educational system that appeared in the Center's recent *State of the Nation Reports* (Blass 2010 and 2011), special attention was devoted to the demographic developments, and in particular to the composition of the pupil population. Those chapters presented the distribution of pupils among the four main components of the educational system – State, State-religious, Arab Israeli¹, and Haredi – with reference to the various age levels and the trends over time. Against the backdrop of those reviews, this chapter will focus on expanding the discussion on the age composition of society in Israel as expressed by changes in the share of the younger age groups and by the trends of development among preschool children – changes and trends that give an indication of what may be expected regarding all children and all of Israeli society.

1. Prominent Demographic Trends Among Israel's Pupils

Demographic and Educational Development Among Youth (aged 0-19)

Composition by age. The share of the young population in society, the age compositions within the group and the attendance rates at each age, have a large influence on the state's educational system. The impact of demography on the functioning of educational systems in the world is no less important than that of other factors, such as ideology and tradition. Ostensibly, the smaller the share of the young among the population, the less of its resources society has to allocate to education. It may even be supposed that when the number of pupils in the educational system is shrinking, the number of teachers and number of classrooms should decrease accordingly. However, examination of the trend of decrease in

¹ The terms Arabs and Arab Israelis are used interchangeably to refer to the same population.

the relative share of the younger age groups in various countries shows that it is frequently accompanied by a trend of reduction in class size, an increase in expenditure per pupil, and a rise in teachers' wages. The main reason for this is that teachers' employment conditions are usually not flexible, and so there is a tendency to use general demographic processes that result in a reduction in the proportion of children in society in order to improve learning conditions and teachers' working conditions.

A closer look at the international picture reveals the existence of two patterns of development, with most countries distributed along a continuum between two poles: at one end are the developing countries, where natural growth rates are relatively high and the young constitute a large share of the population, while attendance rates and the level of educational services are low. At the other end are the established and wealthy countries where fertility rates are relatively low and the young constitute a small share of the population, while attendance rates and the level of educational services are high. In the daily reality of schools in developing countries, these trends are expressed by crowded classrooms and low levels of pay for workers in education, as opposed to small classrooms and appropriate levels of pay for teachers in developed countries.

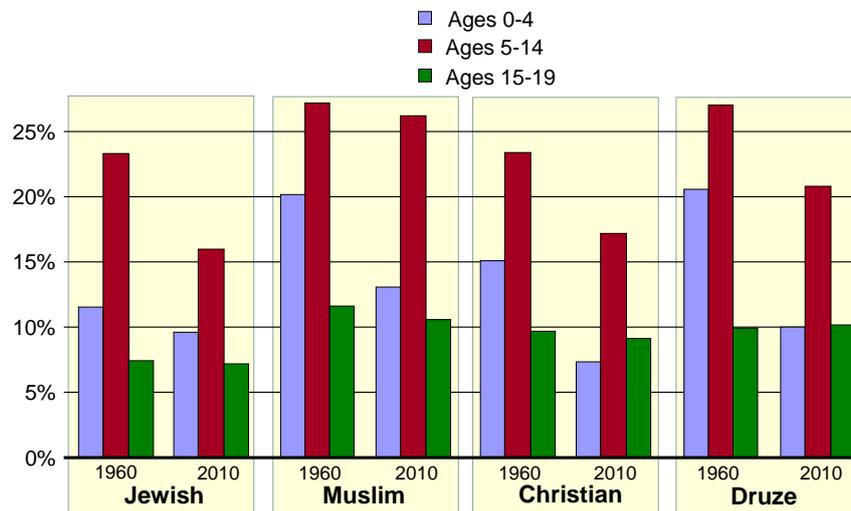
Israel is to some extent exceptional in this context. On one hand, the country has high fertility rates and a relatively low level of educational services (as evidenced by crowded classrooms and low teacher pay); on the other hand, attendance rates are very high, and the state's level of economic development is high. Another unique aspect of Israel is the absence of any link between the change in the fertility rate and classroom size. Since Israel's establishment, there has been a steady and consistent decline in fertility rates, accompanied by a decrease in the younger groups' share of the population. In many developed countries that achieved high attendance rates a long time ago, the reduction of the children's population of recent decades was accompanied by a drop in classroom size. In contrast, in Israel the decline in fertility rates was accompanied by a rapid rise in attendance rates, but by no significant

decrease in average classroom size. Neither did the teachers' relative pay change, mainly due to the size of the teaching labor force, and the tendency of their professional leadership to prefer the improvement of working conditions – primarily a reduction in actual teaching hours – over pay raises.²

The proportion of those aged 0-19 in Israel has been trending down since the 1960s, when it stood at 44 percent. By 1990 it had dropped to 40 percent, and the decline has continued also in recent years, when it fell below 36 percent (for more on this, see Appendix Table 1). The change occurred among all the population groups, to varying degrees. The change is particularly prominent among the Druze, where the share of young people has dropped by 16.5 percent since 1960; the decline during the same period was 14.6 percent among Christian Arabs, 12.8 percent among Muslim Arabs, and 9.4 percent among Jews (Figure 1).

² Teachers' level of pay in comparison to other professionals is a complex issue, especially with regard to pay per work-hour. The chapter will not go into that issue, but it should be noted that upon examination of the OECD *Education at a Glance*, 2010 data (Table D3.1), it is clear that teachers' pay in Israel is low, even when their work-hours per week and per year are taken into consideration.

Figure 1
Percentage of youth in the population
 as percent of age cohort, by religion, 1960 and 2010



Source: Taub Center for Social Policy Studies in Israel.

Data: Central Bureau of Statistics.

Regarding differences within the young age group: the decline is steepest among ages 5-14, whose share of all 0-19 year-olds fell from 23.6 percent in 1960 to 17.8 percent in 2010. This figure represents a drop at a rate of some 25 percent (only 5.8 percentage points) in four decades, as opposed to a decline at a rate of 18.5 percent (only 2.3 percentage points) in the share of ages 0-4, and a tenth of a percent rise in the share of ages 15-19 (Table 1).

Table 1. **Percentage of youth in the total population**
by religion, 1960 and 2010

	Total (in thousands)	Percentage of youth in total population		
		0-4	5-14	15-19
Jews				
1960	1,911.3	11.5	23.2	7.4
2010	6,068.9	9.6	16.0	7.2
Muslims				
1960	166.3	20.2	27.2	11.6
2010	1,303.9	13.1	26.2	10.6
Christians				
1960	49.6	15.1	23.4	9.7
2010	122.6	7.3	17.2	9.1
Druze				
1960	23.3	20.6	27.0	9.9
2010	126.5	10.0	20.8	10.2
Total				
1960	2,150.4	12.4	23.6	7.8
2010	7,623.6	10.1	17.8	7.9

Source: Taub Center for Social Policy Studies in Israel.

Data: Central Bureau of Statistics.

Composition by sector. The differences between the various population sectors in the rate of fertility decline and relative contraction of the younger age groups finds expression in another dimension: a rise in the share of non-Jews (Arabs, Bedouin and Druze) among all children. Since 1960, the relative proportion of Arab Israeli pupils has risen from 17 percent to over 26 percent.

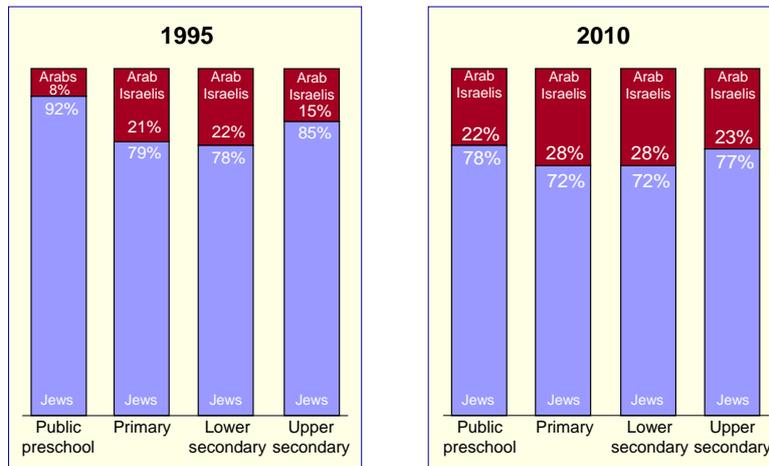
Three processes influence the distribution of pupils among the various sectors, some of them working in opposite directions: the first is the process of natural population growth; the second is changes in attendance rates; and the third is migration processes. The differences in natural growth rates and the rise in attendance rates contributed for the most part to the increase in Arab Israeli pupils' share of all pupils in Israel. Although these processes have slowed in recent years, due to the decline in natural growth rates among the Arab Israeli population and a parallel rise among the Jewish population, natural growth rates among the Arab Israeli population still remain generally higher. Nevertheless, whereas among the Jewish population attendance rates have more or less achieved their maximum level, among the Arab Israeli population the process of expansion is still occurring especially in pre-primary and secondary education.³

Migration has had a varying impact over the years, but its direction is consistent: strengthening the Jewish population's share. The impact was especially powerful in Israel's first two decades after the State's establishment and in the 1990s, with the arrival of the large wave of immigration from the former Soviet Union. A finding published in the past is also noteworthy: in the Arab sector there has also been migration with the integration of children from Judaea and Samaria (Blass and Douchan 2006).

The effect of the various patterns of natural growth and the difference in attendance rates are shown in Figure 2, which presents pupil composition by sector at the various educational levels. It is evident that the share of Arab Israeli pupils is rising, with the most prominent rise in preschool and in upper secondary school. The increase in attendance rates has augmented the impact of the difference in natural growth rates.

³ This is particularly apparent among preschool children, where the growth rate of the Jewish population in the past five years was higher than that of the Arab Israeli population (Blass, Bleikh, and Zaban 2012).

Figure 2
Distribution of Jewish and Arab Israeli pupils *
 as percent of each educational level, 1995 and 2010



* Jews grouped without religious classification; Arab Israelis include Druze, Bedouin and Circassian.

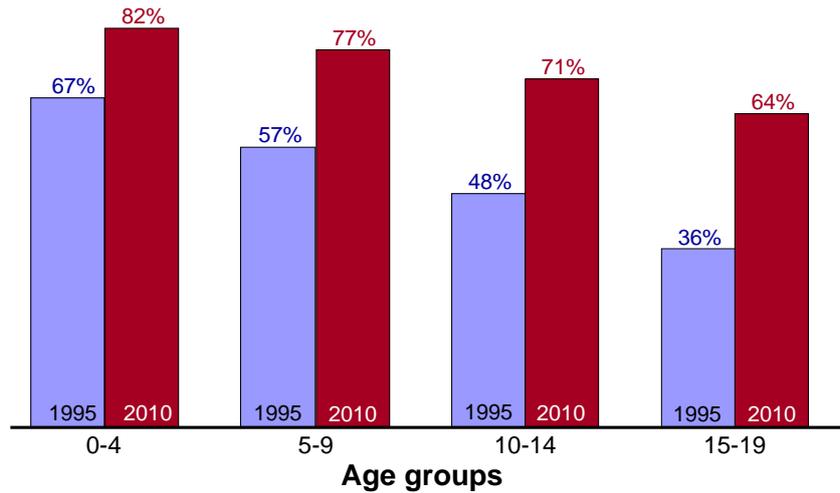
Source: Taub Center for Social Policy Studies in Israel.

Data: Central Bureau of Statistics, Appendix Table 1 in this chapter.

Composition by origin. The composition of the Jewish population by origin is of great importance in discussions of the achievements and difficulties of the Israeli educational system. One of the primary reasons put forward for the problems in the Israeli educational system – including Israeli pupils' low scores on international tests – is the high proportion of children who were not born in the country, whose mother tongue is not Hebrew, and who have a different culture at home. However, the weight of this argument seems to be diminishing. The data show that the rise in the share of second generation native-born Israelis is one of the most prominent demographic trends. Since 1995, the proportion of Jews born to an Israeli-born father among those aged 0-4 rose from 67 to 82 percent,

and among those aged 15-19 from 36 to 64 percent (Figure 3). This means that in 2010 the decisive majority of Jewish children in Israel were of Israeli-born parents (at least the father).

Figure 3
Jewish children of Israeli-born father
 by age group, 1995 and 2010



Source: Taub Center for Social Policy Studies in Israel.

Data: Central Bureau of Statistics.

In this context Table 2 is interesting since it shows how Israel compares to OECD countries with high percentages of pupils who were not Israeli-born or whose parents were not native-born. Israel is among the countries with a relatively high percentage of immigrant pupils, or pupils whose parents are immigrants; unlike other countries, though, the achievements of native-born pupils whose parents are not native-born are

higher than those of pupils whose parents are native-born.⁴ Likewise, it is hard to distinguish a clear pattern in the link between length of time in the current country and achievements.

A recently published article (Cobb-Clark, Sinning and Stillman 2011) examined the effect of migration on the achievements of first-generation and second-generation migrants. Unsurprisingly, the researchers reached the conclusions that the institutional arrangements in each country have a not inconsiderable impact on migration, that the effect of migration persists also among the second generation of migrants, and that the language migrants speak at home (different from or identical to the language of the country to which they migrated) also influences achievements – migrants who spoke the country's language at home scored higher achievements, and vice versa.

⁴ Almost certainly the reason for this is that the OECD data regarding native-born Israelis include the Arab Israeli population, whose achievements are lower on average, and a large proportion of immigrant pupils or their parents were born in the former Soviet Union, where the Jewish population had a long tradition of investing in education.

Table 2. **Achievements in reading on the PISA examinations for pupils in selected countries**
by country of origin, 2009*

	Native-born				Immigrants	
	Native-born parents		Immigrant parents		Percent of pupils	Test score
	Percent of pupils	Test score	Percent of pupils	Test score		
Luxembourg	59.8	495	24.0	439	16.3	448
New Zealand	75.3	526	8.0	498	16.7	520
Canada	75.6	528	13.7	522	10.7	520
Switzerland	76.5	513	15.1	471	8.4	455
Australia	76.8	515	12.1	530	11.1	518
Israel	80.3	480	12.6	487	7.1	462
US	80.5	506	13.0	483	6.4	485
Germany	82.4	511	11.7	457	5.9	450
Austria	84.8	482	10.5	427	4.8	384
Belgium	85.2	519	7.8	454	6.9	448
France	86.9	505	10.0	449	3.2	428
Russia	87.9	464	7.2	435	4.9	444
Netherlands	87.9	515	8.9	469	3.2	471
Sweden	88.3	507	8.0	454	3.7	416
England	89.4	499	5.8	492	4.8	458
OECD average	89.6	499	6.0	467	4.6	448

* Numbers are rounded.

Source: OECD, *Education at a Glance*, 2010.

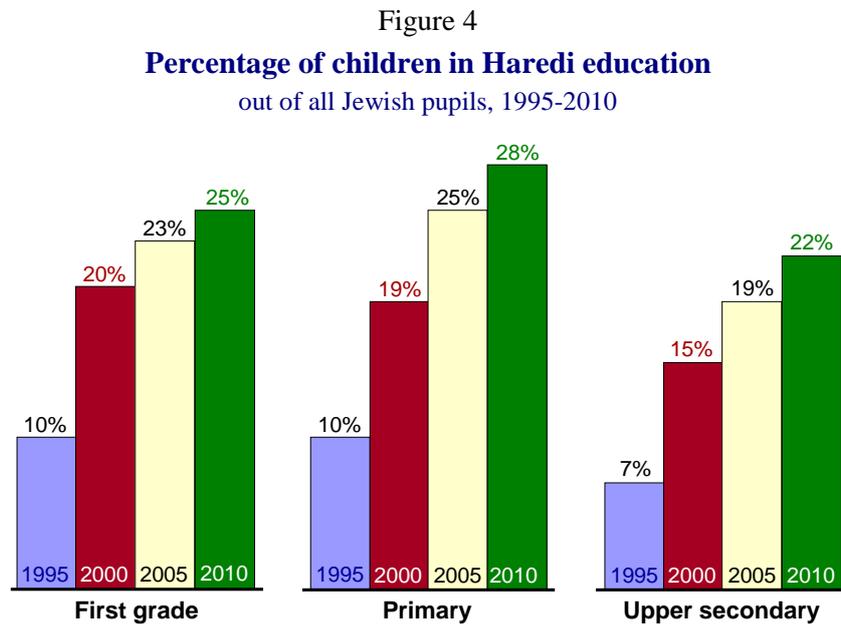
Composition by level of religious observance. The differences in various demographic traits within the Jewish sector, especially the difference in fertility rates and the number of children per family, also impact the composition of the education system. These differences are well reflected in the changes in the composition of pupils according to the educational stream of attendance, which differ primarily in terms of their level of religious observance.⁵

Over the years, Haredi education's share of Jewish education has expanded considerably, and the expansion has slowed only in the past two to three years. This process stems first and foremost from the natural growth rates of the Haredi population relative to the secular population, and is notable even in comparison to the national-religious population – as has already been noted in the past (see, for example, Blass 2007).

Only a negligible portion of this development can be attributed to pupil transfers between the different types of school supervisory authorities.⁶ Figure 4 depicts the change in the share of Haredi education pupils out of all pupils in Jewish education between the years 1995 and 2010.

⁵ In the Jewish educational sector it is easy to follow these changes because of the anchoring of the separation between religious streams in the organizational structure of the education system. In Arab Israeli education the decisive majority of schools are included in state education, but there, too, has been an expansion of religious frameworks among the Muslims and a preference for Church schools among the Christians.

⁶ The question regarding the transfer of pupils between the various educational frameworks has been studied in the past, and it was found that generally the parents' choice of a certain kind of educational framework was stable and unchanging over time (Blass and Douchan 2006).



Source: Taub Center for Social Policy Studies in Israel.

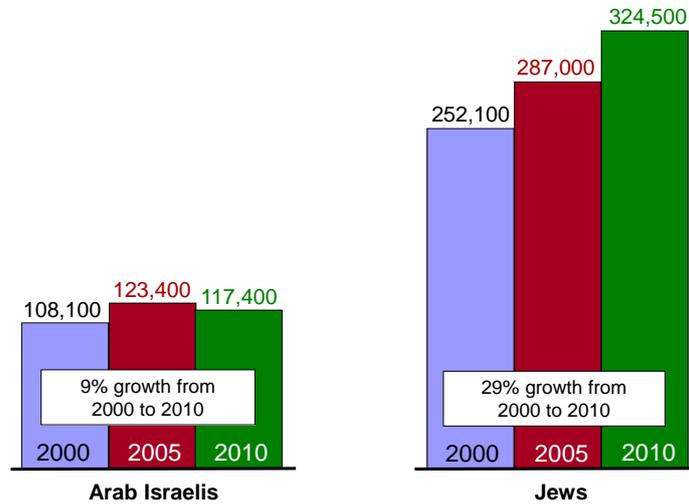
Data: Central Bureau of Statistics.

Demographics in Preschools as an Indicator of the General Trend⁷

Figure 5 presents the increase in the number of children in the Jewish and Arab Israeli sectors, respectively, for ages 3-5. As can be seen, during these years most of the children in the age levels examined were Jewish, and this is also the population that grew at the highest rate over the decade (29 percent, as opposed to 9 percent among the Arab Israelis).

⁷ This section is based on Blass, Bleikh, and Zaban (2012), Chapter 3.

Figure 5
Number of children aged 3-5
 by sector*, 2000, 2005 and 2010



* Jews grouped without religious classification; Arab Israelis include Druze, Bedouin and Circassian.

Source: Taub Center for Social Policy Studies in Israel.

Data: Blass, Bleikh, and Zaban (2012).

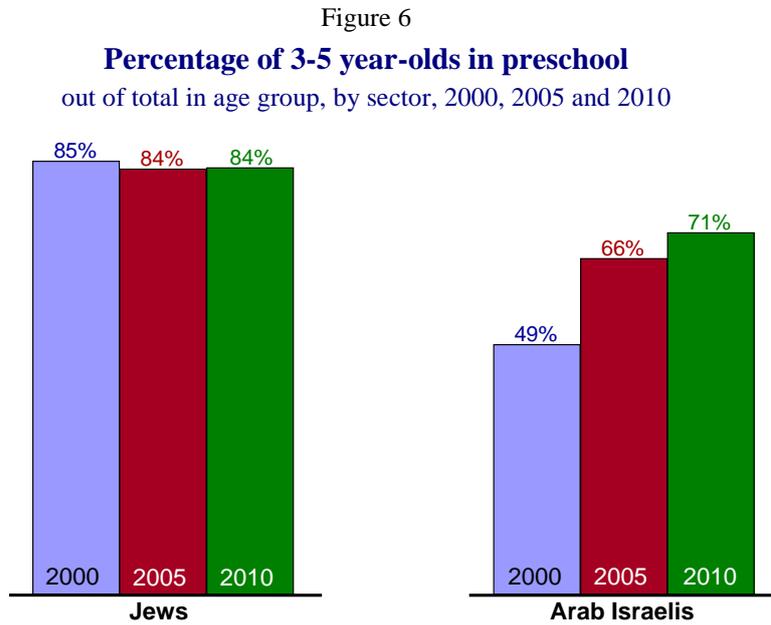
The most prominent characteristic of this development is the difference in the growth rates of the yearly cohorts between the two halves of the decade (Appendix Table 3). In the first half of the decade, growth was positive among Jews and Arab Israelis alike, with a larger increase in ages 3-4 among Arab Israelis than among Jews and the reverse for age 5. In the second half of the decade an interesting change occurred. Among Jews the growth rates of yearly cohorts rose as opposed to the first half of the decade, whereas among the Arab Israelis the trend was reversed, and in the second half there was a decline in the size of the yearly cohorts.

Against the background of the changes in the number of children in each cohort, it is interesting to examine the development of attendance rates in preschools.⁸ As Figure 6 shows, 85 percent of Jewish children aged 3-5 attended preschool in the year 2000. This figure barely changed over the course of the decade, and stood at 84 percent in 2010. Among Arab Israeli children, on the other hand, there was a significant rise over the course of the decade and in 2000, only 49 percent of them attended preschool. In the course of the decade there was an increase of 22 percentage points and the rate reached 71 percent in 2010. The explanation for the discrepancy lies in the process of implementation of the Compulsory Education Law for ages 3-4. Already in the first half of the decade, the Arab sector was given priority in the implementation of the law, since the Arab Israeli settlements belong to the lowest socioeconomic clusters (Clusters 1-2) which were the first to enter the framework of the law.

The changes in attendance rates in the different sectors also find expression in Arab Israeli pupils' relative share of the entire pupil population in public preschools, which rose from 17 percent to almost 22 percent (see Appendix 1).

As for the Jewish sector, the data point to stability in the attendance rates in each of the yearly age cohorts, with the rates rising with age, and approaching maximum among four- year-olds and reaching it among five-year-olds.

⁸ It is important to emphasize that the figures for preschool attendance are based on Ministry of Education data and do not include children in private preschools.



Source: Taub Center for Social Policy Studies in Israel.

Data: Blass, Bleikh, and Zaban (2012).

In summary, the rate of increase in the number of preschool age children in the last five years was higher in the Jewish sector than in the Arab Israeli sector, mainly due to changes in fertility rates (a drop among Arab Israelis and a rise among Jews). Nevertheless, the rate of increase in attendance rates in preschools was more accelerated in the Arab sector, due to increased awareness of the importance of early childhood education and the implementation of the Compulsory Education Law for ages 3-4 among this population. In the Jewish sector, attendance rates remained stable for the 3-5 age cohorts, whereas in the Arab sector attendance rates rose significantly during this decade, especially in the years 2000-2005. As a result of the two processes combined, Arab Israeli

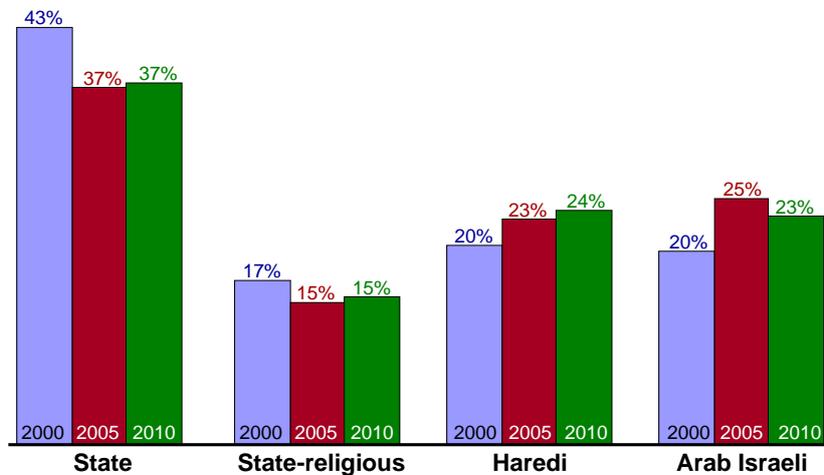
pupils' share of all preschool pupils rose, approaching their share in the general population, even though their share of the entire population of children declined.

Distribution of Children in Preschools by Sector and Type of School Supervisory Authority

As has been discussed, the changes in the general attendance rates in the preschools were different in the Jewish and Arab sectors; but even within the Jewish sector itself they were not uniform. As Figure 7 shows, pupils in the Haredi education system saw their share of all preschool pupils rise, while the share of pupils in the State education system, especially State-secular education, fell steeply. Here, too, there is a significant difference between the two periods. In the first five years (2000-2005), the share of pupils in Haredi education grew faster than in the following five years (2005-2010).

Figure 7

Distribution of 3-5 year-olds in preschool* in the Jewish and Arab Israeli schools, 2000, 2005 and 2010



* The total number of 3-5 year-olds in preschool equals 100 percent.

Source: Taub Center for Social Policy Studies in Israel.

Data: Blass, Bleikh, and Zaban (2012).

Due to the absence of data on religious affiliation at birth, differences in attendance rates between the various population groups cannot be examined. It is assumed that the significant expansion of Haredi education is explained mainly by natural growth. However, some believe – as voiced sometimes in the public debate – that Haredi education is expanding not only due to natural growth and a rise in attendance rates, but also due to the transfer of children from State and State-religious education to Haredi education. This claim has been made in the past in regard to primary and secondary education, but has been refuted by a Taub Center study (Blass and Douchan 2006).

As is the case in primary and secondary education, the rates of transfer between the types of supervisory frameworks are negligible also at preschool age; if anything, they tend to be in the opposite direction, i.e., the transfer of children from Haredi education to the State and State-religious frameworks. Table 3 shows clearly that between 2009 and 2010, for example, 1,407 pupils moved from State-religious and Haredi education to State education – more than transferred from State education to State-religious and Haredi education. Haredi education lost 1,647 pupils to the other educational streams.

Table 3. **Preschool pupil transfers between school supervisory authorities**
the difference between the number of pupils joining and the number leaving

Year	State	State-religious	Haredi
2000-2001	1,106	-98	-1,008
2004-2005	1,423	-484	-939
2009-2010	1,407	240	-1,647

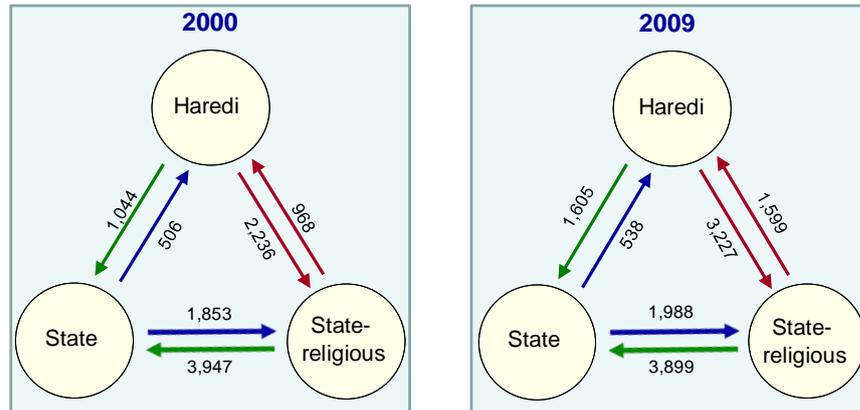
Source: Taub Center for Social Policy Studies in Israel.

Data: Blass, Bleikh, and Zaban (2012).

Another viewpoint is seen by the examination of pupil transfers between educational levels, that is, from kindergarten to first grade. As it turns out, the picture here is no different. Of all children in kindergarten who advanced to the first grade, 89 percent continued in the same educational stream, and that figure remained stable over the course of the entire decade. Here, too, if there are transfers, the results show more transfers from the Haredi sector to State and State-religious education than the other way around.

Figure 8 presents the transfers between the various educational streams in Hebrew education in the years 2000 and 2009. In each of these years, the number of pupils who moved from the State-religious and Haredi networks to State education was larger than the number of those moving in the opposite direction. In 2009, for example, 1,605 pupils moved from Haredi to State education, whereas only 538 pupils transferred from State schools to Haredi education. Therefore, in light of the fact that attendance rates in preschools in the Jewish sector were high and did not change much over the period under review, the rise in the number of preschool children in the Haredi sector and their share of the general population can be attributed mainly to the differences in fertility rates between them and the secular and traditional populations.

Figure 8
**Pupil transfers between supervising authorities
 in the move from kindergarten to first grade**
 number of pupils who transferred, 2000 and 2009



Source: Taub Center for Social Policy Studies in Israel.

Data: Ministry of Education.

The Haredi sector itself is not a unitary whole. There are three subgroups within it for which data are available: *The Independent education*, *Ma'ayan Hachinuch Hatorani* [Hebrew: Fount of Biblical Education], and *other recognized institutions*, as well as one subgroup for which data could not be obtained — the *exempted institutions*.⁹ At the school level, as published in past Taub Center *State of the Nation Reports* (Blass 2010), 43 percent of the pupils turn to Independent education, 25 percent to the exempted institutions, and the remainder is divided between *Ma'ayan Hachinuch Hatorani* (16 percent) and institutions in the category of “recognized others.”

⁹ For more details, see Appendix 2.

In the preschools the division is completely different: most of the children are sent to the recognized preschools, and only a minority attend the preschools of the Independent education network and those of *Ma'ayan Hachinuch Hatorani*. Furthermore, the share of the Haredi preschools that do not belong to the large Haredi educational networks and the number of children attending them are rapidly rising, while the share of preschools that belong to these networks is diminishing. The data may point to real trends in the preferences of the Haredi population, but possibly they also indicate an adaptation to an organizational-budgetary reality that is not clear to an outsider, and it is that which impels those turning to the religious frameworks to prefer preschools that do not belong to the large networks.

The Arab sector is also fragmented, and there are three subdivisions within it: one by nationality (Arab, Bedouin or Druze – the number of Circassians is too small to allow for comparing them to others), a second by legal status (official or recognized¹⁰), and a third by religion (Muslim or Christian). The relative changes by nationality in the Arab sector have been reviewed in another publication of the Center (*Pre-Primary Education in Israel 2012*). The data point to an increase in the number of Arab Israeli pupils (including Bedouin and Druze) attending preschool, especially in the first half of the decade. This growth occurred mainly among the Bedouins and to a lesser extent among Arabs, although it did not include the Druze (with the exception of three-year-olds in the decade's first half).¹¹

One of the trends that has not received much attention in the media or from Jewish educators is the move by growing portions of the Arab sector to recognized education. Figure 9 shows that the phenomenon is also evident in the preschools. Over the course of the last decade there

¹⁰ See more details regarding the internal differentiations within the Israeli educational system in Appendix 2.

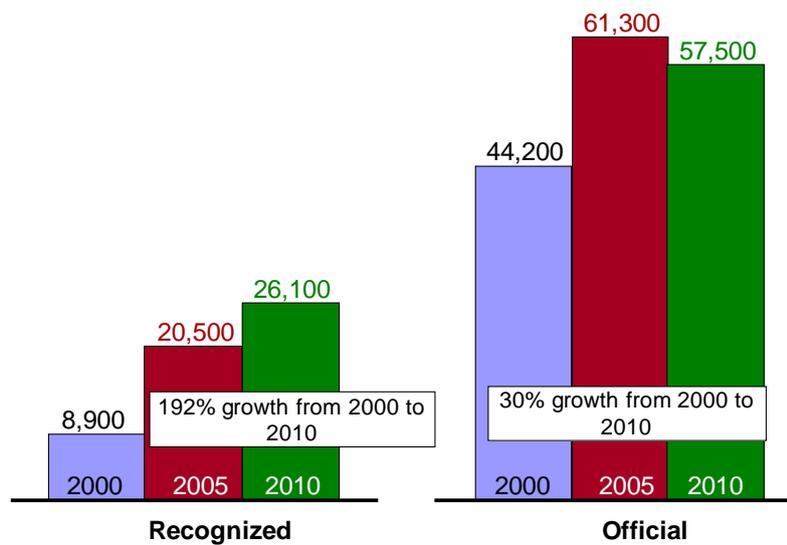
¹¹ The study does not differentiate between Muslim and Christian preschools, because there is no such distinction in the educational system.

was a change in the distribution of Arab Israeli pupils between institutions defined as official and the recognized ones. In the first half of the decade, 2000-2005, the growth in the number of children in recognized preschools was impressive: 173 percent among three-year-olds and 123 percent among four-year-olds. Afterwards, there was a significant moderation in the growth of the number of pupils in the recognized preschools. These data conform to the trend in primary and secondary education that was noted in the previous annual reviews (Blass 2009; Blass 2010): an intensifying trend towards private education in the Arab sector.

Figure 9

3-5 year-olds in preschool

Arab sector, by legal status of school, in thousands



Source: Taub Center for Social Policy Studies in Israel.

Data: Blass, Bleikh, and Zaban (2012).

The reason for the shift to recognized preschools may be the lower tuition fees that stem from a lower level of services (see Zaban 2012), but there may be other reasons as well. In any event, it is important to point out this line of development, which is parallel to developments in primary and secondary education, because it may have consequences at levels far beyond the field of education where dissatisfaction with the services provided by the official state educational network finds expression in a move to preschools operated by Muslim or Christian religious elements.

2. Expenditure on Early Childhood Education and Private Preschools¹²

The debates on educational topics in the wake of the social protest drew attention to early childhood education in general, and to the question of high fees at preschools in particular.¹³ According to the *Statistical Abstract of Israel*, some 26,000 two-year-olds, constituting one-sixth of the age cohort, attended private preschools in 2010, as opposed to one-tenth of the cohort in 2000.¹⁴ The corresponding data for ages three and four are 15,000 and 2,000 children, respectively. Apparently, the remaining children who do not attend public preschools are in some type of home arrangement, with nannies, in pre-nursery homecare, etc. – in other words, in frameworks that do not report to the Central Bureau of Statistics.¹⁵ In all age groups, a decisive majority of private preschool

¹² The section on private preschools in this chapter was written together with Kyrill Shraberman, researcher at the Taub Center.

¹³ In contradistinction to the previous sections, the discussion on private preschools is based on data from the Central Bureau of Statistics, not those of the Ministry of Education.

¹⁴ *Statistical Abstract of Israel*, No. 62, Table 8.4.

¹⁵ According to the data submitted by the Ministry of Industry, Trade and Labor to the Trajtenberg Committee, about 100,000 children aged 0-3 are in

pupils are Jewish – understandably so, in light of the higher income levels and the greater availability of preschools.

Attendance at private preschools falls with the rise in age. It is especially evident in significant differences in attendance between ages 2-3 (most of whom are not covered by the Compulsory Education Law) and ages 4-5.

Expenditures on Early Childhood Education

The expenditures per pupils aged 3-4 in a public preschool range from very low for those attending preschools included in the framework of the Compulsory Education Law up to around NIS 900 per month for children attending public preschools and paying tuition fees (some of the latter according to a sliding scale determined by the parents' income level).

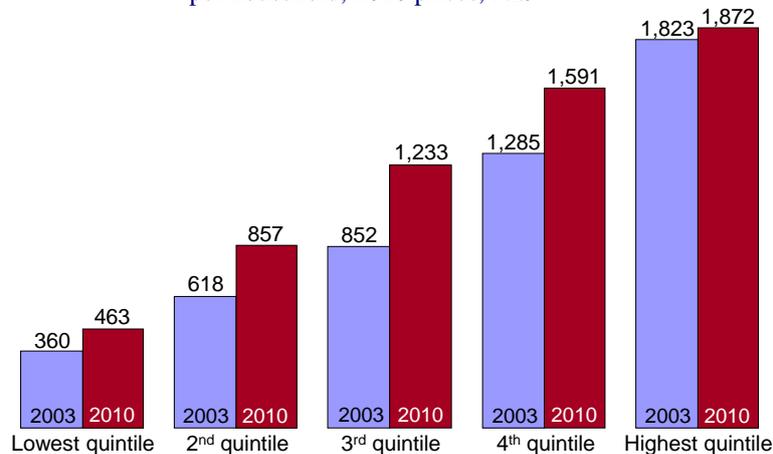
Before presenting the data on household expenditure for early childhood education, it is important to clarify their statistical significance. The proportion of households with children aged 0-3 that reported positive expenditure (that is, greater than 0) on early childhood education was around 61 percent of all households with children in this age range, and differed greatly by socioeconomic variables. In cases where the household had a child of the relevant age but did not report any expenditure on early childhood education, the data available to the public at large does not allow the determination as to whether the child is sent to a framework and whether there was an expenditure, or whether there was some other reason for non-reporting of the expenditure. Therefore, the data that are presented in this section were calculated on the basis of the reported expenditure only. If the calculations included the households that did not report such an expenditure, assuming that they did not have this expense, then the estimates reported for average expenditure per child would be lower still, due to the inclusion of the zero expense. Thus,

supervised frameworks, and another 125,000 are in unsupervised private frameworks.

these data should be seen as estimates of the highest possible expenditure per child aged 0-3 in an early childhood education framework.

Figure 10 shows the average expenditure on education per child at ages 0-3 (irrespective of the issue of the preschool's ownership, whether public or private) in the years 2003 and 2010, by quintiles of net household monetary income per standardized person. As expected, spending on pre-primary education rises with the rise in household income, and there was an increase over time, as well.

Figure 10
Average expenditure on preschool education*
 per household, 2010 prices, NIS



* Private preschools, day care, pre-compulsory kindergartens, Haredi *heder* (ages 2-5).

Source: Taub Center for Social Policy Studies in Israel.

Data: Central Bureau of Statistics.

Two more things can be seen in the figure:

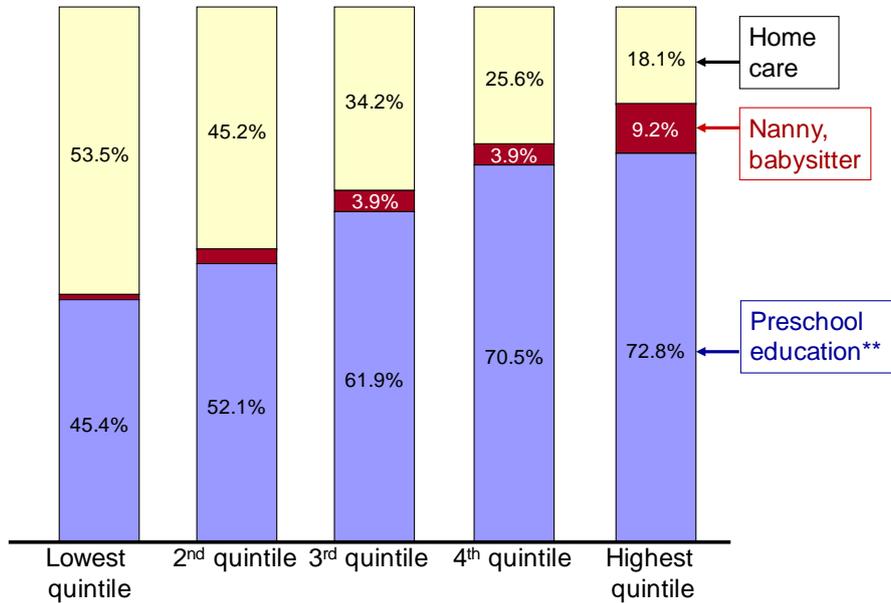
- A. The average household expenditure on early childhood education is significantly lower than the NIS 2,000 and even NIS 3,000 per child spoken of in the public debate. As can be clearly seen, even in the top quintile the average expenditure does not reach such sums (although this does not include afternoon care).¹⁶
- B. Between the years 2003-2010, the average expenditure on early childhood education rose much faster among parents from the lower quintiles than among parents from the higher quintiles (in percentage terms).

Figure 11 depicts the distribution of children in the various frameworks for young children by quintiles of parents' income.¹⁷ It presents the types of solutions for care of families at different income levels. As it turns out, the higher the income level, the more use is made of daycare services, or of a nanny at home, and the less use is made of internal domestic arrangements. Although these data do not prove that everyone who sends a child to daycare or employs a nanny works outside the home, or that everyone who cares for a child at home does not work outside the home, it may nevertheless be assumed that there is a high degree of correlation between the economic possibility of sending a child to daycare and the desire to work outside the home.

¹⁶ The Trajtenberg Committee reports an estimate of NIS 1,800-3,500 per child for daycare expenses (Trajtenberg Committee Report 2011).

¹⁷ The figure is based on data from the *Household Expenditure Surveys* of the Central Bureau of Statistics. The population examined is households with children aged 0-3. Inclusion in the framework is based on reported positive expenditure in that category. If there is no reported expenditure, that household is placed in the category of "at home." However, the levels of reporting on expenditures on preschools, out of the households with children of the relevant ages, are lacking, due to problems in the coordination of the timing of payments to the frameworks and the survey/filling out of the form.

Figure 11
Distribution of frameworks for children aged 0-3
 by income quintiles*, average for years 2003-2010



* Quintiles by net monetary income per standard person.

** Private preschools, day care, pre-compulsory kindergartens, Haredi *heder* (ages 2-5).

Source: Taub Center for Social Policy Studies in Israel.

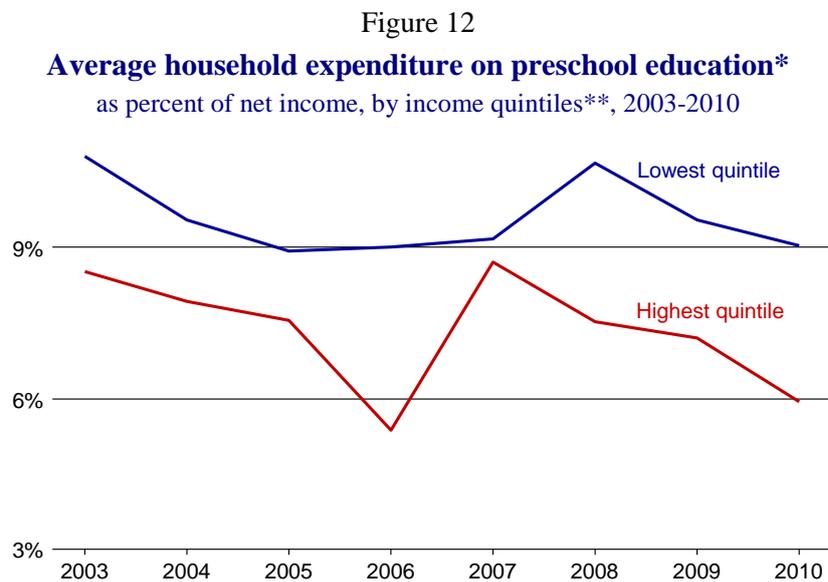
Data: Central Bureau of Statistics.

Beyond the somewhat self-evident fact that in absolute terms families with high income spend more on their children's education than families with low income, it is interesting to examine the relative burden of the child's education to the family as expressed by the share of the expenditures on the education of children aged 0-3 out of the household's total net financial income (hereinafter: relative expenditure).

Figure 12 shows several trends:

A. Considering that average net income in the top quintile is six times higher than in the lowest quintile, the gap between the highest and lowest quintiles in the relative burden apparently is not large (at most 3.1 percent in 2006, and on average 2.5 percent).

B. However, despite the similarity in spending on pre-primary education as a share of total income, an expenditure of NIS 463 for a family in the lowest quintile represents a much heavier burden than does NIS 1,872 for a family in the higher quintiles.



* Private preschools, day care, pre-compulsory kindergartens, Haredi *heder* (ages 2-5).

** Quintiles by net monetary income per standard person.

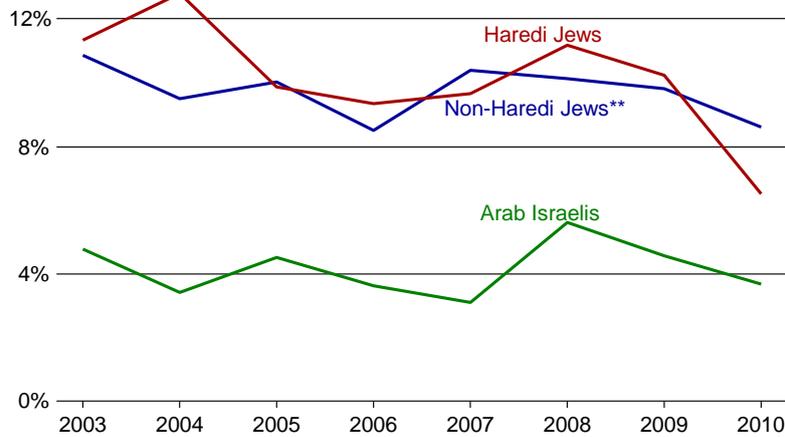
Source: Taub Center for Social Policy Studies in Israel.

Data: Central Bureau of Statistics.

Most of the population in the lower quintiles belongs to the Haredi sector and to the Arab sector. Thus, in order to compare by sector, the relative expenditure on education in the lowest quintile divided by sector was examined (Figure 13). The burden of spending for early childhood education among Arab Israeli households in the lowest quintile relative to income is as much as 2.5 times lower than in the Jewish and the Haredi sectors.

Figure 13

Average household expenditure on preschool education*
as percent of net income, by sector, 2003-2010



* Private preschools, day care, pre-compulsory kindergartens, Haredi *heder* (ages 2-5).

** Including "other" by religion.

Source: Taub Center for Social Policy Studies in Israel.

Data: Central Bureau of Statistics.

Since all of the households examined belong to the same quintile, this difference cannot stem from income level. The explanation, therefore, must be sought in one of several possibilities or a combination of them:

- A. Due to a lack of awareness of the importance of early childhood education, the Arab Israeli population is less inclined to invest in it.
- B. There is a greater possibility of enlisting family assistance in childcare because many of the women do not work and the families are larger.
- C. There is a lack of preschools in the vicinity of their homes.

The fact that there was such a rapid rise in the attendance rate among ages 3-4 in the Arab sector after the implementation of the Compulsory Education Law for these ages would seem to indicate that all three explanations are reasonable, but the third and last carries crucial weight.

3. Allocation of Resources to Education as an Expression of Commitment and of Its Importance

The national and government commitment to educating the younger generation can be examined in several ways. One way is to compare the level of expenditure over time, and to look at its various components (public spending, government spending, and private household spending) and the changes in their relative shares. Another is to compare the level and various measures of expenditure on education in Israel relative to other countries, especially those that Israel aspires to resemble.

Comparison of Expenditures over Time

The national allocation for education includes the government budgets, those of the local authorities, non-profit organizations and various associations, and household budgets. Table 4 clearly indicates that the

rate of national expenditure on education as a share of GDP has been slowly but steadily dropping since 1995. The share of current expenses on education as a percentage of public and private spending is also in decline. In the government sector's share of public spending on education there were fluctuations. After a period of stability between 1995 and 2000, there was a drop between 2000 and 2005, but afterwards a significant rise until 2010. This measure points to an improvement in education's standing in the past five years – after years of stability and even decline.

Table 4. **National and public expenditure on education***

	National expenditure on education (as percent of GDP)	Current expenditure on education** (as percent of private and public consumption)	Government sector portion (as percent of national expenditure on education)	Ministry of Education budget (as percent of government budget)
1995	8.8	9.6	78	9.0
2000	8.5	9.8	79	9.5
2005	8.3	9.6	76	9.9
2010	8.2	9.3	80	10.1

* Central Bureau of Statistics, Press Release from August 8, 2011.

** Not including construction and development.

Source: Taub Center for Social Policy Studies in Israel.

Data: Central Bureau of Statistics.

It is customary to see the rise in the share of household spending on education (or, the reduction in the government sector's share) as evidence of increasing inequality in education. This is not the only interpretation, though, since a growth in the number of individuals participating in expenditures stems also from new populations joining the circle of participants in the educational process. Therefore, even when joining is accomplished through private financing, in certain cases it may indicate a reduction of gaps in access to education, rather than their expansion. For example, the rise in the number of Arab Israeli pupils and residents of the periphery in post-secondary academic institutions, some of which are private, as well as the rise in the number of 3-4 year olds attending preschool, contributed significantly to the increase in the household share of the national expenditure on education, while it also increased access to and rates of participation in higher and in early childhood education.

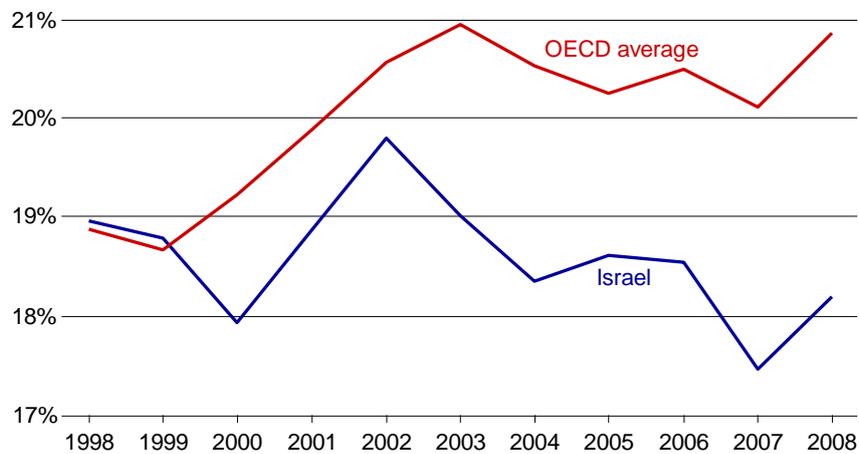
Table 4 also points to an increase in the share of the sum allocated for education out of the state budget over the years which may indicate a rise in the field's importance. Nevertheless, this development may not necessarily point to growth in the education budgets, but simply indicate that budgetary cuts have been less damaging to education than to other fields.

International Comparison of Education Expenditures: Israel Relative to the OECD Countries

A comparison to other countries, especially the OECD countries, provides another important perspective on Israeli society's attitude towards education. When expenditure per pupil in PPP (purchasing power parity) terms divided by GDP per person is examined, it is found that spending in Israel was generally similar in level to spending in the OECD countries in 1998. Nonetheless, there is a significant difference in developmental trends from the beginning of the decade (2000) to 2008.

Figure 14¹⁸ shows that there was a similarity between Israel and the OECD in expenditure per pupil as a percentage of GDP per capita in the second half of the 1990s, but since then, spending in Israel has been decreasing, whereas in the OECD countries the trend is in the opposite direction. Generally, except for a very brief period, the rate of expenditure per pupil as a share of GDP per person in Israel during the period in question was lower. Furthermore, the decline in the first half of the decade (2000-2005) was steeper, while the renewed growth in the second half of the period was slower.¹⁹

Figure 14
Public expenditure per pupil in Israel and the OECD
as percent of GDP per capita, 1998-2008



Source: Taub Center for Social Policy Studies in Israel.

Data: OECD.

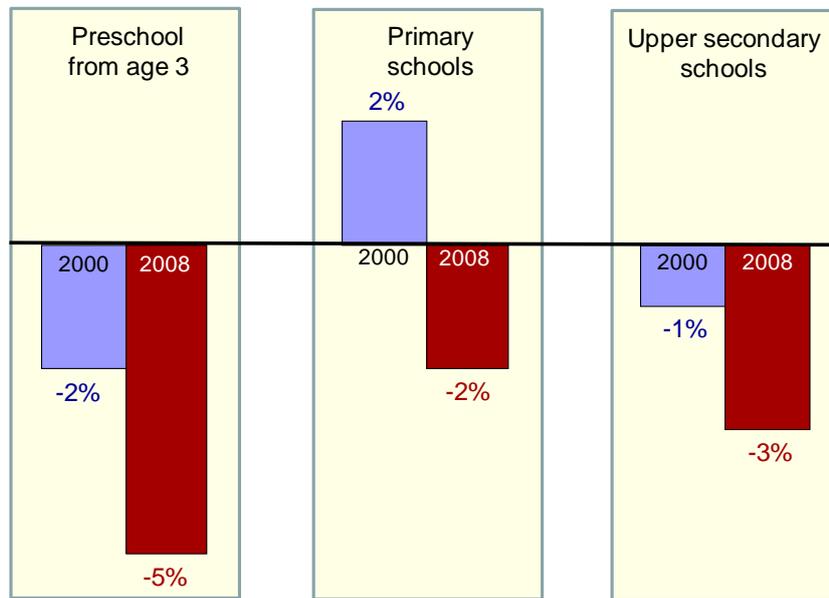
¹⁸ The data for the preparation of this graph were processed and collected by Sagit Azary-Viesel.

¹⁹ This trend might be reversed in 2009-2012 due to large increases in education budgets in Israel and the recession in OECD countries. These are the latest figures that could be obtained for the OECD countries.

A similar picture arises from Figure 15, which depicts the development during the same period by educational levels. As can be seen, by this measure, too, the rate of public spending on education in Israel relative to GDP declined over the period. In contrast, in the OECD countries the process was reversed (see footnote 18).

Figure 15

Difference in per pupil expenditure between Israel and the OECD
as percent of GDP per capita, 2000 and 2008



Source: Taub Center for Social Policy Studies in Israel.

Data: OECD, *Education at a Glance 2010*.

4. Budgetary Impacts of Adopting the Trajtenberg Committee's Recommendations in the Field of Education: Costs and Possibilities

It was recently decided to adopt the Trajtenberg Committee's recommendations in the field of education. The Committee chose to focus on ages 0-9 in its recommendations, which were primarily intended to ease the financial burden for young working families with children. This does not mean that these proposals might not make a significant contribution to improving the children's education, but that was not their main goal, and it is quite probable that more important educational goals might have been achieved with the same budgets.

On January 8, 2012, the government approved the implementation of the recommendations in the chapter on education in the Trajtenberg Committee's Report. The central recommendation was to immediately complete the long delayed implementation of extending the Compulsory Education Law to ages 3-4 – which received overwhelming public support. There is no doubt that implementing the Committee's recommendations would bring down educational costs for some families. The question is whether this change will also contribute to decreasing the existing inequality. In other words, it might be better to spend the large sums that will be required to implement this decision on other areas that could achieve better results both in terms of educational and social goals.

As noted, the Trajtenberg Committee's recommendations refer to ages 0-9 – a range that includes three different age groups in terms of the state's commitment to education: ages 0-2, towards whom the state currently has no budgetary-educational commitment, but provides assistance in financing educational frameworks to some of the population (particularly working women, whose wages are low, and families in the care of the welfare services); ages 3-4, towards whom the Compulsory Education Law has been extended but only partially implemented in recent years; and ages 5-9, who are included under the Compulsory Education Law.

Subsidizing education for ages 0-3. The 0-3 year age group includes 470,000 children, about 100,000 of them in frameworks supervised and subsidized by the state, and another 100,000 in private and unsupervised frameworks. According to the data presented to the Trajtenberg Committee (which are not always validated by the data from the Central Bureau of Statistics, *Household Expenditure Survey*, see Section 2 of this chapter), the subsidized frameworks charge fees in the range of NIS 2,000 a month per toddler and NIS 1,500 per infant. The highest subsidy level to low-income families is about NIS 1,250; households with an income of NIS 5,000 per person or more receive no subsidy at all. Tuition fees at daycares and private nurseries may be higher in economically well-established areas than in weaker ones, but there is no reliable information regarding these differences.

In this context, the Trajtenberg Committee recommended several courses of action:

The construction of new daycares for 30,000 children in the next five years. It is clear that this move will only slightly alleviate the shortage of daycares, but since at this stage there are no agreed upon construction standards, it is unclear how many daycares will have to be built and what their construction will cost. The Committee allocated NIS 1 billion to this item.

Assistance with the cost of adapting to code. About 200,000 children attend public and private daycares, and an unknown number of others attend other types of preschools. However, it is not known how many of the daycares meet code. The Committee allocated NIS 700 million to this item..

Subsidized fees at daycares. Full implementation of the recommendation to subsidize tuition fees is due to cost about NIS 600 million over five years. What the Committee based its decision on is unclear, but calculations show that this is the sum that would be required to subsidize 100,000 children at a rate of NIS 500 a month (today about 50,000 children are subsidized at an average sum of NIS 850 a month).

Costs of training daycare workers: To this item NIS 75 million was allocated.

So long as there is no firm basis for assessing how many parents would be interested in having their children attend daycares and nurseries, and how the daycares would operate (number of children per caretaker, caretakers' pay, their educational and training qualifications, the daycares' physical program, and so forth), any budgetary estimate will be unfounded. Therefore, the financing will not be determined by objective need, but by government decision concerning the size of budgets that will be allocated beyond current spending. Lacking the ability to determine the necessary financing according to clear criteria, the Trajtenberg Committee recommended – in keeping with its estimation of existing budgetary constraints – allocating an additional NIS 1 billion for construction and NIS 700 million for adapting to code (one-time expenses), while also taking into consideration that the cost of current subsidies in their maximal format will be about NIS 600 million a year, and the cost of teaching and training some NIS 75 million a year.

Full implementation of the Compulsory Education Law for ages 3-4.

The 3-4 year age group numbers about 300,000 children. Two-hundred and fifty thousand of them attend preschools; the decisive majority attend public preschools (about 228,000). About 105,000 are already exempt from tuition fees, another 125,000 pay graduated tuition fees, and the remainder pay full tuition fees to other private frameworks or do not attend preschool. These data indicate that full implementation of the law will release about 125,000 children from paying partial or full tuition fees and bring another 75,000 or so children into the system (25,000 from the private preschools, and another 50,000 who do not attend preschool at all).²⁰

²⁰ This is an overall estimate. A more accurate assessment of the number of children for which it will be necessary to find a solution in the framework of implementing the law, and their distribution, is currently being performed at

The cost of implementing the law, including the graduated tuition fees, stands today at about NIS 1.2 billion (half of the sum for children exempt from paying tuition fees, and the other half for those that pay graduated tuition fees). Immediate implementation of the law with no rise in the number of children attending preschools would mean the transfer of about NIS 650 million (125,000 children multiplied by tuition fees of NIS 7,700 a year multiplied by 0.68 – the average rate of payment today following an average subsidy of 32 percent) to parents whose children are already attending preschools. The benefit is greater the higher the parents' income level, since they are currently being subsidized at a lower level or not at all. In other words, the main beneficiaries of implementation are the parents who are currently not eligible to receive any discount according to the means test.

Extending implementation also to children who are attending private preschools or who are not currently in any framework will require additional budgetary funds for tuition fees and for building new preschools. The additional allocation for tuition fees should be in the range of NIS 550 million, and for building 2,500 preschool classrooms (at 30 children per classroom) – about NIS 1.8 billion. The sum may be less since not all private preschool children will move to public frameworks, and some will be absorbed by the existing frameworks. It goes without saying that these sums do not include additional construction that may be required to maintain the existing system (replacement of old and condemned structures, expansions due to population growth and internal migration).

The additional expenditure required for training thousands of preschool teachers was not taken into consideration at all by either the Trajtenberg Committee or the government. Past studies have shown that

the Taub Center, and it indicates that over half the children for whom a solution will need to be found are in Tel-Aviv and Jerusalem. In Jerusalem, that means in the range of not less than 28,000 children, about 15,000 of them in East Jerusalem.

training a preschool teacher costs about a NIS 250,000. Since each preschool requires 1.16 teachers, this is about 3,000 new teachers, the cost of whose training will amount to about NIS 750 million.

Altogether, the additional expenditure required to fully implement the Compulsory Education Law for ages 3-4 will include the following items: NIS 1.2 billion for tuition fees (NIS 650 million for the children already attending preschools and another NIS 550 million for those that will join – current expenses for each year); NIS 0.75 billion for training preschool teachers (one-time fixed cost); and NIS 1.8 billion for construction (one-time fixed cost).

Afternoon daycares and long school-day. Another significant decision in terms of current expenses is subsidies for afternoon daycare for children aged 3-9. This involves the implementation of a long school-day on a voluntary basis for children of working parents. The government has estimated the full cost at NIS 2.35 billion. It is important to emphasize again that the main goal informing the decision is not to improve education, but to make it easier for parents to go to work.

The government and the committee would do well to look at the overall issue of a long school-day in the preschools and in the schools. A long school-day was already legislated by the Knesset in the late 1990s, and it was cited as one of the Dovrat Commission's central recommendations, as well as among the demands of the social protests of the summer of 2011. It should be noted that the transition to a long school-day entails a number of educational and professional problems. Although this is not the place to discuss them, it is only right and proper to discuss the budgetary estimate of financing the move.

Afternoon daycare in the preschools. In the framework of the *Ofek Hadash* agreement ("New Horizon"), it was determined that preschools would operate until 14:00. A sweeping decision to extend the school-day in the preschools until 16:00 would lead to a rise of at least 30 percent in teachers' pay, merely as a result of the lengthening of the work week from 30 to 40 hours. In addition, there is the cost for children who up

until now were not in a framework and who are expected to join in the wake of the law's full implementation. Since the principal motivation for extending the school-day in preschool is to enable parents to work a full day, the solution proposed by the government – that the long school-day in preschool will be voluntary and not compulsory – is a good one.

Afternoon care in primary education. Everything said regarding children also applies to pupils in grades 1-4 in the primary schools. Here there also may be some help due to the additional hours mandated for teachers in the framework of “New Horizon,” which should serve to cut costs and improve the quality of afternoon care. Under the assumptions that teachers will perform all tasks of teaching, accompaniment and supervision of pupils that stay in school until 15:30,²¹ and that non-professional workers as well as informal educators could also be utilized at these hours, the costs could be cut even more.

5. Summary and Conclusions

The Trajtenberg Committee's recommendations and the government's decisions in their wake entail a large budgetary allocation, at least part of which constitutes net added income to the economically well-established populations. Since economically weak populations already enjoy the benefits of free education for ages 3-4 and of subsidized daycares, adoption of these recommendations is in essence regressive and will only contribute to increasing socioeconomic inequality.

To many, the system's central problem is the large gaps that opened in inputs and outputs between different parts of the system, especially between pupils from weaker socioeconomic strata and pupils from more established strata (see, for example, the OECD Report on the Educational System in Israel 2011). As noted by Ben-David (2010), on the basis of

²¹ An eight-period school day in Israel ends at 15:30 and not at 16:00.

the TIMSS and PISA tests, which ranks achievements in basic learning fields since the late 1990s, the gaps in Israel are the largest among all the developed countries. Therefore, the system's most urgent task is to work on reducing the gaps. This is also the quickest way (as proven in a study conducted in the past by the Taub Center, the results of which were delivered to the Ministry of Education²²) to improve both learning achievements and Israel's place on the scale of countries participating in the TIMSS and PISA tests.

If reducing the gaps were the main goal, it would be possible to take the allocation that will be required by adoption of the Committee's recommendations for children aged 0-9 and direct it towards deploying a method of differential funding per pupil. This would guarantee the allocation of budgets to schools according to the number of pupils and their socioeconomic background. Furthermore, these sums would also make it possible to assure a broader basket of services for each pupil. Differential funding per pupil, which grants a preference of over 50 percent to those from weaker backgrounds, was practiced for four years in primary education (according to the Shoshani Committee's Report), and then cancelled on the pretext that the method made it difficult to complete even the standard learning program in the well-established schools. This claim was proven to be incorrect (Blass et al. 2010; Blass 2011), since even during the year when the financing was implemented to the fullest extent, the well-established schools were budgeted appreciably more hours than the required minimum.

It should be emphasized that differential per pupil funding does not require Knesset legislation and can be implemented immediately (that is, from the upcoming school year). Applying this method of funding to the entire educational system, not just primary education, will make it possible to improve the achievements of the weaker populations, reduce the number of pupils in classrooms in schools that serve these

²² Letter to the Director-General of the Ministry of Education from April 2, 2004.

populations, significantly reduce the number of small schools and the small classes in schools that serve the well-established populations, and expand the limits of school autonomy.

Increasing equality in the educational system is the most important goal, not just because it may considerably help improve Israel's average achievement and its ranking among countries on the international tests. It is of great importance, even if it does not lead to an increase in equality in educational achievements,²³ due to its broader societal message that each and every group and each and every child deserves a fair chance. This message is of supreme importance for its contribution to societal solidarity.

²³ The advancement of equality in society contributes to the growth of equality in learning achievements much more than the growth of equality in education contributes to equality in society (see Adler and Blass 2009).

Appendices

Appendix Table 1. **Population by age groups, religion, and decades, 1960-2010**

	Age groups (as percent of total population)				Total population (thousands)
	0-4	5-14	15-19	0-19	
Jews					
1960	11.5%	23.3%	7.4%	42.2%	1,911.3
1970	10.7%	19.3%	10.4%	40.5%	2,582.0
1980	11.0%	19.5%	8.0%	38.5%	3,282.7
1990	9.7%	19.0%	8.9%	37.6%	3,946.6
2000	9.0%	16.8%	8.4%	34.2%	4,955.4
2010	9.6%	16.0%	7.2%	32.8%	6,068.9
Muslims					
1960	20.2%	27.2%	11.6%	59.0%	166.3
1970	21.2%	31.5%	10.0%	62.7%	328.6
1980	19.0%	30.9%	11.9%	61.8%	498.3
1990	16.2%	27.2%	12.2%	55.6%	677.7
2000	17.0%	25.9%	9.8%	52.7%	970.0
2010	13.1%	26.2%	10.6%	49.9%	1,303.9
Christians					
1960	15.1%	23.4%	9.7%	48.2%	49.6
1970	12.7%	24.5%	10.1%	47.3%	75.5
1980	11.2%	22.55	10.9%	44.6%	89.9
1990	10.6%	19.1%	9.4%	39.1%	114.7
2000	9.3%	18.1%	8.1%	35.5%	135.1
2010	7.3%	17.2%	9.1%	33.6%	122.6

Appendix Table 1. (continued) **Population by age groups, religion, and decades, 1960-2010**

	Age groups (as percent of total population)				Total population (thousands)
	0-4	5-14	15-19	0-19	
Druze					
1960	20.6%	27.0%	57.5%	9.9%	23.2
1970	18.4%	30.4%	59.3%	10.6%	35.9
1980	18.3%	28.6%	58.6%	11.6%	50.7
1990	14.2%	26.5%	52.7%	12.0%	82.6
2000	12.5%	23.3%	46.1%	10.3%	103.8
2010	10.0%	20.8%	41.0%	10.2%	126.5
Total					
1960	12.4%	23.6%	43.8%	7.8%	2,150.4
1970	12.0%	20.9%	43.3%	10.4%	3,022.0
1980	12.1%	21.1%	41.8%	8.6%	3,921.7
1990	10.7%	20.3%	40.4%	9.4%	4,821.8
2000	10.35	18.3%	37.2%	8.7%	6,369.3
2010	10.1%	17.8%	35.8%	7.9%	7,623.6

Source: Taub Center for Social Policy Studies in Israel.

Data: Central Bureau of Statistics.

Appendix Table 2. **Distribution of pupils by levels of education and sector, 1995-2010**

Education level	1995		2000		2005		2010	
	Jews	Arab Israelis						
Public preschool	92%	8%	86%	14%	78%	22%	78%	22%
Primary school	79%	21%	75%	25%	73%	27%	72%	28%
Lower secondary	78%	22%	80%	20%	74%	26%	72%	28%
Upper secondary	85%	15%	85%	15%	81%	19%	77%	23%
Total	83%	17%	79%	21%	75%	25%	74%	26%

Appendix Table 3. **Children aged 3-5 by sector, 2000-2010**

Age	Year	Jews	Arab Israelis	Total	Jews	Arab Israelis
		(thousands)			(percent)	
3	2000	87.4	36.2	123.7	70.7%	29.3%
	2005	97.8	41.0	138.8	70.5%	29.5%
	2010	111.8	39.3	151.1	74.0%	26.0%
4	2000	84.8	35.8	120.6	70.3%	29.7%
	2005	94.4	41.5	135.9	69.5%	30.5%
	2010	108.4	39.2	147.6	73.5%	26.5%
5	2000	79.9	36.1	116.1	68.9%	31.1%
	2005	94.8	40.9	135.6	59.9%	30.1%
	2010	104.3	38.9	143.3	72.8%	27.2%

Source for both tables: Taub Center for Social Policy Studies in Israel.

Data for both tables: Central Bureau of Statistics.

Appendix Table 4. **Attendance rates in preschool***
for ages 3-5

Age	Year	Jews	Arab Israelis	Total	Jews	Arab Israelis
		(thousands)			(percent)	
3	2000	56.7	11.6	68.3	83.1%	16.9%
	2005	62.9	22.9	85.5	72.2%	26.7%
	2010	74.9	23.0	97.9	76.5%	23.5%
4	2000	76.4	15.0	91.4	83.6%	16.4%
	2005	86.3	26.1	112.5	76.8%	23.2%
	2010	95.2	25.8	121.0	78.6%	21.4%
5	2000	82.0	26.6	108.6	75.5%	24.5%
	2005	91.5	32.7	124.3	73.6%	26.4%
	2010	102.6	34.8	137.4	74.7%	25.3%

* Not including private preschools.

Source: Taub Center for Social Policy Studies in Israel.

Data: Ministry of Education.

Appendix Table 5. **Participation rates in preschool***

number of children in preschool divided
by the number of children in the cohort

Age	Year	Jews	Arab Israelis	Total
3	2000	64.9%	31.9%	55.2%
	2005	64.3%	55.8%	61.8%
	2010	67.0%	58.5%	64.8%
4	2000	90.1%	42.0%	75.8%
	2005	91.4%	63.0%	82.7%
	2010	87.8%	66.0%	82.0%
5	2000	102.6%*	73.6%	93.6%
	2005	96.6%	80.1%	91.6%
	2010	98.3%	89.3%	95.9%

* The data for the age cohorts presented in Table 3 do not include those born abroad, i.e., new immigrants. Therefore, when the number of children in preschools is divided by the number of children in the age cohort, the denominator is biased downward. However, according to Central Bureau of Statistics publications the number of immigrant children is quite small. There is, therefore, reason to think that the preschool attendance rates presented here are biased upwards, but not to an appreciable extent. That is probably also the reason why in one case a rate of attendance higher than 100 percent was obtained. It should be noted that the attendance rate is calculated according to the original data, not according to the figures in the tables (which are rounded); calculating the attendance rates according to the data in Tables 3 and 4 may yield slightly different results from those shown in Table 5.

Appendix Table 6. **Jewish children aged 3-5 attending preschool**
in absolute numbers and percentages

Age	Year	State school	State-religious	Haredi	Total	State school	State-religious	Haredi
		(thousands)				(percent)		
3	2000	26.5	12.3	17.9	56.7	46.8%	21.7%	31.5%
	2005	25.8	12.9	24.2	62.9	41.0%	20.5%	38.5%
	2010	31.1	16.2	27.7	74.9	41.5%	21.6%	36.9%
4	2000	41.2	16.2	19.0	76.4	54.0%	21.2%	24.8%
	2005	43.2	17.3	25.9	86.3	50.0%	20.0%	30.0%
	2010	47.3	19.0	28.8	95.2	49.7%	20.0%	30.3%
5	2000	47.3	16.7	18.0	82.0	57.7%	20.4%	21.9%
	2005	49.5	17.2	24.9	91.5	54.0%	18.8%	27.2%
	2010	54.0	19.1	19.5	102.6	52.6%	18.6%	28.8%

Appendix Table 7. **Percent reporting expenditure and the amount of that expenditure on early childhood education**
by sector

	Jews				Arab Israelis	
	Non-Haredi/others		Haredi		Percent reporting expense	Amount of expenditure (NIS, 2010 prices)
	Percent reporting expense	Amount of expenditure (NIS, 2010 prices)	Percent reporting expense	Amount of expenditure (NIS, 2010 prices)		
2003-2006	65.6%	1201	69.6%	427	33.1%	251
2007-2010	70.4%	1351	77.6%	433	30.1%	323

Source for both tables: Blass, Bleikh, and Zaban (2012).

*Appendix 2. The Structure of the Educational System in Israel: The Legal-Organizational Aspect*²⁴

When discussing the educational system in Israel, it is often customary to disregard its complicated structure and to focus on the official educational system, including State and State-religious education. Frequently the reference is only to the Jewish sector within the system. However, the demographic reality necessitates devoting some attention to describing the system and its components.

The multivariate classification of educational institutions cuts across all of the system's learning levels, from pre-primary education to higher education, and it assumes different forms. Classification into groups is influenced by the existing legislation in the educational field, by the history and tradition of education's development, by ideologies and educational concepts prevalent in the educational field, and by other factors. The "formal" educational system in Israel is classified by a few main divisions.

Age division (classification by educational level). This division, the one that is generally familiar to the public, is set in the Compulsory Education Law and in Knesset decisions on reform of the educational system. The classification refers to the following basic structure:

- a. Pre-compulsory education (ages 3-4)
- b. Compulsory kindergarten (age 5)
- c. Primary education (1st-6th grades, ages 6-11)
- d. Lower secondary school (7th-9th grades, ages 12-14)
- e. Upper secondary school (10th-12th grades, ages 15-17)
- f. Post-secondary and academic studies (18 and above)

²⁴ From Blass, 2002.

This is the primary division, but within each level a variety of possible frameworks can be discerned, some of which include two stages combined while others split each stage. Thus, there are schools in primary education with classes from kindergarten to the sixth grade, from the first to eighth grade or even from the first to ninth grade, and kindergarten to the first or second grade; secondary institutions from the ninth to twelfth grade, the tenth to twelfth grade, the seventh to twelfth grade, and even the seventh to fourteenth grade, and more.

Legal status (in official terms, status). The educational laws in Israel recognize three types of educational institutions, according to a measure of how much they are subjected to state supervision: official, recognized, and exempted institutions:

- A. Official educational institutions: According to the legal definition, official educational institutions are all the institutions owned by the state or local authorities, which have been declared official institutions in the records. Generally speaking, these are all the educational institutions for children of compulsory education age (in effect, only those institutions for children from kindergarten to lower secondary school). The four-year secondary educational institutions and high schools usually are not official, even if owned by the local authority, or even by the state, because they have not been declared as such in the records. A convenient marker for distinguishing between official educational institutions and those that are not is the identity of the teachers' employer. Institutions at which the teachers are state employees are official, whereas institutions at which they are employed through other bodies are not official.
- B. Recognized educational institutions: These are divided into two groups:
- All the official institutions
 - Recognized educational institutions that are not official

The recognized institutions that are not official are institutions that are not owned by the state, but have accepted some or other measure of state supervision (as set in the law). These institutions' workers are not state employees, and the institutions enjoy a greater measure of independence in their admission of pupils, employment of teachers, the choice of curriculum, etc.

Among the recognized institutions that are not official, it is necessary to distinguish between those of the independent religious educational network and of the *Ma'ayan Hachinuch Hatorani* network, and other institutions. The institutions of the two networks that are politically affiliated with the Haredi parties (*Agudat Yisrael* and *Shas*, respectively) enjoy a special status set in the Budget Foundations Law, according to which they are entitled to funding identical to that of the official educational institutions. Others in this framework include Jewish institutions that are subject to one of the three types of supervision (see further on) and non-Jewish, usually Christian (Church) institutions.

- C. Exempted institutions: These institutions, like the recognized institutions that are not official, are not owned by the state, and they do not accept state supervision. The children attending them are exempted from abiding by the Compulsory Education Law, for which reason they are known as "exempted" institutions. To date these have been Haredi-religious frameworks (Torah schools, for example, in primary education), but in the future the spread of the home schooling phenomenon may well require defining home schooling frameworks, too, as exempted institutions.

In addition to the educational institutions included in the three categories by status, there are learning frameworks for children that do not recognize the state's existence at all and those in charge of which don't even seek to obtain exempted status. Such, for example, are the institutions of *Neturei Karta*, where the parents and children are effectively in breach of the state's laws.

Sector division, by population sectors. The division by sectors is primarily between Jews and non-Jews. In the non-Jewish sector there are three sub-sectors: Arabs, Bedouin and Druze (also the Circassian, which is negligible in size). It is important to note that most of the children who are neither Jewish nor Arab Israeli (mainly the children of non-Jewish new immigrants and children of foreign workers) attend Jewish State education.

Religious division (in official terms, “type of supervision”). The division by religion is into three types of education: State, State-religious, and other:

- A. State education: a network that includes mainly those institutions that are not religious in the Jewish and Arab Israeli (non-Jewish) sectors.
- B. State-religious education: the frameworks of Jewish national-religious education.
- C. Other education: usually the reference is to Jewish Haredi education. There are no official institutions in this category, although there is a division by types of recognized institutions (networks as opposed to others), and the category also includes the exempted institutions.

Division by funding – by basic funding unit for receiving budgets. The various educational institutions receive their budgets in several ways – funding per pupil, per classroom, or a combination of both. This refers to frameworks in which education is free, but parental payments are required nonetheless:

- A. Funding per pupil: Most of the educational frameworks are funded according to the number of pupils attending them, i.e., the basic funding unit is the pupil. How the cost of this funding unit is calculated varies from framework to framework. The institutions funded through tuition fees per pupil include: pre-compulsory and compulsory kindergartens, recognized primary educational institutions that are not official (not including the independent religious network and the *Ma’ayan Hachinuch Hatorani* network), the exempted

institutions, secondary education, and higher education. The funding per pupil may be uniform, as in compulsory kindergartens, for example, or differential – according to various principles – and it may combine several funding principles, such as:

- Differential standard per pupil by learning topics, by level of service at the school, and by the profile of educational workers and class level (upper secondary schools).
 - Differential standard per pupil by structure of institution and profile of its educational workers (recognized institutions in primary education that are not official and the lower secondary schools).
 - Differential standard per pupil by socioeconomic background (certain frameworks of secondary education, such as special education classes and guidance classes).
- B. Funding per classroom: a method of funding unique to institutions of official primary education, and to the independent religious and *Ma'ayan Hachinuch Hatorani* networks.
- C. Combined standard per classroom and per pupil: a method of funding practiced in the lower secondary schools and self-managed schools in primary education.

Other divisions – by ownership, geographic location, etc., could also be examined, but the classification described above seems to accurately reflect the main divisions within the educational system and convey a reliable picture of its complexity.

References

English

- Ben-David, Dan (2010), "A Macro Perspective of Israel's Society and Economy," "Public Expenditure – A Look at Israel's National Priorities," "Israel's Education System – An International Perspective and Recommendations for Reform," in Dan Ben-David (ed.), *State of the Nation Report: Society, Economy and Policy 2009*, Taub Center for Social Policy Studies in Israel.
- Ben-David, Dan (2009), *A Comprehensive Program for Reducing Inequality and Poverty and Increasing Economic Growth in Israel*, Taub Center for Social Policy Studies in Israel.
- Blass, Nachum (2011), "Developments in Israel's Education System," in Dan Ben-David (ed.), *State of the Nation Report: Society, Economy and Policy 2010*, Taub Center for Social Policy Studies in Israel, pp. 231-281.
- Blass, Nachum (2010), "Israel's Education System: A Domestic Perspective," in Dan Ben-David (ed.), *State of the Nation Report: Society, Economy and Policy 2009*, Taub Center for Social Policy Studies in Israel, pp.157-212.
- Blass, Nachum (2007), "The Education System," in Yaakov Kop (ed.) *Israel's Social Services 2006*, Taub Center for Social Policy Studies in Israel, pp. 95-126.
- Blass, Nachum, Haim Bleikh and Hila Zaban (2012), "Preschools – A Demographic Review," in Ayal Kimhi (ed.), *Pre-Primary Education in Israel: Organizational and Demographic Perspectives*, Taub Center for Social Policy Studies in Israel, Policy Paper 2012.01.
- Cobb-Clark, Deborah A., Mathias Sinning, and Steven Stillman (2012), "Migrant Youths' Educational Achievement: The Role of Institutions," *The Annals of the American Academy of Political and Social Science*, 643, No. 1, pp.18-45.
- OECD (2011), *OECD Economic Surveys: Israel 2011*, OECD Publishing.
- OECD (2010), *Education at a Glance*, OECD Publishing.

Zaban, Hila (2012), "Mapping the Players in Israel's Preschool Education System," in Ayal Kimhi (ed.), *Pre-Primary Education in Israel: Organization and Demographic Perspectives*, Taub Center for Social Policy Studies in Israel, Policy Paper 2012.01.

Hebrew

Blass, Nachum (2009), "The Education System," in Yaakov Kop (ed.) *Israel's Social Services 2008*, Taub Center for Social Policy Studies in Israel, pp. 149-178.

Blass, Nachum (2002), "The Education System," in Yaakov Kop (ed.) *Israel's Social Services 2001-2002*, Taub Center for Social Policy Studies in Israel, pp. 111-146.

Blass, Nachum and Chaim Adler (2009), *Inequality in Education: Israel 2009 – The Way It Is*, Taub Center for Social Policy Studies in Israel.

Blass, Nachum and Yigal Douchan (2006), *Lateral Mobility of Students Within the Israeli Educational System: Transfers Between the Various Education Networks*, Taub Center for Social Policy Studies in Israel.

Blass, Nachum, Noam Zussman, and Shay Tsur (2012), *What Did You Learn in School Today, Dear Little Boy of Mine? The Use of Work Hours in Primary Schools*, Bank of Israel, Research Department, Discussion Paper Series 2012.03.

Blass, Nachum, Noam Zussman, and Shay Tsur (2010), *Primary School Education Budget 2001-2009*, Bank of Israel, Research Department, Discussion Paper Series 2010.18.

Central Bureau of Statistics, *Statistical Abstract of Israel*, various years.

Central Bureau of Statistics, *Expenditure Surveys*, various years.

Committee for Social-Economic Change (2011), *The Report of the Committee for Social-Economic Change* (Trajtenberg Committee), Research and Information Division, Knesset.

Faitelson, Yaakov (2011), *Demographic Trends and Their Implications for Israel's Education System*, The Institute for Zionist Strategies.

Taub Center for Social Policy Studies in Israel (2008), *A Strategy for Reducing Socioeconomic Gaps*, Task Force Report Presented to the President of the State of Israel and the Ministry of Social Affairs and Social Services.

Taub Center for Social Policy Studies in Israel (2002), in Yaakov Kop (ed.), *Israel's Social Services 2001*.

