

The Education System

This year's chapter reviews developments in the education system over the past decade (1995-2005) with emphasis on two main dimensions: major developments in enrollment and the teaching force, and analysis of the resources allocated to the system. The first part of the analysis deals with major changes in the first of these dimensions – changes that affect the character and the quality of the education system. The major developments of the system are not new and have been assessed in the past. Nevertheless, because of their importance it is necessary to review them, briefly, in order to obtain a clearer understanding of these developments and their effects. The second part of the survey focuses on resource allocation to the education system: the budget, characterization of the resources, and the developments of recent years.

A. Main Developments

1. Enrollment

A society's **age composition** has a powerful effect on the needs and related costs of its education system. Usually, the maturing of a society has an effect on education expenditure: the larger the share of enrollment at the higher levels of education, the larger the share of education expenditure in national product, mainly because higher education is more expensive.

In the past decade, the main changes in this field took place in the Jewish population. The proportion of the 0-19 age group fell from 36 percent to 33 percent; the change in the Arab population was much smaller – a dip from 51 percent to 50

percent. Israel's population (both Jews and Arabs) is much younger than that of most Western countries: 28 percent of its population falls into the 0–14 age group as against 17 percent on average in other Western countries. In the estimation of OECD researchers, this will require an 11 percent increase in Israel's education budget over the coming decade, as against a 6 percent (average) decline in the education budgets of the OECD countries.¹

Table 1. 0-19 Age Cohort as Percent of Total Population, by Sector, 1995–2005 (Percent)

1995		2000		2005	
Arabs	Jews	Arabs	Jews	Arabs	Jews
51	36	51	34	50	33

Composition by sector. The changes in age structure are integrally related to changes in structure by sector. These changes acted in two opposing directions: immigration had an upward effect on the proportion of Jews in the education system, especially in the 1990s (including non-Jews among the immigrants, who mostly enrolled in Jewish education institutions). Natural increase, in contrast, is having a steady upward effect on the share of non-Jews (Arabs, Bedouin, and Druze) in Israel's schools. Another factor is the population of Arab children who reach Israel from the occupied territories and enroll in the education system. (Their proportion in the total has ranged from 1 percent to 3 percent in recent years; see separate publication on lateral mobility of students in the Israeli education system.²)

Table 2 shows the rapid increase in the share of Arab sector in total school enrollment during the past decade. The distribution at the primary and lower secondary levels reflects

¹ OECD, 2006.

² Blass and Duchan, 2006.

the phenomenon well because the enrollment rates at these levels, in both sectors, verges on 100 percent. Thus, in these age groups the proportion of the Arab sector rose from 22 percent to 27 percent in the past decade.

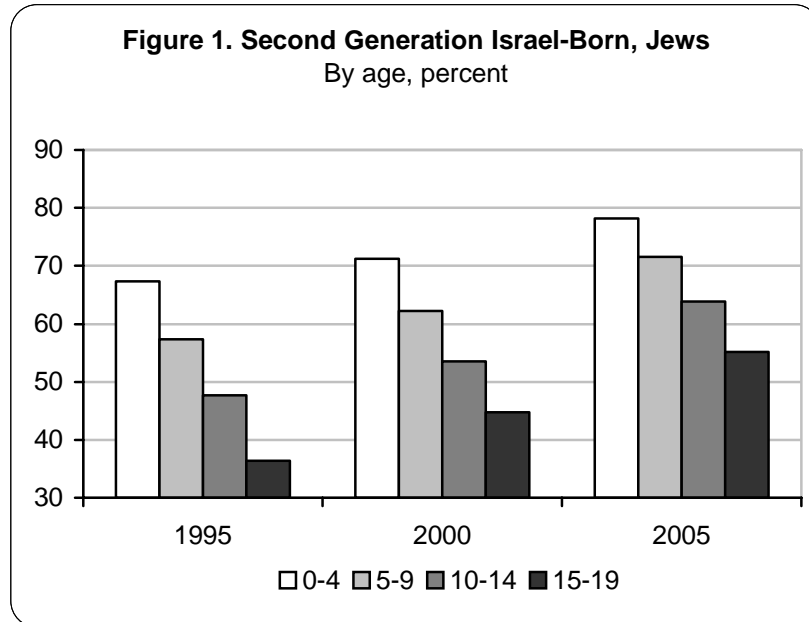
Table 2. School Enrollment by Sector and Level of Education, 1995–2006 (Percent distribution)

Level	1995		2000		2005	
	Jewish sector	Arab sector	Jewish sector	Arab sector	Jewish sector	Arab sector
Total	83	17	79	21	75	25
Public						
preschool	92	8	86	14	78	22
Primary	79	21	75	25	73	27
Lower secondary	78	22	80	20	74	26
Upper secondary	85	15	85	15	81	19

Composition by origin. A noteworthy trend in the demographic development of the Jewish population is an increase in the share of second-generation Israel-born. These rates are especially high among children and have been rising steadily in the past decade – from 67 percent to 78 percent in the 0-4 age group and from 36 percent to 55 percent among those aged 15-19. By implication, in 2005 a majority of Israeli children were the offspring of Israel-born parents.

Composition by religious orientation. The composition of the education system in the Jewish sector is also affected by differences in demographic characteristics and, in particular, differences in fertility rates and family size. These differences are reflected in changes in the composition of enrollment by school systems, which are differentiated chiefly by their religious orientation. The difference in rates of natural increase among groups that are differentiated by religious orientation

stands out particularly in the Jewish education system but also, apparently, has parallels in Arab society.³



Haredi (ultra-Orthodox) education settings expanded rapidly over the years, slowing down only in the past two or three years. This expansion stems mainly from a higher birth rate among this group as compared to both the non-*haredi* religious, and the secular population. Only a fraction of the growth is attributable

³ These changes are easy to monitor in the Jewish system because the separation of religious streams is set in the organizational structure of the education system. In the Arab system, the large majority of schools belong to the State system but there, too, Muslim religious settings have expanded and Christian Arabs have been turning to church-affiliated schools.

to lateral movement, i.e., students switching from one school system to another.⁴

Table 3 itemizes the total enrollment in the Jewish sector, at all levels of education from pre-school to upper secondary, by school systems. The growth rate of *haredi* schools turns out to have been much higher in 1995–2000 than in 2000–2005 – doubling at the primary and post-primary levels during the first period but rising by “only” 25 percent during the second period. Among preschoolers (at the “pre-compulsory” or pre-kindergarten level), the share of *haredi* schooling rose during an eight-year period from 26 percent to 35 percent, while that of the State-Religious and State systems decreased by 5 percent and 4 percent, respectively. Although the pre-kindergarten enrollment data are not complete, it was quite surprising to find that 35 percent of children of this age are being given *haredi* schooling. Notably, however, the share of *haredi* education falls steadily at higher levels of study. By kindergarten, its proportion is smaller even though it, too, is on the upswing – from 17 percent to 24 percent. (At the kindergarten level, State-Religious enrollment is declining more quickly than the State system.)

There is much evidence that the growth process of *haredi* education has been slowing and may even have stopped. Table 3 shows the distribution of students at all levels between the Jewish school sectors. It shows that the growth rate in the *haredi* school system was much greater in the years 1995–2000 than in 2000–2005. The aforementioned study on lateral movement of students in the education system pointed to the beginning of this phenomenon in recent years by finding that proportionally more

⁴ Lateral movement of student populations has been discussed elsewhere and it was shown that, for the most part, parents’ choices of types of schools for their children have been stable over time. See Blass and Duchan, 2006.

students move from *haredi* schools to State schools than the other way around.⁵

Table 3. Enrollment in the Jewish Sector, by Sub-Systems, 1995–2005 (Percent distribution)

Level	1995			2000			2005		
	State	State-Religious	Other	State	State-Religious	Other	State	State-Religious	Other
Pre-kindergarten	54	20	26	55	18	27	50	15	35
Kindergarten	66	17	17	66	16	18	62	14	24
1 st grade	68	21	10	60	19	20	56	19	25
Primary	68	21	10	61	20	19	58	19	23
Lower secondary	82	18	—	81	18	—	80	20	—
Upper secondary	74	18	7	68	17	15	64	17	19

* The data for the two preschool levels are based on the Ministry of Education's educational management information system and pertain to 1997 instead of 1995.

In sum, demographic changes are having far-reaching effects. Conditions in the economic and scholastic environment of large portions of the *haredi* population, the Arab population, and some of the population on the geographic and social periphery are such that at least half of Israel's children and teens are being educated in settings that often fail to guarantee the minimum achievements that are necessary to function in a modern society.⁶

⁵ Blass and Duchan, 2006.

⁶ Obviously, not all Arabs and *haredim* are weak students. These population groups include excellent students whose abilities and talents in no way fall short of those of other groups. The underlying conditions of their education, however, inhibit the attainment of achievements in areas of study and expertise that a modern society considers normative and acceptable.

Thus far, it has been the custom to discuss this issue in terms of “equal opportunity in education” and “narrowing of gaps.” However, when nearly half of the pupil population is at issue, it is a vital national problem. Due to the large scale educational shortcomings that stem from years of neglect and discrimination of the Arab sector and the totally different curriculum that children in the *haredi* systems study, Israel’s society and economy are at risk. The risk is one of a deterioration of Israeli society and its economy to a level that will not allow the continued improvement in economic and social infrastructure to provide the social and educational services that all of its citizens deserve. The threat facing Israel’s infrastructure of human resources is not only a threat to continued overall national development but to the efforts to enable its weaker population groups to advance. If this happens, social disparities will only widen and worsen.

2. Teachers

The general population of teachers, at all levels of education and in both Jewish and Arab sectors, has several common characteristics. Some characteristics, though, have different strengths when comparisons are made between different levels of education and in different sectors. This can be seen, for example, in comparisons between preschool and school teachers in the Jewish and Arab systems (Table 4).

On the whole, the average age of teachers has been rising significantly. The proportion of young teachers (up to age 29) is declining rapidly and that of older ones is rising very rapidly. By the same token, those teaching at the higher school levels are usually older teachers. Thus, more than 37 percent of upper secondary teachers in the Jewish sector are “old” (50+). The same process is taking place in the Arab sector but much more slowly because the rapid development of this sector in recent

years has led to more intensive hiring of young teachers. The rapid increase in average teacher age will result in the large scale retirement of teachers in the near future and the creation of a problem that demands serious attention: the formation of pockets of severe shortages of teachers.

The anticipated retirement of older teachers is also affected by changes in the average number of teaching hours in a full-time salaried position. At the pre-primary level, the number of hours of the average post has declined considerably, mainly due to the possibility of hiring substitute kindergarten teachers for one day a week. At the other levels of education, the number of teaching hours in a full-time position has been increasing in the Jewish system and declining in the Arab system. The gap between the sectors is narrowing although the number of teaching hours is still greater in the Arab sector.

There is a real difficulty in arriving at reliable national projections of teacher supply and demand due to severe fragmentation among sectors, age groups, school systems, geographical districts, and subjects taught. Nevertheless, schools and local authorities must be ready for the expected developments. National level planning should insure appropriate numbers of new teachers, provide incentives for currently employed teachers to take on additional teaching hours and defer retirement, and encourage retirees to rejoin the system.

Finally, policymakers should note that the process of "academizing" the teaching profession has come to almost total fruition. It is nearly complete at the post-primary level and is well along at the pre-primary level (in which some 60 percent of kindergarten teachers hold academic degrees) and at the primary level (almost 70 percent).

Table 4. Characteristics of Teaching Personnel, by Levels of Education, 1995–2005

Level	1995		2000		2005	
	Jewish	Arab	Jewish	Arab	Jewish	Arab
Preschool						
Age:						
up to 29 (%)*	16	42	9	38	7	33
50+ (%)*	10	3	19	5	31	8
With degree (%)*	15	2	36	18	64	58
Avg. weekly hrs.	24.6	26.3	25.2	28.6	22.2	24.8
Avg. tenure (yrs.)	13.5	11.4	16.2	10.1	18.1	10.6
Primary						
Age:						
up to 29(%)*	19	28	19	34	12	31
50+ (%)*	12	7	18	8	24	12
With degree (%)*	31	16	53	39	70	65
Avg. weekly hrs.	20.6	24.4	20.7	24.1	21.3	23.6
Avg. tenure (yrs/)	13.8	13.4	14.4	12.5	15.8	11.8
Lower secondary						
Age:						
up to 29(%)*	14	23	13	27	5	23
50+ (%)*	14	8	22	10	33	13
With degree (%)*	60	43	77	65	90	83
Avg. weekly hrs.	18.8	19.8	19.3	20.0	19.4	19.8
Avg. tenure (yrs.)	14.7	13.4	15.7	13.3	18.5	13.5
Upper secondary						
Age:						
up to 29 (%)*	11	24	10	22	7	20
50+ (%)*	22	10	31	13	37	15
With degree %)*	70	73	77	74	83	84
Avg. weekly hrs.	18.8	22.0	18.4	21.8	19.4	22.0
Avg. tenure (yrs.)	17.1	12.3	18.3	13.1	19.5	13.5

* Percent of all teachers

B. National Education Expenditure and the Ministry of Education Budget

This part of the chapter focuses on the level of resources allocated to education. The discussion begins by describing the share of education in total national expenditure during the past decade and the distribution of expenditure among levels of education and various fields. The comparison of Israel's education expenditure with that of the OECD countries lends an important dimension to this discussion by pointing to the steadily widening gap between Israel and other countries in recent years.

The next section concerns itself with government expenditure on education as reflected chiefly in the Ministry of Education budget, the main vehicle of government spending on education.⁷ The discussion deals with the various definitions of the Ministry of Education budget, how they correspond, the absolute size of the budget over the years, the size of this budget relative to the total government budget, and its size relative to changes in enrollment, as reflected in per pupil expenditure. The purpose in examining these indicators is to answer the question, "What is the real budget?"

The rest of this section discusses the composition of education expenditure by main items, focusing on the allocation of budgets to selected target population groups, foremost pupils from socio-economically weak groups and those with special needs (special education).

⁷ Public expenditure on education includes, apart from expenditure by central government, spending by municipal authorities and NPOs. Government expenditure on education includes outlays by the Ministry of Education and other ministries (such as Industry, Trade, and Employment and Social Affairs) for education. Ministry of Education spending also includes expenditure for purposes that are not "education" in the narrow sense of the term, such as the Antiquities Authority, museums, culture, and so forth.

1. Are Education Resources Growing or Shrinking?

The numbers that indicate the amounts of money spent on education over the past decade point to a real increase in national resource allocation.⁸ Expenditure climbed from NIS 37 billion to NIS 45 billion between 1995 and 2002 and remained stable at the 2002 level for the ensuing two years. The absolute increase was coupled with an upturn in national education spending as a share of gross national income, from 9.1 percent to 9.7 percent. Only in 2004 did this decline, reverting to the 1995 level of 9.1 percent.

Interestingly, the distribution of the education expenditure hardly changed during this time. The share of the pre-primary level in national education spending hovered around 9 percent, primary education 27 percent, post-primary education 25-26 percent, and post-secondary and higher education were 20-21 percent of the education budget.

⁸ The choice of years for the comparison period is very important. Where possible, the time period examined was the past decade in order to present a full picture of the expenditure developments. However, one must be aware that 1996 and 2001 were relatively “good” years for the system whereas 2003 was a relatively “bad” one.

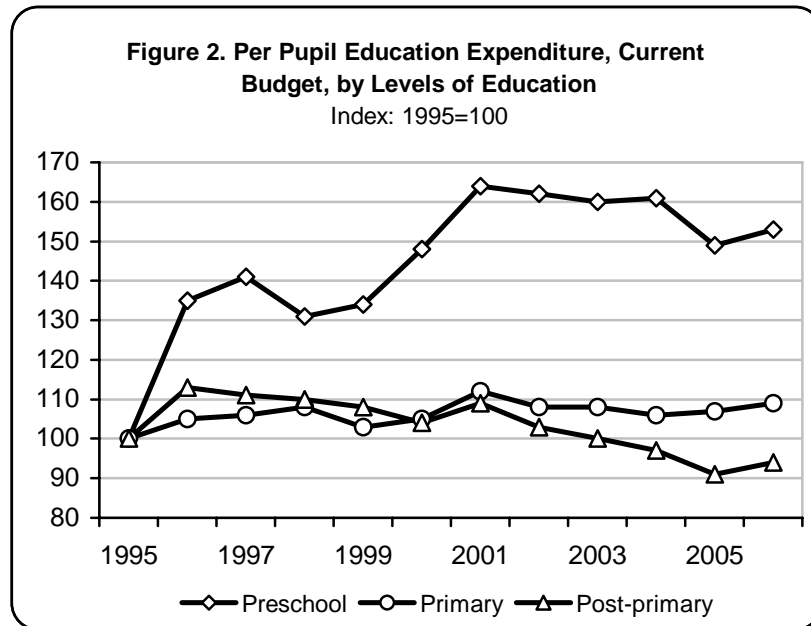
Table 5. National Education Expenditure as Share of Gross National Income

	Total (NIS billions, 2000 prices)	Percent of gross national income
1995	37	9.1
1996	39	9.4
1997	40	9.5
1998	41	9.4
1999	42	9.4
2000	43	9.2
2001	44	9.7
2002	45	9.7
2003	45	9.2
2004	45	9.1

a. Changes in Per Pupil Expenditure, by Level of Education

The Taub Center data show that the increase in per pupil allocation for education was uneven over the years, rising at some levels of education and falling at others. Overall, there was a noticeable difference between the second half of the 1990s (1995–2000) and the early 2000s (2000–2004); budget cuts were steeper in the latter period than in the former. Per pupil government spending on education increased in 1995–2001 and declined in 2001–2004, by 30 percent and 7 percent, respectively. The downward trend was arrested in 2005 and expenditure at all levels increased slightly in 2006. For the decade as a whole, the increase came to around 20 percent.

Figure 2 describes the changes by levels of education. Thus, expenditure on early childhood education increased steadily and significantly during the past decade. At the primary level, it rose slowly until 2001, leveled off until 2004, and increased slightly in 2004–2006. At the post-primary level, the downturn persisted until 2005 and was followed by a slight increase in 2006.



b. Comparing Israel with the OECD Countries

Contrary to recent claims, Table 6 shows clearly that the OECD countries spent more on education – in average per pupil dollar terms adjusted for purchasing power differences (PPP) – than Israel did throughout this period (except for the preschool level in 1995).

The disparities between the OECD average and Israel widened significantly during the past decade (1995-2003), as per pupil national expenditure rose by only 2 percent in Israel (in constant prices) as against 33 percent on average in the OECD countries. Figures 3 and 4 substantiate this and show the comparison.

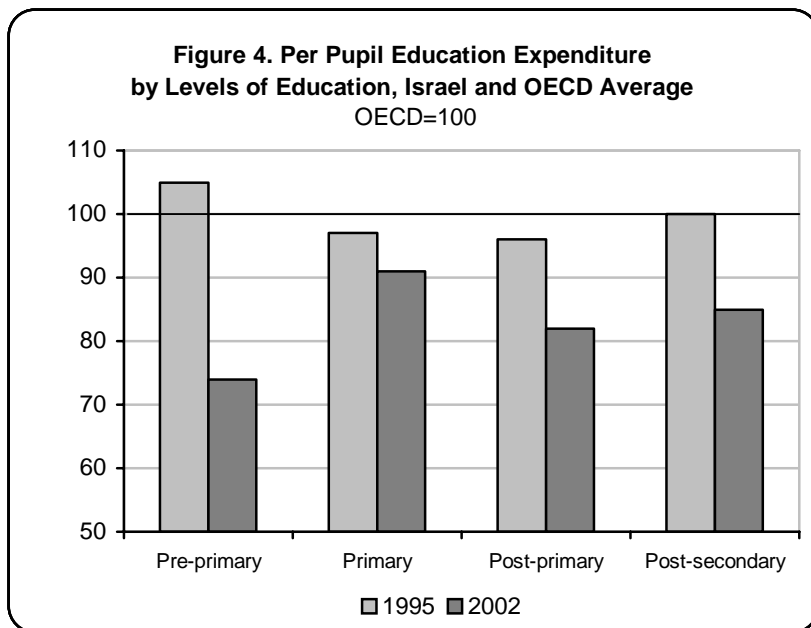
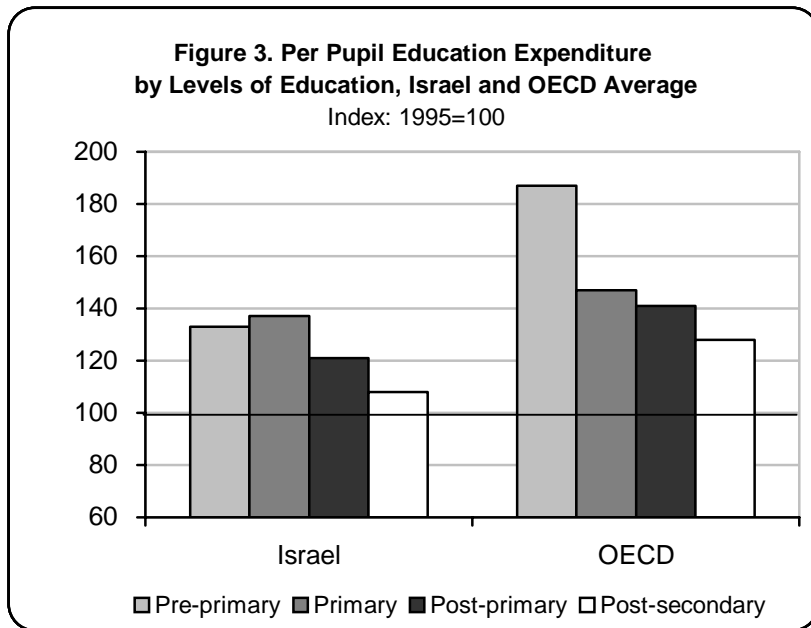
These figures should be kept in mind when discussing Israel's poor achievements on international scholastic tests, most

of which are conducted on the very age groups on which Israel has been spending less and less. It may suffice to stress the decline in Israel's per pupil expenditure on post-primary education relative to the OECD average – from 96 percent in 1995 to only 86 percent in 2003.

Table 6. Per Pupil Expenditure by Level of Education, Israel and OECD, US \$, PPP

	Israel	OECD
Pre-primary		
1995	2,763	2,631
2002	3,663	4,922
2003	3,718	4,959
Primary		
1995	3,485	3,595
2002	4,887	5,272
2003	5,017	5,055
Post-primary		
1995	4,776	4,971
2002	5,767	6,992
2003	5,959	6,936
Post-secondary and higher		
1995	10,444	10,446
2002	11,295	13,343
2003	11,945	14,598

Source: CBS, *Statistical Abstract of Israel*, 2005, 2006



c. Adjustment of Expenditure to Changes in Needs of the Education System

In discussing the level of education services that the system is expected to deliver, it is important to take into account changes in the demographic, sectoral, and socio-economic composition of the pupil population, as well as changes in the overall standard of living that affect public demand and preferences.

The demographic (age) composition of the pupil population affects the allocation of budgets for education because the costs of education vary between age groups. As previously discussed, during the past decade the share of preschoolers rose from 2 percent of total enrollment to 5 percent, that of primary school enrollment declined by 2 percent, and the share of post-primary enrollment rose by about 1 percent. These changes had almost no effect on the overall level of expenditure.

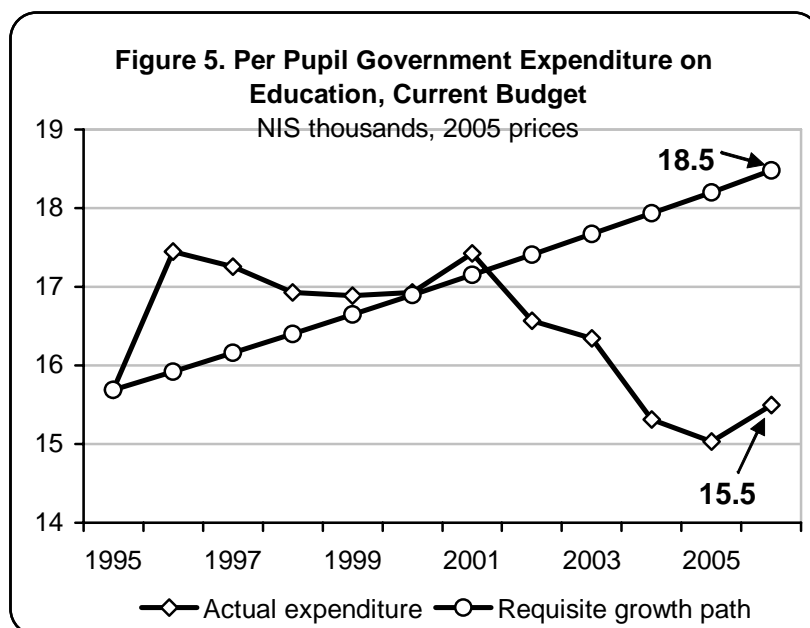
The socio-economic composition of the pupils reflects the rapid proportional increase of Arabs and *haredim* in enrollment. Typically, these two population groups have low socio-economic rankings. Since the system claims to engage in affirmative action, this should be reflected in increased allocations, and a demand for larger budgets. However, since the budget allocation for pupils in both these groups and especially Arab pupils is below the average in the State system, the increase in enrollment is reflected, paradoxically, in a decrease in the per pupil budget for these two sectors.

Increase in teachers' wages (wage creep). In recent years, education personnel have been experiencing three processes that have had the effect of increasing their wages: average seniority has risen (each year of seniority raises a teacher's wage by about 2 percent), the average teacher's age has risen (which makes more teachers eligible for a reduction in working hours for a post that is still considered full-time), and the proportion of teachers who hold academic degrees is rising steadily. (Adding a bachelor's degree increases a teacher's wage by about 5 percent,

a master's degree by another 7.5 percent, and a Ph.D. by another 6.5 percent.) On the other hand, the aging of teaching faculty lowers the proportion of women teachers who benefit from a reduction in working hours for mothers of young children.

The increase in the general standard of living usually induces parents, teachers, and students to insist on improvements in working and learning conditions in schools and preschools. Among many examples are demands for the installation of air-conditioning, computers, and various technological aids in offices and classrooms. (Admittedly, the resulting improvement in the level of service may not necessarily enhance the level of studies.)

In sum, taking all these factors together (in addition to natural growth), it may be inferred that to maintain a constant level of service, resources should have been growing by at least 1-2 percent per year. Figure 5 shows the gap between the expected per pupil expenditure assuming the need for a minimum annual increase of 1.5 percent and the actual increase. The gap in 2006 stood at around NIS 3,000 per student – 17 percent. Thus, the claims of stability in the average per student expenditure, which included stagnation at the primary level and a cutback at the post-primary level, seem to reflect disregard for developments in the education system's socio-economic milieu. The end result is a decrease in the level of budgeting and service for students – especially at the post-primary level.



2. The “Real” Level of the Education Budget

To discuss the education budget, one must know and understand its many definitions. The main reason for the importance of distinguishing among the definitions is the size of the budget, more than NIS 25 billion. Any 1 percent change in the budget means NIS 250 million in one direction or another. Below is a brief review of the various definitions of the Ministry of Education budget and descriptions of their use.

The **budget proposal** that is written for the approval for the Knesset (the “Blue Book”) includes two different budgets: gross and net. The **gross budget proposal** includes all outlays, including those covered by revenue from non-tax sources, or – in the budget jargon – revenue-dependent expenditure.⁹

⁹ The 2005 budget provides examples of this at various levels of education: revenues included some NIS 500 million in local authorities’ participation

The **net budget proposal** relates to expenditure from Ministry of Education sources only.¹⁰

The **effective budget** is the budget as shaped in final form at the end of the fiscal year. It reflects changes – increases or cuts – that the government decides to carry out during the year, as well as changes and transfers among line items within the budget.

Budget utilization (final expenditure) carries the greatest significance in political, educational, social, economic, and practical terms. The final expenditure report, published by the Accountant General of the Ministry of Finance, is important because it represents the final financial expression of the policy in effect.

The last two figures (effective budget and final expenditure) provide an accurate reflection of the resources available to the government ministry and their use.

Each of the definitions presented above includes the word “budget.” In addition, the data in the official publications of the Ministry of Education reflect the on-going current budget up to the time the next year’s budget is drafted. This figure includes some of the changes and adjustments to the original budget that are made during the first three quarters of the year but is not necessarily the final budget for the year.

A brief illustration should suffice: the gross budget proposal of the Ministry of Education for 2005 (the last year for which a final expenditure report is available) was NIS 25.9 billion; the effective gross budget was NIS 26.9 billion; and, budget

in the wages of preschool teachers in kindergartens that had lower enrollments than the Ministry of Education standard. At the primary level, the budget included NIS 200 million in parents’ and municipal authorities’ participation in hot-lunch programs. At the post-primary level, extra-ministerial revenue added up to more than NIS 500 million. The total came to NIS 1.3 billion or 5 percent of the Ministry of Education budget.

¹⁰ The net vs. gross distinction may also be applied to each of the “budgets” that follow.

utilization for that year was NIS 25.6 billion. What do these numbers mean? The original intent of the budget proposal, apparently, was to make NIS 25.9 billion available to the Ministry of Education. Various mid-year cuts and increases (e.g., the transfer of surpluses from the previous year and increases decided upon in the middle of the year) brought the final budget to NIS 26.9 billion. Nevertheless, the ministry actually spent NIS 25.6 billion and failed to use NIS 1.3 billion that was – seemingly or actually – available to it.

Table 7 presents several findings of importance in comparing budget expenditure with the draft budget and the effective budget. First, in six of the years that are included in the comparison, the effective budget and the budget proposal were no more than 2 percent apart. In three of the past four years, however, the effective budget was more than 4 percent larger than that submitted to the Knesset, and in 2004 the difference was 6 percent.

Second, the rate of utilization of the budget proposal changed: from 89-95 percent in 1995-1998 to 96-103 percent in 1999-2005.

Figure 6 compares budget utilization with the effective budget during the decade in review. The graph shows the ratio, in percent, between the budgets. The number represents the difference in NIS billions.

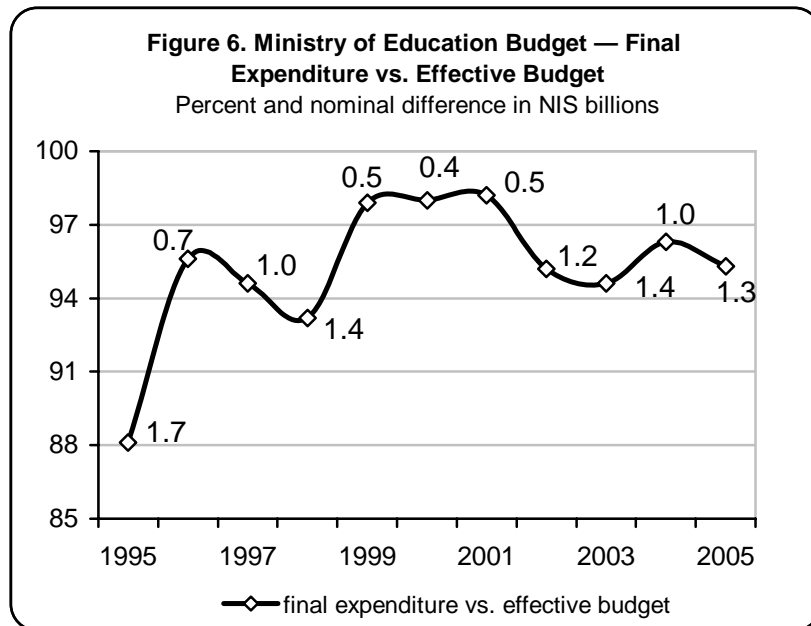
Third, when the budget data is presented in constant 2005 prices (deflated by the Civilian Public Consumption Price Index), it shows that the effective budget of the Ministry of Education increased steadily between 1995 and 2000 (Part B of Table 7 above), leveled off in 2001-2002 at around NIS 27 billion, increased slightly in 2003, and declined in the past two years. The cutback between 2003 and 2005 amounted to around NIS 500 million – 2 percent of the budget.

Table 7. Budget Proposal, Effective Budget, and Final Expenditure**a. NIS billions, current prices**

	Budget proposal	Effective budget	Final outlay	Effective budget as % of proposal	Final outlay as % of proposal	Final outlay as % of effective budget
1995	14.0	14.1	12.4	100.8	88.8	88.1
1996	16.7	16.6	15.9	99.1	94.8	95.6
1997	18.7	18.6	17.6	99.3	93.9	94.6
1998	20.1	20.4	19.0	101.7	94.8	93.2
1999	20.5	21.7	21.2	105.6	103.4	97.9
2000	22.0	22.4	21.9	101.8	99.7	98.0
2001	24.4	24.8	24.3	101.8	99.9	98.2
2002	24.6	25.6	24.4	104.3	99.4	95.2
2003	25.8	26.4	24.9	102.1	96.6	94.6
2004	25.4	26.9	25.9	106.0	102.1	96.3
2005	25.9	26.9	25.7	104.0	99.0	95.2
Avg.				102.4	97.5	95.2

b. NIS billions, 2005 prices

	Budget proposal	Effective budget	Final outlay
1995	22.8	23.0	20.3
1996	24.2	24.0	22.9
1997	24.7	24.5	23.2
1998	24.8	25.2	23.5
1999	24.0	25.3	24.8
2000	24.5	25.0	24.5
2001	26.4	26.9	26.4
2002	25.7	26.8	25.5
2003	26.9	27.4	26.0
2004	25.6	27.2	26.2
2005	25.9	26.9	25.7



On average, 95 percent of the effective budget was utilized during the review period (or 96 percent if 1995 is removed from the calculation – since it appears to have been an exceptional year in terms of budget utilization). Relative to the NIS 25 billion budget, the sum not utilized ran into the hundreds of millions of shekels each year and exceeded NIS 1 billion in some years. The total cumulative unused budget came to around NIS 11 billion in current prices or NIS 13 billion in constant 2005 prices.

Officials at the Ministries of Education and Finance explain this in two ways. Funds are unused, they say, because the budget includes a reserve earmarked for price increases and other needs. When there is no need to use these reserves, the money is not used. The rest of the unspent sum is divided among various budget lines and is forwarded to the next year's budget and used

then. Neither explanation is satisfactory from the public accountability perspective or even from a simple accounting one. In regard to the first explanation, if a budget reserve exists, it is part of the total sum available to the education system. If conditions that require the use of this money for its original purpose do not arise during the year, the reserve should be reallocated and spent within the system on other ongoing expenses. The second explanation can be valid for one year but not for the continual rolling over of funds. Table 8 indicates the under utilization of budget in all years examined and at various levels among the main budget items.

Table 8. Final Expenditure vs. Budget Proposal and Effective Budget, Main Items, 1995–2005

	Final expenditure vs. budget proposal			Final expenditure vs. effective budget		
	1995	1999	2005	1995	1999	2005
Total	0.88	1.01	0.99	0.89	0.98	0.95
Ministry						
administration	1.25	1.01	1.02	0.91	0.95	0.94
Independent						
ed'al systems	1.02	1.07	1.01	0.96	0.95	0.91
Pedagogical						
administration	0.79	1.04	0.95	0.86	0.94	0.83
Teaching						
administration	1.08	1.01	1.02	0.88	0.96	0.96
Pre-primary	0.91	1.09	1.02	0.99	1.00	0.97
Primary	0.92	0.96	1.02	0.94	1.00	0.97
Post-primary	0.85	1.05	1.03	0.91	0.98	0.97
Rural						
settlements	0.92	1.15	0.99	0.89	0.97	0.93

The budget as currently prepared and submitted does not function as an instrument that can help steer education policy. It

is necessary to prepare it in a way that will reflect the actual intentions of the government and the Knesset in regard to Education Ministry operations. **The draft budget that is submitted to the Knesset should include for each budget item the average percent of budget utilization in the previous three years, and budgetary notes regarding any non-use of funds or use that deviates from the original approved budget proposal.**

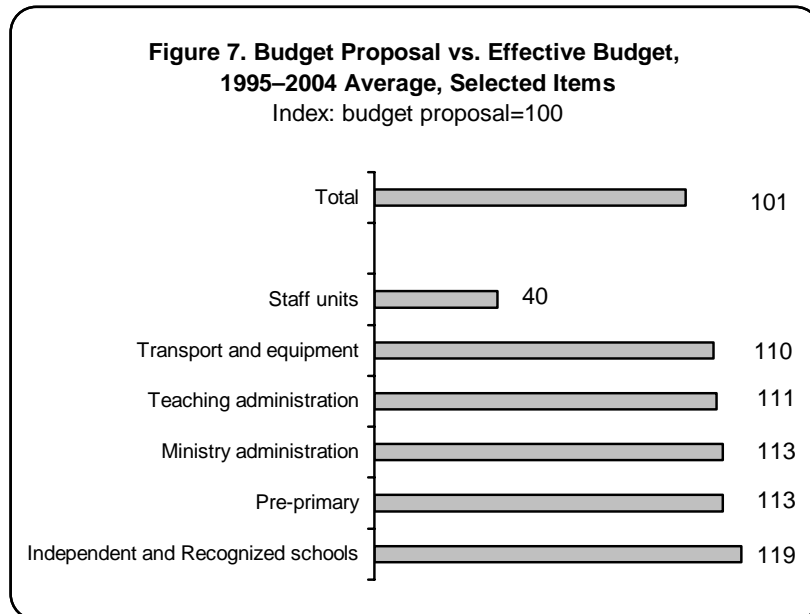
3. Changes in Composition of the Budget

The aforementioned differences among the overall budget proposal, the effective budget, and final expenditure should not only be analyzed with regard to the overall budget but also with regard to its main components. Some of these show regular discrepancies between budget proposal and utilization; in others, the disparities between the effective budget and final expenditure are much smaller.

Figure 7 illustrates the gap between the budget proposal and the effective budget in several items – the Independent and Recognized school systems, the ministry administration, pre-primary education, and the teaching administration. In these items, the discrepancy between the budget proposal and the effective budget exceeded 10 percent during the decade in review. In contrast, in the largest main items – primary education, post-primary education, pedagogical administration, and rural settlement education, which combine to account for two-thirds of the Ministry of Education budget – there were no sizable differences between the budget proposal and the effective budget during this time.

Since these differences follow a rather regular pattern, there is a question as to why the budget proposal is not constructed more accurately. During the year, it seems, the various budget items are frequently revised and sums are transferred from item

to item – sometimes due to coalition agreements and in other cases due to regular ministry activities. This pattern, which repeats each year, makes the budget less able to serve as a tool for the management and monitoring of the planning and implementation of the Ministry’s activities.



Who loses and who wins? The composition of the Ministry of Education budget over the past decade was examined to determine which areas of activity received a larger share in the budget and which lost. The “big winner” test relates to an increase in the share of a given activity in the total budget and not to an absolute increase in its budget. Table 9 shows that the proportional differences among the various areas of activity have not been especially great (with several exceptions) and that the fluctuations during the decade range from 1 to 2 percent.

The “biggest winner” was pre-primary schooling, which almost doubled its share in budget expenditure during the decade with an increase of 94 percent. Most of the increase stemmed from the amendment to the Compulsory Education Law that lowered the age of compulsory education to the 3-4 age cohort. This led to an increase in the number of children who benefit from pre-primary schooling, especially in the Arab sector.

Table 9. Share in the Ministry of Education Budget, Selected Items (Percent)

Budget items		1995	2005	Ratio
Teaching				
administration	Budget proposal	5.3	6.0	1.15
	Final expenditure	7.4	6.2	0.98
Pre-primary	Budget proposal	5.5	10.7	1.94
	Final expenditure	5.7	10.8	1.94
Primary	Budget proposal	30.7	28.5	0.94
	Final expenditure	31.5	29.1	0.94
Post-primary	Budget proposal	31.3	25.8	0.83
	Final expenditure	29.6	26.7	0.90
Independent and				
Recognized schools	Budget proposal	3.2	4.5	1.40
	Final expenditure	3.7	4.5	1.25

The Independent and Recognized systems were the second biggest “winners” in increasing their share. Their share in the budget plan (proposal) rose by 40 percent but the final expenditure share increased by only 25 percent. Their proportion of the budget grew rapidly in 1995-2000 but leveled off in 2001-2005.

The third “winner” seems to have been the teaching administration, which increased its share in the budget proposal by 15 percent (from 5.3 percent in 1995 to 6 percent in 2005).

The rise, however, was only perceptual because the share of this item in utilization dropped from 7.4 percent to 6.2 percent during the decade.

The “loser” – the area of activity that lost a sizable share of its slice in the education budget – was post-primary education. Its share in the budget proposal fell from 31 percent to 26 percent (a decrease of 17 percentage points). In final expenditure, the decline was 10 percentage points. During the review period, post-primary schooling (including the rural settlement schools) increased its share in enrollment. This should have led to an increase in its share of the budget, but the large budget cuts in the post-primary settings had the opposite effect.

Primary schooling maintained its share in both the budget proposal and final expenditure. Interestingly, the proportion of special education pupils at the primary level grew; this could have been expected to force a budget increase in primary education. However, concurrently, the share of the primary level in total enrollment decreased, having a downward effect on the primary education budget. The facts indicate that the latter process was stronger than the former.

In sum, the composition of the Ministry of Education budget has changed in recent years, mainly in a proportional increase in the share of pre-primary and *haredi* schooling and a proportional cut in the share of the primary and post-primary levels.

4. Recent Cuts in the Education Budget – How Large Were They?

Given the widely held beliefs about the extent of education budget cutbacks in recent years, the relationship between the financial aspects and their expression in teaching hours was examined. To do this, the allocation of weekly teaching hours,

as expressed in the budget proposal of Ministry of Education for primary and lower secondary schools was checked.¹¹ It was found that in each year between 2000 and 2006, the budget proposal included cutbacks that were not actually made. In the detailed budget proposal two figures appear that indicate the number of hours in the current school year and the number of hours budgeted for the succeeding school year, in which the cutback was supposed to take place.

By comparing the number of weekly hours in the budgets (Table 10), it was found that in a large majority of cases, the number of actual hours in the succeeding year approximated more closely the actual number of hours in the preceding year – or even exceeded it slightly – than it did the cutback proposal. During the entire period at issue, the number of **basic tuition hours** increased by 10,000 at the primary level and declined by 25,000 at the lower secondary level. At the same time, **total tuition hours** increased by 48,000 at the primary level and fell by 27,000 in lower secondary school.¹² Thus, the actual reduction in teaching hours seems to have been relatively small. However, in view of several factors that were noted in the first part of this chapter, the real cutback was much greater and is estimated to amount to 17 percent (see also Figure 5 above).

¹¹ It is, of course, possible for the budget allocation to change without a corresponding change in classroom hours; this could happen, for example, if a change occurs in expenditure on activity items or in class size.

¹² Ministry of Education, Educational Management Information Systems, 2006.

Table 10. Allocation of Basic Weekly Tuition Hours to Selected Budget Items, 2000-2006, as per Budget Proposal for Current and Succeeding Year
(Thousands of hours)

	2000	2001	2002	2003	2004	2005	2006
Primary education							
Current year	814.5	816.0	825.2	814.3	824.3	847.7	824.6
Successive year	794.5	806.0	803.8	801.3	716.3	547.7	820.3
Ratio of years	0.98	0.99	0.97	0.98	0.87	0.65	0.99
Lower secondary education							
Current year	328.1	328.6	336.2	329.1	316.9	318.3	303.5
Successive year	308.2	318.6	330.8	269.8	291.1	119.3	303.5
Ratio of years	0.94	0.97	0.98	0.82	0.92	0.37	1.00

5. Focus on Selected Population Groups

a. Primary Education Budget

The share of the primary education budget in the total Ministry budget is around 30% and has been virtually unchanged over the past decade, even though the proportion of the State schools in total Jewish primary enrollment has been declining steadily. ("Primary education" here includes budgeting for students in the State education system only; the budgeting of *haredi* religious schools appears under a separate budget heading.)

The discrepancy stems in part from the internal distribution of the primary education budget, which has changed over the past decade. Thus, the allocation of teaching hours to mainstream school settings fell from 62 percent of the overall primary education budget in 1996 to 55 percent in 2005 and the share of hours allocated to special education rose from 24 percent to 30 percent in the respective years. Although the importance of the Special Education Law is not in doubt, the data make one wonder about the correlation between the increase in special education hours and the decline in hours for the student population at large. This possibility arises due to the

decrease in hours per class in the **mainstream** primary system while the total budget of classroom hours for primary schooling remains more-or-less constant (see expanded discussion in Section C below).

b. Budgeting for the Advancement of Weak Population Groups

The advancement of pupils from weak social groups, coupled with the narrowing of scholastic and social disparities among different groups of pupils, has always been one of the primary declared goals of the Ministry of Education. This is especially pronounced in the notes that accompany the annual budget. By studying the budgets of the Ministry of Education for the years 1995-2004 at the level of sub-items, it is possible to examine whether the Ministry budget actually reflects affirmative action for pupils from socio-economically different population groups, and to test the extent of such affirmative action and changes over the decade,.

The inquiry focused on budget items that are specifically earmarked for the advancement of weak population groups:

1. Budget items implemented under the responsibility of the Social and Welfare Services Division, the sole purpose of which is to care for weak population groups.
2. Items allocated in terms of hours specifically earmarked for **weak population groups**.
3. Items implemented under the responsibility of other Ministry divisions for activities and settings in which eligibility depends mainly on **socio-economic criteria** (parents' income, parents' education level, year of immigration, geographic and social periphery, and so forth). Sometimes a combination of socio-economic background data and poor scholastic achievements is applied. (Examples are matriculation reinforcement classes, *Hakhven*, *Ometz*, youth centers, etc.)

4. Budget items implemented under the responsibility of other Ministry divisions that pay for activities and settings in which eligibility depends on **scholastic achievements** but actually cater mainly, or even exclusively, to socio-economically weak population groups (e.g., pre-academic preparatory programs, the Training Project for Jewish Youth, residential programs in the rural education sector, and the institutions of the former Youth Aliyah program).
5. Items for which other divisions are responsible and that serve the entire population but have components that are earmarked for weak population groups, or in which most recipients are defined as belonging to such groups (e.g., a basic allocation resulting from the adoption of the *Shoshani Report*¹³ on primary education).

Table 11. Budgets for Weak Population Groups, Share in Total Budget

	1995	2000	2005
Total Ministry budget (NIS billions)	13.8	21.0	24.5
Social and Welfare Services Division population, implemented by Division (%)	0.9	1.1	0.8
Population groups defined by socio-economic criteria – implemented by other divisions (%)	5.9	5.1	6.3
Populations defined by scholastic criteria – implemented by other divisions (%)	0.7	1.5	1.0
Budget for immigrants and residents of peripheral areas (%)	2.6	2.3	1.1
Total of Education Ministry budget (%)	10.1	9.9	9.2

Examination shows that the affirmative action budgets have not increased and have actually decreased. The greatest

¹³ Report of the Committee for Examination of the Budgeting Method of Primary Education in Israel (*Shoshani Report*), 2002.

reduction took place in the budgets of the Social and Welfare Services Division and those for immigrants and pupils in peripheral areas. Had all the Knesset's decisions about extending the Compulsory Education Law to the 3-4 age cohort been carried out, and had the long school day been implemented throughout the system, affirmative action for weak population groups as reflected in the budgets would have declined even more. By the same token, had the *Shoshani Report* been fully implemented and applied to the post-primary systems as well, the share of affirmative action would have been much larger.

c. Budgeting for Special Needs Students

The population of special needs students has been rising steadily in recent years, exceeding the increase in the total student population. Several factors account for this: an increase in the number of special needs pupils due to medical and diagnostic developments; changes in the definition of the pupils who should be included in this category; changes in the attitudes of certain population groups (Arabs, Bedouin, and *haredim*) toward these pupils' needs; and changes in the public's perception of the state's responsibility to meet all pupils' needs.

The population at issue is made up of youngsters who have been defined as special education students, i.e., officially diagnosed and enrolled in special education settings (including integrated settings). This budget category does not apply to former special education students who are mainstreamed after the primary education level and who participate in various rehabilitation, reinforcement, and training programs that are not defined as special education. This makes it necessary to rethink the question of defining special education at the post-primary level.

Special needs students who attend separate special education settings are much more expensive than "regular" students for three main reasons:

1. Special education classes are much smaller than mainstream classes.
2. Special education teachers are paid about 10 percent more than mainstream teachers.
3. Special needs pupils require additional services that a “regular” pupil does not receive.

Resource allocation for special education can be analyzed like allocation for socio-economically weak population groups above. The budget was reviewed for items and sub-items that relate directly or indirectly to allocations for special needs students. Below are the results of the analysis in two alternative versions.

The first version includes all items specifically earmarked for the special needs population. All items relating to special needs and all items relating to preschools, post-primary schools, and *haredi* systems that were explicitly meant for special needs students were included. Finally, items that, in the estimation of the Accountant General of the Ministry of Finance, are intended for the special education population even though they are not specifically defined as such (laboratory personnel and librarians at the lower secondary school level in special education, an improved track for the deaf and blind, youth centers, educational care centers, work rehabilitation centers, special training programs, and maintenance of care-intensive pupils in post-primary institutions) were also added.¹⁴

The second version includes additional items in which the part of the budget that goes to special education is estimated even though it does not appear separately as a special education budget item. Examples are the share of special education teachers in the teachers’ advanced training fund, the share of mainstreamed special needs pupils in the standard allocation of

¹⁴ The data were prepared in 2005 for the National Education Program of the National Task Force for the Advancement of Education in Israel (the *Dovrat Report*).

hours, etc. (The estimates were adjusted to the proportion of special needs pupils at each age level.)

The second alternative yields an estimate of the total *de facto* allocation for special needs pupils, as against the expenditure that the Ministry earmarks for this purpose explicitly. The estimates presented here originate in an innovative approach that is so far not used by those responsible for budgeting in the Ministry of Education. Thus, these are initial estimates that deserve further investigation and testing. Table 12, presents the results of the analysis and points to several clear conclusions.

Both alternatives show a slight increase – 0.6 percentage points – between 2000 and 2005 in the share of special education in the total Ministry of Education budget. This finding is surprising in view of the public statements that accompanied the enactment and implementation of the Special Education Law as well as the budget increases that were supposedly earmarked for this purpose in recent years. However, a remark is in order: education budgets, **in general**, have been decreasing in the past five years.¹⁵

There is a considerable difference between the narrow version and the broad version of the estimates (which includes all expenditure on special needs pupils). The advantage of the latter over the former is that it takes an inclusive view of the resources available to the education system for the care of this population group's needs.

¹⁵ This seems to contradict what was said above about the primary education budget. The explanation is that this section deals with special education budgets that are found in various budget lines and not only with the primary education budget.

Table 12. Budgets for Special Education as Share of Total Budget (Percent)

	1996	2000	2005
Total Ministry of Education budget (NIS billions)	16.4	21.0	24.5
Total budget for direct and indirect teaching (NIS billions)	12.1	14.7	17.3
Special education according to Accountant General's definition (NIS billions)	1.5	1.9	2.4
Share of total budget (%)	9.3	9.3	9.9
Share of teaching budget (%)	12.2	13.2	14.0
Special education according to expanded approach (NIS billions)	2.0	2.6	3.1
Share of total budget (%)	12.3	12.2	12.9
Share of teaching budget (%)	16.8	17.4	18.3

In summation, pre-primary and *haredi* schooling gained relatively more than other areas in the budget items of the Ministry of Education. Allocations for the advancement of weak population groups did not increase during the decade reviewed and, to some extent, it may be said that they even lost ground. Allocations for special education increased moderately and account for a very significant share of total teaching expenditure.

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