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TRENDS IN THE DEVELOPMENT OF THE EDUCATION SYSTEM: PUPILS AND TEACHERS

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מגמות בהתפתחות מערכת החינוך: מורים ותלמידים

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Trends in the Development of the Education System Pupils and Teachers

Nachum Blass*

Abstract

This chapter deals with two main topics: trends in the pupil population's demographic composition and the characteristics of the teacher population following the New Horizon education reform agreement. The chapter first presents the continuing slowdown in the growth rate of Haredi (ultra-Orthodox) education and Arab Israeli education, as opposed to the rise in the growth rate of official Jewish education. It goes on to describe the effect of the decision to implement the Compulsory Education Law for Ages 3-4 on the number of pupils in public preschools. Lastly, the chapter examines the effect of the signing of the New Horizon agreement on various characteristics of the teacher population, such as average age, job intensity, and wages.

1. Prominent Demographic Trends Among Israeli Pupils¹

In 2011, the trends observed in previous years continued (see "Trends in the Educational System's Development" in the *State of the Nation Report*

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¹ This section of the chapter was written together with Haim Bleikh.

2011-2012) with a rise in the share of younger age groups within the Jewish population and a drop in these groups' share within the Arab Israeli population (Blass, 2012). The difference between the sectors in fertility rates and the relative decline of the younger age groups among the Arab population has yet to be expressed through a decrease in Arab Israeli pupils' share of the total pupil population. Nonetheless, between 2010 and 2011, the share of Jewish children attending preschools rose from 78.2 to 78.8 percent, and the share of those ages 0-4 rose from 75.1 to 75.6 percent.

The demographic differences between various groups in the Jewish sector, especially fertility rates and the number of children per family, also affect the composition of the education system. These differences are reflected by changes in the distribution of pupils by educational streams (e.g. state secular, state-religious, Haredi), which differ from each other mainly in level of religious observance.²

Preschool Education

In 2011, the government began to move forward on the Trajtenberg Committee recommendation to expedite the implementation of the Compulsory Education Law for Ages 3-4. In the wake of the implementation of this recommendation, between 2012 and 2013 the number of children attending preschools under the supervision of the Ministry of Education grew by 21,500, which is 5 percent of the total. If it is assumed that all of the children joining the education system did not attend a preschool (public or private) in the past, this means the integration of a little under half of all the children in the age cohort were integrated according to the law. (If it is assumed that the children who

² It is easy to follow the changes in the Jewish educational sector because the division among the religious streams is anchored in the educational system's organizational structure. In Arab Israeli education, although the great majority of schools are included in state education, there has been an expansion of religious frameworks among the Muslims and a preference for Church-run schools among the Christians.

attended private preschools in the past also need be integrated, then this is only one-third of all children to be integrated) (Blass and Bleikh, 2013). Note also that between 2011 and 2012, the number of preschool age children grew by 11,500; accounting for the natural growth in the age groups over the two previous years, the effect of the start of implementation was an increase of 2-3 percent between 2010 and 2012.

In keeping with expectations (Blass and Bleikh, 2013), the most significant rise in the number of pupils (it is important to distinguish between number of pupils and number of children) and the most significant rise in growth rate occurred in Jewish state education (12 percent). That is not surprising, since in this population group the share of children not benefiting from the Compulsory Education Law was the highest. Since the Ministry of Education figures do not include private preschools, it is difficult to determine whether the matter concerns a population of children who did not previously attend preschool, or whether some of them attended private preschools in the past. It may also affect children who attended Haredi (ultra-Orthodox Jews) frameworks in 2012 due to the low tuition or the long school day, but transferred to the state sector after implementation of the law.

The growth in state-religious education was similar to that seen in Jewish state education, albeit less prominent. This may be explained by the fact that the population served by state-religious education is weaker socioeconomically, and it is likely that large segments of this population already benefited from past exemptions from preschool tuition that boosted their preschool attendance rates.

An interesting and surprising development occurred among the population of Haredi preschool pupils, which dropped after the beginning of full implementation of the Compulsory Education Law for Ages 3-4. This may be attributed in part to the transfer of Haredi children to preschools in state and state-religious education. In addition, it is important to note that there is an ongoing process of significant decline in this population's growth rate, which decreased from an annual 7 percent rate between 2000 and 2005 to 3 percent from 2005 to 2012.

The population of Arab Israeli pupils in preschools grew at a very rapid rate (53 percent) during the years 2000-2005, but at a much slower rate (6 percent) during the years 2005-2013 (Table 1 in the Appendix). Of more interest, though, is the change in the distribution between Official education and Recognized education³ among this age group in this sector (Table 2 in the Appendix). The rapid growth in Recognized education that is not official slowed considerably after 2005 (from over 100 percent growth between 2000 and 2005 to only 40 percent growth between 2005 and 2010) then came to a complete stop, and even declined. It appears that actions undertaken by the Ministry of Education in order to increase accessibility to preschools under its supervision, e.g., expeditious construction, seem to have reversed the trend in unofficial education.

In sum, state and state-religious education's share of all preschool education on which the Ministry of Education reports rose from 51 percent in 2005 to 56 percent in 2013.⁴ Although the entire age group is not yet attending preschool, by 2012, before implementation of the Trajtenberg Committee's recommendations, 98 percent of five-year-olds attended preschool, as did 96 percent of four-year-olds and 90 percent of three-year-olds, altogether about 95 percent. This number is significant in light of the fact that in recent years it was commonly thought that the share of preschool pupils in Haredi and Arab Israeli education would rapidly exceed 50 percent.⁵

³ The educational laws in Israel recognize three types of educational institutions according to the measure of state supervision they are subjected to: Official, Recognized, and Exempt institutions.

⁴ In 2000, the state and state-religious streams' share was 60 percent, but this was before the selective application of the Compulsory Education Law for Ages 3-4, in the wake of which mostly Haredi and Arab Israeli pupils joined the system.

⁵ The latest forecast by the Central Bureau of Statistics (CBS) regarding the number of pupils in primary schools for 2014-2019, which in the author's view is biased to some degree towards increasing Haredi and Arab Israeli

Primary Education (Grades 1-6)

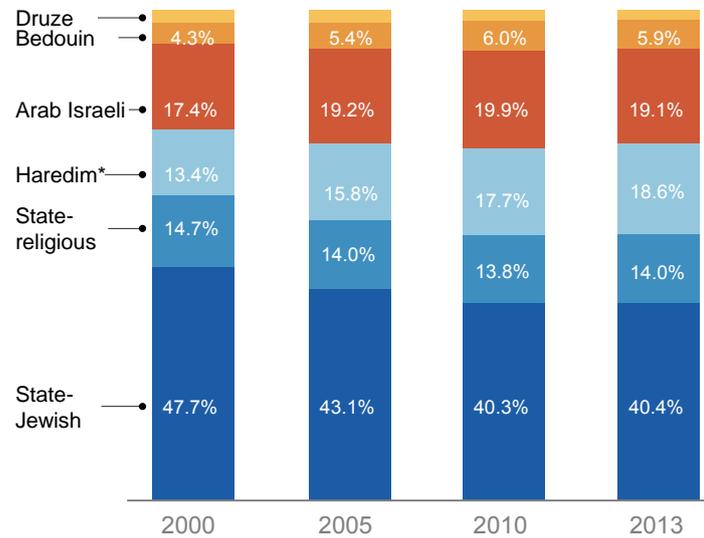
Table 1 details the distribution of pupils between the various educational levels by sector in selected years since 2000. The trends in preschool education – most of which stem from changes in birthrates, and little from changes among various populations in patterns of registration to preschools – are only partially observed due to its non-compulsory nature as opposed to trends that are more readily observed in primary education.

It is important to note that primary education is composed of a different number of grades in Israel's various educational streams. For the sake of comparison, the emphasis here is on grades 1-6 across all of the streams. The main changes can be seen in Figures 1 and 2, and they include:

- A. The number of children and growth rate of Jewish state education has risen, and the decline of its share in the entire educational system has stopped.
- B. The growth of state-religious education has stopped, but its relative share of the entire system remains the same.
- C. The growth rate of Haredi education has declined significantly, but its share of the pupil population in the education system remains almost the same.
- D. Arab Israeli education in general has maintained its relative share of the pupil population, but the growth rate is steadily declining.

pupils' share, also predicts that their share will not surpass 50 percent but reach "only" 49 percent.

Figure 1
Distribution of pupils in grades 1-6
 by sector and supervisory authority



* Haredim are ultra-Orthodox Jews

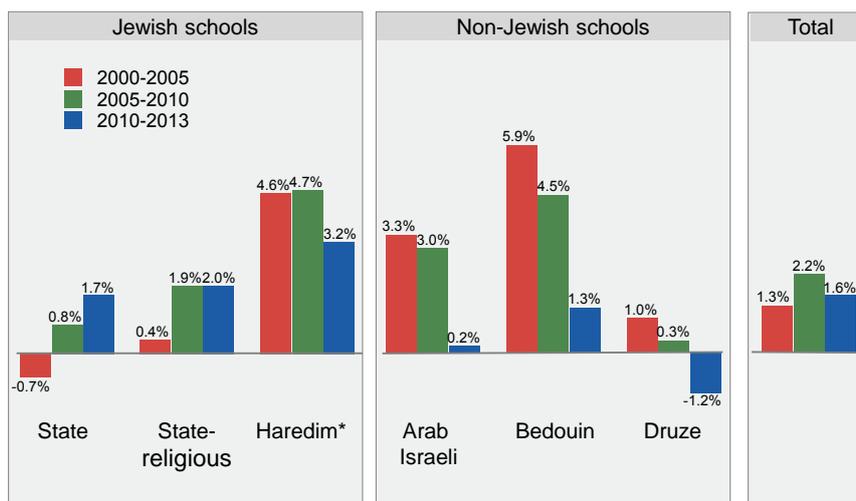
Source: Nachum Blass and Haim Bleikh, Taub Center

Data: Ministry of Education

Another phenomenon reported Blass (2012) is the strengthening of Recognized education in the Arab Israeli sector, which continues to be evident also in the past year: Recognized education's share rose from 10 percent in 2000 to 18 percent of all Arab Israeli education in 2013 (Table 2 in the Appendix). This should be of concern to the state's official educational system, because it reflects a lack of trust in state education among most of the Arab Israeli population. The topic requires further study to understand the reasons for the phenomenon, its geographic and locational distribution, the characteristics of the population that is

inclined to seek Recognized education, and the educational and social ramifications of the trend.

Figure 2
Number of pupils in grades 1-6, average change



* Haredim are ultra-Orthodox Jews

Source: Nachum Blass and Haim Bleikh, Taub Center

Data: Ministry of Education

Secondary Education

The trends that characterize grades 1-6 are evident also in secondary education. In grades 7-9, the end of the decline and the beginning of a rise in the number of pupils in Jewish state education is seen, as is the acceleration in the growth of state-religious education and deceleration in the growth of Haredi education. Despite the deceleration, Haredi education is still growing at a rate double that of state-religious education

and almost four times as fast as state education. Arab Israeli education continues to grow at a rapid rate, but slower than in the initial period examined, and the same can be said of Bedouin education.

The situation in grades 10-12 differs to some extent from that in the rest of the education system. The number of pupils in Jewish state education in 2013 is still lower than in 2000, and its share of all education in 2013 is only 48 percent, as opposed to 59 percent in 2000. Nonetheless, evident in grades 10-12, too, is the transition from a negative to a positive growth rate in state education, a rise in the growth rate of state-religious education and a sharp drop in the growth rates of Haredi, Bedouin, and Druze education.

Table 1. **Number of pupils by sector and educational stream**
in thousands, selected years

	Bedouin	Druze	Arab Israeli	Haredim*	State- religious	State	Total
Pre-primary							
2000	9.3	7.4	37.6	58.3	48.1	123.7	284.3
2005	18.5	7.9	57.9	81.7	50.7	125.1	341.6
2010	16.8	7.8	62.3	94.3	58.3	140.3	379.9
2012	17.5	8.8	60.7	99.9	62.4	150.9	400.2
2013	17.1	8.6	63.3	97.6	66.5	168.6	421.7
Grades 1-6							
2000	29.1	17.0	117.8	90.8	99.3	322.4	676.4
2005	38.7	17.8	138.9	113.7	101.3	311.5	722.0
2010	48.2	18.1	160.7	143.1	111.5	324.8	806.5
2012	50.3	18.1	163.3	158.3	115.9	336.3	842.1
2013	50.1	17.5	161.5	157.3	118.2	341.6	846.2

* Haredim are ultra-Orthodox Jews

Table 1. **Number of pupils by sector and educational stream**
(continued)
in thousands, selected years

	Bedouin	Druze	Arab Israeli	Haredim	State- religious	State	Total
Grades 7-9							
2000	10.0	7.1	48.5	33.2	47.5	182.6	329.0
2005	14.0	8.0	62.7	43.4	47.6	168.5	344.2
2010	18.7	8.4	72.5	53.2	48.4	165.9	367.0
2012	20.2	8.1	76.3	58.5	50.4	169.7	383.1
2013	21.2	8.3	79.1	59.7	51.2	171.6	391.1
Grades 10-12							
2000	6.3	5.4	34.9	29.9	42.0	172.5	290.9
2005	9.1	6.0	45.6	39.5	43.0	173.0	316.2
2010	12.1	7.1	56.3	47.3	44.0	162.7	329.5
2012	13.1	7.1	60.8	49.9	44.5	161.8	337.2
2013	13.9	7.2	63.8	50.5	46.2	164.4	345.9
Total – Pre-primary through grade 12							
2000	54.7	36.9	238.8	212.2	236.9	801.2	1,580.6
2005	80.3	39.7	305.1	278.3	242.6	778.1	1,724.0
2010	95.8	41.4	351.8	337.9	262.2	793.7	1,882.9
2012	101.1	42.1	361.1	366.6	273.2	818.7	1,962.6
2013	102.3	41.6	367.7	365.1	282.1	846.2	2,004.9

Source: Nachum Blass, Taub Center for Social Policy Studies in Israel

Data: Ministry of Education

2. Teachers: Changes in Work Patterns, Working Conditions, and Wages Following the Implementation of the “New Horizon” Agreement

This part of the chapter analyzes the changes in primary education in the wake of the signing of the New Horizon wage agreement.⁷ Before the signing of the agreement, a full-time teaching position was 30 hours, all of which were supposed to be spent in frontal teaching.⁸ The New Horizon agreement requires teachers to work 36 hours a week: 26 hours in frontal teaching, 5 hours at school, and 5 hours in individual instruction.⁹

There were numerous reasons for the change in job hours. The expectation was that the New Horizon agreement would result in teachers devoting more of their time to instruction, and some policymakers (certainly some members of the Dovrat Commission, whose recommendations regarding the structure of teaching jobs constituted the basis for the agreement) thought it would enable a reduction in the number of teachers as well as wage increases. Other policymakers feared that due to the change in working conditions, many teachers would retire

⁶ The New Horizon Reform was a national program for reform of primary and lower secondary school education. It was initially implemented in 2008 and has been adopted by 72 percent of all state primary and lower secondary education in Israel.

⁷ The discussion focuses on primary education, since implementation in preschools and middle schools began later. Implementation of the *Oz le-Tmura* Reform, which resembles New Horizon in its major components but is focused on secondary schools, began only this year on an experimental basis, and there are as yet no meaningful data regarding it.

⁸ In effect, because of homeroom hours, reduced hours based on teacher's age and for new mothers, a full-time position was only about 27 hours.

⁹ Here, too, there are reduced hours based on teacher age and for new mothers, but there is no reduction due to homeroom hours. A full-time position is about 35 hours.

while others who were satisfied with their former wage levels would scale down their hours accordingly.

Since the implementation of the New Horizon agreement, several studies have examined various aspects of the reform. Shaul Cohen (2011) examined the characteristics of teachers who joined the agreement. David Ma'agan (2000) examined changes in patterns of entrance into and retirement from teaching in the wake of the agreement's signing. Researchers at RAMA (National Authority for Measurement and Evaluation) have followed the reform from the outset, publishing studies mainly concerning teacher and principal satisfaction and with the ways in which the reform is being implemented in schools (Freeman and Ben-Arzi, 2008; RAMA, 2010; Pas and Lapid, 2012; Shemesh et al., 2012).

The discussion here focuses on several points concerning the changes that have occurred among primary school teachers, which previous research has not addressed.

Has There Been a Trend Towards Retirement Among Teachers Since the Reform?

In order to examine whether the reform has encouraged a trend towards retirement, it is necessary to compare the actual number of teachers to the number of full-time job equivalents before and after the reform, and also relative to the number of pupils. The figures to be compared are for the years 2000, 2007 and 2012. The year 2000 was chosen to provide sufficient time before New Horizon was signed to allow for identification of trends unrelated to the agreement; 2007 was chosen as the reference year as it was the last year before the agreement went into effect (according to CBS); and 2012 is the latest data available at this time.

As is clearly shown in Table 2, the number of teachers in Jewish education rose by 16 percent between 2007 and 2012, while the number of pupils grew by only 12 percent. The corresponding figures in Arab Israeli education are 27 and 9 percent, respectively. The number of full-

time teaching positions rose by 21 percent in the Jewish sector and by 23 percent in the Arab Israeli sector. It is clear that not only did the number of teachers not drop in the wake of the reform, but it grew significantly in excess of the increase in the number of pupils, i.e., the mass departure of teachers that was feared has not materialized.

Table 2. **Selected data on primary education, before and after the New Horizon Reform, 2000, 2007, and 2012 and change between 2008 and 2012**

	2000	2007	2012	Change 2007-2012
Jewish education				
Full-time equivalent teaching positions	31,845	35,066	42,438	+21%
Number of teachers*	43,426	46,610	54,198	+16%
Classes	22,763	24,354	27,638	+20%
Pupils	558,640	598,029	670,631	+12%
Avg pupils per class	24.5	24.6	24.3	-9%
No of pupils per teacher	17.5	17.1	15.8	-9%
Arab Israeli education (including Bedouin and Druze)				
Full-time equivalent teaching positions	8,977	13,351	16,437	+23%
Number of teachers*	11,001	15,209	19,362	+27%
Classes	6,130	7,898	9,502	+20%
Pupils	181,640	231,268	251,621	+9%
Avg pupils per class	29.6	29.3	26.5	-9%
No of pupils per teacher	20.2	17.3	15.3	-8%

* All teachers, regardless of how much they work

Source: Nachum Blass, Taub Center for Social Policy Studies in Israel

Data: Ministry of Education

Has There Been a Drop in the Average Tenure and Education Level of Teachers Since the Reform?

The fear that the reform would trigger the massive departure of experienced outstanding teachers, to be replaced by younger, inexperienced teachers, has not materialized (Table 3). Teachers' age continues to rise – albeit the rate of increase in the Jewish sector in recent years is slower than in the Arab Israeli sector. The percentage of teachers who have an academic-level education is rising in both sectors as well.

Table 3. **Selected characteristics of teachers in primary education, 2000, 2007, and 2012, by sector**

	Jews			Arab Israelis		
	2000	2007	2012	2000	2007	2012
Age						
Under 29 (%)	18.2%	11.9%	13.2%	33.5%	31.2%	22.1%
50 + (%)	16.6%	25.4%	25.9%	8.3%	12.2%	13.7%
Academic education (%)	50.2%	66.0%	79.7%	37.9%	69.5%	86.7%
Avg yrs of seniority	14.3	16.0	15.9	12.5	11.7	13.1
Avg weekly work hours	22.6	21.1	27.0	24.9	23.4	29.9
Avg job position*	0.75	0.70	0.75	0.83	0.78	0.83

* Job position is calculated by dividing the average number of hours by the hours in a full-time position (30 hours in 2000 and 2008, 36 hours in 2012).

Source: Nachum Blass, Taub Center for Social Policy Studies in Israel

Data: Ministry of Education

Does this mean that in the wake of the reform, the quality of teachers is higher? In this matter two things can be said: a) a rise in teachers' tenure and education level is a trend that was already observed prior to

the reform; b) the relationship between teachers' tenure and education and their quality is unclear. Such a correlation has not been proven by the many studies conducted abroad (Blass, 2008). In Israel, this question is further complicated by the fact that a large share of teachers obtained academic degrees at branches of overseas universities that flourished in Israel during the late 1990s and early 2000s, or completed their B.A. studies in one year after undertaking the major portion of their studies at teacher training institutions. Since academic supervision of foreign university branches and one-year studies towards the completion of a B.A. was not stringent, the positive effect of obtaining a degree on the quality of teaching in these cases is doubtful.

An interesting point concerning the rise in the rate of teachers who have an academic-level education is the difference between the Jewish and Arab Israeli sectors. As of 2012, the rate of teachers who have an academic-level education in the Arab Israeli sector was higher than in the Jewish sector. That raises several questions to be addressed in further studies, such as:

- Does this phenomenon stem from a surplus of teachers with academic degrees, and therefore schools have more choice of teachers in the Arab Israeli sector?
- Do the teacher training processes and tracks in the Arab Israeli sector differ in essence from those in the Jewish sector?
- Will the process of academization that is nearly complete in the Arab Israeli sector have an effect on pupil achievements in this sector?

Regardless of the quality issue, it should be emphasized that even if the effect of teacher tenure and education on pupil achievements remains unclear, its effect on education expenditures is unequivocal. Teacher's wages are linked to tenure and education level, and a proliferation of academic-level educated teachers pushes wages upward.

Despite the rise in teachers' average age, the average tenure does not exceed 16 years in the Jewish sector and 14 years in the Arab Israeli sector. Likewise, more than 75 percent of teachers are under 50 years of age. This means that contrary to any impressions from the data concerning the rise in teachers' average age, the vast majority of teachers will not be retiring within the coming decade. This is of great importance to a discussion about the possibilities of any overall improvement in the quality of teaching personnel.

Will Teachers Be Satisfied with Their Previous Wage Levels and Prefer to Reduce Their Job Position (from Full-Time to Part-Time Positions) Following the Reform?

The New Horizon agreement requires full-time teachers to work 36 hours (26 hours in frontal teaching, 5 hours in individual instruction, and 5 hours onsite), as opposed to 30 hours under the former wage agreement. Since the average teaching job has risen from a 70 to 75 percent position in the Jewish sector and remained stable in the Arab Israeli sector – 83 percent – this means that the number of working hours (teaching + other hours) for teachers has risen from 21.1 to 27 in the Jewish sector and from 23.4 to 29.9 in the Arab Israeli sector.¹⁰

The fact that teachers have met the requirement to increase their number of working hours indicates, at least on the face of it, that the Ministry of Education's demand was justified – that is, of course, if the teachers work the hours they are required to work. This appears to be the case according to the figures of the above table.

No less interesting than the question concerning the agreement's effect on teachers' working hours is the question concerning its effect on actual hours spent teaching. In a study conducted by the Ministry of

¹⁰ The increase in the job position (in the years 2007-2012) within the Arab Israeli sector contradicts the argument that the Ministry of Education is contending with the surplus of teachers in the Arab Israeli sector by reducing their teaching hours and employing many teachers in less than full-time positions.

Education prior to the signing of the agreement, it turned out that the actual number of teaching hours in a full-time position was about 27 hours a week, as opposed to the 30 required by the old agreement.¹¹ As noted previously, in the framework of the new agreement, teachers in a full-time position are committed to 26 hours of frontal teaching and 5 hours of individual instruction. The arrangement for reduced hours for new mothers and for age have not been eliminated, and therefore the number of actual teaching hours is approximately 30 teaching hours – 26 of them in frontal teaching, and 4 in individual instruction.

Frontal teaching declined by only a few percentage points, but it must be taken into consideration that even before New Horizon, some teachers, in the framework of their positions, taught individual students or small groups. Furthermore, teaching in small groups requires no less effort and professionalism than frontal teaching – in fact, there is evidence that teachers who have become accustomed to the frontal teaching mode find it very difficult to transition to individual instruction.

Have Teachers' Real Wages Risen?

Comparing teachers' wages before and after the agreement is complicated due to an overall change in the wage structure, transition from a promotion system based on tenure and education only to promotion according to pay grades, and a change in the benefits policy. Nonetheless, it is possible to compare the wages of a teacher with a B.A. degree at various tenure levels before and after the agreement (Table 4).

¹¹ In the former wage agreement there was no distinction between frontal teaching hours and working with individuals or small groups, although such hours were indeed part of the framework of non-frontal class hours.

Table 4. **Wage comparison according to wage scales, in 2012 shekels**

	2008	2012	Change 2008 to 2012 (%)
BA, 1 year of seniority	3,298	5,677	72%
BA, 15 years of seniority	5,179	6,923	34%
BA, highest seniority level	7,043	8,532	21%

Source: Nachum Blass, Taub Center for Social Policy Studies in Israel

Data: New Horizon Agreement

And what happens when teachers' wages in Israel are compared to teachers' wages in OECD countries? The OECD's publications for the years 2012-2013 (OECD; 2012 and 2013) reveal three interesting points. The first is that the change in teachers' wages in Israel from 2007 to 2011 was the highest in all of the OECD countries (26 percent in primary education, 14 percent in middle schools, and no change in high schools, as opposed to 2 percent, 1 percent and no change, respectively, in the OECD). The second point is that actual wages in Israel are much higher than the wages according to the salary tables (i.e., formal wages, without the various supplements and benefits that are added to salary). According to 2011 OECD data, the yearly wages for teachers with ten years' tenure in primary education in Israel, according to the salary tables, amounted to \$27,174 (in terms of relative buying power), while the average wage including various supplements was \$30,829.

The problem with such a simple comparison of value in dollars is that it fails to take into account that the standard of living in general in Israel is also lower. The third interesting point is that the problem of comparisons and the differences in standard of living is resolved by dividing average wages (according to the salary tables) by per capita GDP (which reflects the standard of living in the country). On this measure, Israel begins to approach the OECD average in primary

education (1.07 in Israel versus 1.23 in the OECD, a difference of 15 percent), whereas in secondary education, where the OECD data still reflect the former wage agreement, the ratio stands at 0.88 for Israel versus 1.23 for the OECD, i.e., a 40 percent gap (OECD, 2012). It goes without saying, however, that it should be remembered that teachers' wages in Israel lagged sorely behind that of teachers in the OECD in previous years.

3. Summary

This chapter has discussed two issues that are of constant concern to the education system. The first is the demographic composition of the pupil population; the second is the characteristics of the educational personnel and the relationship between those characteristics and work and pay conditions, as expressed in the wage agreements signed by the teacher unions.

The discussion of the first issue has shown that the growth in the Arab Israeli and Haredi pupil populations' share of the education system has declined considerably in recent years. Across all Arab Israeli education (from preschool at the age of 3 to grade 12), the growth rate has dropped from 5 percent between 2000 and 2001 to 2 percent between 2012 and 2013, and the phenomenon is especially prominent in the younger age groups. Across all Haredi education, there was a decline from 7 percent growth between 2000 and 2001 to zero growth between 2012 and 2013. Among the Haredim, too, the phenomenon is particularly striking in the younger age groups – in first grade, the growth rate in the number of pupils reversed, from positive 5 percent between 2000 and 2001 to negative 5 percent between 2012 and 2013 (according to the data on the Ministry of Education's "Broad View" website).¹²

¹² Particularly interesting is the dichotomy between the high natural reproductive rate of the Haredi population and the slowdown in the growth rate of the pupil population and the stability, even slight decline, in this population's

Nonetheless, there is no doubt that in the coming decade Haredi and Arab Israeli pupils' share of the entire pupil population will approach 50 percent. The question of whether it will reach 50 percent or drop to about 45 percent is entirely secondary. The important fact is that nearly half of the pupil population in the country is today receiving – and will continue to receive in the foreseeable future if there is no dramatic change in government and Ministry of Education policy – education that fails to provide them with the necessary tools for successful integration in the Israeli economy and society in the first half of the twenty-first century.¹³

The discussion of the second issue has shown that the main contribution of the New Horizon wage agreement's implementation has been a substantial increase in teaching hours per class. This stems mainly from the fact that contrary to expectations (and intentions) it was not accompanied by a reduction in the teaching staff following the increase in the number of frontal teaching hours per teacher. The fear of massive and selective retirement of veteran academically educated teachers from the system has not happened; even if there have been more retirees, the recruitment of new teachers has largely compensated for them. Furthermore, by virtue of the agreement, teachers' wages have matched the wages of other professionals with similar academic education, and the wage relative to per capita GDP for a teacher in Israel is similar to that of other OECD countries. Time will judge the impact of the agreements on education and the teaching profession; with implementation only recently completed, the short time elapsed does not yet allow for full examination and conclusions to be drawn.

representation in the Knesset, which has dropped since the 1999 elections (from 22 to 18 representatives). Does this point to an as yet undocumented phenomenon within the Haredi population? The answer is unknown, but clearly the topic deserves deeper examination.

¹³ These populations lack educational tools not only in the sciences and English, but also in civics, history, and the other social sciences and humanities. This knowledge base is vital to building the human infrastructure of a Jewish and democratic state as envisioned in Israel's Declaration of Independence.

Appendix

Appendix Table 1. **Number of children aged 3-5 in preschool in the Arab Israeli education system**

	Pre-Kinder- garten ages 3-4	Mixed preschool ages 3-5	Kinder- garten age 5	Total	Total Change (%)	Annual Change (%)
Total						
2000	13,525	5,681	17,897	37,103		
2005	26,109	8,840	21,891	56,840	53.2%	8.9%
2010	27,145	12,530	20,613	60,288	6.1%	1.2%
2012	24,910	13,001	20,454	58,365	-3.2%	
2013	25,169	16,158	19,735	61,062	4.6%	**0.4%
Official education*						
2000	9,985	1,813	16,455	28,253		
2005	15,075	4,511	18,550	38,136	35.0%	6.2%
2010	11,038	7,735	15,270	34,043	-10.7%	-2.2%
2012	10,785	8,391	15,175	34,351	0.9%	
2013	10,643	12,162	14,984	37,789	10.0%	**3.5%
Recognized education*						
2000	3,540	3,868	1,442	8,850		
2005	11,034	4,329	3,341	18,704	111.3%	16.1%
2010	16,107	4,795	5,343	26,245	40.3%	7.0%
2012	14,125	4,610	5,279	24,014	-8.5%	
2013	14,526	3,996	4,751	23,273	-3.1%	** -3.9%

* The educational laws in Israel recognize three types of educational institutions according to the measure of state supervision they are subjected to: Official, Recognized, and Exempt institutions.

** Percent change from 2010 to 2013

Source: Nachum Blass, Taub Center for Social Policy Studies in Israel

Data: Ministry of Education

Appendix Table 2. **Distribution of pupils in primary school in the Arab Israeli sector by school supervision (Recognized or Official*)**

Years	Recognized	Official	Total
In thousands			
2000	11.7	106.1	117.8
2005	16.1	122.8	138.9
2010	24.7	136.0	160.7
2013	28.7	132.8	161.5
As percent of total			
2000	10%	90%	100%
2005	12%	88%	100%
2010	15%	85%	100%
2013	18%	82%	100%
Percent change			
2000–2005	38%	16%	18%
2005–2010	53%	11%	16%
2010–2013	16%	-2%	0%

* The educational laws in Israel recognize three types of educational institutions according to the measure of state supervision they are subjected to: Official, Recognized, and Exempt institutions.

Source: Nachum Blass, Taub Center for Social Policy Studies in Israel

Data: Ministry of Education

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