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**The Allocation of Teachers' Working Hours
in Primary Education, 2001–2009**

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Nahum Blass, Shay Tsur and Noam Zussman

Abstract

This research describes and analyses the allocation of teachers' working hours in the regular official primary education system in Israel during the school years 2000/1–2008/9. The analysis distinguishes between the various segments of the education system, students' socioeconomic characteristics and sources of funding and is based on a large annual sample of schools.

The average weekly number of teachers' working hours per class stood at about 55 during the period being studied (equal to about two fulltime teaching positions) and was more or less unchanged during those years. However, there were significant disparities in the number of hours per class, and in particular per student, between the various segments of the education system, with the State Religious schools receiving the most hours, followed by State Jewish schools, Bedouin schools and Arab (including Druze) schools. This was in spite of the fact that students in the non-Jewish sector come from much weaker socioeconomic backgrounds than those in the Jewish sector. Following the implementation of the Shoshani Report in 2003/4 and the shift to differential allocation of hours per student, there was a significant increase in the number of teachers' working hours per class in the non-Jewish sector, primarily with respect to standard hours allocated by the Ministry of Education.

The weaker the students' socioeconomic backgrounds, the more hours they received within each segment of the education system and following the implementation of the Shoshani Report the scope of affirmative action policy was expanded. However, this trend apparently came to an end with the transition to the combined standard budgeting system following the adoption of the Strauss Report in the 2007/8 school year.

Hours financed by non-government sources (local authorities, non-profit organizations and parents) accounted for about 10 percent of total teachers' working hours on average, although in the non-Jewish sector they accounted for only a negligible proportion. Over the years, the number of non-government hours has grown in the State Religious education system, which has offset and even surpassed the decline in standard (government-budgeted) hours allocated to it.

The descriptive statistics are confirmed by multivariate estimation results for teachers' working hours per class and per student with school characteristics and students' socioeconomic status as explanatory variables.

תקצוב החינוך היסודי 2009-2001

נחום בלס, נעם זוסמן ושי צור

תקציר

המחקר מתאר ומנתח את הקצאת שעות העבודה של מורים בבתי ספר בחינוך היסודי (הרשמי הרגיל) בשנות הלימודים 2000/2001 עד 2008/2009, תוך הבחנה בין חלקי מערכת החינוך, מאפיינים חברתיים-כלכליים של התלמידים ומקורות המימון. זאת על סמך מדגם שנתי גדול של בתי ספר ("בקרת התקן").

מספר שעות העבודה השבועיות של מורים לכיתה עמד בתקופה הנחקרת בממוצע על כ-55 (מספר השקול לכשתי משרות מלאות של מורים) והיה פחות או יותר יציב במהלכה. לאורך כל התקופה התקיימו פערים ניכרים במספר השעות לכיתה, ובמיוחד לתלמיד, בין חלקי מערכת החינוך; המדרג של הקצאת השעות, בסדר יורד, היה: ממלכת-דתית והרבה פחות ממלכת-עברי, בדואי וערבי (כולל דרוזי); זאת אף על פי שהתלמידים בחינוך הלא-יהודי הם מרקע חברתי-כלכלי חלש הרבה יותר מעמיתיהם בחינוך העברי. לאחר יישום "דוח שושני" בשנת הלימודים 2003/2004, ומעבר לשיטת תקן (שעות) דיפרנציאלי לתלמיד, עלה במידה ניכרת מספר השעות בחינוך הלא-יהודי, בעיקר מספר שעות תקן שמקורן במשרד החינוך.

ככל שהרקע החברתי-כלכלי של התלמידים חלש יותר כך הם זכו בתוך כל אחד מחלקי מערכת החינוך ליותר שעות. מדיניות ההעדפה המתקנת התרחבה מאז יישום "דוח שושני", אך כנראה נבלמה לאחר המעבר לשיטת התקן המשולב, עם יישום "דוח שטראוס" בשנת הלימודים 2007/2008.

השעות ממקורות חוץ-ממשלתיים – רשויות מקומיות, עמותות והורים – עמדו בתקופה הנחקרת בממוצע על כ-10 אחוזים מסך השעות, ובחינוך הלא-יהודי הן היו בטלות בשישים. במרוצת השנים נרשמה עלייה של מספרן בחינוך הממלכתי-דתי, שקיזזה ולמעלה מכך את הירידה במספר שעות התקן שהוענקו להם.

הסטטיסטיקה התיאורית מקבלת אישוש מאמידות מרובות משתנים של השעות לכיתה ולתלמיד, כתלות במאפייני בית הספר והרקע החברתי-כלכלי של התלמידים.

A. INTRODUCTION¹

The size of the Ministry of Education's budget and its allocation among the segments of the education system are widely debated issues. Although the annual expenditure on education is more than NIS 30 billion—second in size after the Ministry of Defense's budget—it is surprising how little research has been done on the allocation of resources and their usage in achieving the Ministry of Education's objectives.

There is a broad consensus that investment in human capital is a critical factor in determining an individual's socioeconomic status and an economy's rate of growth. Thus, an analysis of the resources allocated to education and the system of allocation is of the highest importance. The empirical literature on the allocation of resources to education has developed along two main axes: The first examines the effect of the various budgeting systems on the allocation of resources among the various segments of the population (for a review, see, for example, Levacic and Ross, 1999; with regard to Israel, see below). The second examines the link between the quantity and type of resources allocated to education and educational outcomes (i.e. the “production function”); the results usually points to a positive though weak link between the two (see, for example, Hanushek, 2003; Barrow and Rouse, 2005; Hanushek, 2005; Woessmann, 2007; and Holmlund et al., 2010), which is due to, among other things, the complexity of the work processes in teaching and learning and the difficulty in measuring and evaluating the education system's output. Nonetheless, the findings indicate that educational inputs contribute more to students from relatively weak backgrounds and in any case contribute to increasing the welfare of students and teachers, a goal that is important in and of itself.

Understanding the link between the allocation of resources and educational outcomes is particularly important in the Israeli case, due to the large disparities in scholastic achievement between the segments of the education system and according to students' socioeconomic background, as measured both by national and international testing. The existence of these disparities emphasizes the need to investigate the policy of affirmative action in the allocation of resources.

¹ Various terms appear in the study which are defined in the glossary in Appendix C.

This study analyzes the allocation of teachers' working hours² among primary schools in the regular official primary education system³ (i.e. excluding special education) during the period beginning with the 2000/1 school year and ending with the 2008/9 school year according to source of funding, while differentiating between segments of the education system and students' socioeconomic characteristics. It should be mentioned that most of the Ministry of Education's budget designated for primary education is channeled to the official education system and primarily the financing of teacher's weekly working hours.⁴

The study is based on a large body of data that was gathered annually as part of the "Standard Audit", which is carried out for the Ministry of Education among a large sample of primary schools and junior high schools. Its goal is to investigate the quantity and source of teachers' working hours and their use relative to the directives of the Ministry of Education. The information is currently used for internal administrative purposes; our study expands its use in order to obtain a long-term picture of the allocation of teachers' working hours in primary education. Emphasis is placed on the impact of changes in the budgeting system and in the policy of affirmative action. In the future, additional issues will be investigated, particularly the use of funds by the schools.

The budgeting process in the Israeli education system is only briefly described; a full survey of the funding of the various school systems can be found in Bar-Yishay (2001) and a description of the budgeting systems used in the Israeli primary education system can be found in the Shoshani Report (2002) and in Zussman et al. (2007). An empirical analysis of the factors that determine the size of the education budget was

² The accepted term is weekly hours, which is mistakenly used with respect to frontal instruction, even though some of the hours are allocated for other purposes. Therefore, we chose to use the concept of teachers' weekly working hours (per class, per student, etc.) which also includes the work hours of other educational staff apart from teachers (such as National Service girls) but not those of support staff (secretaries, maintenance workers, etc.). It is worth mentioning that a fulltime teaching position in primary education is generally considered to be 30 weekly working hours.

³ That is, it does not include ultra-Orthodox schools and recognized unofficial State and State Religious schools. See the glossary in Appendix C.

⁴ During the 2008/9 school year, the Ministry of Education allocated about 1.3 million weekly teachers' working hours to the regular official primary education system, at a cost of about NIS 4.6 thousand per hour. This represents a total expenditure of NIS 6 billion, which constitutes about three-quarters of the regular budget in primary education (excluding development).

carried out by Zaira and Strawczynski (2002) and a model designed to increase the equality and efficiency in the allocation of funds among high schools was presented by BenDavid-Hadar and Ziderman (2010).

Those interested in a more in-depth look at the budgeting of the primary education system in Israel have available to them a number of sources of information, which include both an aggregate and per school or per student perspective. Aggregate data is published each year by the Ministry of Education (such as “The Education System Viewed through Numbers”), the Ministry of Finance (the State Budget) and the Central Bureau of Statistics (for example, the “National Expenditure on Education”). The data provides information on total expenditure in terms of working hours per class and per student at various levels of detail, as well as expenditure in monetary terms, according to sector, type of supervision, source of funding, etc. The data are analyzed on an ongoing basis by the Taub Center for Social Policy Studies in Israel and from time to time by the Research and Information Center of the Knesset (Van Geldar, 2002 and Barak-Medina, 2003), the Adva Center (for example, Swirski and Dagan-Buzaglo, 2009), the “Hakol Hinuch” movement (Blass and Kraus, 2009 and 2010) and others.

More detailed data on the Ministry of Education budget alone and its division among primary schools can be found in the administrative files of the Ministry of Education, some of which are available to researchers.⁵ Detailed information on additional budget sources, such as local authorities and non-profit organizations, is available from the organizations themselves while information on the expenditure by families on education can be found in surveys of household expenditure carried out by the Central Bureau of Statistics. In addition, other surveys of limited scope have been carried out (such as, Central Bureau of Statistics, 2004 and “Igud Hayael” (2005) Ltd., 2008).

The main additional source of information on the resources available to primary schools and junior high schools from all sources is the Standard Audit (described below in Section C). The Standard Audit has been carried out in every school year

⁵ Recently, the Ministry of Education has uploaded a system to its website which makes it possible to analyze basic data on the education system and the budgeting process (“From a Broad Perspective – Numbers on the Ministry of Education”: <http://ic.education.gov.il/klaili/SH40.htm>).

since 1998/9 among a large sample of regular official schools. The uniqueness of the Standard Audit is that it includes, in one document, detailed, systematic and long-term data on sources of funding in general and sources other than the Ministry of Education in particular and on the uses of this funding (for example, a breakdown by class and the allocation of teachers' working hours among the various subjects taught). In addition, it includes information on teaching staff and projects that are being implemented in the schools. Studies that have examined the budgeting of the primary education system and which have used, among other sources, the Standard Audit reports include Blass (the Movement for Quality Government, unpublished), Zussman et al. (2007) and Klinov (2010a) which analyzed the raw data for the school years 2006/7 and 2007/8.

The present study adds to Klinov (2010a) in three aspects: a) The analysis relates to a period of a decade, during which three different budgeting systems were used. b) An adjustment is made to the sample of schools in the Standard Audit in order to make it more representative, as was suggested by Klinov. c) The analysis relates not only to budgeting per class but also per student.

The main findings of the study indicate that the average teachers' weekly working hours for a class in the regular official primary education system during the period 2000/1–2008/9 stood at about 55 (equivalent to about two fulltime teaching positions) and remained more or less unchanged. This finding appears to contradict the widely-held view that the quantity of resources allocated to the education system has been declining.⁶ In contrast, the number of hours per student has declined somewhat. From 2001 to 2007,⁷ when expenditure per student in primary education in Israel grew in nominal terms by an average of 2.6 percent per year, the average annual rate of growth in the OECD countries stood at 5.6 percent and the cumulative rates were 16.3 percent and 39.0 percent, respectively (Klinov, 2010b).

⁶ It may be that the Ministry of Education budget was cut without a parallel cut in working hours in primary education, if the cut was carried out in other budget items or if the cut was offset by increased budgets from other sources. This will be discussed below.

⁷ 2007 was the last year for which comparative international data was available. The expenditure in each country is modified according to purchasing power parity (PPP).

There are significant disparities in the number of teachers' weekly working hours per class, and in particular per student, between the various segments of the education system.⁸ The ranking by allocation of hours in descending order is as follows: State Religious (which is well ahead of the others), State Jewish, Bedouin and Arab (including Druze). This is in spite of the fact that students in the non-Jewish sector are from a much weaker socioeconomic background than those in the Jewish sector. Following the implementation of the Shoshani Report in the 2003/4 school year, the number of teachers' weekly working hours per class and per student in the non-Jewish sector increased significantly as a result of the transition from budgeting by class to budgeting by student (since classes are larger in the non-Jewish sector) and greater weight being placed on students' socioeconomic background. According to the Ministry of Education's declared policy, students with a weaker socioeconomic background in each of the education system's segments received more teachers' working hours and the scope of affirmative action was expanded following the implementation of the Shoshani Report. However, it appears that this trend ended with the transition to the combined standard budgeting system as part of the implementation of the Strauss Report in the 2007/8 school year.

Standard hours constituted more than 83 percent of the total hours provided to the schools and it is those hours that were distributed according to the various budgeting systems adopted for the regular official primary education system. There was a clear preference in allocation in favor of students in the State Religious education system and students with a weak socioeconomic background. Following the implementation of the Shoshani Report, the number of standard weekly hours per class and per student declined somewhat in the State Religious education system. The proportion of additional hours (beyond the standard hours) allocated by the Ministry of Education came to about 7 percent, which remained basically unchanged over time, and these hours that were allocated mainly to students in the State Religious education system as

⁸ In this study, use is made of the term "segments of the education system" in order to describe a system of division that is used officially by the Ministry of Education according to sector (Jewish, Arab, Bedouin, Druze and Circassian), type of supervision (State, State Religious and other) and status (official, recognized and exempt). See the glossary in Appendix C.

a result of the activity of the National Service girls, the division of classes by gender and other factors.

The hours from non-government sources—local authorities, non-profit organizations and parents—accounted for about 10 percent of total hours during the period being studied though in the non-Jewish sector this proportion was negligible. Over the years, additional hours were allocated to the State Religious education system, which more than offset the drop in the number of standard hours it receives.

Therefore, the allocation of non-standard hours and hours from other sources widened the gap in teachers' working hours between the Jewish and non-Jewish sectors.

The conclusions drawn from the descriptive statistics were supported by the multivariate estimation of hours per class and per student with the segment of the education system, the geographic location of the school, the size of the school and the students' socioeconomic background (the school nurture index) as explanatory variables.

It is worth mentioning that as a result of the gradual implementation of the New Horizon reform, starting in the 2007/8 school year, changes were made in the allocation of teachers' working hours among the participating schools and at the same time these schools were not included in the Standard Audit. Therefore, the impact of the reform on the allocation of teachers' working hours cannot be evaluated at this point in time.

The study contributes to the understanding of the sources of funding in the primary education system according to its various segments (Jewish/Arab, etc.) with respect to students' socioeconomic characteristics. The fact that a long-term sample is used made it possible to examine the actual impact of budgeting systems on sources of funding and their contribution to the scope of affirmative action, given the total amount of resources available to the primary education system and the pace at which changes were implemented.

It should be emphasized that the research related only to the number of teachers' working hours, and did not take into account possible differences in cost per hour (which is dependent on teacher characteristics). Nevertheless, other studies have

demonstrated that there are only small differences in cost per hour in the primary education between schools in the various segments of the education system and according to students' socioeconomic status (Zussman et al., 2007 and Blass et al., 2008). In addition, the study does not relate to schools not included in the Standard Audit, which include unofficial schools (primarily ultra-Orthodox), students in special education, sources of funding available to schools in the form of auxiliary services (secretaries, maintenance personnel, etc.), the schools' infrastructure and monetary resources (as opposed to teachers' working hours) available to them.

The study is organized as follows: Section B provides a general description of the budgeting systems in the education system with focus on primary education. Section C explains the Standard Audit. Section D describes the research method. Section E presents the descriptive statistics based on the Standard Audit. Section F presents the estimation results and is followed by a summary and recommendations.

B. BUDGETING SYSTEMS

This section describes the various budgeting systems used by the Ministry of Education in the primary education system during the last two decades. It will begin with a general description of the budgeting systems in other levels of the education system (i.e. pre-school, junior high schools and high schools). Following that the budgeting systems that were used in primary education will be described: the basic standard per class with the addition of "baskets" until the 2002/3 school year; the differential standard per student with the implementation of the Shoshani Report starting from the 2003/4 school year; and the combined standard with the implementation of the Strauss Report in the 2007/8 school year.

In order to analyze the budgeting of resources in the education system, the following basic facts should be taken into account:

- Each level of the education system in Israel is budgeted using a different method.
- The systems for budgeting kindergartens and high schools have for the most part remained unchanged since the establishment of the State. In contrast, there have been a number of changes in the primary school system and in the junior high schools. As a result of the decisions to gradually implement the budgeting systems in the primary

schools, the budgets allocated to the schools are also affected by the previous budgeting systems.

- Most of the Ministry of Education's budgeting is carried out through the allocation of weekly hours, i.e. according to the weekly hours of one teacher over the course of a school year, without taking into consideration the cost of the hours. This budgeting system is used for the primary school system (except for parts of the ultra-Orthodox school system) and in the junior high schools. Although kindergartens and high schools are budgeted in terms of money (i.e. according to the number of weekly hours multiplied by the cost of a weekly hour in the school, which is referred to as the "cost of a teaching hour", with the addition of accompanying shekel expenses), the basis for the calculation is still the number of weekly hours allocated to a class. Therefore, the costs of operating two schools with the same number of weekly hours available to each may differ due to differences in the characteristics of the teaching staff, which affect the cost of a working hour.⁹
- Beyond the basic standard hours received from the Ministry of Education, the schools receive additional resources in the form of teachers' working hours from various sources (the Ministry of Education, local authorities, non-profit organizations and parents).
- The schools also receive budgets for operating expenses (maintenance, secretaries, supplies, etc.) from the Ministry of Education, the local authorities, parents and other sources. These are not dealt with here.

Following is a general description of the budgeting systems currently used in the various other levels of the education system:

Nursery schools (ages 3-4)¹⁰

Until the introduction of the Compulsory Education Directive (applying to nursery schools) – 1999, nursery schools for the 3-4-year old age group were budgeted by

⁹ For example, the cost of a working hour for a teacher with a second degree and 30 years of seniority is approximately twice that of a "senior teacher" with 4 years of seniority.

¹⁰ For further details, see Ministry of Education (2008).

means of a graduated tuition system according to parents' income. The difference between the cost of the nursery school and the tuition paid by parents eligible for a discount was divided between the Ministry of Education (75 percent) and the local authority (25 percent). After the law was introduced, the same budgeting system as that used for the 5-year old age group was adopted for nursery schools as well (see below). It should be emphasized that although the affirmative action policy was implemented through the improved access to nursery schools for low-income parents, though not in increased resources made available to the children, all children received equivalent educational inputs from the government.

Kindergartens (5-year olds)¹⁰

There is no tuition for attending kindergarten and the government covers all the costs of kindergarten teachers and their assistants. The kindergarten teacher is an employee of the Ministry of Education while the assistant teachers are employed by the local authority and financed by the Ministry of Education. The operating expenses of the kindergartens are financed by the local authority. The affirmative action policy is manifested in the budget transferred to the local authority by the Ministry of Education to cover salaries. Thus, the local authorities that are not eligible for an equalization grant from the Ministry of the Interior (which in general are the more prosperous ones) receive a budget according to an average of 33 children in a kindergarten while local authorities that are eligible receive a budget according to 31 children. There is no affirmative action policy in the quantity of educational inputs provided by the government.

Junior high schools¹¹

The junior high schools are budgeted according to the combined standard method, which involves the allocation of a minimum standard of weekly hours per class and the addition of hours according to the size of a class. Additional "baskets" are added to the standard. The affirmative action policy in the junior high schools is implemented

¹¹ For further details, see Ministry of Education (2009).

primarily through a “nurture basket” but also through other “baskets”, such as the “district pool” which is sometimes used for this purpose.

High Schools¹²

High schools are budgeted according to number of students and the cost of instruction per student, which is determined primarily by the student’s track (academic or technological), as well as his specialization, the grade he is in, the profile of the teachers, support services, the learning material and the school’s level of service (i.e. quality of infrastructure).

Consideration is given to the student’s socioeconomic background indirectly through the channeling of students to special frameworks, such as the Mabar and Second Chance programs. There are also frameworks open to all students, such as the Hechven classes and various tracks in the technological education system; however, in practice, most of the students in them are from weak socioeconomic backgrounds.

B1. The budgeting systems in primary education

The education laws in Israel recognize three types of schools according to ownership and the degree to which they are subject to government supervision: official schools, recognized unofficial schools and “exempt” schools. Official schools are operated by the government or the local authorities and are under the full supervision of the State. Recognized unofficial schools include the two large ultra-Orthodox networks, i.e. the Independent Education network and the Maayan Torani Education network, as well as recognized unofficial schools that are under Ministry of Education supervision (church schools in the Arab sector and a small number of State Jewish schools and State Religious schools). The two ultra-Orthodox networks enjoy a special status that is anchored in the Budget Foundations Law, which specifies that they are to be budgeted according to the same method as official schools. The other schools (recognized and “exempt”) received reduced budgets.

¹² For further details, see Ministry of Education (2009a).

Following is a description of the budgeting systems in chronological order:

(a) Budgeting systems prior to the implementation of a differential standard per student (i.e. up until the Shoshani Report)¹³

(1) The basic standard per class with the addition of “baskets”

Until the gradual implementation of the Shoshani Report starting in 2003/4, the official primary education system was budgeted according to a basic standard (of teachers' weekly working hours) per “normative” class of between 20 and 40 students.¹⁴ A class of between 10 and 19 students was called a “partial class”, which received half of the standard hours, and was particularly common in the State Religious education system, in rural settlements and in the periphery. The basic standard reflected the resources needed by a school to maintain the curriculum and to provide for the school's pedagogic needs, subject to the Ministry of Education budget. The standard per class included teaching hours, management hours, education hours and hours for other educational and social activities, with consideration given to the school's location and the socioeconomic ranking of the municipality in which it is located. Schools that were receiving specific assistance or were located in Regions of National Priority A, in Confrontation Line settlements or in towns where the Neighborhood Renewal program and the long school day program were being implemented received an enlarged basic standard, as can be seen in Table 1.

¹³ The description is based primarily on Zussman et al. (2007).

¹⁴ In a school with more than one class in a grade, the number of “normative” classes was defined as the number of students in the grade divided by 40 + 1. For example, if there were 80 students in Grade 2 then this was defined as two “normative” classes but if there were 81 then this was defined as three “normative” classes and each class received a full standard hours.

Table 1. Division of basic standard hours per class in a primary school prior to the implementation of the Shoshani Report,¹ according to grade

	Grade								
	1	2	3	4	5	6	7	8	9
Longitudinal hours (the student learning with his class)									
Regular standard	29	29	31	31	32	32	32	32	32
Confrontation Line settlements	33	33	33	33	33	33	33	33	33
National Priority A + Neighborhood Renewal	32	32	32	32	32	32	32	32	32
Specific Assistance	31	31	31	31	32	32	32	32	32
Long school day ²	40	40	40	40	40	40	41	41	41
Horizontal hours (class is split into learning groups)									
Regular standard							1	1	1
Confrontation Line settlements	1	1	1	1	1	1	2	2	2
National Priority A + Neighborhood Renewal	1	1	1	1	1	1	2	2	2
Specific Assistance						1	2	2	2

Source: Ministry of Education.

1. To these were added 2 weekly hours for management and 3 weekly education hours for each normative class. Schools with a long school day also received one weekly hour for management; schools in the West Bank and Gaza and in the Golan and schools with a long school day (apart from independently-run schools that teach less than 41 weekly hours longitudinally) received 1 extra weekly hour for counseling.
2. Classes in Grades 1-6 received one extra weekly hour from within the other hours allocated to the school, including all the sources and the “baskets” designated for horizontal hours.

In addition to the basic standard, most schools received an allocation of teachers’ working hours from the Ministry of Education known as “baskets”. The largest three “baskets” were the Nurture Basket, the National Priority Basket and the Absorption Basket.

The Nurture Basket

In the 1960s, the Ministry of Education adopted a policy to reduce the large disparities in scholastic achievement between schools, which were the result of students’ educational disadvantages. This policy was accomplished through the Nurture Basket, which was allocated according to a nurture index whose calculation was changed several times over the years. Up until the 1993/4 school year, the Nurture Basket was primarily used in official Jewish schools in which the students were from weak

socioeconomic backgrounds. Starting the following school year, the Nurture Basket was extended to the Arab education system as well and a new nurture index, called the Neshet Index, was constructed under the direction of Professor Perla Neshet, the Chief Scientist of the Ministry of Education, in addition to the introduction of clear rules for its use. In the 2002/3 school year, just prior to the implementation of the Shoshani Report, the scope of the Nurture Basket reached 6.3 percent of the basic standard hours in the primary (regular) education system.

Starting in the 2003/4 school year, the allocation of the Nurture Basket in the primary education system (and in the junior high schools) was carried out in two stages. In the first stage, the basket was divided among the four segments of the education system: official Jewish, non-official Jewish, Arab (including Bedouin) and Druze (including Circassian) according to their relative proportions in the population of primary school students and without account being taken of relative educational disadvantage, particular between the Arab and Jewish education systems and within the Jewish education system.

In the second stage, the Nurture Basket was divided among each segment of the education system (after deducting 10 percent for the district fund) according to the relative nurture index of each school in that segment. It is worth emphasizing that the components of the Nurture Index, their definition and their weights differed between segments of the education system (see Table 2). For example, the component for location in the periphery existed only in the Jewish sector while the “small settlement” component existed only in the Arab sector; a large family in the Jewish sector was defined as having 5 children or more while in the Arab sector it was defined as 6 or more; and the weight for large families was 15 percent for the Jewish sector and 12.5 percent for the Arab sector. Non-uniform criteria were used even within the Arab education system with differentiation between Arab/Bedouin schools and Druze/Circassian schools.

Table 2. The weights of the Nurture Index for official primary schools prior to the implementation of the Shoshani Report (percent)

	Jewish	Arab and Bedouin	Druze
Proportion of low-income families ¹	25	25	25
Proportion of fathers with low levels of education ²	25	25	25
Proportion of large families ³	15	12.5	12.5
Proportion of immigrants ⁴	15		
Located in the periphery ⁵	20		
Small settlement ⁶		12.5	37.5
Proportion of students from non-recognized settlements		12.5	
Mixed city ⁷		12.5	

Source: Ministry of Education

- 1) Annual standardized per capita income up to NIS 15,000 during the 2002/3 school year. Family income includes gross income of the parents, whether employed or self-employed, as well as the child allowance, birth allowance, reserve duty compensation, unemployment benefits and workers' compensation.
- 2) Up to 9 years of schooling.
- 3) Number of children on the mother's side: Jews - 5, non-Jews - 6.
- 4) Immigrated within 10 years prior to the school year (thus, for the 2002/3 school year, immigrants who arrived in 1992 or later).
- 5) The distance from the region in which the school is located to the closest of the three largest cities (Jerusalem, Tel Aviv-Yaffo and Haifa).
- 6) Number of residents in the settlement where the school is located does not exceed 2,000.
- 7) Both Jews and Arabs live in the city in which the school is located.

The Nurture Basket for a school was determined as follows: The proportion of each school in the nurture hours ("allocation points" – A) was calculated as the standardized product of two indexes: the "nurture points" (T) and "size points" (G). Thus,

$$A = \frac{T \times G}{\overline{T \times G}}$$

where $\overline{T \times G}$ is the average of T x G for the schools in each segment of the

education system taken separately. The "nurture points" were determined for each school as an increasing monotonic function of the Nurture Index. The "size points" determined the ratio between the amount of nurture resources that were allocated to schools with the same number of "nurture points" on the basis of the number of students in the school.

Although the Nurture Basket budget for a school was determined according to defined, objective and fixed criteria, in accordance with the school's Nurture Index and its number of students, the methods of calculating the Nurture Index and the allocation of the Nurture Basket were complicated and school principals and even the directors of educational departments in the local authorities sometimes did not know how the Nurture Index was determined for the schools under their responsibility.

National Priority and Confrontation Line Baskets

In 1993, the government (in decision no. 721) issued a map of the Regions of National Priority (A and B). Residents and businesses in these regions were eligible for a variety of benefits and incentives. Residents of a Region of National Priority A, which is the farthest from the center of the country, received the maximum benefits. An additional government decision in February 15, 1998 (no. 3292) updated the map and the list of cities and, in addition, all Druze and Circassian towns were given National Priority A.¹⁵ As of the end of 2003, there were 443 settlements included in Regions of National Priority A, of which 8 were Druze/Circassian and 6 were Arab/Bedouin.¹⁶

The benefits in education were aimed at achieving two main goals: preference for the population in regions that the government wanted to develop and compensation for the disadvantages faced by school systems in remote locations. The benefits included the following: allocation of additional hours according to pedagogic needs, reduction of 90 percent in the payment of tuition for kindergartens and nursery schools,¹⁷ full funding of transportation to and from school in the West Bank (Judea and Samaria)

¹⁵ In July 14, 2002, a government decision (no. 2288) was approved which had bearing on the Regions of National Priority. With regard to education, the 1998 map remained unchanged except for some minor changes.

¹⁶ The Supreme Court ruled in early 2006 (no. 11163/03) that the map of Regions of National Priority was not legal with regard to benefits in education since it discriminated against students in the Arab education system.

¹⁷ In Regions of National Priority A (apart from municipalities with a ranking of 7-10 in the socio-economic index, according to the Central Bureau of Statistics) and along the Confrontation Line, in the Golan, in the West Bank and Gaza and in the Arava.

and Gaza and teacher incentives.¹⁸ Some housing benefits were also indirectly related to the education system since they included, among other things, assistance in establishing community centers, libraries and sports facilities.

In the 2002/3 school year, the National Priority Basket accounted for about 3.9 percent of the total teachers' working hours in primary schools and was manifested in, among other things, 1-3 longitudinal hours and another 1-2 horizontal hours (Table 1 above) and also in the implementation of the Long School Day law.

The Absorption Basket

The Absorption Basket was aimed at assisting immigrant students who had arrived in Israel during the ten years prior to their integration in the education system. Special assistance was given to immigrants from Ethiopia and other countries of distress and in some cases additional teachers' working hours were allocated for immigrants who had recently arrived. Students were defined as immigrants according to their date of arrival rather than that of their parents, such that native children of immigrant parents were not defined as immigrants, even if some of them still suffered from difficulties in integration and from educational disadvantages. The Absorption Basket accounted for about 2.7 percent of total teachers' working hours in the 2002/3 school year.

The following "baskets" were also included in the budgeting per class:

"Baskets" for the State Religious and Arab education systems

Students in the State Religious schools received additional teachers' working hours for special religious needs, i.e. Torah instruction, a rabbi and separation of classes by gender, in the amount of 0.3 percent of total teachers' working hours. Together with the additional hours allocated as part of the State Religious Basket (primarily for extra instruction) the total came to 0.5 percent. Students in the Arab education system benefited from additional hours as part of a five-year plan to reduce disparities between them and students in the Jewish education system, in addition to other goals.

¹⁸ Addition to salary of up to 80 percent in subjects with a high demand, accelerated accumulation of seniority, subsidization of rent, payment of the teacher's contribution to a study fund for teachers, subsidization of transportation costs and 75 percent subsidization of a teacher's tuition.

These amounted to 0.4 percent of total teachers' working hours in the Arab education system.

Other "baskets" and budgets

Schools were able to obtain additional teachers' working hours from the Ministry of Education (and from other sources) through initiatives taken by the principal, the supervisor, the local authority, non-profit organizations, parents and others. Some prominent examples include the District Pool, the Supervisor Fund and guidance hours, whose allocation was not based on any explicit or clear criteria. These resources were directed at achieving various objectives, from a general curriculum and extra instruction to the teaching of subjects not part of the obligatory curriculum (such as drama) and enrichment activities (such as community activity, educational television, programs for gifted students, etc.). The additional teachers' working hours were in general intended to compensate schools for special situations and to promote special programs.

Much of the difference between schools with respect to budget per class and per student was a result of the allocation from these sources, which in many cases reached significant levels due to the superior abilities of principals and others in obtaining this kind of funding. As a result, the additional "baskets" and other budgets constituted a major factor in creating the inequality in resources available to the schools.

Main advantages and disadvantages of the standard per class method

Advantages

- Convenient to administer.
- Easy to understand and therefore transparent (apart from the calculation of the Nurture Basket and its allocation).
- Prevents discrimination against schools that serve small populations (as long as the classes are "normative"), primarily those in the State Religious education system and in the periphery.
- A simple way to provide incentives for curricula through baskets of teachers' working hours.

Disadvantages

- Creates a clear preference in the allocation per student and per class in favor of small schools in which the classes are in general smaller. Although some small schools are indeed to be found in the periphery and serve weak populations, many small schools serve well-off populations and are located in the center of the country. Most of the large schools are part of the State education system (primarily the Arab schools and in particular the Bedouin schools) while small schools are common in the State Religious education system and on moshavim and kibbutzim.
- The budgeting system using a standard per class encouraged parents, teachers and the local authority to work towards a situation in which the number of students in a grade required a split into smaller classes.¹⁹ From a budget point of view, this had far-reaching consequences: an increase in the number of teachers required and in the number of teachers' working hours per class/student, as well as additional school facilities.
- The Nurture Basket was divided among the segments of the education system according to their proportion of the population of students without account being taken of the educational disparities between them, particular those between the Jewish and Arab education systems and also within the latter.
- The multiplicity of "baskets", some of which lacked clear criteria for allocation, created inequality in sources of funding where some schools were more successful at obtaining resources, including those provided by the Ministry of Education.

(2) The combined standard per class and per student

The combined standard was used for budgeting of schools within the official education system that were included in the self-administration project. The principals of these schools had greater autonomy in the use of the operating budget that was made available to them. This system was similar to the combined standard system used at that time in the junior high schools (i.e. the allocation of a minimum standard of weekly hours per class with the addition of hours according to the size of the class, as

¹⁹ For example, from 80 students in 2 classes of 40 each to 81 students in 3 classes of 27 each.

well as various “baskets”) and the system adopted in the 2007/8 school year with the implementation of the Strauss Report (which will be discussed in greater detail below).

(3) The standard per class without “baskets”

This method was used for budgeting the ultra-Orthodox Independent Education network and the Maayan Torani Education network. It is identical to method (1) above, apart from the allocation of the “baskets”, in place of which the administrators of the networks received an overall amount of hours (the “Main Basket” and the “Nurture Basket”) which was divided among the schools at their discretion, rather than according to government criteria.

(4) The standard per student in monetary terms

The standard per student method was used in recognized unofficial schools which are not included in the framework of the two large ultra-Orthodox networks. The schools were budgeted in terms of money rather than standard hours, according to the average cost of teachers’ working hours per student. This cost was determined by the rank and seniority of the schools’ teachers, the range of grades (1-6, 1-8 or 7-9) and the overhead cost of secretaries and other support personnel per student, depending on the range of grades.

(5) The uniform standard per student in terms of money

The “exempt” schools were budgeted in monetary terms alone and were paid a fixed sum for each student, which was a proportion of the average cost per student in the official primary education system. The last agreement prior to the implementation of the Shoshani Report between the Ministry of Education and the Association of Talmud Torahs specified a proportion of 65 percent.²⁰

²⁰ As part of the implementation of the Shoshani Report, the proportion was reduced to 55 percent.

(b) The differential standard per student

(following the implementation of the Shoshani Report)

Following an appeal to the Supreme Court (no. 1614/00) regarding discrimination in the budgeting of recognized unofficial schools relative to “exempt” schools, Minister of Education Limor Livnat appointed a committee in December 2001 led by Dr. Shimshon Shoshani to examine the budgeting of primary schools. In August 2002, the Committee presented its recommendations, which primarily called for the adoption of a new budgeting system, i.e. a differential standard per student.

The differential standard per student method was based on a number of basic principles, as specified in the Shoshani Report:

- *Equality*: Assuring equal opportunity in education through the use of educational disadvantage as a criterion for the allocation of resources (i.e. the Nurture Index). Budgeting will be differential, such that students from a weak socioeconomic background will receive more teachers’ working hours than students from a strong background.
- *Justice and fairness*: Determining standards that are common to all students.
- *Ensuring a required minimum*: Ensuring an essential minimum of resources for each class in order to implement the curriculum determined by the Ministry of Education and in order to achieve the scholastic and educational goals which the education system has set for itself.
- *Ranking of budgeting needs*: The creation of a ranking in the budgeting of schools according to their legal status and the extent to which they fulfill the obligations that the State has imposed on them. The budgeting of a school in the official education system will be considered a full unit of funding and recognized unofficial schools and “exempt” schools will be budgeted according to the extent to which they fulfill their obligations and in any case will receive only a partial budget.
- *Pooling of resources*: Pooling of the Ministry of Education’s resources (as well as those of other ministries) that are allocated to schools.
- *Efficiency and efficacy*: Creation of an incentive to increase the efficiency and efficacy of the education system.

- *Clarity and transparency*: Creation of clear, understandable and publicly-known budgeting principles.
- *Implementation*: Simplicity and convenience in implementation in order to reduce operating costs.

The recommendations of the Shoshani Report set the foundation for gradual introduction of a new budgeting system, i.e. a differential standard per student, in the primary education system, starting from 2003/4.²¹ A Nurture Index was defined for all students in the primary education system,²² which took into account parents' income, number of siblings, immigration to Israel and the location of the school (Table 3).²³ The students were divided into Nurture Index deciles, such that a student in the highest nurture deciles (with the weakest socioeconomic status) would receive 60 percent more teachers' working hours than a student in the lowest nurture decile (Table 4), who is nonetheless assured a quota of hours that is sufficient to implement the curriculum.²⁴ The standard for teachers' working hours included the basic standard hours (including management, education, counseling and rabbi hours) as well as all the "baskets" which were part of the previous budgeting system.

According to the recommendations of the Shoshani Report and the Ministry of Education, hours for special needs were added to the standard for teachers' working hours per student. These included schools that have prayer services as part of the obligatory curriculum (i.e. the State Religious and ultra-Orthodox schools) which received an extra 0.2 weekly hours per student; individual schools in a city from the same sector or with the same type of supervision were defined as the only schools in a

²¹ During the implementation of the Shoshani Report minor changes were made relative to the recommendations in the report. The changes are related to the definition of Nature Index components and the budgeting proportion for recognized unofficial schools.

²² The junior high school system continued to use the previous index.

²³ The Nurture Index is calculated as follows: for each of the students, the components of the Index are standardized; following that, the weighted sum of the standardized components is calculated according to the weights of the Index (parents' education and size of the population in the region were summed as minuses since there is a negative correlation between them and educational disadvantage).

²⁴ The minimum standard per student is 1.25 weekly hours, which ensures 36 weekly hours for a class of 28 students.

city²⁵ and were assured of a minimum allocation of 40 weekly hours per standard class (on the condition that the number of students in the school was less than 200); and schools with a long school day according to law which benefited from a minimum allocation of 47 weekly hours per standard class.

A ranking for budgeting of hours was constructed based on the degree to which a school fulfils the criteria of the Ministry of Education (student registration policy and holding of Meitzav exams [(a measure of a school's efficiency and growth)]) as follows:

- Official schools – 100 percent.
- Schools that are part of the Independent Education network or the Maayan Torani Education network which fulfill all the criteria – 100 percent. If they do not follow an integrative registration policy – 90 percent.²⁶
- Recognized unofficial schools that follow an integrative registration policy – 75 percent; those that do not – 65 percent.²⁷
- “Exempt” schools – 55 percent.²⁸
- Schools were required to follow the core curriculum that is appropriate to the sector they belong to. Schools that do not follow the core curriculum and do not participate in the Meitzav exams were not meant to receive any budget whatsoever. Nonetheless, “exempt” schools were not required to participate in the Meitzav exams.

²⁵ The intention here is to the official Jewish schools (State and State Religious girls or boys), official non-Jewish schools and schools in the Independent Education network and the Maayan Torani Education network.

²⁶ The Shoshani Report recommended that schools in the Independent Education and Maayan Torani Education networks which fulfill all the conditions be budgeted similarly to official schools as required by the Budget Foundations Law.

²⁷ The Shoshani Report recommended that recognized unofficial schools that fulfill all the conditions should receive 85 percent funding; those that fulfill one condition – 70 percent; and those that fulfill none – 65 percent.

²⁸ The Shoshani Report recommended 60 percent.

Table 3. Weights of the Nurture Index for primary schools following the implementation of the Shoshani Report (percent)

Father's education ¹	15
Mother's education ¹	15
Number of siblings ²	10
Immigrant (arrived in last ten years) ³	20
Immigrant from a country of distress ⁴	10
Remote location relative to the center of the country ⁵	10
Residence in a Region of National Priority A or on the Confrontation Line	20

Source: Ministry of Education, Culture and Sport (2003a).

1) Years of schooling. A continuous variable up to 20 years in units of two years.

2) Number of siblings born to the mother.

3) The Shoshani Report recommended that an immigrant be defined as a student who either arrived himself in 1984 or subsequently or has one parent who did and that his weight in the Index would be calculated as follows: an immigrant from 1984 and onward – 10 percent; an addition of 2/3 of a percent for each year from 1984 to 1999; and 20 percent for anyone who arrived from 1999 and onward.

4) For immigrants who arrived during the last ten years (from 1984 and onward in the Shoshani Report).

5) A weight of 2/3 for the minimum distance from the three largest cities (Jerusalem, Tel Aviv-Yaffo and Haifa) and a weight of 1/3 for the size of the region's population.

Table 4. Teachers' weekly working hours per student in a primary school following the implementation of the Shoshani Report, according to nurture deciles¹

Nurture decile	Teachers' weekly working hours per student
1	1.25
2	1.33
3	1.42
4	1.50
5	1.58
6	1.67
7	1.75
8	1.83
9	1.92
10	2.00

Source: Ministry of Education, Culture and Sport (2003a).

1) A student in a State Religious or ultra-Orthodox school received an extra 0.2 weekly hours in each nurture decile.

The Shoshani Report was meant to be implemented gradually over 5 years. The budgeting of hours for the 2002/3 school year (apart from hours budgeted from the "district pool") was defined as the school's "base budget". The "calculated budget" is

the final budget that the school was meant to receive according to the Shoshani Report and which it would receive by the end of the 5-year period. Each year, starting from 2003/4, the budgeting would be modified by a rate of 20 percent of the difference between the “base budget” and the “calculated budget” (under the constraint of the maximum permitted annual rate of change). However, already in the 2003/4 school year, the Ministry of Education budget was cut by 6 percent and as a result the “base budget” was reduced accordingly. The number of hours available to the primary school system was cut again in the following year, which made it difficult to implement the Shoshani Report.

Main advantages and disadvantages of the differential standard per student relative to the basic standard per class with the addition of “baskets”

Advantages

- A uniform Nurture Index as opposed to the previous variety of nurture indexes in the Jewish and Arab education systems.
- Uniformity in the budgeting system, which is for the most part based on the Nurture Index, in comparison to the previous multiplicity of budgeting systems, i.e. the uniform allocation per class and the use of the Nurture Index for the allocation of only a small number of teachers' working hours.
- The expansion of affirmative action policy and the reduction of discrimination against Arab and ultra-Orthodox students.
- Compensation of schools with large classes as a result of the transition from a standard per class to a standard per student and an improvement in the situation of schools whose students are from a weak socioeconomic background and who learn in small classes as a result of the objective circumstances or the choice of an ideology that is recognized by the State. As a result, it became possible for schools that serve weak populations to split large classes and to follow a full curriculum in small classes.
- Increased transparency with regard to the allocation of resources as a result of the cancellation of the various “baskets” and pooling of the vast majority of resources as standard differential hours.

Disadvantages

- The Nurture Index included components that are not relevant to the Arab education system and their weight in the Index was not insignificant. These include the following: immigrant, an immigrant from a country of distress and location in a Region of National Priority A (and Confrontation Line), which was relevant for only a handful of Arab towns (apart from Druze towns).
- The claim was made that religious schools are being discriminated against due to the need for gender-separated classes and the relatively sparse geographic distribution of students in some regions, which leads to small classes and a lower number of teachers' working hours (in spite of the additional hours for special needs).

(c) The combined standard per class (implementation of the Strauss Report)

As a result of the Supreme Court's decision in early 2006 (no. 11163/03) that the map of the Regions of National Priority was not legal since it discriminates against Arab towns in general and the students that live in them in particular, the Chief Scientist of the Ministry of Education, Professor Sydney Strauss, constructed a new Nurture Index for the primary and junior high school systems (the "Strauss Index"). Among the changes, the components for Regions of National Priority A and number of siblings were removed and gross family income per standard individual was added (Table 5). The new Nurture Index was similar to that suggested in the National Plan for Education (the "Dovrat Report, January 2005) and in line with an affirmative action policy that takes into account the contribution of a student's socioeconomic characteristics to his scholastic achievement.

Table 5. Weights of the Nurture Index for primary schools before and after the implementation of the Shoshani Report and after the implementation of the Strauss Report
(percent)

<i>Before the implementation of the Shoshani Report</i> (basic standard per class plus “baskets”)				<i>After the implementation of the Shoshani Report</i> (differential standard per student)		<i>After the implementation of the Strauss Report</i> (combined standard per class)	
	Jews ¹	Arabs and Bedouin ¹	Druze	All students			
Proportion of low-income families ²	25	25	25		Family income decile per standard individual		20
Proportion of fathers with low level of education ³	25	25	25	Father's education ⁹	15		40 ¹³
				Mother's education ⁹	15		
Proportion of large families ⁴	15	12.5	12.5	Number of siblings ¹⁰	10		
Proportion of immigrants ⁵	15			Immigrant (arrived in last ten years)	20	Immigrant	20
				Immigrant from a country of distress ¹¹	10		
Located in the periphery ⁶	20			Remote location relative to the center of the country ¹²	10		20
Small town ⁷		12.5	37.5				
				Residence in a region of National Priority A or on the Confrontation Line	20		
Proportion of students in non-recognized settlements		12.5					
Mixed city ⁸		12.5					

Source: Ministry of Education, Culture and Sport (1996, 2003a), Ministry of Education (2007).

- 1) Students in official schools (apart from independently administered schools) and also in the ultra-Orthodox networks, i.e. the Independent Education network and Maayan Torani Education network.
- 2) Annual income per standard individual of NIS 15,000. Family income includes the gross income of the parents, whether they are employed or self-employed, as well as child allowances, birth allowance, reserve duty compensation, unemployment benefits and workers' compensation.
- 3) Up to nine years of schooling.
- 4) Number of children from the mother's side: Jews – 5, non-Jews – 6.
- 5) Immigrants who arrived up to ten years prior to the school year (in 2002/3 these were immigrants who had arrived from 1992 onward).
- 6) The distance from the region in which the school is located to the nearest of the three largest cities (Jerusalem, Tel Aviv-Yaffo and Haifa).
- 7) Number of residents is less than 2,000.
- 8) The settlement in which the school is located.
- 9) Years of schooling. A continuous variable of up to 20 years in units of two years.
- 10) Number of siblings born to the mother.
- 11) Immigrants who arrived within the last ten years.
- 12) Weight of 2/3 for the minimum distance of the settlement from the three largest cities (Jerusalem, Tel Aviv-Yaffo and Haifa) and 1/3 for the size of the region's population.
- 13) The higher of the two.

As a result of the continuing cuts in the Ministry of Education budget, it was not possible, according to the Ministry, to ensure a minimum number of teachers' working hours per class and also to apply the new Nurture Index to all the teacher's working hours to be allocated. Therefore, a new two-stage budget system, called the combined standard which was similar to the system used in the junior high school system, was adopted. It was to be introduced over a 5-year period starting in the 2007/8 school year.

During the first stage, the basic standard of hours allocated to a school was determined according to the multiple of number of "normative" classes and the minimum basic standard for such a class (36 weekly hours) and therefore a variable number of weekly hours was allocated to a class for each student above the 20th,²⁹ as in the junior high schools. Apart from the basic standard per class, the additions provided as part of the differential standard per student to religious schools for prayer needs (i.e. 0.2 weekly hours) and for schools included in the long school day program were also preserved.

In the second stage, the remaining hours were allocated among the schools according to the Strauss Index. In the 2007/8 school year, this amounted to about 5 percent of total hours.

The teachers' working hours designated for affirmative action according to the Strauss Index are divided in such a way that a student in the highest Nurture Index decile will receive three times more hours than a student in the lowest decile.

Following are the major differences between the differential standard per student and the combined standard per class (Table 6):

²⁹ For further details, see Government Decision 3983 from August 2008 (Differential Standard per Student in the Primary School and High School Systems). Government Decision 4275 from November 2008 regarding the Program for Reducing the Number of Students in a Class also took into account number of students in a class. Thus, the higher the Nurture Index of schools in the official system (including the Maayan Torani Education network and the Independent Education network), the lower will be the size of a "full" normative class for purposes of budgeting and the school would enter the program at an earlier stage.

- According to the differential standard per student, the scope of affirmative action policy is first determined, according to society's preferences; following that, the total amount of teachers' working hours available to the Ministry of Education is allocated according to what has been decided upon, on the condition that students from a strong socioeconomic background receive the minimum quota of hours required for a basic curriculum. In contrast, according to the combined standard per class, the required teachers' working hours are first allocated on a uniform basis and only following that are the remaining hours divided according to the adopted affirmative action policy. Thus, the combined standard per class embodies a more limited policy of affirmative action.
- In the system of differential standard per student, the unit of division is simply the student³⁰ while in the system of combined standard per class it is the class with only limited compensation for the size of the class beyond the minimum. Therefore, the combined standard works in favor of schools with small classes.

³⁰ With a guaranteed minimum of hours for individual schools under the same type of supervision in the same city.

**Table 6. Comparison of the budgeting systems for primary schools
before and after the implementation of the Shoshani Report
and after the implementation of the Strauss Report**

Criterion	<i>Before the implementation of the Shoshani Report</i> (basic standard per class with the addition of “baskets”)	<i>After the implementation of the Shoshani Report</i> (differential standard per student)	<i>After the implementation of the Strauss Report</i> (combined standard per class)
Period (school years)	Up until 2002/3	2003/4 to 2006/7	2007/8 and onward
Applied to	The official education system; the Independent Education network and the Maayan Torani Education network	The whole education system	The whole education system
Budgeting unit	Class	Student	Class + addition according to number of students with the remainder for affirmative action policy
The index for affirmative action allocation	“Nesher Index” which is calculated separately for Jews, Arabs and Druze	“Shoshani Index”	“Strauss Index”
Proportion of affirmative action hours within total weekly hours (percent)	About 15 ¹ (2002/3)	About 26 ²	About 5 (2007/8)
Main beneficiaries	<i>Small</i> schools that serve students from <i>weak</i> socioeconomic backgrounds	<i>Large</i> schools that serve students from <i>weak</i> socioeconomic backgrounds	<i>Large</i> schools that serve students from <i>strong</i> socioeconomic backgrounds

Source: Ministry of Education.

1) Includes “baskets” in addition to the Nurture Basket.

2) The average difference between the number of teachers’ weekly working hours per student in the 10th nurture decile (the student with the weakest socioeconomic characteristics) and the number of hours per student in the 1st nurture decile (the student with the strongest socioeconomic characteristics).

C. THE STANDARD AUDIT³¹

The Standard Audit in primary schools and junior high schools is a process in which data is gathered on the sources and uses of teachers' working hours from a sample of regular official schools.³² These are presented and analyzed in an annual report that includes a comparison against the directives of the Ministry of Education. The Standard Audit is in addition to other tests and evaluations carried out by the Ministry of Education, which are used to assess, among other things, the level of knowledge among students (Meitzav and matriculation exams) and the school climate.

The Standard Audit began as a pilot in the 1997/8 school year and has been carried out regularly every year since then.³³ The project is implemented under the supervision of Menahem Kaplan, the professional director, and under the responsibility of Dr. Moshe Dekalo, a senior Branch Director for the Organization of Studies in the Pedagogic Authority of the Ministry of Education. Starting from the 2000/1 school year, the Standard Audit was carried out by Idea – Economic Management & Consulting Ltd.³⁴

Due to budget constraints, the Standard Audit of the primary education system during the period 1998/9 to 2008/9 included a varying number of primary schools (Grades 1-6). On average, 249 schools were audited each year (Table 7a), which represents about one-fifth of all regular official primary schools during that period (Table 7c). In the 2000/1 school year, only 115 schools were audited, which represent about one-tenth of the total. During the period being studied, about 55 percent of the schools belonged to the State Jewish education system, about 24 percent to the State Religious education system, about 18 percent to the Arab education system and only about 4 percent to the Bedouin education system (about 10 schools per year). Due to

³¹ A description of the Standard Audit can be found in the Report of the Standard Audit in the Primary School and Junior High School Systems (Ministry of Education, various years) and State Comptroller (2009).

³² Not including Arab schools in East Jerusalem which do not use the Israeli curriculum.

³³ In the 2004/5 school year, there was no Standard Audit and in the 2005/6 school year it was carried out only in the primary education system.

³⁴ Prior to this, Moti Asulin was put in charge of the computerization process and the analysis of findings.

the small number of Bedouin schools included in the Standard Audit, the findings for that sector vary widely and are subject to error.

In selecting the schools for the Standard Audit, the Ministry of Education aims at achieving a sample that is representative, at least partially, of the distribution of schools according to level, sector, type of supervision and district. However, the Audit is not representative of all schools for the following reasons: regional directors sometimes decide not to include schools that participated in the Standard Audit in previous years and, unrelatedly, it was decided that one-tenth of the schools sampled would also be sampled in the subsequent year;³⁵ in the 2006/7 school year, only schools in large municipalities were included; with the implementation of the New Horizon reform, starting in the 2007/8 school year, schools participating in the reform³⁶ were not included in the Standard Audit and from that point onward neither were schools whose principal was in his first year there.

The Standard Audit questionnaires are filled out manually by the school principals and teachers. The auditors (generally retired supervisors and principals) visit the schools and check the questionnaires. The processing of the data and its analysis is done by Menahem Kaplan and Idea and an annual report is published and submitted to the management of the Ministry of Education (though it is not available to the public). In addition, school principals and district directors receive a summary of the results for the schools they are responsible for.

The Standard Audit gathers data on the sources of teachers' working hours available to the schools, including Ministry of Education standard hours and other hours provided by the Ministry of Education, local authorities, non-profit organizations, parents, etc. At the same time, the use made of the hours by the schools is examined. This includes: actual number of mother classes (as opposed to number of normative classes); the fulfillment of the obligatory curriculum; the division of teachers' working hours into longitudinal and horizontal hours; the allocation of hours to various

³⁵ The Ministry of Education decided that every school would be audited at least once every five years but sometimes did not meet this goal, with frequency of sampling varying widely across districts.

³⁶ In the 2007/8 school year, 301 primary schools were included in New Horizon and in 2008/9 the number rose to 729, which represents about 13 and 31 percent respectively of all primary schools.

functions (management, education, counseling, etc.), for designated purposes (such as hours for immigrants and affirmative action) and to special education; hours for substitute teachers; employment of teachers who are not Ministry of Education employees; school lunch program; special programs; and other uses.

The Standard Audit makes it possible to map the sources designated for instruction and support activities that are not provided by the Ministry of Education and for which there is no organized information in the administrative files or elsewhere. The original and main goal of the initiators of the Standard Audit project was the identification of recurring patterns of deviations in the use of hours by the schools relative to the directives of the Ministry of Education. The Standard Audit findings enable the Ministry to decide on ways to prevent these deviations.

Table 7. Schools and students in the primary school system¹ included in the Standard Audit according to sector and type of supervision, 2000/1 to 2008/9

a. Total

	2000/1	2001/2	2002/3	2003/4	2005/6	2006/7	2007/8	2008/9	Average
	Total								
Schools	115	239	322	181	245	374	301	213	249
Students (000)	43.8	89.7	123.7	70.8	88.3	139.8	119.8	90.4	95.8
Students per class ²	28.5	28.2	28.4	28.2	27.6	28.2	28.8	28.9	28.4
	State Jewish								
Schools	64	126	183	96	122	215	166	117	136
Students (000)	25.4	47.9	71.2	39.3	46.5	78.4	67.0	53.4	53.6
Students per class ²	28.6	28.6	28.8	29.0	28.3	28.4	29.4	29.9	28.9
	State Religious								
Schools	21	64	72	41	60	80	77	55	59
Students (000)	5.6	17.6	19.9	10.9	13.5	21.4	24.0	15.8	16.1
Students per class ²	25.6	24.5	24.5	23.8	22.9	25.0	25.8	24.8	24.6
	Arab ³								
Schools	20	38	58	37	52	71	46	33	44
Students (000)	8.0	19.6	27.5	18.3	24.4	35.5	23.2	17.0	21.7
Students per class ²	29.7	32.3	31.3	30.8	31.2	31.0	30.4	31.4	31.0
	Bedouin								
Schools	10	11	9	7	11	8	12	8	10
Students (000)	4.8	4.5	5.1	2.3	4.0	4.5	5.6	4.2	4.4
Students per class ²	31.4	29.9	31.1	27.8	28.7	31.4	31.5	31.0	30.4

b. Distribution of schools in the Standard Audit (percent)

	2000/1	2001/2	2002/3	2003/4	2005/6	2006/7	2007/8	2008/9	Average
	State Jewish								
Schools	55.7	52.7	56.8	53.0	49.8	57.5	55.1	54.9	54.7
Students	58.0	53.5	57.6	55.5	52.6	56.1	55.9	59.0	56.0
	State Religious								
Schools	18.3	26.8	22.4	22.7	24.5	21.4	25.6	25.8	23.6
Students	12.9	19.6	16.1	15.4	15.2	15.3	20.1	17.5	16.8
	Arab ³								
Schools	17.4	15.9	18.0	20.4	21.2	19.0	15.3	15.5	17.8
Students	18.2	21.8	22.2	25.9	27.6	25.4	19.3	18.8	22.6
	Bedouin								
Schools	8.7	4.6	2.8	3.9	4.5	2.1	4.0	3.8	3.8
Students	11.0	5.1	4.1	3.3	4.6	3.2	4.7	4.6	4.6

c. Proportion of schools and students in the Standard Audit (percent)

	2000/1	2001/2	2002/3	2003/4	2005/6	2006/7	2007/8	2008/9	Average
	Total								
Schools	9.7	20.2	27.9	15.1	19.7	29.0	23.2	16.4	20.1
Students	9.6	19.6	27.8	15.2	18.4	27.9	23.7	17.7	20.0
	State Jewish								
Schools	9.7	19.1	28.2	14.4	17.6	30.5	23.3	16.4	19.9
Students	9.7	18.3	27.8	15.0	17.1	28.3	24.1	19.0	19.9
	State Religious								
Schools	7.7	23.5	27.6	15.3	21.8	26.9	26.0	18.6	20.9
Students	7.6	23.9	27.8	14.7	17.7	25.7	29.0	19.0	20.7
	Arab ³								
Schools	9.7	18.4	29.0	17.1	23.1	30.2	19.7	14.1	20.1
Students	7.9	19.5	28.1	17.3	22.4	30.7	19.8	14.4	20.0
	Bedouin								
Schools	21.7	23.9	20.5	15.2	22.4	15.1	21.4	14.3	19.3
Students	23.5	22.2	25.9	10.3	17.6	17.2	20.9	15.3	19.1

Source: Ministry of Education, Idea – Economic Management & Consulting Ltd. and authors' calculations.

- 1) All regular official primary schools with Grades 1-6 (apart from schools in East Jerusalem).
- 2) Including Druze (and Circassians).
- 3) Actual students per class (as opposed to a normative class).

D. RESEARCH METHOD

The sampling of regular official schools for the annual Standard Audit is not random (see Section C) and therefore it is possible that the results of the Standard Audit do not faithfully reflect the whole official school system (hereafter: the “population”).

In order to solve this problem, weights were calculated for each year to be used in modifying the Standard Audit data to reflect the population. This was done as follows: Schools that were included in the Standard Audit were divided according to sector and type of supervision (State Jewish, State Religious, Arab (including Druze)³⁷ and Bedouin) and according to nurture quintiles,³⁸ all of which were key factors in the determination of total hours made available to the schools by the Ministry of Education during the period being studied (see Section B) and the information on them can be found both in the Standard Audit and in the Ministry of Education files. In each of the 20 resulting cells, the number of classes in the regular education system was counted and in a similar manner so was the number of classes in the population. The ratio between the number of classes in the population and the number of classes in the Standard Audit served as the weights for a class in the Standard Audit that belongs to that same cell according to sector/type of supervision and nurture quintile. For example, if the Standard Audit in the 2008/9 school year includes X regular classes in the State Jewish education system in the second nurture quintile and there are 4X schools of that type in the population, then the weight would be 4. In cases where the Standard Audit cells were empty but there were such classes in the population, the weight was calculated for two cells that belong to the same sector/type of supervision and to the empty nurture quintile and its neighbor. Weights were calculated in a separate through similar manner for the number of students in each cell. Although the class was the primary budgeting unit prior to the implementation of the Shoshani Report, and also following the implementation of the Strauss Report, with the

³⁷ There were only a small number of Druze (and Circassian) schools sampled in the Standard Audit and therefore these schools could not be treated separately. Since the socioeconomic characteristics of the Druze students are more similar to those of Arab students than those of Bedouin students, we chose to consolidate the Druze and Arab schools.

³⁸ The data on the nurture deciles was taken from the Ministry of Education’s file of schools and is not necessarily the same as those in the Standard Audit data.

implementation of the Shoshani Report budgeting was done differentially per student and therefore weights were also calculated by student.³⁹

The calculation of the weights revealed that they vary significantly, indicating that the schools chosen for the Standard Audit are not representative of the population. For example, the distribution of schools according to segment of the education system varies widely from year to year (Table 7b above), although on average during the period being studied the proportion of schools sampled in each segment of the education system is about one-fifth (Table 7c above). In addition, in the 2007/8 school year, relatively more schools were sampled in the State Jewish education system whose students come from a strong socioeconomic background, i.e. low nurture deciles⁴⁰ (see the comparison in Table 8 below of the average nurture decile in the Standard Audit to that in the population). This implies that use can be made of the weights in order for the results of the study to better reflect, as much as possible, what is happening in the population.

In order to assess the quality of the weights, i.e. to what extent certain indexes obtained from the Standard Audit report following the weighting resemble the parallel indexes for the population, a comparison was made between the relevant indexes that appear both in the Standard Audit and in the Ministry of Education's administrative

³⁹ The weighted of variables that are ratios, such as the number of students per class and teachers' working hours per class and per student (as opposed to the number of classes, number of students and number of teachers' working hours), were calculated by multiplying the ratio obtained for a given school by the school's weight (Equation A) rather than by dividing the product of the numerator and its weight by the product of the denominator and its weight (Equation B).

Following are the equations for the average number of students in class i in sector j :

$$\text{Equation A: } \overline{(p/c)}_i = \sum_{ij} w_{ij} (p/c)_{ij} \quad \text{Equation B: } \overline{(p/c)}_i = \sum_{ij} w_{ij} p_{ij} / \sum_{ij} w_{ij} c_{ij}$$

where p is number of students, c is number of classes and w_{ij} is the weight for class i in sector j .

Equation A was chosen because we are interested in a school index without taking into account the size of the school (which is similar to calculating the average per capita GDP for the OECD countries using the arithmetic average of all the member countries without taking into account each country's population). There are only small differences between the two methods of calculation.

⁴⁰ One of the explanations for the fact that in the 2007/8 school year there was overrepresentation of the schools in the State Jewish education system, whose students are from a strong socioeconomic background, is the implementation that year of the New Horizon reform, which primarily included weak schools, since the Standard Audit did not include schools that were part of the reform.

data on the population. A comparison for the 2007/8 school year appears in Table 8.⁴¹ The table shows that after weighting by class and by student, the numbers of schools, classes and students are very similar to their numbers in the population.

The other main indexes for comparison are the number of standard hours per class and per student (since the study is looking at the sources available to the schools and standard hours constitute about four-fifths of those sources) and number of students per class which is also used as an accepted measure of resources. It appears that the values of these indexes for the 2007/8 school year in the State Jewish and State Religious education systems, which were obtained from weighting the Standard Audit data according to class and student, are much closer to their values in the population than to those of the Standard Audit without weighting. In the Arab sector (including Druze) there are almost no differences between the values prior to and subsequent to the weighting, which is also true for the Bedouin sector. In the Jewish education system, the number of standard hours per class and per student after weighting, as well as number of students per class, are very close to those in the population and in the Arab education system there are only small differences.

A similar long-term comparison of number of standard hours per student after weighting of the Standard Audit data relative to their number in the population is presented in Figure 1. It can be seen that although certain discrepancies exist between the two,⁴² the changes in number of standard hours over the years is similar and the overall trends are preserved.

The weighting according to student produces results that are, as mentioned, almost identical to those obtained in weighting by class. Since the budgeting unit during most of the period being studied was the class (before the Shoshani Report and after the Strauss Report, i.e. a total of 5 years out of 9) and since the implementation of the Shoshani Report (during which the differential standard by student was used) was very

⁴¹ The tables for other years can be obtained from the authors.

⁴² Some of the disparity is explained by differences in the timing of the gathering of data on standard hours. Thus, data on the population are correct as of the end of the school year (i.e. they are final) while the Standard Audit data are correct at the time of the audit of the school at some point during the year and in some cases there were changes in the number of standard hours during the course of the year. Differences in timing also exist for number of students (see note 2 to Table 8).

gradual and the allocation of teachers' working hours among the schools was based to a large extent on the previous budgeting system according to class, we chose to use weighting by class for all years.

Despite the weighting, the following data should be treated with caution due to the small number of schools that were sampled: the 2000/1 school year, Bedouin schools and analysis by means of a simultaneous breakdown by segment, district and the nurture decile. In any case, the symbol ^ appears in a cell in which the calculation was based on 5 or less schools that were sampled in the Standard Audit.

An additional issue that is worth mentioning is the nurture indexes, which were calculated by the Ministry of Education according to the formula in use at a particular point in time. During the period being studied, three indexes were used: the Nesher Index, the Shoshani Index and the Strauss Index (see Section B). To the extent that the nurture indexes are used to reflect the socioeconomic level of the students in the school and the relationship between that and the budgeting process, it is not recommended that different indexes be used over time. Therefore, it is preferable that only one index, which is calculated for each year and for each school, be used. In contrast, if the focus is on the relationship between the value of the nurture index that is in use at the time—which indicates, among other things, the scope of affirmative action policy—and the budgeting process, then there is justification for using the actual index for each year. We chose the first approach;⁴³ the second approach is to be preferred when investigating the choice of nurture indexes that are appropriate to the objectives of the education system, including increased equality.

⁴³ Since none of the three nurture indexes was available for every year during the period being studied, we used the Strauss Index for the 2008/9 school year, as it was calculated by the Ministry of Education for each of the schools in the country. The Strauss Index better reflects the students' socioeconomic level relative to the other nurture indexes. Our analysis showed that in the case of schools that appeared in the Standard Audit a number of times during the period in which that nurture index was used, there were only minor changes in the value of the index for a given school. This finding was to be expected since the population of students in a school belongs to the same registration area whose residents hardly change in the short term.

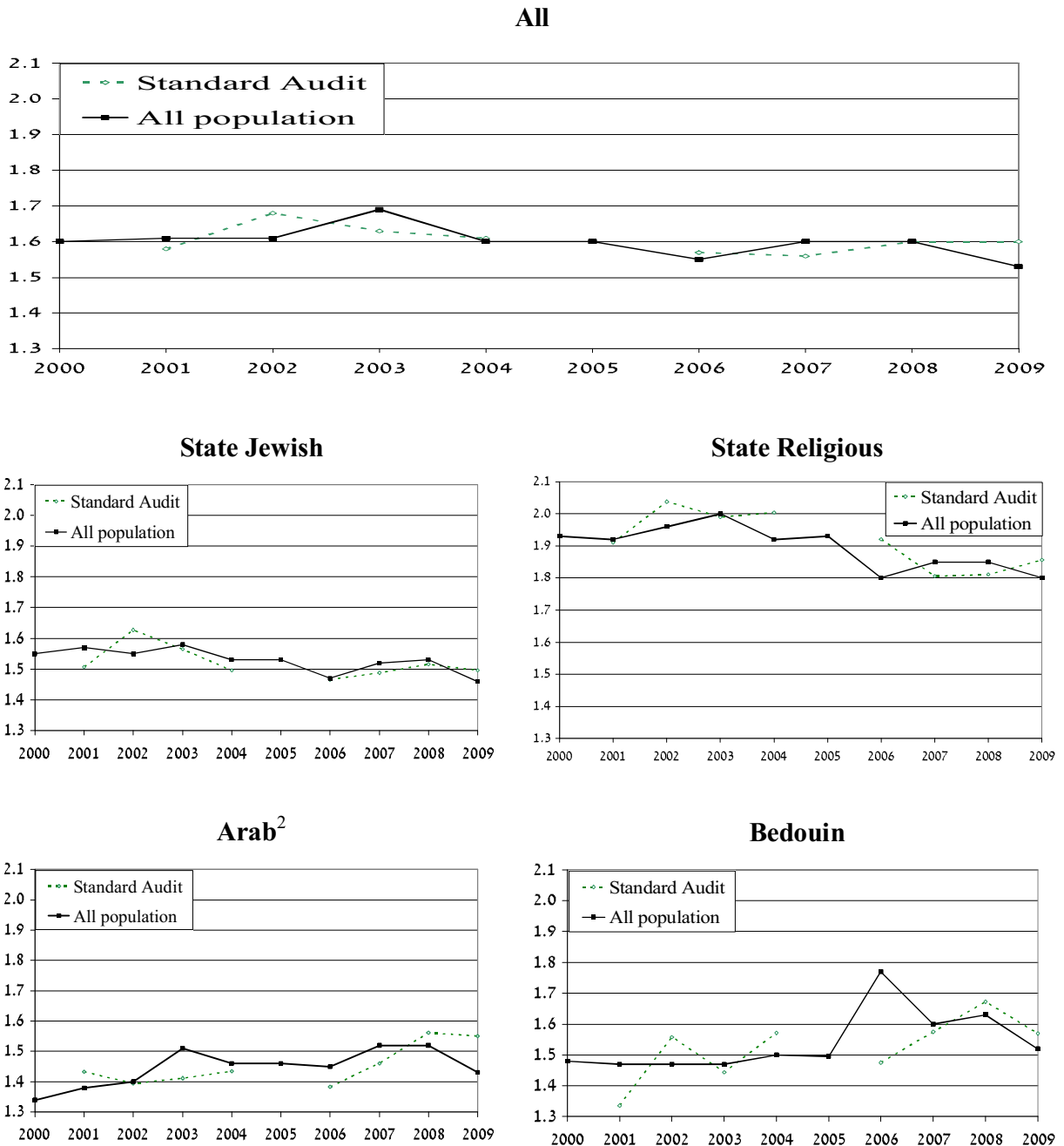
**Table 8. Standard Audit data for primary schools:
Original data, after weighting and in comparison to the population,
according to sector and type of supervision, 2007/8 school year¹**

	Total	Jewish		Arab		
		State	State Religious	Arab	Bedouin	
Schools	Standard Audit – original data	301	166	77	46	12
	Standard Audit – weighted by class	1306	727	287	233	59
	Standard Audit – weighted by student	1,297	720	282	238	58
	Population	1,300	713	296	234	57
Actual classes	Standard Audit – original data	4,064	2,224	916	745	181
	Standard Audit – weighted by class	17,239	9,524	3,301	3,728	885
	Standard Audit – weighted by student	17,250	9,360	3,235	3,782	870
	Population	17,290	9,483	3,259	3,721	874
Students ^{2,3}	Standard Audit – original data	119,825	66,935	24,045	23,181	5,667
	Standard Audit – weighted by class	509,941	282,140	84,532	115,515	27,772
	Standard Audit – weighted by student	505,130	278,215	83,055	116,933	27,278
	Population	505,466	278,547	82,949	117,011	26,959
Actual number of students per class ³	Standard Audit – original data	28.6	29.4	25.6	30.5	30.5
	Standard Audit – weighted by class	28.4	28.9	25.0	30.2	30.6
	Standard Audit – weighted by student	28.3	28.9	25.0	30.0	30.6
	Population	28.3	28.8	24.7	30.8	30.4
Average nurture decile	Standard Audit – original data	5.0	4.2	4.8	7.6	8.6
	Standard Audit – weighted by class	5.4	4.6	5.5	7.3	8.6
	Standard Audit – weighted by student	5.5	4.6	5.5	7.3	8.6
	Population	5.6	4.6	5.8	7.6	8.5
Actual standard hours per class	Standard Audit – original data	44.0	42.7	43.7	46.7	53.1
	Standard Audit – weighted by class	44.6	43.2	44.7	46.6	53.2
	Standard Audit – weighted by student	44.6	43.3	44.6	46.7	53.1
	Population	44.4	43.2	44.9	46.1	49.3
Standard hours per student	Standard Audit – original data	1.56	1.47	1.72	1.55	1.69
	Standard Audit – weighted by class	1.60	1.52	1.79	1.56	1.69
	Standard Audit – weighted by student	1.60	1.53	1.79	1.58	1.69
	Population	1.60	1.53	1.85	1.52	1.63

Source: Ministry of Education, Idea – Economic Management & Consulting Ltd. and calculations by the authors.

- 1) All official primary schools with Grades 1-6 (apart from schools in East Jerusalem). Students in the regular education system only (including *shiluv* students, i.e. students with disabilities included in regular classes).
- 2) The Standard Audit data for number of classes, weighted by class, should have been equal to the number of classes in the population and similarly for number of students when weighted by student. The small differences are the result of discrepancies between the Standard Audit data and the data appearing in the Ministry of Education's files with respect to number of class/students in the schools that were included in the Standard Audit. A possible explanation is the differences in timing in the gathering of data between the two sources.
- 3) The small difference in the number of students and in actual number of students per class between Table 8 and Table 7a is the result of the fact that the source of the data on actual students and classes in Table 8 is the Standard Audit while in Table 7 it is the Ministry of Education data.

Figure 1. Number of standard hours per student in the regular official primary education system,¹ according to segment of the education system: weighted data from the Standard Audit and for the population, 2000/1 until 2008/9



Source: Ministry of Education, Idea – Economic Management & Consulting Ltd. and calculations by the authors.
 1) Schools with Grades 1-6 only.
 2) Including Druze (and Circassian). Does not include East Jerusalem.

E. DESCRIPTIVE STATISTICS

This section is devoted to a description and analysis of the allocation of teacher's working hours among regular official primary schools⁴⁴ during the period beginning with the 2000/1 school year and ending with the 2008/9 school year. The description will be presented according to segments of the education system, nurture terciles and geographic districts. Teachers' working hours were split into three main groups according to source of funding:⁴⁵ standard hours received from the Branch for Educational Institutions in the Ministry of Education, which are the schools' core hours; non-standard hours which also originate in the Ministry of Education (and other government ministries); and hours from other sources (local authorities, non-profit organizations and parents). The allocation of teachers' working hours will be investigated in terms of hours per class and hours per student and from two perspectives: the 2007/8 school year⁴⁶ (i.e. a cross-section) and over time with respect to the changes in the budgeting systems described above. The body of the section contains the main graphs, which are primarily in terms of hours per class, while Appendix A contains all the tables and Appendix B contains the graphs in terms of hours per student, etc.

The findings derived from the descriptive statistics received support from results of the multivariate estimations (which are presented in Section F) in which hours per class and per student are dependent on school characteristics and students' socioeconomic background.

Total Hours

The number of teachers' working hours per class, which is the basic teaching framework, is a key component in the public debate over the amount of resources to be made available to schools, in addition to their division among the various segments of

⁴⁴ Official – excludes primarily ultra-Orthodox schools. Regular – excluding students in special education. The analysis also does not include special education classes in regular schools.

⁴⁵ For further details, see the glossary of terms in Appendix C.

⁴⁶ The 2007/8 school year was chosen rather than 2008/9, which is the last available year of data, since the broad implementation of the New Horizon reform that year and the non-sampling of schools included in the reform by the Standard Audit is liable to create a certain amount of bias in the results.

the education system and their trend over time. This number reflects total teachers' working hours made available to a class (which can also be translated into the number of average fulltime teacher positions per class) and not necessarily the number of hours that the teachers actually teach or the hours during which the class learns as a single educational unit. This is due to the fact that some of the hours are channeled to uses other than frontal instruction (such as task hours) and others to split-class instruction and individual instruction.

A regular class in the regular official primary education system in the 2007/8 school year received 55.3 average weekly teachers' working hours (Table A1 in Appendix A and Figure 2). Since a fulltime teaching position in primary education is in general 30 weekly hours, the average number of positions per class is 1.84.⁴⁷

In general, the public debate concerning education centers on average teachers' working hours per class based on Ministry of Education figures and the State Budget. The data of the Ministry of Education and the Ministry of Finance show that average hours per class in the primary education system stood at 45.0 in the 2007/8 school year although, in contrast to our analysis, this figure also includes ultra-Orthodox students (who receive fewer hours than students in the official education system) and students in special education (who receive more). A calculation based on the directives of the State Budget show that average hours per class in the primary education system, excluding the ultra-Orthodox school system and special education, stood at about 47.0. Therefore, the number of hours per class according to our calculations (i.e. 55.3) exceeds by about one-sixth the number of hours appearing in other publications, a figure which is quoted in the public debate over the scope of resources to be allocated to the education system. The difference has two sources: hours that were defined as working hours for the Standard Audit were not defined as such in the State Budget (for example, hours from teacher-soldiers and National Service girls) and hours from non-government sources (which will be discussed in detail below).

⁴⁷ Since the scope of a fulltime teaching position is actually closer to 28.5 hours (due to the reduction in hours for older teachers ("age hours") and those with young children (maternal hours)), almost two full teaching positions were actually allocated to a class on average.

During the period being studied, there were significant differences in the allocation of teachers' working hours per class between the various segments of the education system, with the ranking as follows (in descending order): the State Religious education system, followed well behind by the State Jewish, Bedouin and Arab education systems.⁴⁸ While students in the State Religious education system received 66.2 hours per class in the 2007/8 school year, Arab students received only 50.0 hours, a gap of one-third. From a long-term perspective, the ranking of the various segments of the education system according to teachers' working hours per class has remained unchanged, although the advantage of the Jewish sector has decreased (Figure 3).

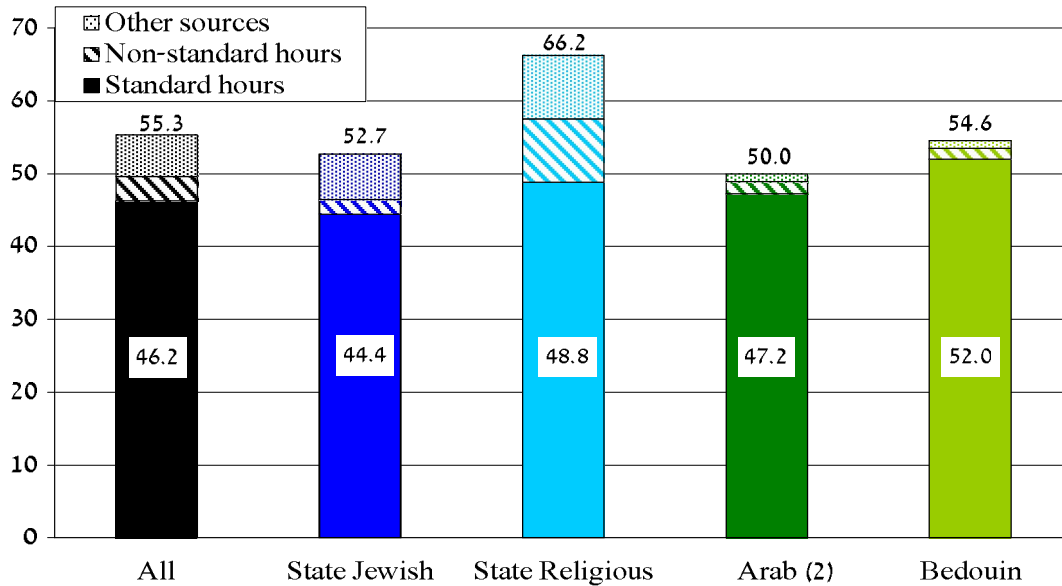
The division of the period being studied into two parts, i.e. the period from the 2000/1 school year until the 2003/4 school year (hereafter the "earlier period"), in which budgeting was done almost completely according to class,⁴⁹ and the period from the 2005/6 school year until the 2008/9 school year (hereafter the "later period"), in which budgeting was primarily done according to student (implementation of the Shoshani Report at its peak and at the beginning of the Strauss Report's implementation), reveals two main trends: a. Total hours per class rose by about 3 percent although this is not necessarily attributable to the changes in budgeting system. b. The growth in the number of hours per class was about 10 percent in the non-Jewish education system and about 3 percent in the State Jewish education system and was basically unchanged in the State Religious education system. The narrowing of gaps was a result of two significant changes in budgeting policy as a result of the implementation of the Shoshani Report: a transition from budgeting per class to budgeting per student and the larger weight placed on students' socioeconomic level.⁵⁰ Nonetheless, inequality in the allocation of resources within the education system remained significant.

⁴⁸ Only in the 2007/8 school year did Bedouin students receive more hours per class on average than students in the State Jewish education system (see Figure 3 below).

⁴⁹ The implementation of the Shoshani Report had hardly begun in the 2003/4 school year.

⁵⁰ It is still too early for an in-depth analysis of the impact of the Strauss Report, whose implementation began in the 2007/8 school year. It is expected to reduce the scope of affirmative action, as described in Section B.

Figure 2. Number of weekly hours per class in the regular official primary education system¹ according to the segment of the education system and source of funding, 2007/8

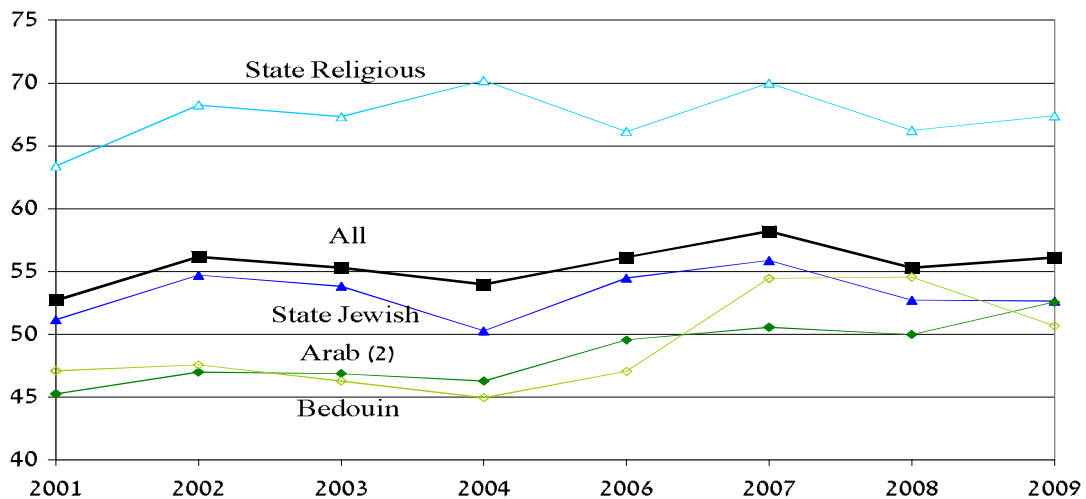


Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

1) Schools with Grades 1-6 only.

2) Including Druze (and Circassian). Does not include East Jerusalem.

Figure 3. Number of weekly hours per class in the regular official primary education system¹ according to the segment of the education system, 2000/1-2008/9



Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

1) Schools with Grades 1-6 only.

2) Including Druze (and Circassian). Does not include East Jerusalem.

The overall index of hours per class does not take into account differences between the various segments of the education system, whether with respect to hours per student in a class or with respect to the socioeconomic level of the students' families.

A comparison of the average number of students per class in the regular official education system shows that in all the nurture deciles classes were larger in non-Jewish schools, with an average of 30 students per class, and somewhat smaller in the State Jewish schools, with an average of about 29 students (Table A8 in Appendix A). In contrast, the number of students per class is relatively low in State Religious schools (about 24) as a result of the small number of religious students in a school district and the separation of classes by gender for religious reasons. The State Education Law – 1953 provided legal validity to a segmentation of the Jewish education system according to religious affiliation. This enabled, among other things, the creation of small schools and small classes in areas with only a small religious population. In recent years, due to increased religiosity in the national-religious community on the one hand and the competition with the ultra-Orthodox school networks on the other,⁵¹ instruction in gender-separated classes has been introduced already from Grade 1, without this being officially and explicitly recognized in legislation and/or in the bulletin distributed by the Director of the Ministry of Education. The average number of students per class in each segment of the education system declines somewhat the weaker is the socioeconomic background of the students, a finding consistent with the increased number of hours that has made it possible to split classes.

The socioeconomic status of the students' families is weaker in the non-Jewish education system, which is reflected in higher nurture deciles (see Table 8 above).

The large gap in hours per student in favor of the State Religious school system relative to the Arab school system—which stood at about 0.8 weekly hours in the 2007/8 school year (Figure 4)—is a result not only of a much larger allocation per class to the State Religious education system but also the fact that its classes are

⁵¹ A description of these phenomena can be found in the following survey: A. Almog and D. Paz, *Ideological positions and lifestyles among the national religious population*, website: *People in Israel – The Guide to Israeli Society* (www.peopleil.org) (in Hebrew).

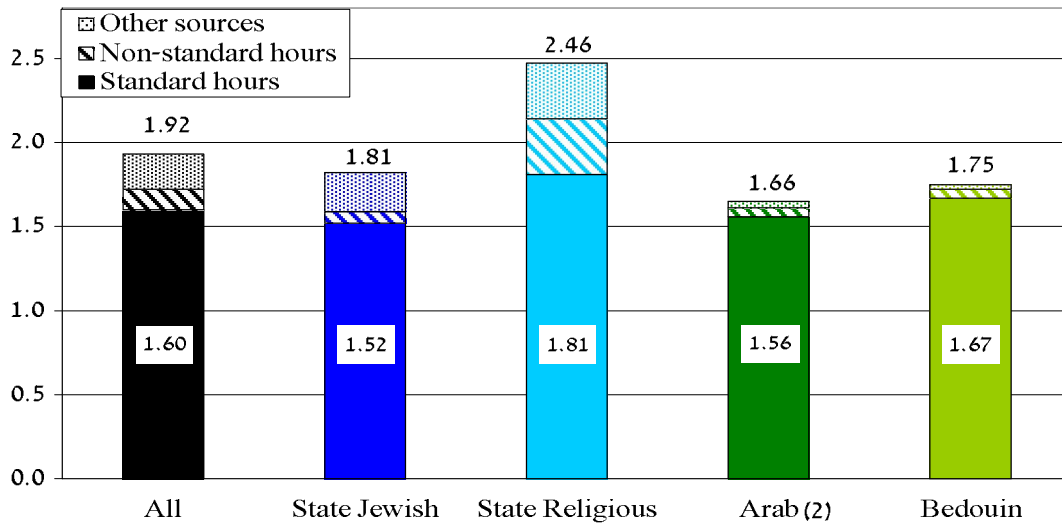
smaller, as mentioned above. The State Religious education system also benefited from more hours per students than the State Jewish education system.

Although the classes in the Bedouin education system received more hours than those in the State Jewish education system, this advantage disappears when one looks at hours per student, as a result of the large classes in Bedouin schools. Bedouin students received more hours per student than Arab students, primarily because the former are from a weaker socioeconomic background (Table 8 above) and also because the number of students per class is somewhat larger in the Arab education system (Table A8 in Appendix A).

The number of teachers' working hours per student grew between the earlier and the later periods by about 1 percent, which was the result of an increase of about 9 percent in the non-Jewish education system, stability in the State Jewish education system and a decline of about 3 percent in the State Religious education system (Figure 5). The difference in number of hours per student between the State Religious education system and the non-Jewish education system stood at 1.1 hours in the earlier period, which declined to 0.9 hours during the later period. Significant differences in teachers' working hours per student in favor of the State Religious education system remained also relative to the State Jewish education system.

It is worth mentioning that despite the concern among leading figure in the State Religious education system regarding a reduced allocation of hours with the implementation of the Shoshani Report and the transition to a differential standard per student, there was only a small reduction in actual hours and the State Religious education system continued to enjoy a significant advantage relative to other segments with respect to teachers' working hours both per class and per student. This was primarily due to the additional hours from other sources and the fact that the total hours designated for students from weak socioeconomic backgrounds was not reduced.

Figure 4. Number of weekly hours per *student* in the regular official primary education system¹ according to the segment of the education system and source of funding, 2007/8

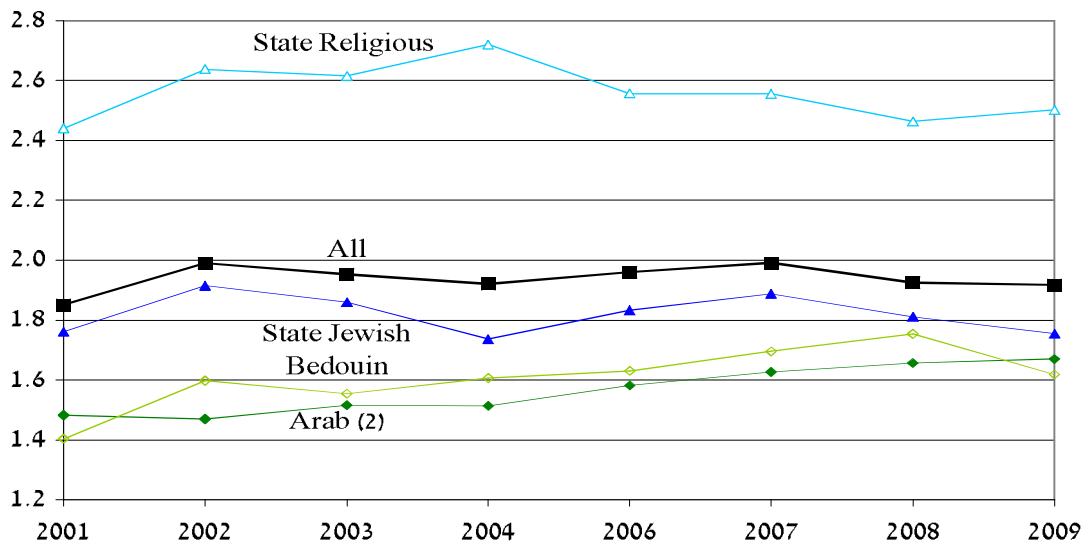


Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

1) Schools with Grades 1-6 only.

2) Including Druze (and Circassian). Does not include East Jerusalem.

Figure 5. Number of weekly hours per *student* in the regular official primary education system¹ according to the segment of the education system, 2000/1-2008/9



Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

1) Schools with Grades 1-6 only.

2) Including Druze (and Circassian). Does not include East Jerusalem.

According to the Ministry of Education's declared policy, the lower a student's socioeconomic level, the more teachers' working hours per class he would receive in the 2007/8 school year. This is even more the case in terms of hours per student (Figure A1 in Appendix B) and applies to all segments of the education system. The rate of increase in additional hours declines as the Nurture Index increases (i.e. the weaker is the students' socioeconomic background).⁵² Since the implementation of the Shoshani Report, the gap in number of teachers' working hours has widened in favor of students from a weak socioeconomic background, both with respect to hours per class (Figure 7) and hours per student (Figure A2 in Appendix B).

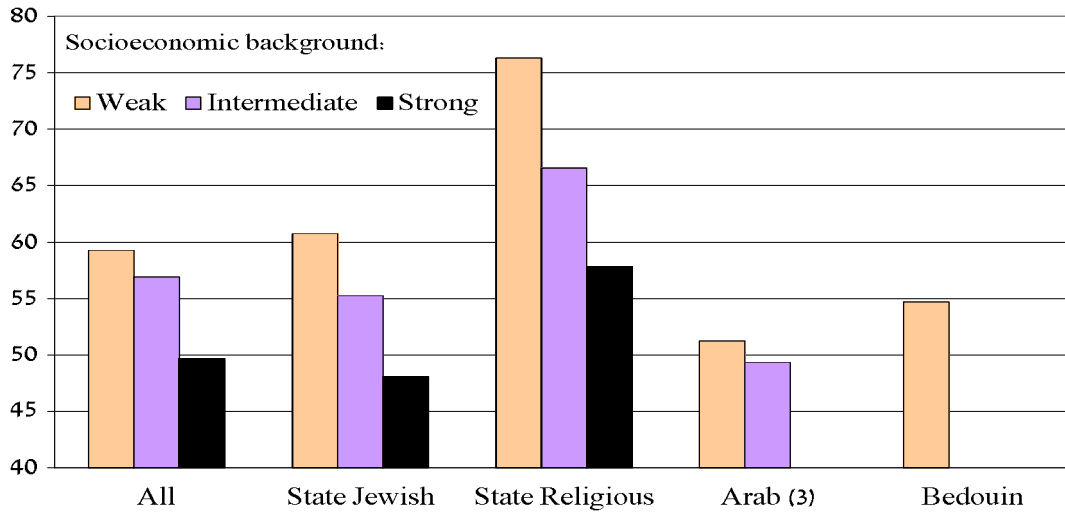
Among students from a strong socioeconomic background, the clear advantage of the State Religious education system relative to the State Jewish education system (there are no students from a strong socioeconomic background in the non-Jewish education system) was preserved, both with respect to hours per class (see also Table 4a in Appendix A) and even more so with respect to number of hours per student (see also Table 5a in Appendix A), which were about one-third more in the State Religious education system. In the transition from the earlier period to the later, the number of hours per class in the State Jewish education system grew while the number of hours in the State Religious education system fell significantly. This was a result of the transition to the differential standard per student which takes into account size of class and thus favors the State Jewish education system where classes are much larger. With respect to hours per student, the trends in the transition from the earlier to the later period were similar.

Among students from a weak socioeconomic background, the advantage of the State Religious education system relative to the State Jewish education system was preserved over the years with respect to teachers' working hours both per class (Table A4c in Appendix A and Figure A12 in Appendix B) and per student (Table A5c in Appendix A and Figure A3 in Appendix B) although the trends differed from those of students from a weak socioeconomic background. Students from a weak socioeconomic background, both in the State Jewish and State Religious education

⁵² This is because a minimum number of hours was guaranteed for each class and the addition of hours on the basis of socioeconomic background was more or less uniform between nurture deciles.

systems, benefited from an addition of 3-4 percent in hours per class (2.6 hours) in the later period but while in the State Jewish education system this was accompanied by growth in the number of hours per student, in the State Religious education system the number of hours per student remained unchanged. Students from a weak socioeconomic background in the Arab and Bedouin education systems received far fewer teachers' working hours per class and per student than similar students in the Jewish education system but as a result of the Shoshani Report the gaps narrowed to some extent (though they remained large). Thus, in the 2007/8 school year, an Arab student from a weak socioeconomic background received only 1.67 hours, close to one-third less than a similar student in the State Jewish education system, who received 2.38 hours. Bedouin students from a weak socioeconomic background received somewhat more hours per class and per student than similar Arab students since on average they were in a higher nurture decile, i.e. were from a weaker socioeconomic background, and in addition the number of students per class was lower (see Table A8 in Appendix A). From a long-term perspective, the growth in the number of hours per class and per student for students from a weak socioeconomic background in the non-Jewish education system was almost three times larger than in the State Jewish education system.

Figure 6. Number of weekly hours per class in the regular official primary education system¹ according to the segment of the education system and students' socioeconomic background,² 2007/8



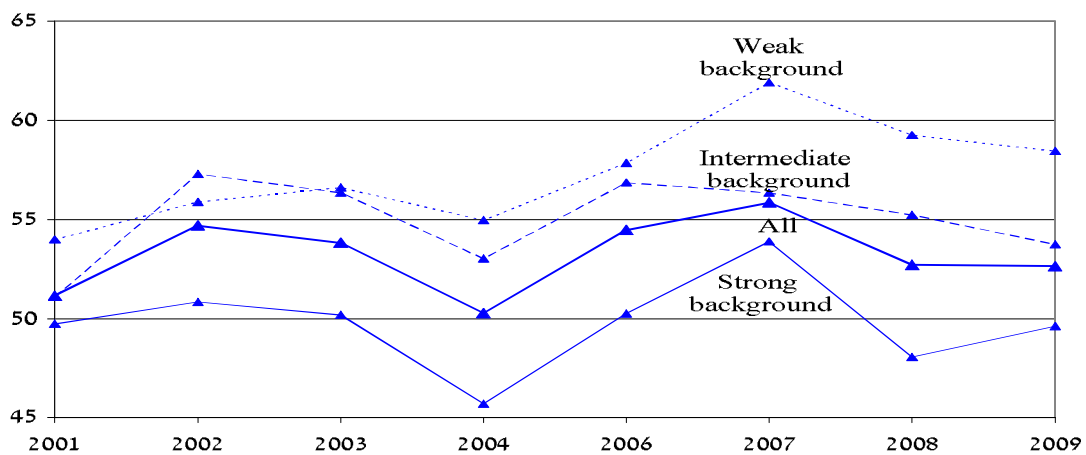
Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

1) Schools with Grades 1-6 only.

2) A weak background – Nurture deciles 8-10; intermediate background – Nurture deciles 4-7; strong background – Nurture deciles 1-3.

3) Including Druze (and Circassian). Does not include East Jerusalem.

Figure 7. Number of weekly hours per class in the regular official State Jewish primary education system¹ according to students' socioeconomic background,² 2000/1 to 2008/9



Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

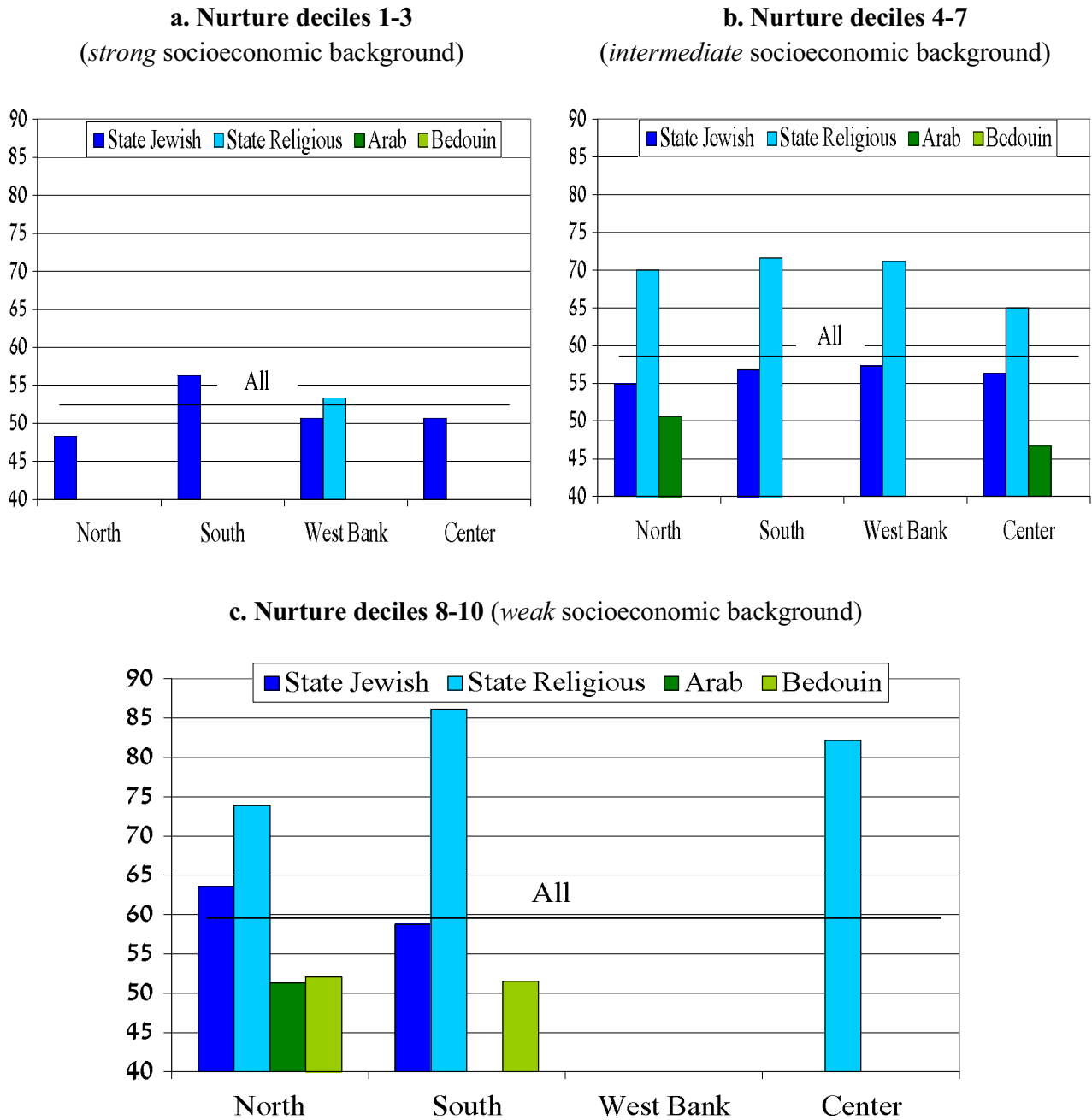
1) Schools with Grades 1-6 only.

2) A weak background – Nurture deciles 8-10; intermediate background – Nurture deciles 4-7; strong background – Nurture deciles 1-3.

Since the various nurture indexes also include a component for location in the periphery (and following the implementation of the Shoshani Report a component for Regions of National Priority A and the Confrontation Line as well), it is of interest to examine the differences in teachers' working hours while taking into account the district in which the school is located.⁵³ Some insight can be gained from Figure 8 and Table A6 in Appendix A: among students from the same socioeconomic background and in the same segment there was somewhat of a preference for residents of the South and the West Bank in the allocation of hours; in all the districts, the ranking by hours per class according to segment was identical among students from the same socioeconomic background, i.e. in descending order: the State Religious education system, the Jewish State system and finally the non-Jewish system; within the same district, the weaker the socioeconomic background of the students, the greater the number of hours per class. The findings are similar for teachers' working hours per student (Table A7 in Appendix A and Figure A4 in Appendix B) with a larger advantage for students in the State Religious education system relative to other students in the same district and an improvement in the relative situation of students in the West Bank. During the period following the implementation of the Shoshani Report, the allocation per class and per student in the periphery (the Northern and Southern Districts) in general increased relative to other districts, a finding which is consistent with the increase in the weight of geographic components in the Nurture Index and its application to non-Jews as well, many of whom reside in the periphery (see Table 5 above).

⁵³ Ministry of Interior districts used by the Central Bureau of Statistics, which differ from the Ministry of Education districts (for example, the Ministry of Education includes the West Bank as part of the Jerusalem District).

Figure 8. Number of weekly hours per class in the regular official primary education system¹ according to district² and students' socioeconomic background, 2005/6 to 2008/9



Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

1) Schools with Grades 1-6 only.

2) Ministry of the Interior districts used by the Central Bureau of Statistics. Center – Jerusalem, Tel Aviv and the Center districts.

Standard Hours

Standard hours are, as already mentioned, the core hours allocated by the Ministry of Education to the schools. They include the school standard pool (composed of management hours, education hours and other task hours; and in the past various types of “baskets” as well) and the district standard pool which is allocated to schools by the regional administration according to its discretion. These hours were available for allocation under all the budgeting systems used in the regular official primary education system during the period being studied. The budgeting of standard hours per class in the primary education system is currently determined by three factors: a guaranteed minimum number of hours per class required to maintain a full curriculum; additions for number of students in a class;⁵⁴ and the socioeconomic characteristics of the students’ parents.

The number of standard hours per class stood at 46.2 in the 2007/8 school year (Table A1 in Appendix A and Figure 2 above), which represents about 84 percent of the total hours per class (Table A2 in Appendix A). The ranking (in descending order) of segments of the education system by standard hours per class was as follows during most of the period being studied: State Religious, Bedouin and Arab and finally State Jewish. This ranking contrasts with that according to socioeconomic status of the parents since Arab students, and even more so Bedouin students, have a weaker socioeconomic status than students in the State Religious education system.

This situation becomes even more pronounced for standard hours per student in the 2007/8 school year (Table A3 in Appendix A and Figure 4 above). Thus, for example, the gap in number of hours per class between the State Religious education system and the Arab education system stood at about 3 percent in favor of the former and increases to about 16 percent in terms of hours per student. Thus, the implementation of affirmative action policy in the allocation of standard hours per student was much weaker than in the allocation per class.

⁵⁴ According to the basic standard per class, which was used until the implementation of the Shoshani Report in the 2003/4 school year, the number of students in a class did not affect the allocation of hours, apart from the case in which there were less than 20 students and the class received one half of the standard hours.

A more long-term perspective reveals that the total number of standard hours per class and per student were more or less unchanged from the 2000/1 school year until the 2008/9 school year (Figures 9 and A5, respectively, in Appendix B) with a small decline during the period 2002/3 to 2005/6 and a subsequent rebound. An examination of the State Budget proposals shows that although there were cuts in the Ministry of Education budget during the years 2002-4 (which were offset only partially in subsequent years), the usage of the Ministry's budget exceeded the proposed budget even when taking into account the natural growth in the number of students. Moreover, the budget cuts were apparently implemented primarily in the operating budget rather than the budget for teachers' working hours.⁵⁵ The number of standard hours per class and per student in the State Religious education system declined according to the Standard Audit during the period being studied⁵⁶ while in the Arab and Bedouin education systems they increased significantly, particularly following the implementation of the Shoshani Report.

In the transition from the earlier period (2001-4) to the later (2006-9), there was no major change in the number of teachers' working hours per class. Thus, hours remained unchanged in the State Jewish education system and there was a drop of about 4 percent in the State Religious education system; in contrast, hours increased by about 5 percent in the Arab education system and by about 9 percent in the Bedouin education system. Hours per student changed even less.

The weaker the socioeconomic background of the students, the larger is the number of standard hours per class (Figure 10) and per student (Figure A6 in Appendix B) and as a result of the implementation of the Shoshani Report the gap in their favor widened, both with respect to standard hours per class (Figure 11) and per student (Figure A7 in Appendix B). The extent of affirmative action over time can be seen in Figure 12, which presents the gap (in percent) in number of hours per class in favor of

⁵⁵ An analysis of the number of weekly standard hours per class and per student in the regular official primary education system during the period being studied, which is based on information appearing on the Ministry of Education's website ("With a broad view – numbers on the education system: <http://ic.education.gov.il/klali/SH40.htm>), also shows stability.

⁵⁶ This is in spite of the fact that following the implementation of the Shoshani Report, a student in the State Religious education system received an addition of 0.2 weekly hours for religious purposes.

students with a weak socioeconomic background (the upper quintile of the Nurture Index) relative to students from a strong socioeconomic background (the lower quintile). The graphs show that as a result of the gradual implementation of the Shoshani Report, starting in the 2003/4 school year, the implementation of affirmative action policy was strengthened significantly; however, as a result of the gradual implementation of the Strauss Report, there was a weakening in the implementation of affirmative action policy, which reached a lower level than even before the implementation of the Shoshani Report. The degree of affirmative action is higher with respect to standard hours than with respect to total hours and therefore lower with respect to non-standard hours and hours from other sources. This will be discussed at greater length below.

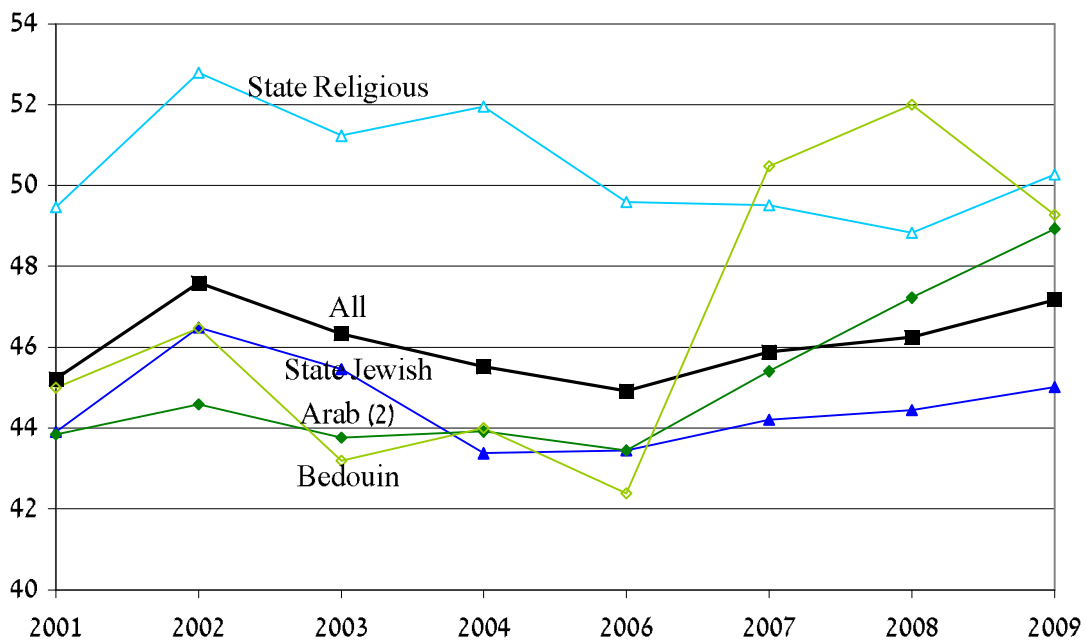
Students from a weak socioeconomic background in the State Religious education system received more standard hours per class in the 2007/8 school year than those in the State Jewish education system (see also Table A4a in Appendix A). This gap, which reached about one-sixth, was even larger for standard hours per student (Table A5a in Appendix A) since the number of students per class was much smaller in the State Religious education system.

Among students from a weak socioeconomic background, the allocated number of standard hours per class was highest in the State Religious education system, followed by the Bedouin education system, the State Jewish education system and well behind them the Arab education system (see also Table A4c in Appendix A). Over the years, there was a substantial decline in the number of standard hours per class enjoyed by students from a weak socioeconomic background in the State Religious education system, although it remained much higher than in the other segments, and following the implementation of the Shoshani Report the number of hours in the Arab and Bedouin schools increased significantly (Figure A13 in Appendix B).

The gap in standard hours per student from a weak socioeconomic background in favor of the State Religious education system (see also Table A5c in Appendix A) was larger than the gap measured in terms of standard hours per class. Thus, a student in the State Religious education system received 2.07 hours in the 2007/8 school year while an Arab student received 1.57 hours, i.e. more than one-third less. This is the

result of significantly smaller classes in the State Religious education system than in the Bedouin education system and in spite of the higher socioeconomic level in the State Religious education system. The trend in the number of standard hours per student from a weak socioeconomic background over time (Figure A8 in Appendix B) is similar to that of standard hours per class.

Figure 9. Number of weekly standard hours per class in the regular official primary education system¹ according to the segment of the education system, 2000/1-2008/9

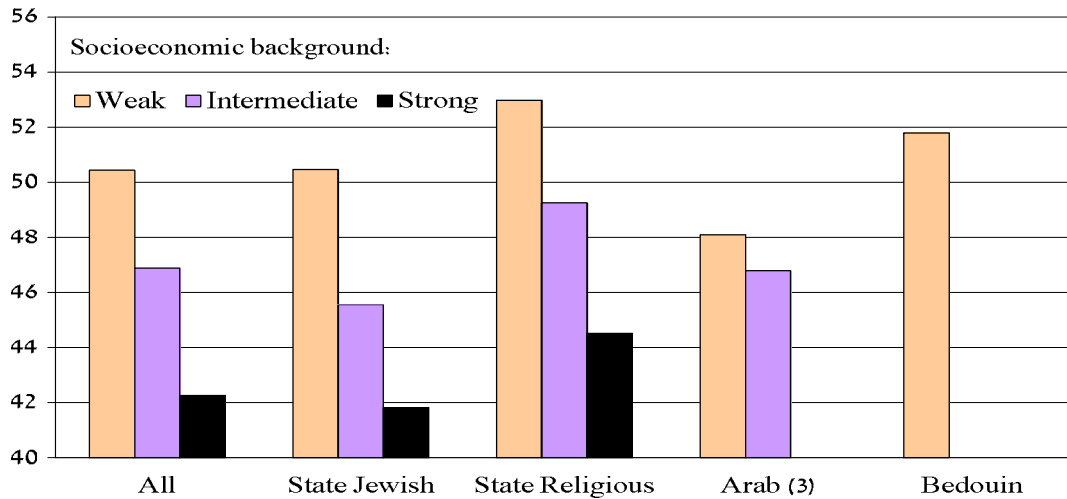


Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

1) Schools with Grades 1-6 only.

2) Including Druze (and Circassian). Does not include East Jerusalem.

Figure 10. Number of weekly standard hours per class in the regular official primary education system¹ according to the segment of the education system and students' socioeconomic background,² 2007/8



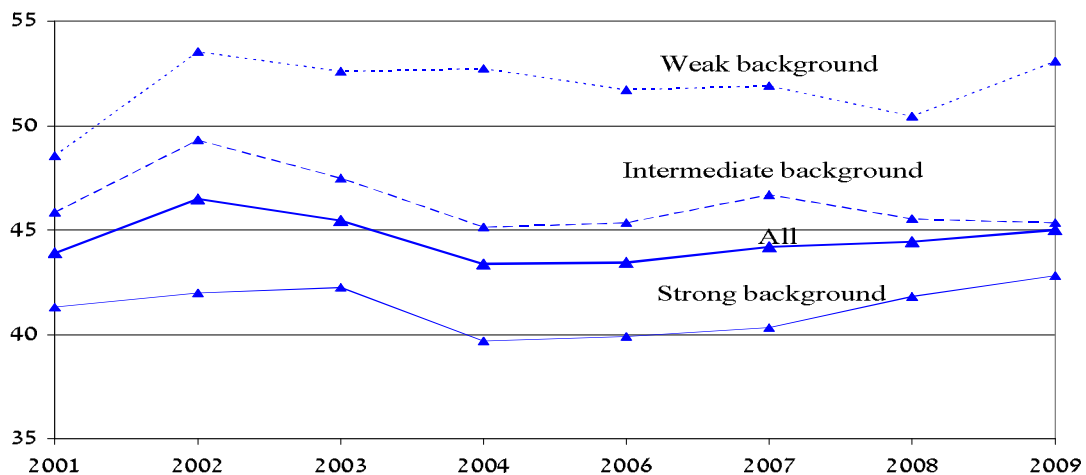
Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

1) Schools with Grades 1-6 only.

2) A weak background – Nurture deciles 8-10; intermediate background – Nurture deciles 4-7; strong background – Nurture deciles 1-3.

3) Including Druze (and Circassian). Does not include East Jerusalem.

Figure 11. Number of weekly standard hours per class in the regular official primary State Jewish education system¹ according to students' socioeconomic background,² 2000/1 to 2008/9

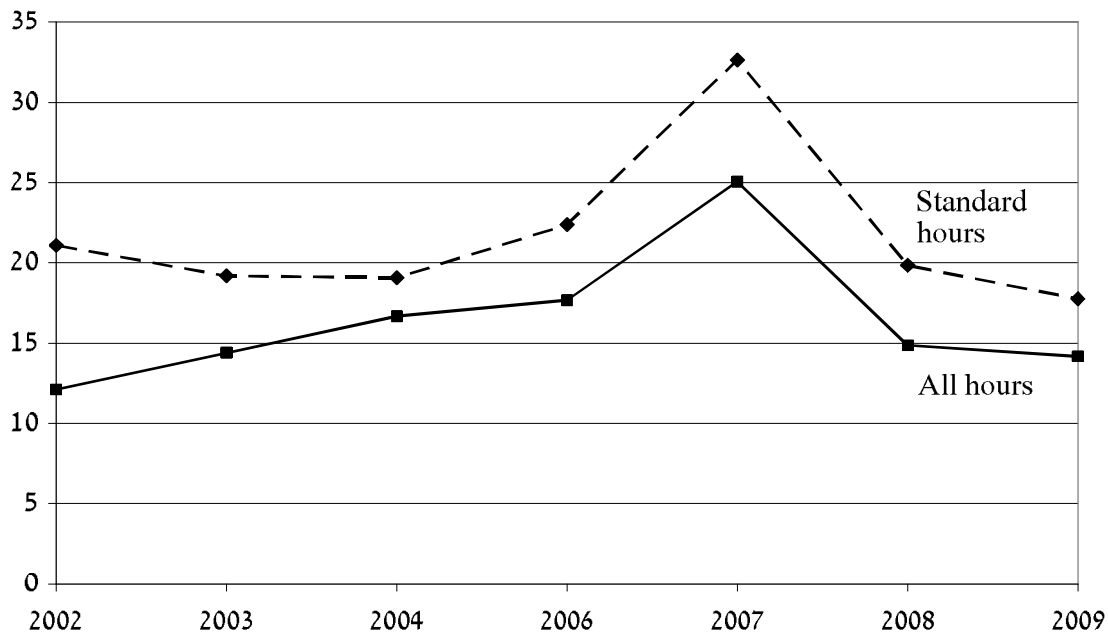


Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

1) Schools with Grades 1-6 only.

2) A weak background – Nurture deciles 8-10; intermediate background – Nurture deciles 4-7; strong background – Nurture deciles 1-3.

Figure 12. The gap in number of weekly standard hours per class in the regular official primary education system¹ between students from a weak vs. a strong socioeconomic background,² 2001/2 to 2008/9³ (percent)



Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

1) Schools with Grades 1-6 only.

2) A weak background – Nurture deciles 9-10 (higher quintile); A strong background – Nurture deciles 1-2 (lowest quintile).

3) 2000/1 was omitted from the graphs due to the small number of observations in each quintile.

Non-standard hours provided by the Ministry of Education

The weekly non-standard hours allocated by the Ministry of Education include hours that the Ministry finances directly (such as five-year programs in the Arab sector) and externally provided hours that it finances (such as teacher-soldiers, National Service and Perach), in some cases together with other government bodies. In this study, the emphasis is on providing an overall picture of non-standard hours and therefore a more detailed analysis of their allocation by type is left for a future study.

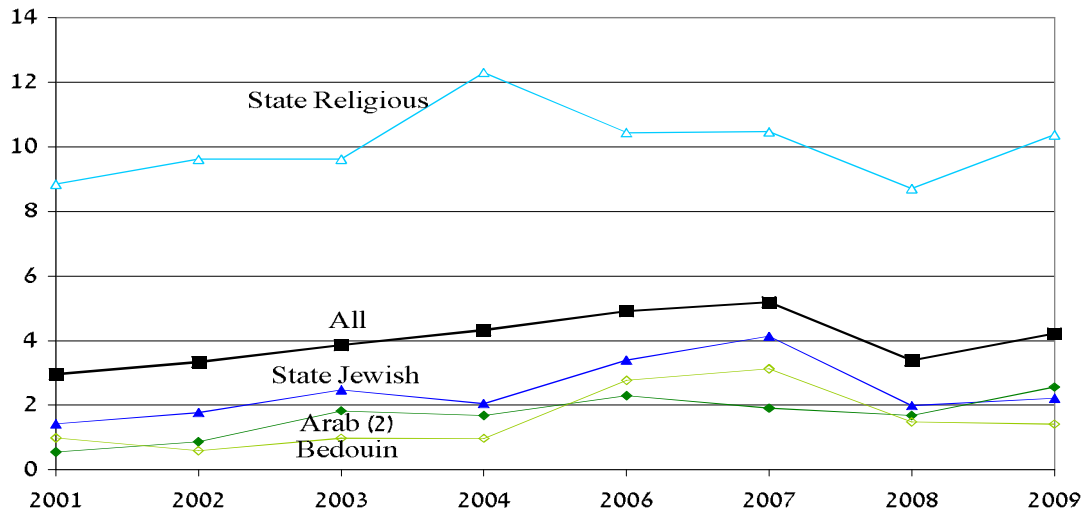
The main findings are as follows: 1) The number of non-standard hours stood at 3.4 per class during the 2007/8 school year (Table A1 in Appendix A) and 0.12 per student (Table A3 in Appendix A), which represent 6 percent of total Ministry of Education

hours. 2) The allocation of hours varies across segments of the education system: the State Religious education system received about 8.7 hours per class while the State Jewish and non-Jewish education systems received only about two hours. In terms of hours per student, the disparities are even larger. The main reason for this, though not the only one, is the allocation of National Service girls, primarily to the State Religious education system. Over the years, the number of non-standard hours in the State Jewish education system grew at a relatively high rate and this was even more the case in the Arab and Bedouin education systems, though the number of hours they received was still relatively low (Figure 13).

The addition to the number of non-standard hours in the non-Jewish education system, despite the cancellation of the allocation of hours in the form of “baskets” with the implementation of the Shoshani Report, was apparently a result of the implementation of the Five-Year Plan in the Non-Jewish sector. In the State Jewish education system the addition was apparently a result of the district pool of hours and the continued use of “baskets” and was meant to compensate schools who were receiving less hours as a result of the Shoshani Report, particularly schools with students from a strong socioeconomic background.

In the State Religious education system, the number of non-standard hours, both per class and per student, rose sharply in the case of students from a weak socioeconomic background while in the other system the change was on a relatively small scale (Tables A4 and A5 in Appendix A and Figures 14 and A9 in Appendix B).

Figure 13. Number of weekly non-standard hours per class in the regular official primary education system¹ according to the segment of the education system, 2000/1-2008/9

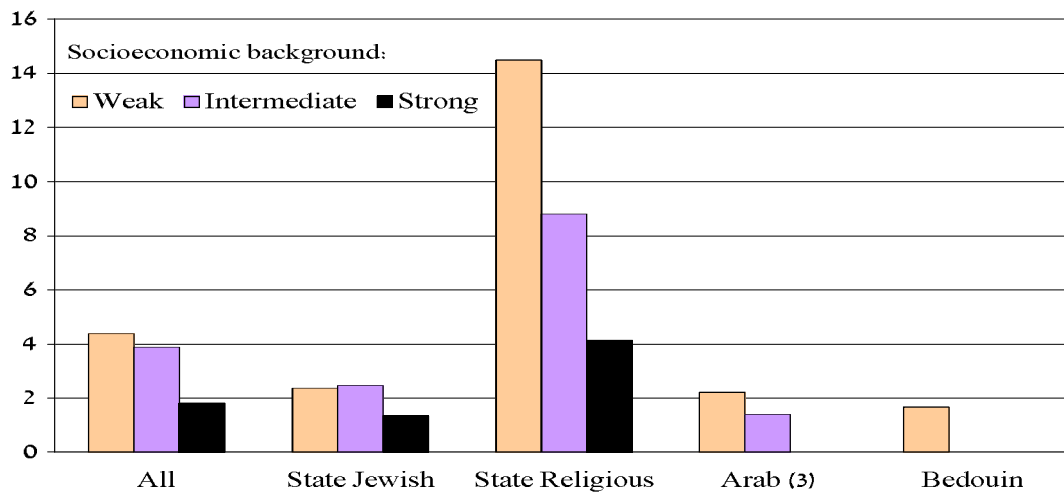


Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

1) Schools with Grades 1-6 only.

2) Including Druze (and Circassian). Does not include East Jerusalem.

Figure 14. Number of weekly non-standard hours per class in the regular official primary education system¹ according to the segment of the education system and students' socioeconomic background,² 2007/8



Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

1) Schools with Grades 1-6 only.

2) A weak background – Nurture deciles 8-10; intermediate background – Nurture deciles 4-7; strong background – Nurture deciles 1-3.

3) Including Druze (and Circassian). Does not include East Jerusalem.

In total, the Ministry of Education transferred 49.6 standard and non-standard hours to a class in the regular official primary education system during the 2007/8 school year, which represents 90 percent of the total hours allocated to the schools. Of these, about 7 percent were non-standard which, in contrast to standard hours, were allocated according to criteria that were somewhat ambiguous and not completely transparent to the public. Although the number of non-standard hours is not large, due to the significant differences in their allocation substantial disparities were created between the various segments of the education system in number of hours per student provided by the Ministry of Education. Thus, for example, in the 2007/8 school year, a student in the State Religious education system received a total of 2.14 hours from the Ministry of Education of which 1.81 were standard hours while a student in the Arab education system received 1.62 hours, of which 1.56 were standard hours, a gap of about one-sixth and one-third, respectively. The contribution of non-standard hours to the gaps in Ministry of Education hours between the various education systems is even larger for students from a weaker socioeconomic background.

Hours from Other Sources

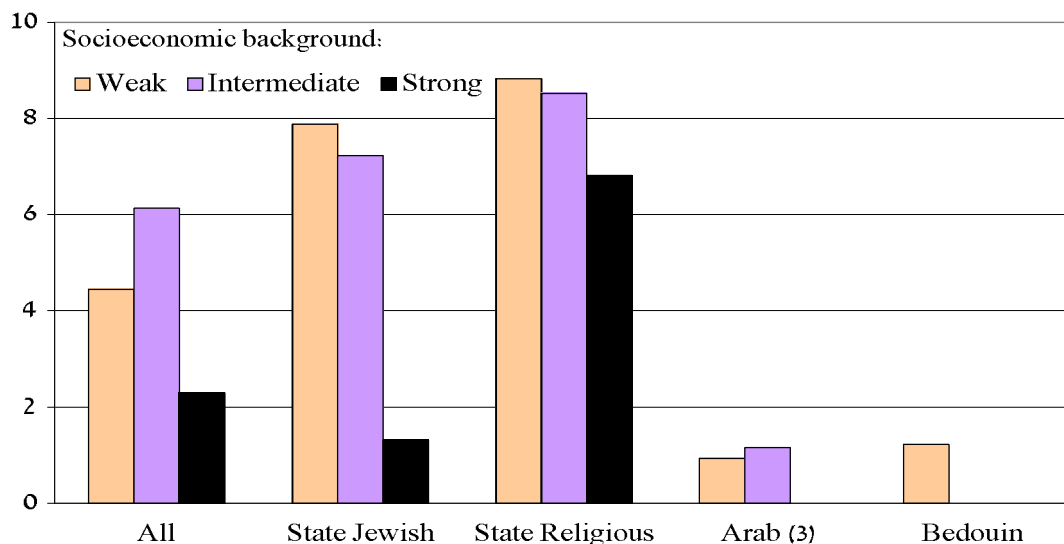
Hours from other sources are teachers' working hours financed by non-government entities, including local authorities, non-profit organizations, parents and volunteers. It is worth mentioning that some of the teachers' working hours provided by non-profit organizations are financed indirectly by the Ministry of Education as part of a matching arrangement; however, it is not possible to identify this phenomenon in the Standard Audit data. A more detailed analysis of the allocation of hours from other sources will appear in a different study (together with the analysis of the allocation of non-standard hours by the Ministry of Education).

The number of hours per class from other sources stood at 5.7 in the 2007/8 school year (Table A1 in Appendix A) and the number per student stood at 0.2 (Table A3 in Appendix A), which represents about 10 percent of total hours. The ranking of hours from other sources is as follows (in descending order): the State Religious education system followed by the State Jewish education system and well behind them the non-Jewish education system (about 9 hours per class for the former two and about 1 hour

for the latter). In terms of hours per student, the disparities are even greater. There was no clear trend over time in number of hours from other sources, apart from the increase in the State Religious education system. Therefore, availability of hours from other sources also contributed to the widening of gaps between the Jewish and non-Jewish education systems.

The weaker the socioeconomic background of the students' parents, the greater the number of hours available from other sources, both per class and per student, apart from in the Arab sector (Figures 15 and A10 in Appendix B).

Figure 15. Number of weekly hours from other sources per class in the regular official primary education system¹ according to the segment of the education system and students' socioeconomic background,² 2007/8



Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

4) Schools with Grades 1-6 only.

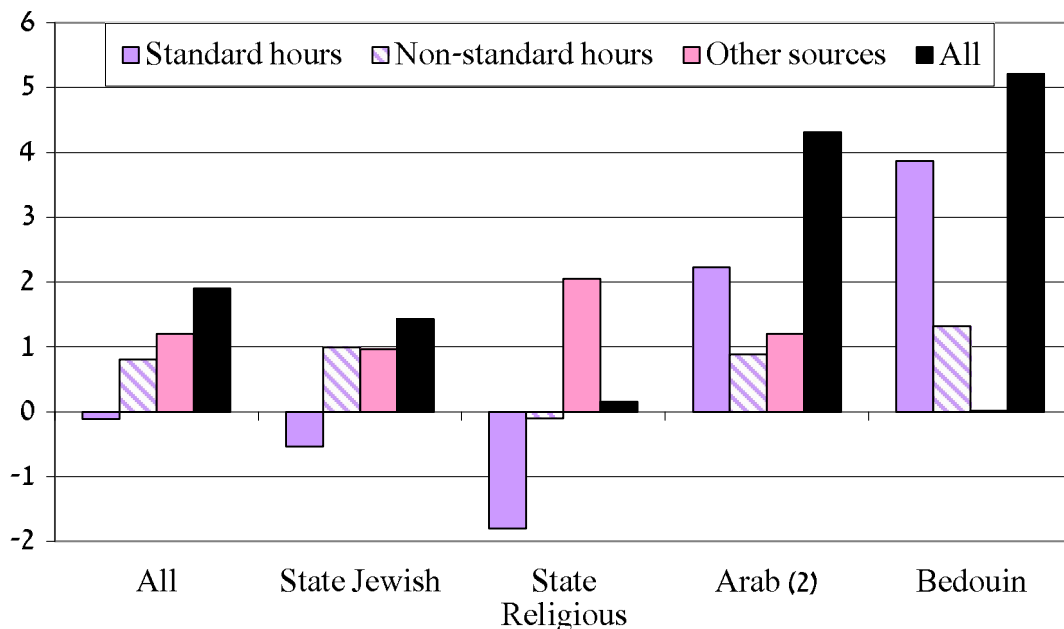
5) A weak background – Nurture deciles 8-10; intermediate background – Nurture deciles 4-7; strong background – Nurture deciles 1-3.

6) Including Druze (and Circassian). Does not include East Jerusalem.

A summary of the long-term changes in the number of teachers' working hours in the regular official primary education system according to segment and source of funding is presented in Figure 16 per class and in Figure A11 in Appendix B per student. The graphs compare the average number of hours during the period 2005/6 to 2008/9, i.e. following the implementation of the Shoshani Report, to the average

during the period 2000/1 to 2003/4. In total, there was a slight increase in hours per class in the primary education system and little change in the number of standard hours; in the State Jewish education system there was a very small increase in hours per class and a negligible drop in standard hours per student; in the State Religious education system there was a substantial decline in standard hours per class which was fully offset by the addition of hours from other sources; and in the Arab education system, and even more so in the Bedouin education system, there was a significant increase in the number of standard hours and non-standard Ministry of Education hours per class with an increase in hours from other sources in the Arab education system. As a result, the gaps in the allocation of total hours per class narrowed to the detriment of non-Jewish students. Similar trends can be found in teachers' working hours per student.

Figure 16. Change in the number of weekly hours per class in the regular official primary education system¹ according to the segment of the education system and source of funding: 2005/6-2008/9 compared to 2000/1-2003/4 (hours per class)



Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

1) Schools with Grades 1-6 only.

2) Including Druze (and Circassian). Does not include East Jerusalem.

F. ESTIMATION

This section presents the results of multivariate OLS estimation to determine the factors that affect the number of teachers' working hours in the regular official primary education system according to source of funding during the period being studied. The explanatory variables are those appearing in Section E, i.e. segment of the education system, district, the Nurture Index, a dummy for the period from 2005/6 to 2008/9 (hereafter: the later period) in comparison to the period 2000/1 to 2003/4 (hereafter the earlier period) and the number of students in a school. It should be emphasized that the results presented below are consistent, though not identical, with the findings described in the previous section since the estimation controls for a number of factors simultaneously while the descriptive statistics only partially accomplish this.

Table 9 presents the main results for all the segments of the education system taken together (about 2,000 schools). A class in the State Religious education system received an average of about 10 hours more during the period being studied than a class in the State Jewish education system, with other factors held constant. The number of hours per class in the State Jewish education system stood at 53.2 during the period being studied, so that the gap between the two systems was almost one-fifth. In contrast, an Arab class was allocated about 7.5 hours less and a Bedouin class 10 hours less than a class in the State Jewish education system. Classes in the Southern Region and the West Bank received over 2 hours more than classes in the Center. The estimated coefficient for the Nurture Index is 1.62 which means that moving up one nurture decile adds an average of 1.62 hours for a class, a result which of course reflects the policy of affirmative action. The result is that classes in schools whose students are from the weakest socioeconomic background (the 10th nurture decile) enjoyed about 16 more hours than classes whose students are from the strongest socioeconomic background (the 1st nurture decile), an addition of about one-third. The larger the number of students in a school, the smaller will be its number of hours per class. For example, an addition of 100 students will reduce hours per class by about 1.5. The reason is apparently that small schools receive additional resources, primarily in the form of non-standard hours (from the Ministry of Education and other

government ministries) and hours from other sources (local authorities, non-profit organizations and parents), in order for them to implement the required curriculum.

During the later period, the number of total hours per class was higher by 2 hours than in the earlier period, which is due to the addition of non-standard hours and hours from other sources, while the number of standard hours remained unchanged. This is in contrast to the conventional wisdom, already mentioned above, that the amount of resources available to schools has declined over the years.

With regard to the number of standard hours per class, which are, as mentioned, the core hours allocated by the Ministry of Education to the schools, the results are similar to those obtained for total hours. It should be mentioned that the disparities in standard hours between the various segments of the education system were much smaller than those in total hours, which implies that the allocation of non-standard hours and hours from other sources explains the gaps between the various school systems. Thus, while the Ministry of Education implements an affirmative action policy in the allocation of standard hours through the use of nurture indexes, its allocation of non-standard hours works in the opposite direction to that policy.

In other estimations (not shown), which included the interaction of the later period and the Nurture Index, the results indicate that during the years following the implementation of the Shoshani Report the impact of the Nurture Index on the standard hours per class grew by one-fifth, which is in contrast to the case of non-standard hours and hours from other sources. The finding with regard to standard hours is apparently the result of the implementation of the Shoshani Report, which involved the adoption of a universal nurture index that encompassed all standard hours. This implies that the Ministry of Education does indeed have the tools to reduce inequality in the availability of resources and to increase the scope of affirmative action.

An analysis of the estimation results for the allocation of non-standard hours indicates that classes in the State Religious education system received significantly more hours than classes in the State Jewish education system and that non-Jewish classes received somewhat less than the State Jewish classes. Classes in the West Bank received somewhat less hours than other regions in Israel. The Nurture Index had a positive and relatively large impact on the number of non-standard hours (Model A).

When the number of standard hours per class and the number of hours from other sources per class are added as explanatory variables in order to assess the cointegrative effects of the sources of funding (Model B), the following results are obtained: the number of non-standard hours is positively correlated with the number of standard hours (and at the same time the effect of the Nurture Index disappears); and the number of hours from other sources negatively affects the number of non-standard hours, which may be because when the Ministry of Education becomes aware of other sources that are available to a particular school it reduces those hours that it is not obligated to provide according to the criteria for the division of standard hours, and vice versa.

The classes in the non-Jewish sector and in the Northern District received far fewer hours from other sources than classes in the Center while classes in the West Bank (which are part of the State Religious education system) received more hours. The weaker the socioeconomic background of the students in a class, the less hours from other sources it received. Thus, for example, students with the weakest socioeconomic background received about three hours per class less than students from the strongest socioeconomic background, a gap of about one-half. This is perhaps due to the fact that the weaker the socioeconomic background of the parents, the less able they are to finance additions to the curriculum and furthermore these parents generally reside in areas where the local authority lacks the resources to financially support primary schools. These factors apparently overwhelm the tendency of non-profit organizations to assist schools with students from a weak socioeconomic background. The larger the number of standard hours per class, the larger is the number of hours from other sources (Model B). An in-depth analysis of the hours from other sources will be carried out in a separate study, which will differentiate between the various sources.

The estimation results for number of teachers' working hours per *student* in the regular official primary education system according to source of funding are presented in Table A10 in Appendix A. The results are very similar to those obtained in the per class estimation. The total hours per student during the later period was identical to that in the earlier period though the number of hours per class had grown, which is primarily due to the small drop of 0.05 standard hours (about 3 percent) per student

during the later period in comparison to standard hours per class which remained relatively unchanged.

The estimation results for teachers' working hours per *class* in the regular official primary education system by source for each segment of the education system separately are presented in Table A9 in Appendix A. In general, these estimates are similar to those obtained for all primary schools and therefore we will only discuss the differences between the various segments of the education system.

The number of working hours per class during the later period was higher than during the earlier period by close to 5 hours (about 10 percent) in the non-Jewish sector and by more than one hour in the State Jewish education system while in the State Religious education system there was little change. These findings are consistent with what is presented in Table A1 in Appendix A.

The positive contribution of the Nurture Index to the addition of standard and non-standard hours per class in the non-Jewish sector was small or insignificant, apparently due to the limited variation in the Index (the vast majority of schools are in the upper nurture deciles). During the period following the implementation of the Shoshani Report, there was little change in the number of standard hours per class in the State Jewish education system, a small decline in the State Religious education system (about 2 hours or less than 4 percent) and in contrast an increase in the number of hours in the non-Jewish education system, which amounted to more than 3 hours (about 7 percent) in the Bedouin school system. Nonetheless, the number of standard hours per class in the non-Jewish education system was still significantly lower than in the State Religious education system. These trends reflect the fact that the Nurture Index following the implementation of the Shoshani Report was not only universal and encompassed all standard hours, as mentioned above, but in addition its components were more closely related than in the past to the socioeconomic background of the students. Thus, the affirmative action policy in favor of students in the non-Jewish education system was strengthened during this period.

The number of non-standard hours per class during the later period relative to the earlier period was higher on average by about one hour in the State Jewish and non-Jewish education systems in contrast to the lack of change that characterized the State

Religious education system (whose number of non-standard hours was much higher). While in the Jewish sector, the number of hours from other sources per class is negatively correlated with the number of non-standard hours, in the non-Jewish sector the correlation is positive. A more in-depth analysis of these differences will, as mentioned, be carried out in a separate study.

Hours from other sources per class were much higher (by about 3 hours) in the State Religious education system in the West Bank than in the Center while in the State Jewish education system there were no significant differences in number of hours between the two districts. In the Arab education system, the higher the Nurture Index, the more hours the classes received from other sources while in the State Jewish education system the correlation was negative. During the later period, hours from other sources were added in the Jewish sector, particular in the State Religious education system, and in the Arab education system, as was described in Section E.

The estimation for hours per *student* for each segment of the education system separately (not shown) produced similar results to those obtained for hours per class. The only differences were as follows: hours per student in the State Jewish education system remained unchanged during the later period relative to the earlier period while the number of hours per class grew somewhat and in the State Religious education system there was a drop of 0.1 hours per students (about 4 percent) in the later period in contrast to no change in hours per class.

In order to deepen our understanding of the trend in total hours over the years—against the backdrop of the Shoshani Report whose implementation began in the 2003/4 school year followed by the implementation of the Strauss Report—estimations were also carried out to determine the causes of change in total hours per class from the various sources between the earlier period (2000/1 to 2003/4) and the later period (2005/6 to 2008/9). The estimations were carried out on a sub-sample that included only 523 schools⁵⁷ that were sampled at least once in each of the two periods.⁵⁸ The

⁵⁷ The weights were recalculated for the sub-sample.

⁵⁸ In the case that a school was sampled more than once during the period, the earlier year within the earlier period and the later year in the later period were chosen. This was done in order to create as large a gap in time as possible between the appearances of the schools in the sub-sample.

change in total hours was calculated separately for each of the schools in the sub-sample.

The advantage of the sub-sample lies in the characteristics of the student population, which remains almost unchanged between the two periods. This is in contrast to the changes in the composition of schools in the Standard Audit, as a result of which the estimation results for the differences in total hours per class between the two periods may be due to the variation in the school population's characteristics, which affect the amount of resources allocated to the schools. Only some of these characteristics were included in the list of explanatory variables in the estimations.

The data show that the average hours per class in the sub-sample according to source in each of the periods is similar to that of the Standard Audit as a whole and similarly for the change in total hours (Figure A14 in Appendix B in contrast to Figure 16, respectively). One exception is the State Religious education system which according to the sub-sample received close to 3 additional hours per class during the later period while its hours remained almost unchanged in the Standard Audit as a whole. Therefore, the concern that the State Religious education system would suffer as a result of the transition to a differential standard per student was unfounded, as indicated by the sub-sample data.

The estimation results (Table 10) confirm the finding that classes in the non-Jewish education system benefited from the growth in the number of standard hours during the later period relative to the State Jewish education system (Model A).⁵⁹ Controlling for school characteristics—beyond their classification as belonging to one of the segments of the education system—reveals that some of the growth in standard hours per class in the non-Jewish education system can be attributed to the location of the school and its size. Thus, the inclusion of a dummy variable for the Southern District makes the positive coefficient for Bedouin schools insignificant (Model B) and controlling for the number of students in the school reduces the size of the positive and significant

⁵⁹ A comparison of the estimation results obtained here with the results presented earlier can be made by examining the differences between the estimated coefficients for the segments of the education system and that for the State Jewish education system appearing in Table A9 in Appendix B in the line for the period 2005/6 to 2008/9.

coefficient for Arab schools (Model C). Schools and classes in the non-Jewish education system are larger than in the Jewish education system and therefore the transition during the later period from budgeting per student to budgeting per class benefited this sector. This can be seen in the positive coefficient for the number of students in the school (at the expense of the coefficient for the Arab and Bedouin education systems).⁶⁰ In contrast to the previous estimations, the results of the estimation using the sub-sample do not confirm that the standard hours per class in the State Religious education system declined during the later period whether in absolute terms or relative to the State Jewish education system (see also Figure A14 in Appendix B). A possible explanation involves the differences in the representation of the State Religious schools between the Standard Audit and the sub-sample.

The number of non-standard hours per class did not show any significant differential changes according to school characteristics in the transition between the periods. The number of hours from other sources declined during the later period in the non-Jewish education system in comparison to the State Jewish education system, which was also the case in the periphery relative to the Center.

Estimations were carried out for the change in total hours per class between the periods according to source of funding in a sub-sample that included only State Jewish schools, which constitute the lion's share of the education system, and which contains a sufficient number of schools for estimation. The estimation results (Table A11 in Appendix A) show that the number of hours from other sources per class fell in the periphery relative to the Center from the earlier to the later period and schools whose students are from a weak socioeconomic background received additional hours. Large schools, which usually have large classes, received additional hours in general and standard hours in particular, a finding which, as mentioned, is consistent with the transition to budgeting per student.

⁶⁰ Due to the high correlation between the Nurture Index variable on the one hand and the segment of the education system and district on the other, the addition of the latter two variables to the estimation for standard hours per class does not leave any explanatory power for the Nurture Index itself.

Table 9. Estimation for number of weekly hours per class in the regular official education system¹ according to source of funding, 2000/1 to 2008/9

Explanatory variable		Total hours	Standard hours	Non-standard hours		Hours from other sources	
				Model A	Model B	Model A	Model B
Dummy for segment (relative to the State Jewish education system)	State Religious	***9.97 (0.63)	***3.62 (0.36)	***6.35 (0.31)	***5.56 (0.31)	0.01 (0.34)	0.37 (0.37)
	Arab ²	***-7.50 (0.81)	***-3.64 (0.46)	***-1.71 (0.40)	***-1.08 (0.40)	***-2.15 (0.44)	***-2.06 (0.45)
	Bedouin	***-10.97 (1.29)	***-4.34 (0.73)	***-2.52 (0.64)	***-1.84 (0.63)	***-3.49 (0.70)	***-3.43 (0.70)
District ³ (relative to the Center)	Northern Region	-0.77 (0.67)	-0.31 (0.38)	-0.01 (0.34)	-0.16 (0.33)	***-1.07 (0.37)	***-1.10 (0.36)
	Center	***2.37 (0.86)	***1.80 (0.49)	-0.24 (0.43)	-0.12 (0.41)	0.33 (0.46)	0.23 (0.46)
	West Bank and Gaza ⁴	*2.36 (1.37)	***2.19 (0.78)	** -1.73 (0.68)	***-2.06 (0.66)	***1.90 (0.74)	***1.57 (0.74)
Nurture Index		***1.62 (0.15)	***1.50 (0.09)	***0.46 (0.08)	0.11 (0.08)	***-0.34 (0.08)	***-0.40 (0.09)
Number of students in the school		***-0.015 (0.002)	***-0.002 (0.001)	-0.006 *** (0.001)	-0.006 *** (0.001)	-0.007 *** (0.001)	***-0.007 (0.001)
School years 2005/6 to 2008/9 ⁵		***1.88 (0.46)	-0.20 (0.26)	***0.77 (0.23)	***0.92 (0.22)	***1.31 (0.25)	***1.40 (0.25)
Number of standard hours per class					***0.22 (0.02)		***0.07 (0.02)
Number of non-standard hours per class							***-0.10 (0.03)
Number of hours from other sources per class					***-0.08 (0.02)		
Constant		***50.60 (1.00)	***38.28 (0.57)	***2.23 (0.50)	***-5.28 (0.89)	***10.09 (0.54)	***7.62 (0.99)
Number of observations		1,986	1,986	1,986	1,986	1,986	1,986
Adjusted R ²		0.383	0.328	0.332	0.376	0.164	0.172

Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

1) Schools with Grades 1-6 only.

2) Includes Druze (and Circassian). Does not include East Jerusalem.

3) Ministry of the Interior districts used by the Central Bureau of Statistics. Center – Jerusalem, Tel Aviv and the Center districts.

4) Starting from the 2005/6 school year this includes only the West Bank.

5) In comparison to the school years 2000/1 to 2003/4.

Table 10. Estimation for the change in number of weekly hours per class in the regular official primary education system¹ according to source of funding, 2005/6 to 2008/9 as compared to 2000/1 to 2003/4, schools that appeared in both periods (hours per class)

		Total hours	Standard hours			Non-standard hours	Hours from other sources
			Model A	Model B	Model C		
Dummy for segment (relative to State Jewish education system)	State Religious	0.99 (1.25)	-0.11 (0.67)	-0.25 (0.67)	0.33 (0.74)	0.05 (0.56)	0.66 (0.61)
	Arab ²	-0.37 (1.67)	***2.64 (0.72)	***2.37 (0.83)	*1.737 (0.98)	-0.71 (0.74)	*-1.39 (0.82)
	Bedouin	-0.01 (2.55)	***2.98 (1.35)	2.10 (1.40)	1.55 (1.09)	0.72 (1.14)	** -2.28 (1.25)
District ³ (relative to Center)	Northern District	0.19 (1.40)		0.93 (0.69)	0.91 (0.83)	0.65 (0.62)	***-1.37 (0.69)
	Center	-0.09 (1.84)		***1.90 (0.88)	1.46 (0.88)	0.33 (0.82)	***-1.87 (0.90)
	West Bank and Gaza ⁴	4.30 (3.33)		2.44 (1.95)	2.39 (1.97)	0.66 (1.48)	1.25 (1.63)
Nurture Index		***0.75 (0.33)			0.09 (0.19)	0.12 (0.15)	***0.55 (0.16)
Number of students in the school ⁵		0.005 (0.003)			***0.005 (0.001)	-0.002 (0.001)	0.002 (0.002)
Change in the number of students in the school		-0.003 (0.005)			0.004 (0.003)	***-0.005 (0.002)	-0.002 (0.002)
Dummy for school years ⁶		V	V	V	V	V	V
Constant		*4.74 (2.86)	-1.67 (1.15)	** -2.19 (1.17)	***-4.30 (1.69)	-0.45 (1.27)	0.13 (1.40)
Number of observations		523	523	523	523	523	523
Adjusted R ²		0.04	0.03	0.03	0.04	0.05	0.05

Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

* Significant at the 10 percent level; ** significant at the 5 percent level; *** significant at the 1 percent level.

1) Schools with Grades 1-6 only.

2) Includes Druze (and Circassian). Does not include East Jerusalem.

3) Ministry of the Interior districts used by the Central Bureau of Statistics. Center – Jerusalem, Tel Aviv and the Center districts.

4) Starting from the 2005/6 school year, this includes only the West Bank.

5) In the year that the school was sampled during the period 2000/1 to 2003/4.

6) School years in which the school was sampled during the periods 2000/1 to 2003/4 and 2005/6 to 2008/9.

G. SUMMARY AND RECOMMENDATIONS

This study describes and analyzes the allocation of teachers' working hours among regular official primary schools during the school years 2000/1 to 2008/9, a period in which the budgeting system was changed twice. The study differentiates between the various segments of the education systems, the students' socioeconomic characteristics and sources of funding and is based on a large sample of schools used by the Ministry of Education for administrative purposes (the "Standard Audit").

The main part of the study involves the analysis of simple descriptive statistics regarding the allocation of working hours of teachers and other pedagogic staff among primary schools, without any in-depth investigation of the political economy decisions behind the allocation, the interrelationships between the sources of funding, the connection between the allocation and the segments of the education systems, etc. Nonetheless, since the study relates to all the sources of hours and is based on a comprehensive database that covers a decade, a long-term perspective is obtained of the allocation of hours among primary schools in Israel which is more comprehensive and more detailed than previous studies and sometimes contradict conventional wisdom. The descriptive statistics receive support from the multivariate estimation of hours per class and per student as dependent on the characteristics of a school and its students.

The average number of teachers' working hours per class during the period being studied stood at about 55 (equal to about two fulltime teaching positions). This is significantly more than the figure often mentioned in public discourse (i.e. about 45 hours) since it includes hours from non-government sources, among others. The number of hours has remained more or less unchanged during the period being studied, in contrast to the conventional wisdom that the amount of resources allocated to education has declined.

There are significant differences between the various segments of the education system in number of hours per class and the rank according to hours is as follows (in descending order): the State Religious education system, followed well behind by the State Jewish, Bedouin and Arab (including Druze) education systems. The estimation results indicate that the gap between the State Religious and the non-Jewish education

systems was close to 20 hours per class, other things, including the students' socioeconomic background, being equal. This is in spite of the fact that students in the non-Jewish education system are from much weaker socioeconomic backgrounds than those in the Jewish education system. The disparities in the allocation of hours per student were even more pronounced as a result of the larger classes in the non-Jewish education system. Following the transition to the differential standard per student budgeting system with the implementation of the Shoshani Report in the 2003/4 school year, the number of hours per class and per student increased substantially in the non-Jewish education system, such that the gaps narrowed significantly, though they remained large.

Within each segment of the education system, the weaker the students' socioeconomic background, the more hours they receive and the implementation of the Shoshani Report reinforced the government's affirmative action policy. It appears that this trend came to an end with the transition to the combined standard with the implementation of the Strauss Report in the 2007/8 school year. It guarantees a minimum number of hours per class in order to maintain the curriculum and left few hours for allocation according to a nurture index. This hypothesis is worthy of further study in the future.

The standard hours provided by the Ministry of Education constitute more than 83 percent of the schools' total hours and they are the hours that are allocated according to each budgeting system. There is a clear preference in the allocation of hours in favor of students in the State Religious education system and students from a weak socioeconomic background. Following the implementation of the Shoshani Report, the number of standard hours per class and per student in the State Religious education system fell somewhat while there was a substantial increase in hours for students from a weak socioeconomic background. The proportion of non-standard hours allocated by the Ministry of Education and other government bodies reached about 7 percent of total hours. The number of these hours remained basically unchanged over time and they were allocated primarily to the State Religious education system in the form of hours from National Service girls and other sources.

The average number of hours from non-government sources, i.e. local authorities, non-profit organizations and parents, represents about 10 percent of the total number of hours during the period being studied, though the number of these hours in the non-Jewish education system was negligible. Over the years, the State Religious education system received additional hours which offset and even exceeded the reduction in its standard hours. This finding is perhaps evidence of the feedback between the various sources of funding, which is intended, at the very least, to compensate for the reduction in resources available to a school as a result of changes in the budgeting system. An analysis of this feedback, with a separate investigation of the sources of funding for local authorities, non-profit organizations and parents, will be carried out in a separate study.

It can therefore be concluded that the allocation of non-standard hours by the Ministry of Education and the other sources available to the schools widened the disparities in the number of teaching hours to the detriment of the non-Jewish education system relative to the Jewish education system and in particular to the benefit of the State Religious education system.

The importance of the findings and their novelty emphasize the need for continuing to carry out the Standard Audit each year and to expand it to include all primary schools and junior high schools (which means the addition of schools in the recognized unofficial school system— primarily ultra-Orthodox schools—and special education schools), as well as high schools. It would be desirable to also expand the Standard Audit to include other areas of interest (such as sources of financial funding) and to computerize the process. The goal would be to produce information from the Standard Audit that is not available from other sources of administrative information and to increase the amount of such information available in electronic form. Furthermore, consideration should be given to combining the Standard Audit data with the School Management System (Manbas – its acronym in Hebrew) which includes a wealth of data on the schools. They in turn should be linked to the results of the Meitzav exams and various international exams, which will make it possible to investigate the link between inputs and outputs. Finally, the data from the Standard Audit should be made available to the public and to the community of researchers.

The present study has, as mentioned, only performed an aggregate analysis of sources available to the primary schools. Future research, which will also be based on the Standard Audit, will concentrate on the following: a) A detailed analysis of the additional resources available from sources other than the Ministry of Education (local authorities, non-profit organizations, parents, etc.). b) The use made of the available resources over time and according to school characteristics, such as the splitting of classes into smaller learning groups, the subjects taught and the link between socioeconomic heterogeneity of a school's students and how resources are used. The need to analyze uses is emphasized by the fact that an average class has available to it 55 weekly teachers' working hours, which are equivalent to two fulltime teaching positions, while it learns for only 30-35 hours per week. c) The effect of changes in total resources available and in the budgeting system on usage. d) The characteristics of teachers who are not Ministry of Education employees (fulltime/part-time, the subject they teach, etc.) in relation to the characteristics of the school and its students. e) Possible links between the variables included in the Standard Audit on the one hand and the results of the Meitzav exam (a measure of a school's efficiency and growth) and the school climate on the other. f) All of the aforementioned issues should also be investigated in the junior high schools system.

APPENDIXES

APPENDIX A: Tables

**Table A1. Number of weekly hours per class in a primary school¹
according to source of funding, year, sector and type of supervision**

		2001	2002	2003	2004	2006	2007	2008	2009	Avg. 2001-4	Avg. 2006-9	
Total	Total	52.7	56.2	55.3	54.0	56.1	58.2	55.3	56.1	54.5	56.4	
	State	51.2	54.7	53.8	50.3	54.5	55.9	52.7	52.6	52.5	53.9	
	State Religious	63.4	68.2	67.3	70.2	66.1	70.0	66.2	67.4	67.3	67.4	
	Arab	45.3	47.0	46.9	46.3	49.6	50.6	50.0	52.6	46.4	50.7	
	Bedouin	47.1	47.6	46.3	45.0	47.1	54.4	54.6	50.7	46.5	51.7	
Ministry of Education	Total	Total	48.2	50.9	50.2	49.8	49.8	51.1	49.6	51.4	49.8	50.5
		State	45.3	48.3	47.9	45.4	46.8	48.3	46.4	47.2	46.7	47.2
		State Religious	58.3	62.4	60.8	64.2	60.0	60.0	57.5	60.6	61.4	59.5
		Arab	44.4	45.5	45.6	45.6	45.7	47.3	48.9	51.5	45.3	48.4
		Bedouin	46.0	47.1	44.2	45.0	45.2	53.6	53.5	50.7	45.5	50.7
	Of that: Standard Hours	Total	45.2	47.6	46.3	45.5	44.9	45.9	46.2	47.2	46.2	46.1
		State	43.9	46.5	45.5	43.4	43.4	44.2	44.4	45.0	44.8	44.3
		State Religious	49.5	52.8	51.2	52.0	49.6	49.5	48.8	50.3	51.4	49.6
		Arab	43.8	44.6	43.8	43.9	43.5	45.4	47.2	48.9	44.0	46.3
		Bedouin	45.0	46.5	43.2	44.0	42.4	50.5	52.0	49.3	44.7	48.5
	Of that: other	Total	3.0	3.3	3.9	4.3	4.9	5.2	3.4	4.2	3.6	4.4
		State	1.4	1.8	2.5	2.0	3.4	4.1	2.0	2.2	1.9	2.9
		State Religious	8.8	9.6	9.6	12.3	10.4	10.5	8.7	10.4	10.1	10.0
		Arab	0.5	0.9	1.8	1.7	2.3	1.9	1.7	2.6	1.2	2.1
		Bedouin	1.0	0.6	1.0	1.0	2.8	3.1	1.5	1.4	0.9	2.2
Other sources	Total	4.5	5.2	5.1	4.1	6.3	7.1	5.7	4.7	4.7	6.0	
	State	5.8	6.4	5.9	4.9	7.6	7.5	6.3	5.4	5.8	6.7	
	State Religious	5.1	5.8	6.5	5.9	6.1	10.0	8.7	6.8	5.8	7.9	
	Arab	0.9	1.5	1.3	0.7	3.8	3.3	1.1	1.1	1.1	2.3	
	Bedouin	1.1	0.5	2.1	0.0	1.9	0.8	1.1	0.0	0.9	1.0	

Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

[^] Number of schools in a cell is 5 or less.

1) A regular official primary school with Grades 1-6 only (excluding special education classes or East Jerusalem).

Table A2. Number of weekly hours per class in a primary school¹
according to source of funding, year, sector and type of supervision (percent)

		2001	2002	2003	2004	2006	2007	2008	2009	Avg. 2001-4	Avg. 2006-9
Total	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Ministry of Education	91.4	90.7	90.8	92.4	88.8	87.8	89.8	91.6	91.3	89.5
	Of this: standard	85.8	84.7	83.8	84.3	80.0	78.9	83.6	84.1	84.7	81.6
	Of this: other	5.6	5.9	7.0	8.0	8.7	8.9	6.1	7.5	6.6	7.8
	Other sources	8.6	9.3	9.2	7.6	11.2	12.2	10.2	8.4	8.7	10.5
State	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Ministry of Education	88.6	88.2	89.0	90.4	86.0	86.5	88.1	89.7	89.1	87.6
	Of this: standard	85.8	85.0	84.4	86.3	79.8	79.1	84.3	85.5	85.4	82.2
	Of this: other	2.8	3.2	4.6	4.1	6.2	7.4	3.8	4.2	3.7	5.4
	Other sources	11.4	11.8	11.0	9.6	14.0	13.5	11.9	10.3	10.9	12.4
State Religious	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Ministry of Education	92.0	91.4	90.4	91.5	90.8	85.7	86.9	90.0	91.3	88.3
	Of this: standard	78.0	77.4	76.1	74.0	75.0	70.7	73.7	74.6	76.4	73.5
	Of this: other	14.0	14.1	14.3	17.5	15.8	14.9	13.1	15.4	15.0	14.8
	Other sources	8.0	8.6	9.6	8.5	9.2	14.3	13.1	10.0	8.7	11.7
Arab	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Ministry of Education	98.1	96.7	97.3	98.5	92.3	93.6	97.8	98.0	97.6	95.4
	Of this: standard	96.8	94.9	93.4	94.9	87.7	89.8	94.5	93.1	95.0	91.3
	Of this: other	1.2	1.8	3.9	3.6	4.6	3.8	3.4	4.9	2.6	4.2
	Other sources	1.9	3.3	2.7	1.5	7.7	6.4	2.2	2.0	2.4	4.6
Bedouin	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Ministry of Education	97.6	98.9	95.4	100.0	95.9	98.5	98.0	100.0	98.0	98.1
	Of this: standard	95.5	97.7	93.3	97.8	90.1	92.7	95.3	97.2	96.1	93.8
	Of this: other	2.1	1.2	2.1	2.2	5.9	5.8	2.7	2.8	1.9	4.3
	Other sources	2.4	1.1	4.6	0.0	4.1	1.5	2.0	0.0	2.0	1.9

Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

^ Number of schools in a cell is 5 or less.

1) A regular official primary school with Grades 1-6 only (excluding special education classes or East Jerusalem).

**Table A3. Number of weekly hours per *student* in a primary school¹
according to source of funding, year, sector and type of supervision**

		2001	2002	2003	2004	2006	2007	2008	2009	Avg. 2001-4	Avg. 2006-9	
Total	Total	1.85	1.99	1.95	1.92	1.96	1.99	1.92	1.92	1.93	1.95	
	State	1.76	1.92	1.86	1.74	1.83	1.89	1.81	1.75	1.82	1.82	
	State Religious	2.44	2.64	2.61	2.72	2.56	2.56	2.46	2.50	2.60	2.52	
	Arab	1.48	1.47	1.52	1.51	1.58	1.63	1.66	1.67	1.50	1.63	
	Bedouin	1.40	1.60	1.55	1.61	1.63	1.70	1.75	1.62	1.54	1.67	
Ministry of Education	Total	Total	1.69	1.80	1.77	1.77	1.74	1.75	1.72	1.75	1.76	1.74
		State	1.56	1.69	1.65	1.57	1.58	1.63	1.58	1.57	1.62	1.59
		State Religious	2.25	2.41	2.37	2.49	2.33	2.19	2.14	2.24	2.38	2.23
		Arab	1.45	1.42	1.47	1.49	1.46	1.52	1.62	1.63	1.46	1.56
		Bedouin	1.37	1.58	1.48	1.61	1.57	1.67	1.72	1.62	1.51	1.64
	Of this: standard	Total	1.58	1.68	1.63	1.61	1.57	1.56	1.60	1.60	1.62	1.58
		State	1.51	1.63	1.56	1.50	1.47	1.49	1.52	1.50	1.55	1.49
		State Religious	1.91	2.04	1.99	2.00	1.92	1.81	1.81	1.86	1.99	1.85
		Arab	1.43	1.39	1.41	1.43	1.38	1.46	1.56	1.55	1.42	1.49
		Bedouin	1.34	1.56	1.44	1.57	1.48	1.58	1.67	1.57	1.48	1.57
	Of this: other	Total	0.11	0.13	0.14	0.16	0.18	0.18	0.12	0.15	0.14	0.16
		State	0.05	0.06	0.09	0.07	0.11	0.15	0.07	0.07	0.07	0.10
		State Religious	0.34	0.38	0.38	0.48	0.41	0.38	0.33	0.39	0.39	0.38
		Arab	0.02	0.03	0.06	0.06	0.07	0.06	0.05	0.08	0.04	0.07
		Bedouin	0.03	0.02	0.03	0.03	0.09	0.10	0.05	0.05	0.03	0.07
Other sources	Total	0.16	0.19	0.18	0.15	0.22	0.25	0.21	0.17	0.17	0.21	
	State	0.20	0.23	0.21	0.17	0.26	0.25	0.23	0.18	0.20	0.23	
	State Religious	0.19	0.22	0.24	0.23	0.22	0.37	0.33	0.26	0.22	0.29	
	Arab	0.03	0.05	0.04	0.02	0.12	0.10	0.04	0.04	0.04	0.08	
	Bedouin	0.04	0.02	0.08	0.00	0.06	0.03	0.03	0.00	0.03	0.03	

Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

^ Number of schools in a cell is 5 or less.

1) A regular official primary school with Grades 1-6 only (excluding special education classes or East Jerusalem).

**Table A4. Number of weekly hours per class in a primary school¹
according to nurture decile, source of funding, year, sector and type of supervision**

a. Nurture deciles 1-3 (strong socioeconomic status)

		2001	2002	2003	2004	2006	2007	2008	2009	Avg. 2001-4	Avg. 2006-9	
Total	Total	50.6	52.1	51.7	49.7	51.5	54.3	49.7	51.5	51.0	51.7	
	State	49.7	50.8	50.2	45.7	50.3	53.9	48.1	49.6	49.1	50.5	
	State Religious	^55.8	58.1	60.1	69.1	56.9	55.9	57.8	60.4	60.8	57.8	
	Arab	.	.	.	.	.	.	.	.	.	.
	Bedouin	.	.	.	.	.	.	.	.	.	.
Ministry of Education	Total	Total	43.8	44.8	45.4	44.4	42.8	44.6	44.1	45.8	44.6	44.3
		State	42.5	43.4	43.9	40.7	41.8	44.8	43.2	44.1	42.6	43.5
		State Religious	^51.3	51.4	53.3	62.6	47.5	43.9	48.7	53.7	54.7	48.4
		Arab	.	.	.	.	.	.	.	.	.	.
		Bedouin	.	.	.	.	.	.	.	.	.	.
	Of this: standard	Total	41.9	42.5	42.6	41.8	40.4	40.2	42.3	43.5	42.2	41.6
		State	41.3	42.0	42.3	39.7	39.9	40.3	41.8	42.8	41.3	41.2
		State Religious	^45.3	44.8	44.8	52.1	42.7	39.6	44.5	46.9	46.8	43.4
		Arab	.	.	.	.	.	.	.	.	.	.
		Bedouin	.	.	.	.	.	.	.	.	.	.
	Of this: other	Total	1.9	2.3	2.7	2.6	2.4	4.4	1.8	2.3	2.4	2.7
		State	1.2	1.4	1.7	1.0	1.9	4.4	1.4	1.3	1.3	2.3
		State Religious	^6.0	6.6	8.5	10.5	4.8	4.3	4.1	6.8	7.9	5.0
		Arab	.	.	.	.	.	.	.	.	.	.
		Bedouin	.	.	.	.	.	.	.	.	.	.
Other sources	Total	6.8	7.3	6.3	5.2	8.6	9.7	5.6	5.7	6.4	7.4	
	State	7.2	7.4	6.3	5.0	8.4	9.1	4.9	5.5	6.5	7.0	
	State Religious	^4.4	6.7	6.8	6.5	9.5	12.0	9.1	6.7	6.1	9.3	
	Arab	.	.	.	.	.	.	.	.	.	.
	Bedouin	.	.	.	.	.	.	.	.	.	.

b. Nurture deciles 4-7 (intermediate socioeconomic status)

		2001	2002	2003	2004	2006	2007	2008	2009	Avg. 2001-4	Avg. 2006-9	
Total	Total	53.5	58.6	57.1	55.9	58.0	59.3	56.9	57.7	56.3	58.0	
	State	51.1	57.3	56.4	53.0	56.9	56.3	55.2	53.7	54.4	55.5	
	State Religious	64.5	69.3	66.7	68.6	67.1	71.7	66.6	67.3	67.3	68.2	
	Arab	45.0	47.7	47.3	46.1	48.7	49.9	49.3	53.6	46.5	50.4	
	Bedouin	^39.6	.	^39.1	.	^41.9	.	^53.6	^51.5	^39.3	^49.0	
Ministry of Education	Total	Total	49.8	53.4	52.2	51.7	52.3	53.1	50.8	52.5	51.8	52.2
		State	47.2	51.2	50.6	48.2	49.7	50.3	48.0	48.3	49.3	49.1
		State Religious	58.7	63.3	60.4	62.4	61.1	62.2	58.0	59.6	61.2	60.2
		Arab	44.3	46.1	46.1	45.6	46.3	47.7	48.2	52.2	45.5	48.6
		Bedouin	^39.6	.	^39.1	.	^41.9	.	^53.6	^51.5	^39.3	^49.0
	Of this: standard	Total	46.3	49.6	47.6	46.4	46.4	47.7	46.9	47.7	47.5	47.2
		State	45.8	49.3	47.5	45.1	45.4	46.7	45.5	45.4	47.0	45.7
		State Religious	49.5	53.7	51.0	50.8	50.3	50.6	49.2	50.5	51.2	50.2
		Arab	43.6	45.2	43.9	43.8	43.7	46.0	46.8	48.8	44.1	46.3
		Bedouin	^39.6	.	^39.1	.	^39.3	.	^53.6	^49.5	^39.3	^47.4
	Of this: other	Total	3.5	3.8	4.5	5.2	5.9	5.4	3.9	4.9	4.3	5.0
		State	1.3	1.8	3.1	3.0	4.3	3.6	2.5	3.0	2.3	3.3
		State Religious	9.3	9.6	9.3	11.7	10.8	11.6	8.8	9.1	10.0	10.1
		Arab	0.7	0.9	2.2	1.8	2.6	1.7	1.4	3.4	1.4	2.3
		Bedouin	^0.0	.	^0.0	.	^2.6	.	^0.0	^2.1	^0.0	^1.6
Other sources	Total	3.7	5.2	4.9	4.3	5.7	6.2	6.1	5.1	4.5	5.8	
	State	3.9	6.1	5.8	4.8	7.2	6.1	7.2	5.4	5.2	6.5	
	State Religious	5.8	6.0	6.3	6.2	5.9	9.5	8.5	7.7	6.1	7.9	
	Arab	0.8	1.7	1.2	0.5	2.4	2.1	1.2	1.3	1.1	1.7	
	Bedouin	^0.0	.	^0.0	.	^0.0	.	^0.0	^0.0	^0.0	^0.0	

c. Nurture deciles 8-10 (weak socioeconomic status)

		2001	2002	2003	2004	2006	2007	2008	2009	Avg. 2001-4	Avg. 2006-9	
Total	Total	54.0	55.9	56.6	55.0	57.9	61.9	59.3	58.5	55.4	59.4	
	State	^58.5	59.9	60.8	58.6	63.5	63.6	60.7	^60.6	59.5	62.1	
	State Religious	^67.5	76.3	80.0	77.5	74.4	82.6	76.3	78.1	75.3	77.8	
	Arab	45.7	45.6	46.2	46.6	51.2	51.8	51.2	50.7	46.0	51.3	
	Bedouin	47.5	47.6	46.7	45.0	47.3	54.4	54.7	50.6	46.7	51.7	
Ministry of Education	Total	Total	50.8	53.7	53.3	52.9	53.4	56.4	54.8	56.4	52.7	55.3
		State	^51.4	56.7	56.4	54.5	57.6	57.2	52.8	^55.6	54.7	55.8
		State Religious	^64.1	72.4	73.3	73.2	72.2	73.7	67.5	75.3	70.8	72.2
		Arab	44.6	44.3	44.8	45.6	44.7	46.5	50.3	50.2	44.8	47.9
		Bedouin	46.4	47.1	44.5	45.0	45.3	53.6	53.5	50.6	45.7	50.7
	Of this: standard	Total	47.6	50.0	49.3	48.4	47.5	50.5	50.4	51.1	48.8	49.9
		State	^48.6	53.5	52.6	52.7	51.7	51.9	50.5	^53.1	51.9	51.8
		State Religious	^53.6	59.4	61.0	56.2	55.8	58.7	53.0	54.0	57.6	55.4
		Arab	44.3	43.5	43.5	44.2	43.0	44.3	48.1	49.1	43.9	46.1
		Bedouin	45.3	46.5	43.4	44.0	42.5	50.5	51.8	49.2	44.8	48.5
	Of this: other	Total	3.2	3.7	4.0	4.4	6.0	5.9	4.4	5.2	3.8	5.4
		State	^2.8	3.1	3.7	1.7	5.9	5.3	2.4	^2.5	2.8	4.0
		State Religious	^10.4	13.0	12.3	17.0	16.5	15.0	14.5	21.3	13.2	16.8
		Arab	0.3	0.8	1.3	1.4	1.7	2.2	2.2	1.1	1.0	1.8
		Bedouin	1.0	0.6	1.0	1.0	2.8	3.1	1.7	1.3	0.9	2.2
Other sources	Total	3.2	2.2	3.4	2.1	4.4	5.5	4.4	2.1	2.7	4.1	
	State	^7.1	3.2	4.5	4.2	5.9	6.4	7.9	^5.0	4.7	6.3	
	State Religious	^3.5	3.9	6.7	4.3	2.2	8.9	8.8	2.7	4.6	5.7	
	Arab	1.1	1.3	1.4	1.0	6.5	5.3	0.9	0.6	1.2	3.3	
	Bedouin	1.2	0.5	2.2	0.0	2.0	0.8	1.2	0.0	1.0	1.0	

Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

^ Number of schools in the cell is 5 or less.

1) A regular official primary school with Grades 1-6 only excluding special education classes or East Jerusalem).

**Table A5. Number of weekly hours per *student* in a primary school¹
according to nurture decile, source of funding, year, sector and type of supervision**

a. Nurture deciles 1-3 (strong socioeconomic status)

		2001	2002	2003	2004	2006	2007	2008	2009	Avg. 2001-4	Avg. 2006-9	
Total	Total	1.71	1.80	1.76	1.71	1.70	1.84	1.60	1.66	1.75	1.70	
	State	1.67	1.73	1.68	1.53	1.61	1.78	1.52	1.56	1.65	1.62	
	State Religious	^1.94	2.15	2.21	2.57	2.09	2.08	2.02	2.15	2.22	2.09	
	Arab	.	.	.	.	.	.	.	.	.	.
	Bedouin	.	.	.	.	.	.	.	.	.	.
Ministry of Education	Total	Total	1.47	1.55	1.55	1.53	1.42	1.51	1.42	1.48	1.52	1.46
		State	1.42	1.47	1.47	1.37	1.35	1.49	1.37	1.38	1.43	1.40
		State Religious	^1.78	1.90	1.96	2.33	1.75	1.64	1.70	1.91	1.99	1.75
		Arab	.	.	.	.	.	.	.	.	.	.
		Bedouin	.	.	.	.	.	.	.	.	.	.
	Of this: standard	Total	1.41	1.47	1.45	1.43	1.34	1.36	1.36	1.40	1.44	1.36
		State	1.38	1.42	1.41	1.33	1.28	1.33	1.32	1.34	1.39	1.32
		State Religious	^1.58	1.66	1.65	1.93	1.57	1.47	1.55	1.66	1.70	1.56
		Arab	.	.	.	.	.	.	.	.	.	.
		Bedouin	.	.	.	.	.	.	.	.	.	.
	Of this: other	Total	0.07	0.08	0.10	0.10	0.08	0.16	0.06	0.08	0.08	0.09
		State	0.04	0.05	0.06	0.03	0.06	0.16	0.04	0.04	0.05	0.08
		State Religious	^0.20	0.24	0.32	0.40	0.17	0.17	0.15	0.25	0.29	0.18
		Arab	1.47	1.55	1.55	1.53	1.42	1.51	1.42	1.48	1.52	1.46
		Bedouin	1.42	1.47	1.47	1.37	1.35	1.49	1.37	1.38	1.43	1.40
Other sources	Total	0.24	0.26	0.22	0.18	0.28	0.33	0.18	0.19	0.22	0.24	
	State	0.25	0.26	0.21	0.17	0.27	0.30	0.15	0.18	0.22	0.22	
	State Religious	^0.16	0.26	0.25	0.24	0.34	0.45	0.32	0.24	0.23	0.34	
	Arab	.	.	.	.	.	.	.	.	.	.
	Bedouin	.	.	.	.	.	.	.	.	.	.

b. Nurture deciles 4-7 (intermediate socioeconomic status)

		2001	2002	2003	2004	2006	2007	2008	2009	Avg. 2001-4	Avg. 2006-9	
Total	Total	1.88	2.09	2.05	2.01	2.06	2.02	2.02	1.99	2.01	2.02	
	State	1.75	2.03	1.97	1.86	1.97	1.91	1.96	1.84	1.90	1.92	
	State Religious	2.45	2.66	2.63	2.68	2.59	2.55	2.48	2.46	2.60	2.52	
	Arab	1.46	1.50	1.50	1.50	1.53	1.59	1.65	1.69	1.49	1.62	
	Bedouin	^1.22	.	^1.18	.	^1.43	.	^1.68	^1.59	^1.20	^1.57	
Ministry of Education	Total	Total	1.75	1.90	1.86	1.85	1.85	1.80	1.79	1.80	1.84	1.81
		State	1.62	1.81	1.76	1.69	1.72	1.70	1.68	1.65	1.72	1.69
		State Religious	2.23	2.43	2.39	2.43	2.37	2.21	2.17	2.17	2.37	2.23
		Arab	1.44	1.44	1.46	1.48	1.45	1.52	1.60	1.65	1.46	1.56
		Bedouin	^1.22	.	^1.18	.	^1.43	.	^1.68	^1.59	^1.20	^1.57
	Of this: standard	Total	1.62	1.76	1.69	1.65	1.64	1.61	1.65	1.63	1.68	1.63
		State	1.57	1.74	1.66	1.57	1.58	1.57	1.59	1.55	1.64	1.57
		State Religious	1.88	2.05	2.02	1.97	1.93	1.80	1.83	1.84	1.98	1.85
		Arab	1.42	1.41	1.39	1.42	1.37	1.46	1.56	1.54	1.41	1.48
		Bedouin	^1.22	.	^1.18	.	^1.34	.	^1.68	^1.53	^1.20	^1.52
	Of this: other	Total	0.13	0.14	0.17	0.20	0.22	0.19	0.14	0.17	0.16	0.18
		State	0.05	0.07	0.11	0.11	0.14	0.12	0.09	0.10	0.08	0.11
		State Religious	0.35	0.37	0.38	0.46	0.44	0.41	0.33	0.33	0.39	0.38
		Arab	0.02	0.03	0.07	0.06	0.08	0.06	0.04	0.11	0.04	0.07
		Bedouin	^0.00	.	^0.00	.	^0.09	.	^0.00	^0.06	^0.00	^0.05
Other sources	Total	0.13	0.19	0.18	0.16	0.20	0.22	0.23	0.19	0.16	0.21	
	State	0.13	0.22	0.21	0.17	0.25	0.21	0.28	0.19	0.18	0.23	
	State Religious	0.22	0.23	0.24	0.24	0.22	0.34	0.32	0.29	0.23	0.29	
	Arab	0.03	0.05	0.04	0.02	0.08	0.07	0.05	0.04	0.04	0.06	
	Bedouin	^0.00	.	^0.00	.	^0.00	.	^0.00	^0.00	^0.00	^0.00	

c. Nurture deciles 8-10 (weak socioeconomic status)

		2001	2002	2003	2004	2006	2007	2008	2009	Avg. 2001-4	Avg. 2006-9	
Total	Total	1.99	2.03	2.03	1.99	2.07	2.19	2.13	2.08	2.01	2.12	
	State	^2.25	2.23	2.23	2.11	2.19	2.34	2.38	^2.19	2.21	2.27	
	State Religious	^2.94	3.20	3.11	3.07	3.04	3.23	2.98	3.11	3.08	3.09	
	Arab	1.51	1.42	1.53	1.54	1.68	1.69	1.67	1.63	1.50	1.67	
	Bedouin	1.41	1.60	1.58	1.61	1.64	1.70	1.76	1.62	1.55	1.68	
Ministry of Education	Total	Total	1.87	1.95	1.90	1.91	1.92	1.99	1.96	1.99	1.91	1.96
		State	^1.97	2.11	2.07	1.96	1.98	2.09	2.07	^2.00	2.03	2.04
		State Religious	^2.80	3.05	2.86	2.89	2.95	2.88	2.61	2.95	2.90	2.85
		Arab	1.47	1.38	1.49	1.51	1.47	1.53	1.64	1.61	1.46	1.56
		Bedouin	1.37	1.58	1.50	1.61	1.58	1.67	1.73	1.62	1.51	1.65
	Of this: standard	Total	1.74	1.80	1.75	1.74	1.70	1.77	1.80	1.79	1.76	1.76
		State	^1.87	1.99	1.93	1.90	1.77	1.89	1.97	^1.91	1.92	1.89
		State Religious	^2.36	2.49	2.37	2.22	2.34	2.29	2.07	2.17	2.36	2.22
		Arab	1.46	1.36	1.45	1.46	1.41	1.45	1.57	1.58	1.43	1.50
		Bedouin	1.34	1.56	1.46	1.57	1.48	1.58	1.67	1.57	1.48	1.58
	Of this: other	Total	0.13	0.15	0.15	0.17	0.22	0.22	0.16	0.21	0.15	0.20
		State	^0.10	0.12	0.14	0.06	0.21	0.20	0.09	^0.09	0.11	0.15
		State Religious	^0.43	0.55	0.48	0.68	0.61	0.59	0.54	0.78	0.54	0.63
		Arab	0.01	0.02	0.04	0.05	0.06	0.07	0.07	0.03	0.03	0.06
		Bedouin	0.03	0.02	0.04	0.03	0.09	0.10	0.05	0.05	0.03	0.07
Other sources	Total	0.12	0.08	0.12	0.08	0.15	0.20	0.18	0.09	0.10	0.15	
	State	^0.27	0.12	0.17	0.15	0.21	0.24	0.31	^0.19	0.18	0.24	
	State Religious	^0.15	0.15	0.25	0.17	0.09	0.34	0.37	0.16	0.18	0.24	
	Arab	0.04	0.04	0.04	0.03	0.21	0.17	0.03	0.02	0.04	0.11	
	Bedouin	0.04	0.02	0.08	0.00	0.06	0.03	0.04	0.00	0.04	0.03	

Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

^ Number of schools in a cell is 5 or less.

1) A regular official primary school with Grades 1-6 only (excluding special education classes or East Jerusalem).

**Table A6. Number of weekly hours *per class* in a primary school¹
according to nurture decile, school district,² period, sector and type of supervision**

		<i>Nurture deciles 1-3</i> <i>Strong</i> socioeconomic		<i>Nurture deciles 4-7</i> <i>Intermediate</i> socioeconomic status		<i>Nurture deciles 8-10</i> <i>Weak</i> socioeconomic status	
		2001-2004	2006-2009	2001-2004	2006-2009	2001-2004	2006-2009
All of Israel	Total	51.0	51.7	56.3	58.0	55.4	59.4
	State	49.1	50.5	54.4	55.5	59.5	62.1
	State Religious	60.8	57.8	67.3	68.2	75.3	77.8
	Arab	.	.	46.5	50.4	46.0	51.3
	Bedouin	.	.	^39.3	^49.0	46.7	51.7
North	Total	51.1	48.4	53.6	55.7	52.4	57.3
	State	50.1	48.3	54.7	54.9	57.1	63.6
	State Religious	.	.	70.9	70.0	75.6	73.9
	Arab	.	.	46.1	50.6	46.0	51.3
	Bedouin	.	.	^39.3	^49.0	46.3	52.1
South	Total	49.9	56.3	61.3	62.6	59.4	61.5
	State	49.9	56.3	55.1	56.8	60.0	58.8
	State Religious	.	.	74.6	71.6	67.4	86.1
	Arab	.	.	.	.	.	.
	Bedouin	.	.	.	.	48.2	51.5
West Bank and Gaza ³	Total	55.3	55.1	67.7	66.7	.	.
	State	^53.3	^50.7	61.0	57.3	.	.
	State Religious	^64.9	53.4	79.6	71.2	.	.
	Arab	.	.	.	.	.	.
	Bedouin	.	.	.	.	.	.
Center ⁴	Total	51.0	51.8	56.2	58.5	^76.1	84.0
	State	53.3	50.7	52.6	56.3	.	.
	State Religious	.	.	63.5	65.0	^79.2	82.2
	Arab	.	.	46.7	46.7	.	.
	Bedouin	.	.	.	.	.	.

Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

^ Number of schools in the cell is 5 or less.

1) A regular official primary school with Grades 1-6 only (excluding special education classes or East Jerusalem).

2) Ministry of Interior districts used by the Central Bureau of Statistics.

3) During the period 2006-9, this includes the West Bank alone.

4) The Jerusalem, Tel Aviv and Center districts.

**Table A7. Number of weekly hours *per student* in a primary school¹
according to nurture decile, school district,² period, sector and type of supervision**

		<i>Nurture deciles 1-3</i> <i>Strong</i> socioeconomic		<i>Nurture deciles 4-7</i> <i>Intermediate</i> socioeconomic status		<i>Nurture deciles 8-10</i> <i>Weak</i> socioeconomic status	
		2001-2004	2006-2009	2001-2004	2006-2009	2001-2004	2006-2009
All of Israel	Total	1.75	1.70	2.01	2.02	2.01	2.12
	State	1.65	1.62	1.90	1.92	2.21	2.27
	State Religious	2.22	2.09	2.60	2.52	3.08	3.09
	Arab	.	.	1.49	1.62	1.50	1.67
	Bedouin	.	.	^1.20	^1.57	1.55	1.68
North	Total	1.81	1.62	1.88	1.94	1.88	2.04
	State	1.79	1.62	1.94	1.92	2.22	2.31
	State Religious	.	.	2.83	2.72	3.04	3.10
	Arab	.	.	1.47	1.63	1.50	1.67
	Bedouin	.	.	^1.20	^1.57	1.62	1.73
South	Total	1.61	1.71	2.15	2.06	2.19	2.14
	State	1.61	1.71	1.77	1.84	2.19	2.16
	State Religious	.	.	2.96	2.42	2.90	3.20
	Arab	.	.	.	.	.	.
	Bedouin	.	.	.	.	1.51	1.67
West Bank and Gaza ³	Total	2.33	1.94	2.59	2.55	.	.
	State	^2.27	^1.77	2.15	2.13	.	.
	State Religious	^2.15	1.89	3.26	2.69	.	.
	Arab	.	.	.	.	.	.
	Bedouin	.	.	.	.	.	.
Center ⁴	Total	1.74	1.70	2.03	2.06	^2.97	3.28
	State	2.27	1.77	1.89	1.95	.	.
	State Religious	.	.	2.38	2.39	^3.13	3.19
	Arab	.	.	1.52	1.43	.	.
	Bedouin	.	.	.	.	.	.

Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

^ Number of schools in the cell is 5 or less.

1) A regular official primary school with Grades 1-6 only (excluding special education classes or East Jerusalem).

2) Ministry of Interior districts used by the Central Bureau of Statistics.

3) During the period 2006-9, this includes the West Bank alone.

4) The Jerusalem, Tel Aviv and Center districts.

**Table A8. Number of students per class¹ in a primary school²
according to nurture decile, year, sector and type of supervision**

	2001	2002	2003	2004	2006	2007	2008	2009	Avg. 2001-4	Avg. 2006-9
a. Total hours										
Total	28.3	28.5	28.4	28.0	27.4	28.3	28.5	28.6	28.3	28.0
State	28.7	28.8	28.8	29.0	28.3	28.5	29.0	29.3	28.8	28.7
State Religious	25.7	24.7	24.4	23.6	22.4	25.5	25.3	24.5	24.6	23.8
Arab	29.8	32.2	31.3	30.8	31.1	30.8	30.1	31.6	31.0	31.4
Bedouin	31.4	29.9	31.0	27.8	28.7	31.4	31.5	30.7	30.0	29.3
b. Nurture deciles 1-3 (strong socioeconomic status)										
Total	28.1	29.1	28.8	28.8	28.4	28.4	30.3	30.2	28.7	28.8
State	28.1	29.6	29.4	30.0	29.1	28.8	31.0	31.0	29.3	29.5
State Religious	^28.2	26.6	25.9	23.2	25.2	26.7	26.5	26.5	26.0	25.2
Arab	.	.	.	.	.	.	.	.	.	.
Bedouin	.	.	.	.	.	.	.	.	.	.
c. Nurture deciles 4-7 (intermediate socioeconomic status)										
Total	28.9	28.2	28.1	27.6	26.7	28.4	27.9	28.2	28.2	27.6
State	30.0	28.5	28.6	28.3	27.8	28.6	28.2	28.5	28.8	28.3
State Religious	26.0	24.6	23.9	23.7	21.4	25.8	25.5	24.7	24.5	23.4
Arab	30.0	32.2	31.9	31.1	31.5	31.1	29.9	31.9	31.3	31.7
Bedouin	^32.3	.	^32.9	.	^29.4	.	^29.8	^32.4	^32.6	^31.1
d. Nurture deciles 8-10 (weak socioeconomic status)										
Total	27.3	28.2	28.4	27.7	27.7	27.9	27.6	27.4	27.9	28.0
State	^26.0	26.2	27.2	27.8	27.0	26.6	24.2	^25.5	26.8	27.0
State Religious	^22.1	22.5	24.2	23.7	23.1	22.6	23.2	21.2	23.1	23.4
Arab	29.5	32.4	30.3	30.2	30.3	30.3	30.5	31.1	30.6	30.8
Bedouin	31.3	29.9	30.9	27.8	28.7	31.4	31.7	30.5	30.0	29.3

Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

^ Number of schools in the cell is 5 or less.

1) Actual classes (as opposed to normative classes).

2) A regular official primary school with Grades 1-6 only (excluding special education classes or East Jerusalem).

Table A9. Estimation results for number of weekly hours per *class* in the regular official primary education system¹ according to source of funding and school system, 2000/1 to 2008/9 (hours per class)

a. Total Hours

Explanatory Variable		State Jewish	State Religious	Arab ²	Bedouin
District ³ (relative to the Center)	North	** -1.76 (0.79)	0.65 (1.86)	-0.13 (1.32)	-2.02 (1.65)
	South	0.94 (1.02)	** 4.40 (1.96)		
	West Bank and Gaza ⁴	1.24 (1.71)	* 4.60 (2.63)		
Nurture Index		*** 1.34 (0.17)	*** 2.59 (0.41)	* 0.90 (0.52)	1.85 (1.92)
Number of students in the school		*** -0.018 (0.002)	*** -0.026 (0.005)	*** -0.006 (0.002)	0.001 (0.004)
School years 2005/6 – 2008/9		** 1.37 (0.57)	0.06 (1.25)	*** 4.50 (0.82)	*** 4.96 (1.36)
Constant		*** 54.04 (1.18)	*** 58.07 (2.85)	*** 42.43 (3.86)	*** 31.12 (17.12)
Number of observations		1,088	468	354	76
Adjusted R ²		0.187	0.219	0.088	0.173

b. Standard Hours

Explanatory Variable		State Jewish	State Religious	Arab ²	Bedouin
District ³ (relative to the Center)	North	-0.34 (0.41)	*** 2.88 (1.09)	-0.27 (0.88)	*** -5.08 (1.47)
	South	0.53 (0.53)	*** 3.26 (1.15)		
	West Bank and Gaza ⁴	** 1.89 (0.89)	** 3.03 (1.54)		
Nurture Index		*** 1.52 (0.09)	*** 1.51 (0.24)	* 0.65 (0.35)	1.58 (1.71)
Number of students in the school		*** -0.003 (0.001)	*** -0.009 (0.003)	0.002 (0.002)	0.001 (0.003)
School years 2005/6 – 2008/9		** -0.66 (0.30)	*** -1.90 (0.73)	*** 2.19 (0.55)	*** 3.26 (1.20)
Constant		*** 39.07 (0.61)	*** 43.66 (1.67)	*** 38.55 (2.58)	*** 33.66 (15.20)
Number of observations		1,088	468	354	76
Adjusted R ²		0.360	0.240	0.046	0.271

c. Non-Standard Hours

Explanatory Variable		State Jewish		State Religious		Arab ²		Bedouin	
		Model A	Model B	Model A	Model B	Model A	Model B	Model A	Model B
District ³ (relative to Center)	North	-0.19 (0.37)	-0.21 (0.37)	-0.57 (1.00)	-1.54 (0.97)	0.51 (0.49)	0.60 (0.47)	***1.81 (0.62)	***1.88 (0.70)
	South	-0.43 (0.48)	-0.47 (0.47)	1.40 (1.05)	0.52 (1.02)				
	West Bank and Gaza ⁴	-0.72 (0.82)	-1.04 (0.80)	-2.17 (1.42)	*-2.47 (1.37)				
Nurture Index		***0.23 (0.08)	-0.06 (0.09)	***1.34 (0.22)	***0.91 (0.22)	-0.17 (0.19)	*-0.31 (0.19)	-0.38 (0.72)	-0.38 (0.74)
Number of students in the school		***-0.005 (0.001)	***-0.005 (0.001)	***-0.015 (0.003)	***-0.013 (0.003)	***-0.003 (0.001)	***-0.002 (0.001)	0.001 (0.001)	0.001 (0.001)
School years 2005/6-2008/9 ⁵		***0.96 (0.27)	***1.14 (0.27)	0.06 (0.67)	0.81 (0.66)	**0.93 (0.30)	0.43 (0.30)	***1.38 (0.51)	**1.35 (0.54)
Number of standard hours per class			***0.17 (0.03)		***0.26 (0.04)		***0.14 (0.03)		0.01 (0.05)
Number of hours from other sources per class			***-0.06 (0.02)		***-0.13 (0.05)		***0.14 (0.04)		-0.01 (0.15)
Constant		***3.08 (0.56)	**2.76 (1.21)	***6.31 (1.53)	*4.00 (2.33)	***3.35 (1.43)	-2.09 (1.75)	2.72 (6.41)	2.30 (6.76)
Number of observations		1,986	1,986	468	468	354	354	76	76
Adjusted R ²		0.053	0.088	0.201	0.270	0.044	0.131	0.167	0.144

d. Hours from other sources

Explanatory Variable		State Jewish		State Religious		Arab ²		Bedouin	
		Model A	Model B	Model A	Model B	Model A	Model B	Model A	Model B
District ³ (relative to Center)	North	***-1.24 (0.50)	***-1.22 (0.50)	*-1.65 (0.86)	** -1.91 (0.86)	-0.37 (0.58)	-0.48 (0.58)	**1.25 (0.50)	*1.15 (0.58)
	South	0.85 (0.65)	0.74 (0.64)	-0.26 (0.91)	-0.34 (0.91)				
	West Bank and Gaza ⁴	0.08 (1.10)	-0.23 (1.09)	***3.75 (1.21)	***3.31 (1.22)				
Nurture Index		***-0.41 (0.11)	***-0.57 (0.12)	-0.27 (0.19)	-0.23 (0.20)	*0.41 (0.23)	*0.45 (0.23)	0.65 (0.59)	0.68 (0.60)
Number of students in the school		***-0.010 (0.001)	***-0.011 (0.001)	-0.002 (0.002)	-0.002 (0.002)	***-0.005 (0.001)	***-0.004 (0.001)	-0.000 (0.001)	-0.000 (0.001)
School years 2005/6-2008/9 ⁵		***1.08 (0.36)	***1.27 (0.37)	***1.89 (0.58)	***2.03 (0.58)	***1.38 (0.36)	***1.17 (0.37)	0.32 (0.41)	0.40 (0.46)
Number of standard hours per class			***-0.12 (0.04)		** -0.11 (0.04)		***0.21 (0.07)		-0.02 (0.04)
Number of non- standard hours per class			***0.12 (0.04)		*0.07 (0.04)		0.00 (0.04)		-0.01 (0.10)
Constant		***11.89 (0.75)	***7.52 (1.64)	***8.10 (1.32)	***5.76 (2.07)	0.52 (1.71)	-0.37 (2.16)	-5.26 (5.22)	-4.48 (5.47)
Number of observations		1,986	1,986	468	468	354	354	76	76
Adjusted R ²		0.075	0.087	0.068	0.080	0.086	0.111	0.067	0.044

Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

* Significant at the 10 percent level; ** significant at the 5 percent level; *** significant at the 1 percent level.

1) School with Grades 1-6 only.

2) Includes Druze (and Circassian). Does not include East Jerusalem.

3) Ministry of Interior districts used by the Central Bureau of Statistics. Center – Jerusalem, Tel Aviv and Center districts. In the Bedouin sector, it is the Northern District relative to the Southern District.

4) Starting from 2005/6, this includes only the West Bank.

5) In comparison to the school years 2000/1-2003/4.

Table A10. Estimation results for number of weekly hours per student in the regular official primarily education system¹ according to source of funding, 2000/1 to 2008/9 (hours per student)

Explanatory variable		Total hours	Standard hours	Non-standard hours		Hours from other sources	
				Model A	Model B	Model A	Model B
Dummy for segment of the education system (relative to the State Jewish education system)	State Religious	***0.45 (0.02)	***0.19 (0.01)	***0.25 (0.01)	***0.22 (0.01)	0.01 (0.01)	0.01 (0.01)
	Arab ²	***-0.35 (0.03)	***-0.21 (0.02)	***-0.07 (0.01)	***-0.04 (0.01)	***-0.08 (0.02)	***-0.07 (0.02)
	Bedouin	***-0.45 (0.05)	***-0.22 (0.03)	***-0.10 (0.02)	***-0.07 (0.02)	***-0.13 (0.03)	***-0.12 (0.03)
District ³ (relative to the Center)	North	-0.01 (0.03)	0.02 (0.02)	0.00 (0.01)	-0.00 (0.01)	***-0.04 (0.01)	***-0.04 (0.01)
	South	*0.05 (0.03)	*0.03 (0.02)	0.01 (0.02)	0.00 (0.02)	0.01 (0.02)	0.01 (0.02)
	West Bank and Gaza ⁴	***0.12 (0.05)	***0.11 (0.03)	***-0.07 (0.02)	***-0.08 (0.02)	***0.08 (0.03)	***0.06 (0.03)
Nurture Index		***0.08 (0.01)	***0.07 (0.00)	***0.02 (0.00)	**0.01 (0.00)	***-0.01 (0.00)	***-0.01 (0.00)
Number of student in the school		***-0.001 (0.000)	***-0.001 (0.000)	***-0.000 (0.000)	***-0.000 (0.000)	***-0.000 (0.000)	***-0.000 (0.000)
School years 2005/6-2008/9 ⁵		0.02 (0.02)	***-0.05 (0.01)	***0.02 (0.01)	***0.03 (0.01)	***0.04 (0.01)	***0.05 (0.01)
Number of standard hours per class					***0.17 (0.02)		***0.07 (0.02)
Number of non-standard hours per class							***-0.07 (0.02)
Number of hours from other sources per class					***-0.06 (0.02)		
Constant		***2.01 (0.04)	***1.54 (0.02)	***0.09 (0.02)	***-0.14 (0.03)	***0.37 (0.02)	***0.27 (0.04)
Number of observations		1,986	1,986	1,986	1,986	1,986	1,986
Adjusted R ²		0.587	0.583	0.380	0.408	0.180	0.187

Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

* Significant at the 10 percent level; ** significant at the 5 percent level; *** significant at the 1 percent level.

1) School with Grades 1-6 only.

2) Includes Druze (Circassian). Does not include East Jerusalem.

3) Ministry of Interior districts used by the Central Bureau of Statistics. Center – Jerusalem, Tel Aviv and Center districts.

In the Bedouin sector, it is the Northern District relative to the Southern District.

4) Starting from 2005/6, this includes only the West Bank.

5) In comparison to the school years 2000/1-2003/4.

Table A11. Estimation results for the change in the number of weekly hours per *class* in the regular official State Jewish primary education system¹ according to source of funding, 2005/6 - 2008/9 compared to 2000/1 - 2003/4 schools that appeared in both periods (hours per class)

		Total hours	Standard hours	Non-standard hours	Hours from other sources
District ² (relative to the Center)	North	-1.70 (1.37)	0.40 (0.87)	-0.41 (0.55)	** -1.69 (0.82)
	South	-2.32 (1.91)	0.41 (1.20)	0.26 (0.76)	*** -2.99 (1.14)
	West Bank and Gaza ³	4.07 (3.35)	2.57 (2.12)	0.79 (1.35)	0.72 (1.99)
Nurture Index		***1.10 (0.31)	0.24 (0.20)	0.16 (0.13)	***0.70 (0.16)
Number of students in the school ⁴		***0.009 (0.004)	**0.005 (0.002)	-0.0006 (0.001)	**0.005 (0.002)
Change in number of students in the school		0.007 (0.005)	***0.10 (0.003)	-0.003 (0.002)	0.0004 (0.03)
Dummy for school year ⁵		V	V	V	V
Constant		***-8.70 (2.90)	** -4.68 (1.83)	-1.38 (1.16)	2.64 (1.73)
Number of observations		296	296	296	296
Adjusted R ²		0.06	0.04	0.04	0.06

Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

* Significant at the 10 percent level; ** significant at the 5 percent level; *** significant at the 1 percent level.

1) School with Grades 1-6 only.

2) Ministry of Interior districts used by the Central Bureau of Statistics. Center – Jerusalem, Tel Aviv and Center districts. In the Bedouin sector, it is the Northern District relative to the Southern District.

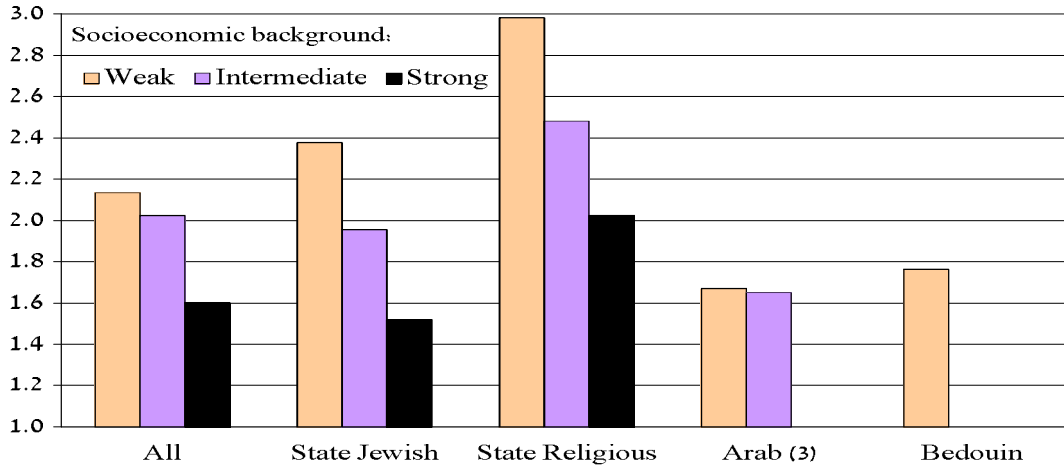
3) Starting from 2005/6, this includes only the West Bank.

4) In the year that the school was sampled during 2000/1-2003/4.

5) School years in which the school was sampled during the periods 2000/1-2003/4 and 2005/6-2008/9.

APPENDIX B: FIGURES

Figure A1. Number of weekly hours per *student* in the regular official primary education system¹ according to the segment of the education system and students' socioeconomic background,² 2007/8



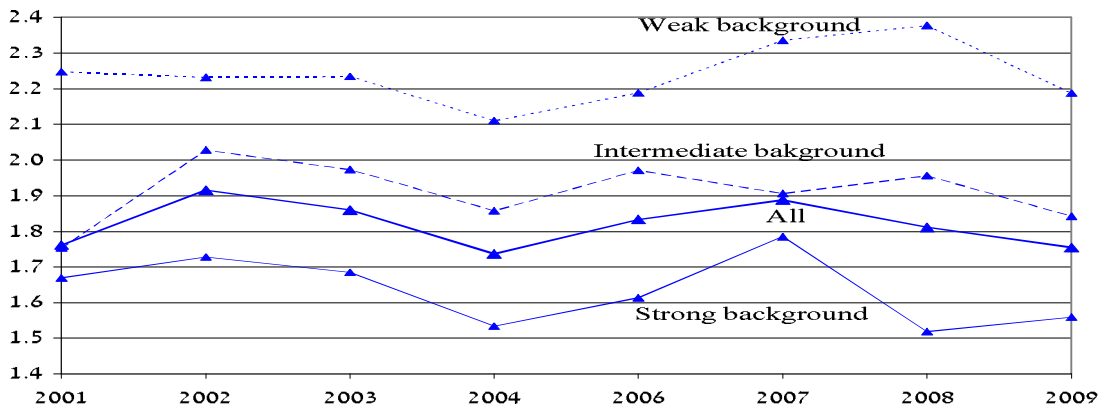
Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

1) Schools with Grades 1-6 only.

2) A weak background – Nurture deciles 8-10; intermediate background – Nurture deciles 4-7; strong background – Nurture deciles 1-3.

3) Including Druze (and Circassian). Does not include East Jerusalem.

Figure A2. Number of weekly standard hours per *student* in the regular official primary State Jewish education system¹ according to students' socioeconomic background,² 2000/1 to 2008/9

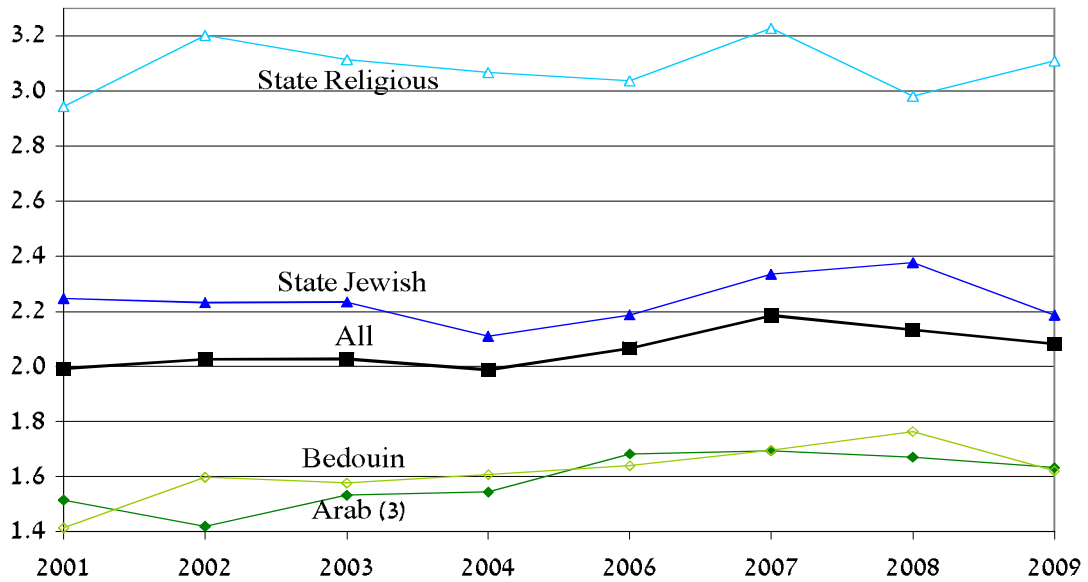


Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

1) Schools with Grades 1-6 only.

2) A weak background – Nurture deciles 8-10; intermediate background – Nurture deciles 4-7; strong background – Nurture deciles 1-3.

Figure A3. Number of weekly hours per *student* in the regular official primary education system¹ according to the segment of the education system: students from a weak socioeconomic background,² 2000/1 to 2008/9



Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

1) Schools with Grades 1-6 only.

2) Nurture deciles 8-10.

3) Including Druze (and Circassian). Does not include East Jerusalem.

Figure A4. Number of weekly hours per student in the regular official primary education system¹ according to district² and students' socioeconomic background, 2005/6 to 2008/9

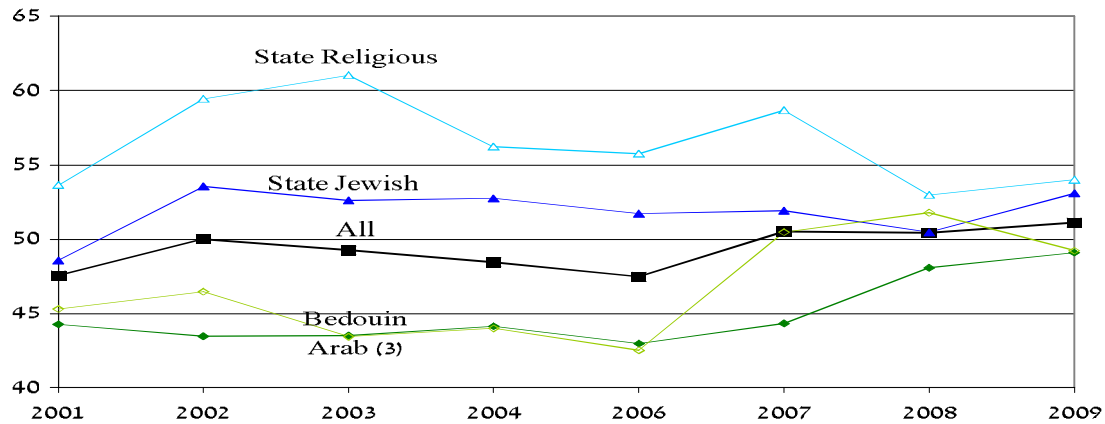


Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

1) Schools with Grades 1-6 only.

2) Ministry of the Interior districts used by the Central Bureau of Statistics. Center – Jerusalem, Tel Aviv and the Center districts.

Figure A5. Number of weekly standard hours per *class* in the regular official primary education system¹ according to the segment of the education system: students from a weak socioeconomic background,² 2000/1 to 2008/9



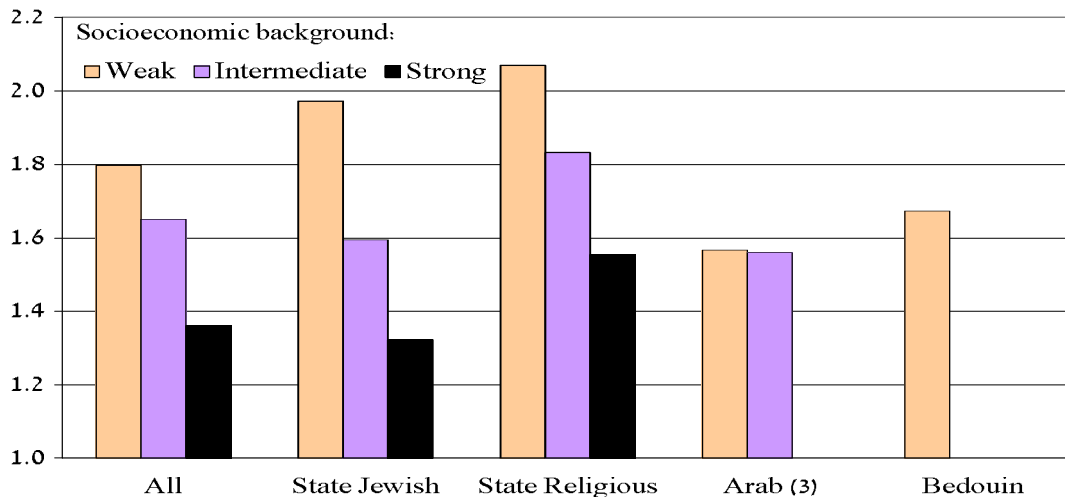
Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

1) Schools with Grades 1-6 only.

2) Nurture deciles 8-10.

3) Including Druze (and Circassian). Does not include East Jerusalem.

Figure A6. Number of weekly standard hours per *student* in the regular official primary education system¹ according to the segment of the education system and students' socioeconomic background,² 2007/8



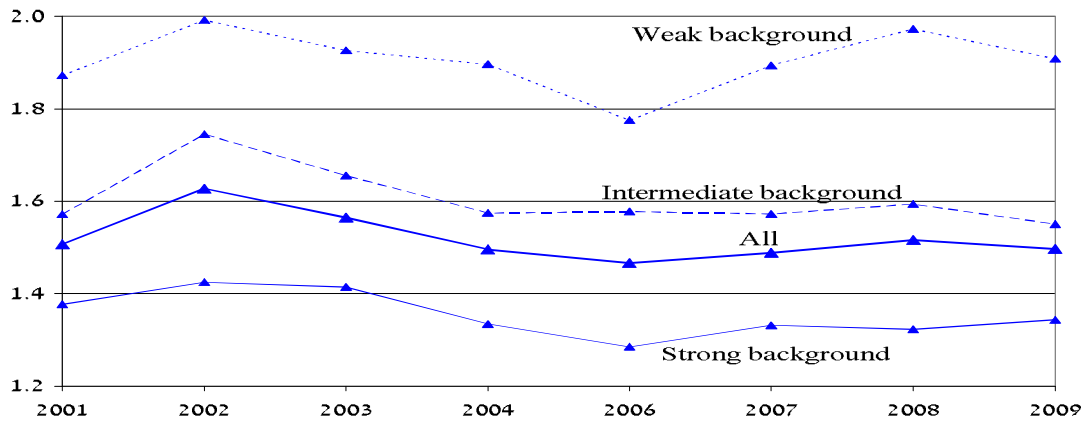
Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

1) Schools with Grades 1-6 only.

2) A weak background – Nurture deciles 8-10; intermediate background – Nurture deciles 4-7; strong background – Nurture deciles 1-3.

3) Including Druze (and Circassian). Does not include East Jerusalem.

Figure A7. Number of weekly standard hours per *student* in the regular official State Jewish primary education system¹ according to students' socioeconomic background,² 2000/1 to 2008/9

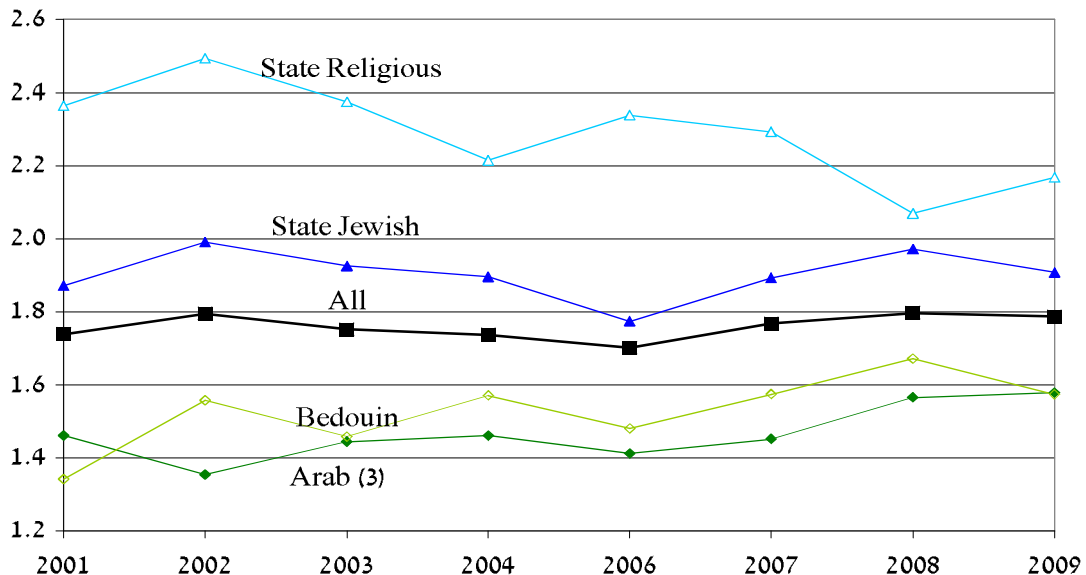


Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

1) Schools with Grades 1-6 only.

2) A weak background – Nurture deciles 8-10; intermediate background – Nurture deciles 4-7; strong background – Nurture deciles 1-3.

Figure A8. Number of weekly standard hours per *student* in the regular official primary education system¹ according to the segment of the education system: students from a weak socioeconomic background,² 2000/1 to 2008/9



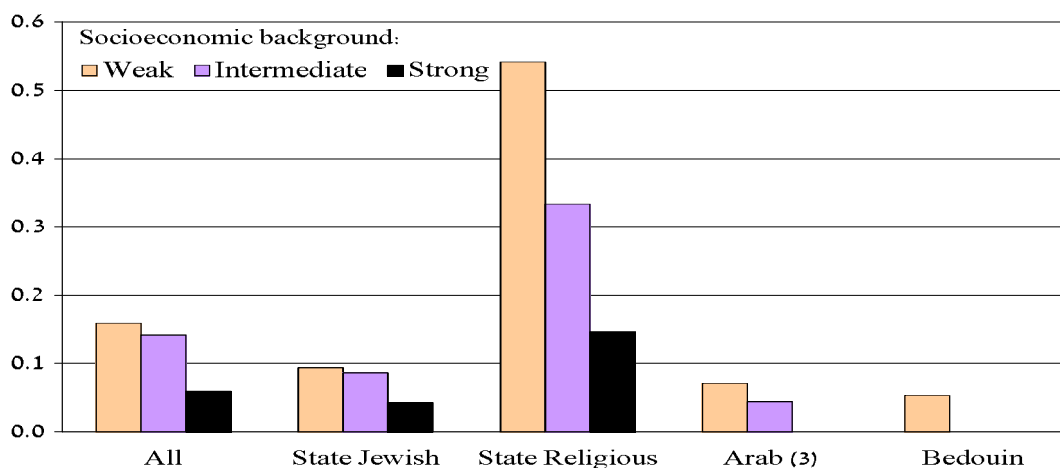
Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

1) Schools with Grades 1-6 only.

2) Nurture deciles 8-10.

3) Including Druze (and Circassian). Does not include East Jerusalem.

Figure A9. Number of weekly hours from other sources per *student* in the regular official primary education system¹ according to the segment of the education system and students' socioeconomic background,² 2007/8



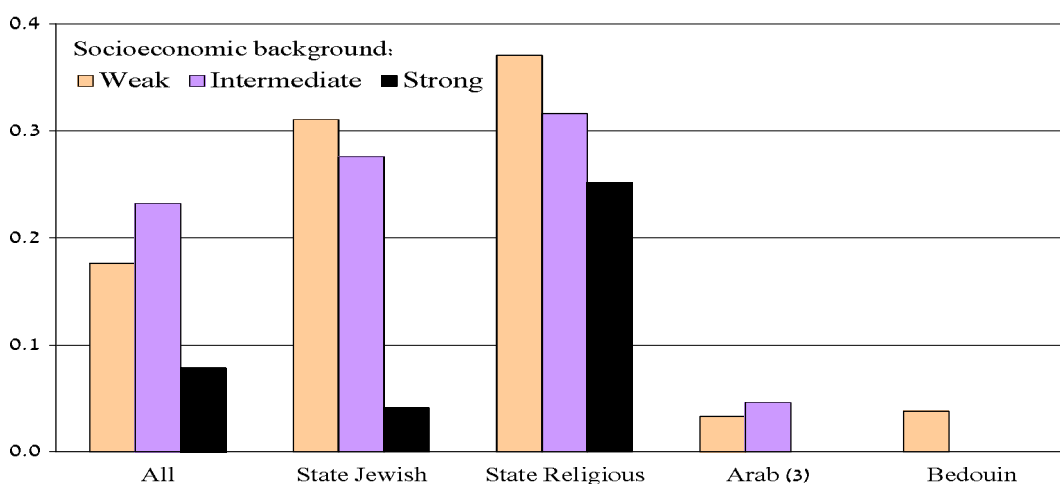
Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

1) Schools with Grades 1-6 only.

2) A weak background – Nurture deciles 8-10; intermediate background – Nurture deciles 4-7; strong background – Nurture deciles 1-3.

3) Including Druze (and Circassian). Does not include East Jerusalem.

Figure A10. Number of weekly hours from other sources per *student* in the regular official primary education system¹ according to the segment of the education system and students' socioeconomic background,² 2007/8



Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

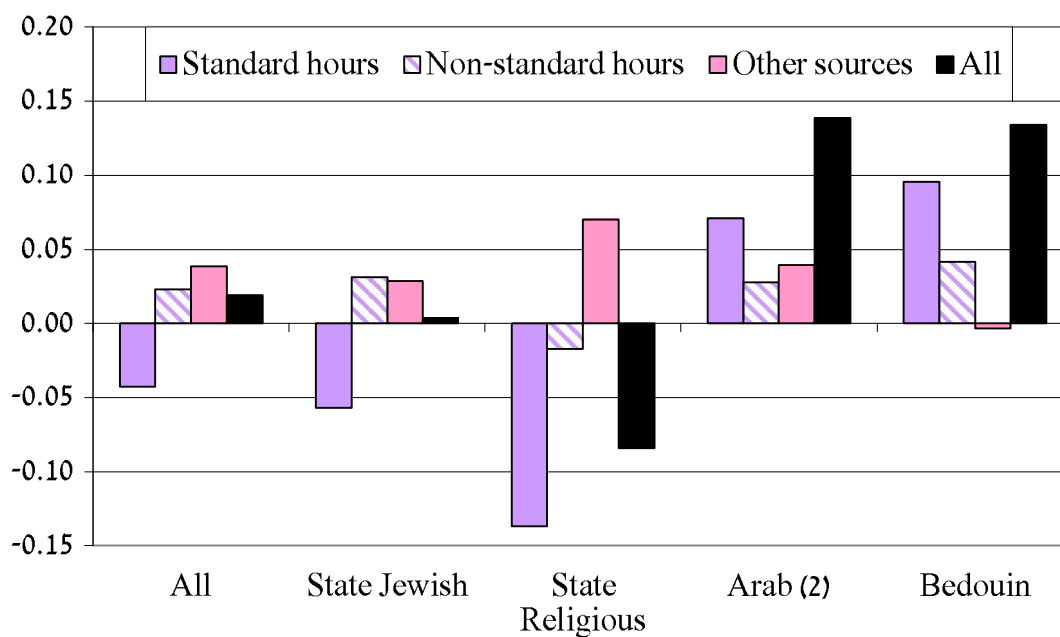
1) Schools with Grades 1-6 only.

2) A weak background – Nurture deciles 8-10; intermediate background – Nurture deciles 4-7; strong background – Nurture deciles 1-3.

3) Including Druze (and Circassian). Does not include East Jerusalem.

Figure A11. Change in the number of weekly hours per *student* in the regular official primary education system¹ according to the segment of the education system and source of funding:

2005/6-2008/9 compared to 2000/1-2003/4 (hours per student)

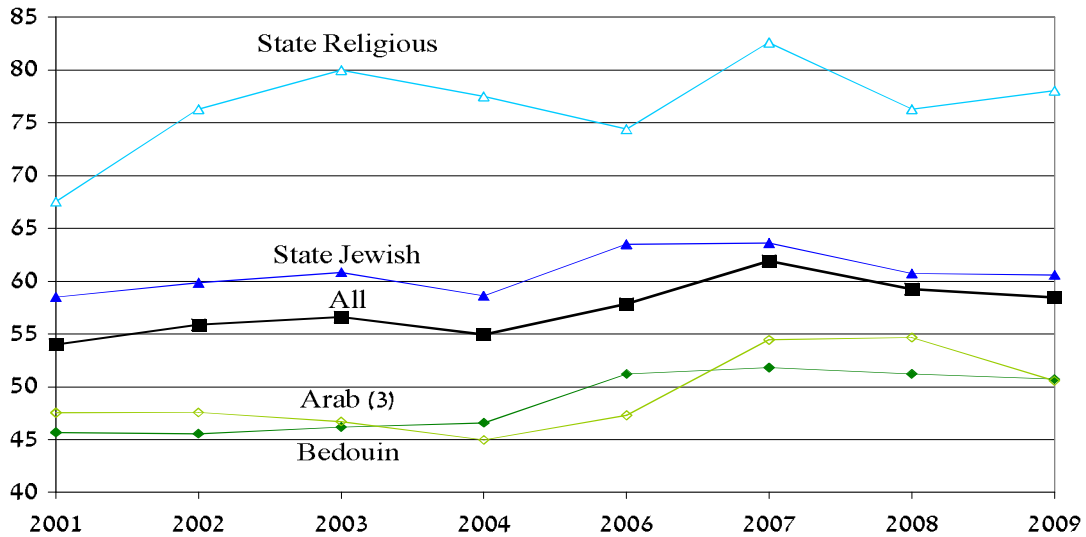


Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

1) Schools with Grades 1-6 only.

2) Including Druze (and Circassian). Does not include East Jerusalem.

Figure A12. Number of weekly hours per *class* in the regular official primary education system¹ according to the segment of the education system: students from a weak socioeconomic background,² 2000/1 to 2008/9



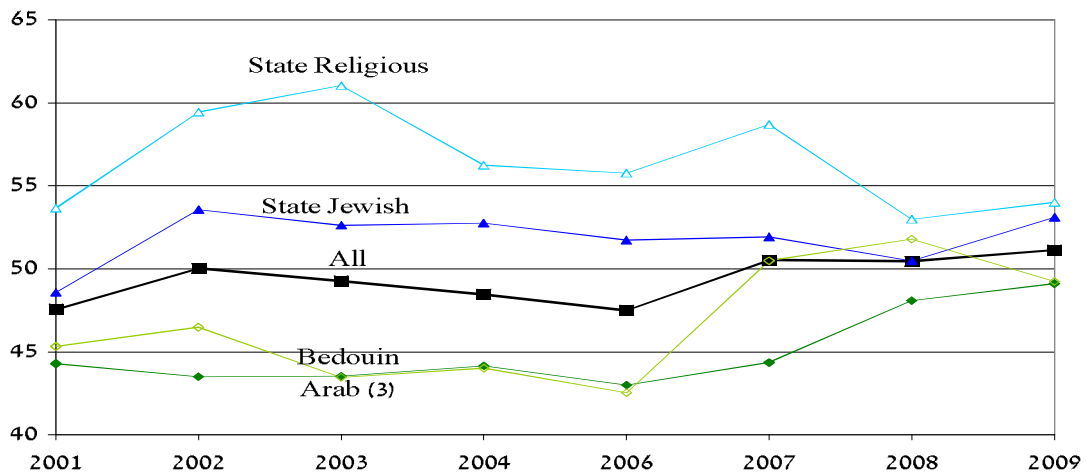
Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

1) Schools with Grades 1-6 only.

2) Nurture deciles 8-10.

3) Including Druze (and Circassian). Does not include East Jerusalem.

Figure A13. Number of weekly standard hours per *class* in the regular official primary education system¹ according to the segment of the education system: students from a weak socioeconomic background,² 2000/1 to 2008/9



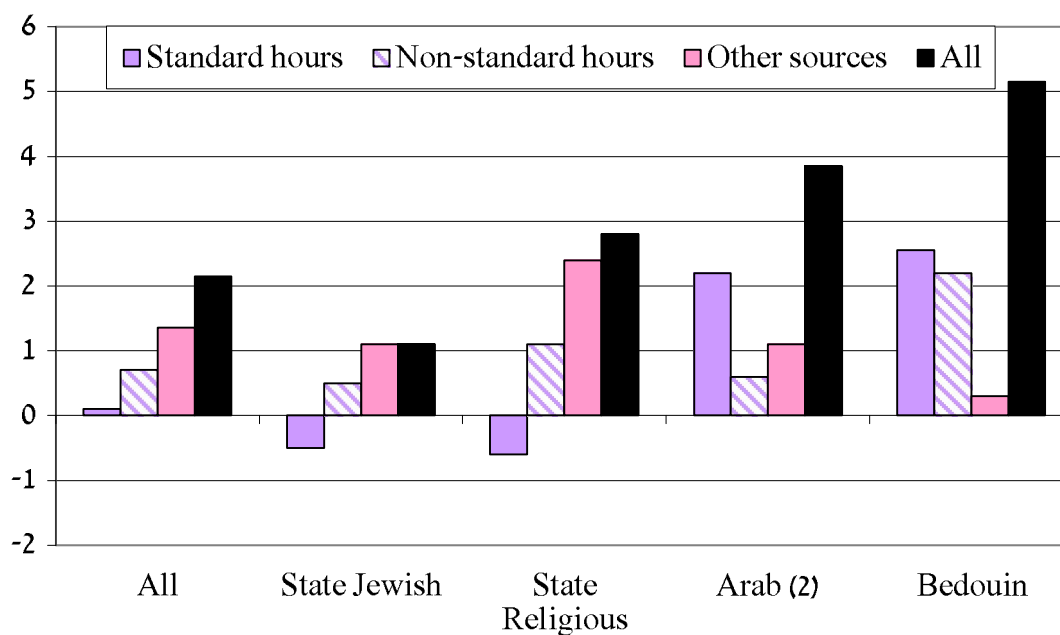
Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

1) Schools with Grades 1-6 only.

2) Nurture deciles 8-10.

3) Including Druze (and Circassian). Does not include East Jerusalem.

Figure A14. Change in the number of weekly hours per class in the regular official primary education system¹ according to the segment of the education system and source of funding: 2005/6-2008/9 compared to 2000/1-2003/4 schools that appeared in both periods (hours per class)



Source: Idea – Economic Management & Consulting Ltd. and calculations by the authors.

1) Schools with Grades 1-6 only.

2) Including Druze (and Circassian). Does not include East Jerusalem.

Appendix C: Glossary of Terms

(see also the chart of relationships between sector, type of supervision, status and district below)

Primary school	An educational institution with Grades 1-9 (which may also have a kindergarten/nursery school attached to it) or a subset of those grades. This study only includes primary schools with Grades 1-6. Following the introduction of junior high schools, about four-fifths of students in Grades 7-9 attend post-primary schools.
State education system	Non-religious schools in the Jewish and Arab sectors. Created by the State Education Law – 1953. Most State schools are official.
State Religious education system (acronym in Hebrew – Mamad)	Jewish religious schools that are not ultra-Orthodox and most of which are official. This is reflected in the lifestyle of the students and their curriculum, teachers and supervisors. The schools encourage a life of Torah and commandments according to religious tradition and in the spirit of religious Zionism.
“Other” education system	The ultra-Orthodox education system (recognized unofficial or exempt schools).
Sector	Classification of schools according to religion/ethnic group: Jewish, Arab, Bedouin, Druze and Circassian.
Recognized school (unofficial)	Schools in the Independent Education network, the Maayan Torani Education network and other recognized unofficial schools under Ministry of Education supervision (for example Christian church schools in the Arab sector and a small number of schools in the State Jewish education system and the State Religious education system). Teachers are employed by the school, which is supervised by the Ministry of Education; however, these schools have more freedom in decision making, hiring of teachers, choice of curriculum, etc.
Regular school	Other than special education schools. In some of the regular schools, there are separate special education classes and/or students with disabilities who are integrated within regular classes (<i>shiluv</i> students).

Official school	A school maintained by the State/local authority and registered as an official school. The teachers are in general government workers and the school is under the full supervision of the Ministry of Education. Part of either the State education system or the State Religious education system, according to the curriculum determined by the Ministry of Education.
Exempt school	A school that does not belong to the recognized education system (whether official or unofficial) and is under non-government management and a limited degree of Ministry of Education supervision (primarily to do with safety and hygiene). The schools' students are from the ultra-Orthodox sector.
District	Ministry of Interior administrative districts that are also used by the Central Bureau of Statistics. The geographic division differs from that of the Ministry of Education districts.
Status	The school's legal status: official, recognized (unofficial), independent or exempt – see definitions in the glossary.
Other sources (weekly hours)	<p>Teachers' working hours financed by non-government sources, including local authorities, non-profit organizations, parents (as part of Talan - Hebrew acronym for "additional curriculum") and volunteers. It should be mentioned that some of the teachers' working hours provided by non-profit organizations (such as the Karev Fund and the Sacta-Rashi Foundation) are partially financed by the Ministry of Education through matching; however, in the Standard Audit these two sources of funding cannot be distinguished.</p> <p>The Karev Fund's activity in the education system is in general financed in equal parts by the Ministry of Education, local authorities and parents. The State does not participate in funding in more affluent areas. The Fund finances its administrative/overhead costs. According to its financial reports for 2008, the Rashi Foundation funded more than one-quarter (1/3 in 2007) of its activity in the education system while the government and local authorities financed close to half.</p>

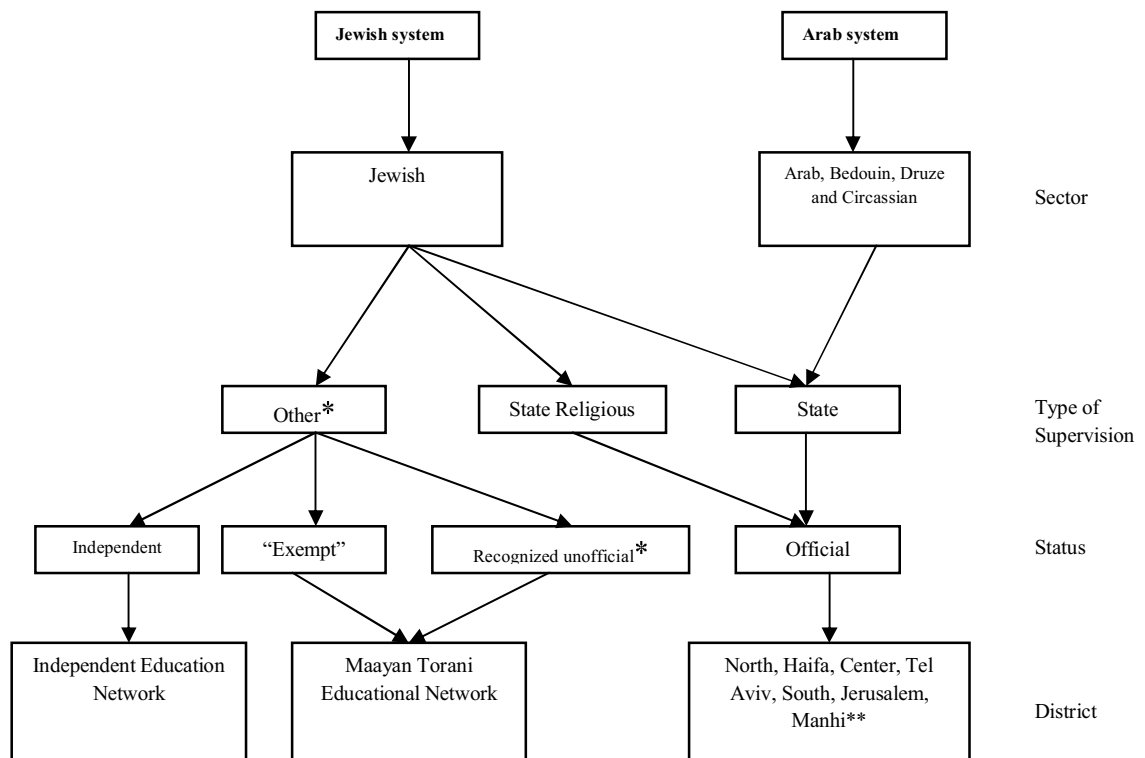
Non-standard Ministry of Education hours (weekly hours)	Weekly hours allocated to the schools by the Ministry of Education (and some of them by other government bodies). These include hours that the Ministry of Education finances directly (after school centers, five-year plans in the Arab sector, agricultural farms, marine education, Shelah (studies of Israel's geography, people and society), Mati (Hebrew acronym for Regional/Municipal Support Center), etc), manpower financed by the Ministry of Education ⁶¹ (teacher-soldiers, National Service girls, teacher core groups, extra Torah studies, Perah (a Big Brother program using university students)), Sahlav (university students that work with schools and kindergartens), etc.), and in some cases jointly with other government bodies, such as the Ministry of Defense and the Prime Minister's Office.
Type of Supervision	The religious classification of a school in the Jewish education system: State, State Religious and other – see the definitions in this glossary. All the schools in the Arab education system (including church schools) belong to the State system.
Nurture Decile	The Nurture Index is a value that measures the socioeconomic status of each student in the primary education system (and in the junior high schools) based on various characteristics: parents' education and income, number of siblings, whether he is an immigrant, place of residence, etc. Students are divided into nurture deciles: students in the first decile are from the strongest socioeconomic background while students in the 10 th decile are from the weakest (the opposite order to the socioeconomic cluster ranking of place of residence). For further details, see Section B.
Weekly hour	A weekly hour of work by a teacher during the school year.

⁶¹ The Ministry of Education pays the salaries of external manpower. The use of this manpower is at the discretion of the schools and the Standard Audit measures only their usage in the teachers' work process.

Longitudinal hour A weekly hour of instruction per class during the school year, which the school is obligated to allocate to a class, and during which the student learns with his classmates.

Horizontal hour A weekly work hour of a teacher during the school year which is not longitudinal. Examples: some education hours, management hours, guidance hours, other task hours, instruction of groups rather than by class and individual tutoring.

Chart of relationships between sector, type of supervision status and district



* The recognized unofficial education system also includes a small number of schools in the State and State Religious education systems (such as democratic schools) and in the Arab education system (primarily church schools).

** The Jerusalem Education Authority (the city of Jerusalem as opposed to the district).

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