The World Bank Group
Middle East and North Africa
Human Development Group

West Bank and Gaza

EDUCATION SECTOR ANALYSIS

IMPRESSIVE ACHIEVEMENTS UNDER HARSH CONDITIONS
AND THE WAY FORWARD TO CONSOLIDATE A QUALITY
EDUCATION SYSTEM

September 7, 2006

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ABBREVIATIONS AND ACRONYMS

CDC	Curriculum Development Center
DHS	Demographic and Health Survey
EMIS	Education Management Information System
GDP	Gross Domestic Product
GER	Gross Enrollment Ratio
HEI	Higher Education Institutions
ICT	Information and Communication Technology
IMF	International Monetary Fund
JD	Jordanian Dinar
MENA	Middle East and North Africa
MOEHE	Ministry of Education
MOF	Ministry of Finance
MOP	Ministry of Planning
MTDP	Medium-term Development Plan
NGO	Non-governmental Organizations
NIET	National Institute for Educational Training
OTL	Opportunity to Learn
PA	Palestinian Authority
PALFEP	Palestinian - Finnish Education Program
PCBS	Palestinian Central Bureau of Statistics
PEI	Palestinian Education Initiative
PISA	Programme for International Student Assessment
PNA	Palestinian National Authority
SAT	Scholastic Aptitude Test
SSNRP	Social Safety Net Reform Programme
SUT	School as a Unit for Training Program
TEI	Tertiary Education Institution
TIMSS	Trends in International Mathematics and Science Study
TOT	Time on Task
TVET	Technical and Vocational Education and Training
UNESCO	United Nations, Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
UNRWA	United Nations Relief and Works Agency for Palestine Refugees in the Near East
WB	World Bank
WBG	West Bank and Gaza

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Executive Summary

1.   Having reached the end of the period covered by the First Five Year Education Plan prepared by the Palestinian Ministry of Education (MOEHE) (2000-2005), an analysis was due on how much progress the education system has made, what new challenges have emerged, and what are the main priorities for the next five years. One key question for policymakers in West Bank and Gaza, as well as for the donor community, is to what extent is the Palestinian education system in a constant crisis, and what are the emergency needs that arise from it? This analytic report looked into what has been the performance of the system in the past five years, how its resources are being used, and how well prepared is the system to meet the challenges ahead. It is an attempt to develop a medium-term perspective for the Education Sector.

2.   This exercise sheds light on which are the key priority areas of intervention needed to keep the functionality of the education system and at the same time improve its performance in accordance with the economic and social needs of the Palestinian population. The audiences for this document are the Government authorities, United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA), the donor community involved in the support of education and all education stakeholders: the MOEHE, District Education Offices, Teachers, School Principals, and civil society at large. It will also inform the World Bank Management on priorities for future support to education in West Bank and Gaza.

3.   This report was prepared based on a series of background documents and studies conducted by a team of researchers, on a wide range of topics including expenditure review, analysis of quality of services, relevance and links to the labour markets, and in a special effort to combine the Palestinian Authority's (PA) resources from MOEHE, Palestinian Central Bureau of Statistics (PCBS), Ministry of Finance (MOF) and local research organizations with international experts. Extensive consultations took place during November 2005- March 14, 2006, with a wide range of education stakeholders, and several workshops were held seeking feedback on the preliminary results of each of the background documents. Feedback was received and consultations were held with MOEHE, Ministry of Planning (MOP), MOF officials, District Education Officials, school principals, and teachers, university professors and administrators, research organizations, non-governmental organizations (NGOs) and the donor community. This report is an attempt to summarize the analysis and the policy discussions that took place during the consultation process.

1.1   Major Accomplishments of the Past Five Years

4.   The Palestinian education system has achieved major goals in the past five years and met most of the quantitative targets set by the MOEHE 2000-2005 education plan. These achievements are even more remarkable if it is taken into consideration that since 2001, the restriction of movement of people and goods imposed by the Israeli closures, curfews and incursions have severely disrupted the daily life for all segments of the population in the West Bank and Gaza, and in particular for school children and young people. Despite the difficult conditions, enrolment in basic education is universal, and the gross enrolment ratio (GER) for secondary is above 80 percent. It can be fairly said that **access to basic and secondary is highly equitable with respect to gender, location (rural and urban), refugee status, and household income**. These indicators put West Bank and Gaza **in the lead in the Middle East and North Africa (MENA) region**. Equally important is the high enrolment rate in tertiary education, above 40 percent for the 18-24 age group, **which is high if compared with middle-income countries**.

5.   The introduction of a new curriculum in a short period of time, and the availability of the corresponding textbooks for all children in all schools, have also been remarkable achievements. Until 1998, there was no national curriculum in Palestine. Schools in the West Bank used the Jordanian curriculum while those in Gaza used the Egyptian. And it was already in 2000 when the implementation of the newly designed national curriculum started simultaneously in the 1st and 6th grades. Thus, it would be fair to say that a key accomplishment in the development of education in Palestine in this last five year

period has been the construction of a national curriculum, followed by the editing and distribution of textbooks and the delivery of targeted in-service training to all teachers for curriculum implementation.

6.   The fact that for the first time Palestinian children participated in international tests (Trends in International Mathematics and Science Study- TIMSS) and **scored above the average for MENA countries** is in itself another major accomplishment. In terms of teacher training there have also been impressive results. Since 2000, almost every teacher in West Bank and Gaza has been provided with opportunities for training, another goal set by the 2000-2005 education plan. Results of the impact evaluation show that many of the teachers view the provision as well as the outcomes of the training positively. From the point of view of institution-building and strategy development, the creation of the National Institute for Educational Training (NIET) is an important step in the right direction.

1.2   Macroeconomic Context and Financial Sustainability

7.   The overall economic situation in the West Bank and Gaza (WBG) remains critical and is only expected to improve significantly with the creation of a stable political and security environment, that allows for the resumption of normal economic activity. The Palestinian Authority (PA) is currently confronting a fiscal crisis that could threaten its very existence. The most recent financial data available (March 2006), indicates that for that month the PA received revenues of $33 million against total expenditures of $139 million.[1] The wage bill alone is running at around $93 million per month. The proximate causes are the Israeli decision to withhold clearance revenues, the termination of budget support from the donor community, and the U.S. threat to prosecute any banks engaged in financial transactions with the PA in the wake of the January 2006 election. The structural roots of the crisis run deeper. By late 2005 in fact, the PA had already reached a position that was fiscally unsustainable, in which assets were being liquidated or mortgaged to meet current salary costs.

8.   The very rapid expansion of school enrolments over the last five years has meant that the annual education budget has been increasing in the past 5 years by 8-9 percent per year. Total education expenditure as a percentage of gross domestic product (GDP) has increased in the past 3 years, from 7.5 percent in 2000 to 11.5 percent in 2003. However, government's share of total education expenditure fell from 42 percent in 2000 to just 34 percent in 2003, implying that private expenditures have been increasing. One positive aspect is that WBG appears to have encountered a demographic bulge rather than a sustained expansion, which will allow it to forgo the recruitment of thousands of new teachers each year. While the future growth in school enrolments and thus recurrent and capital funding requirements will be considerably lower than during the last decade (at around 2-3 percent per cent per annum compared to 8-9 percent between 2000 and 2005), the projected increases in fiscal resources, even under the most favourable conditions, will still not be sufficient to meet these additional funding requirements. This highlights the urgency of improving the **efficiency and overall cost-effectiveness** of service delivery by schools and other education and training institutions. This **will be an important factor in determining availability of resources to move beyond delivery of services, to provide quality of education services.**

1.3   Room for Improvement: Shortcomings of the Education System

9.   **Equitable access.**   Although almost all children up to the age of 12 are attending school, the quality of the services that they are receiving has important variations. This is to a certain point expected, as the regular pattern followed by developing countries is to move from reaching high levels of enrolment (which WBG has clearly achieved), to concerns about quality of the education services offered, and equitable access to quality services for all segments of the population. In addition, while education access inequities with regard to income appear to be relatively small, household expenditure on education varies enormously, which seems to have a significant impact on student achievement.

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[1]   Unless otherwise noted, all references to dollars ($) denote U.S. dollars.

10.   Currently, around 7000 children probably never attend school and one in 12 children does not complete Grade 10. Also, with more children facing psychological trauma, the limited ability of the school system to provide for students with special needs has also become more evident. Meeting the needs of **children with special educational needs** should therefore be among the key objectives in the next five-year education development plan. The next five year plan should also have clear policy goals that seek to **eliminate non-attendance and non-completion in the basic school grades by 2011**.

11.   **Quality improvements.** The combination of very rapid expansion of basic and secondary education with the effects of the ongoing political conflict on the school system has led to a widespread perception that the quality of education is declining in Palestine. If learning outcomes are taken as a measure of quality of education, using national tests results, this seems to be the case. To a certain extent this is not surprising, taking into consideration the difficult environment in which schools have to operate. Decline in quality of services is also observed in most countries, when the education policies focus on expansion, without taking into account the need to sustain and improve quality. Therefore, **the Palestinian education system has reached that turning point at which it is critical to introduce policy changes geared towards building on the achievements of the rapid expansion and focus on quality improvement**.

12.   **Relevance of education**. In addition to the uneven achievements, there are critical issues related to the relevance of education. There is serious imbalance among the three streams in upper secondary education. Especially worrying is the shrinking student participation in the scientific stream due both to supply and demand factors and constraints. Conversely, the literary stream continues to grow in terms of student enrolments, and raises serious doubts in terms of both quality and relevance. The growing imbalance in secondary enrolments has two important consequences: Firstly, it reduces the size of the potential pool of candidates entering science and technology programs in higher education, thus "exporting" the imbalance to that sector of the education system. Secondly, it increases the percentage of students in the literary stream who leave secondary school with no qualification or skills. These problems become even more serious when considering that vocational education is not a real option for secondary school students (its enrolment share was down to 3 percent in 2005). Therefore, tackling the imbalance and its effects requires changes in the curriculum policy of basic and secondary education and the— already planned—reform of vocational education at the secondary and tertiary levels. It would also demand reviewing the current admission system to higher education, the courses of study offered at both universities and community colleges, and student financial aid policies.

13.   With a high (91%) adult literacy rate, Palestinians are the most educated population in the MENA region. However, as in other countries in the region, an educated workforce is not correlated with economic productivity. **There are important mismatches between education profiles and the labour market, with substantive gender differences**. Female participation in the skilled labour force is low, even though women represent about 50% of enrolments in tertiary education. Unemployment among male university graduates is lower than for those with only elementary or secondary school, showing that for males there are substantial private rates of return to higher education. However, unemployment for women with university degrees is 34%. It is obvious that to obtain wage employment, university graduates have an advantage, regardless of the relevance of their knowledge or skills to the job profile. With public service being the main source of employment, and very limited possibilities for private sector development, the high rates of enrolment in higher education, in particular in education sciences are understandable, as the ministry of education is the largest employer in the PA. However, this leads into oversupply of graduates; for example, there were over 25,000 graduate applicants for 2,200 new teaching jobs advertised by the MOEHE in 2005.

14.   **Management of the education system**. The Palestinian education system is characterized by a proliferation of supply-driven projects lacking a strategic vision and/or impact evaluation. Partly as a response to the increasing needs of the school system, combined with the tendency to react to emergency situations, and partly due to shortcomings of international donor coordination, recent years have witnessed a proliferation of donor-funded projects and initiatives, most of them supply-driven, whose

sustainability and potential impact are not aligned with the overall goal of developing the education system. Too often, there is duplication of actions, very little coordination of initiatives and no built-in impact evaluation envisaged in these projects. In the few cases when evaluations are conducted, they tend to focus on inputs to the school system rather than on student learning outcomes or on the system's institutional capacity. In addition to the lack of performance monitoring and therefore lack of answers regarding the potential impact of such programs, these uncoordinated interventions have also created disincentives for introducing efficiency measures in the use of financial and human resources.

15. The education sector, like other sectors in the PA, has to cope with the constant fiscal crisis and the uncertainty regarding availability of financial resources. This is the major threat faced by the education system, as the uncertainty of resources leads to a piecemeal approach and proliferation of uncoordinated projects, which collectively have limited impact on the system and do not build the institutional capacity needed to make the interventions sustainable. In addition, the education system has to operate under restrictions imposed by Israeli closures, which has led to a forced redeployment of teachers. One important additional element is the psychological impact of the security and emergency conditions on students and their academic performance.

16. **Efficiency in the use of resources.** A more unified and coherent schooling system with larger schools offering complete elementary, preparatory and secondary cycles would considerably improve the efficiency of service delivery in the education sector. The lack of correspondence between the schooling cycles, which form the basis for the curriculum, on the one hand, and the grade structure of schools, on the other, is not only likely to be inefficient from pedagogical and learning perspectives (particularly with so many children having to move schools mid-cycle), but is also likely to raise unit costs. In addition, government schools in Palestine are quite small by international standards which has important implications for resource utilisation and efficiency. About 20 percent of government schools have fewer than 200 students, which turns into small class size and low student teacher/ratios. Likewise, the current policy of annual replacement of textbooks is costly and unlikely to be financially sustainable. Increasing school size and the lifetime of textbooks should therefore be seriously considered.

1.4 Challenges Ahead

17. The education system in the West Bank and Gaza is facing an important turning point. Impressive achievements have been made in the past five years, with massive and equitable expansion reaching a level of development that by most accounts could be compared with middle-income countries. A main challenge lies ahead for policy makers in West Bank and Gaza, in order to build on these achievements and take the necessary steps forward to consolidate the education system and introduce the strategic choices to improve the quality of education. One key aspect is a change in the spending policy of the last few years. To achieve improvement in learning outcomes, MOEHE's spending pattern will have to shift from construction, textbooks and increased number of teachers, to include a more sophisticated set of policies to develop pedagogical methods and practices, monitoring and evaluation, and human resources. A detailed set of recommendations for how to achieve this is presented in this document.

18. **Seeking financial sustainability**. In the short term, the main challenge for the education system is to meet the financial requirements for keeping the school system operational. With 90 percent of MOEHE's expenditures being salaries, finding the mechanisms to guarantee payment of teachers' salaries is the main goal. The current crisis emerged from the lack of budget support is threatening to collapse the education system. To mitigate this crisis, an emergency mechanism to support schools is a priority. Keeping the schools operational will be a main factor to determine normalcy and prevent social upraise. In order to resume the school year to begin in September 2006, an emergency support mechanism for schools must be in place.

19. In the medium- term, serious efforts should be made to achieve much closer donor coordination and considerably reduced reliance on project support. The current proliferation of small uncoordinated projects is not only inefficient it also increases the potential for waste of resources and is a disincentive

for introducing efficiency measures. A sector-wide approach with basket funding should become the main modality for external support over the next five years in order to increase the potential of achieving impact results, and support system-wide development. For this to be accomplished, institutionalizing and sustaining appropriate mechanisms to inform policy decision-making are necessary. Increased political emphasis—and the corresponding financial investment—on impact evaluation of programs and projects will provide the needed evidence to enable policymakers to decide which programs to scale up, adapt or drop. This should apply for government as well as for donor initiatives.

20. **Efficiency in the use of human and financial resources**. An important step in seeking financial sustainability is introducing efficiency gains. With the constant and increasing fiscal crisis, this should be a priority of the next five year plan. Key to achieve this goal are the need to increase school size, provide a coherent schooling supply with schools offering complete primary cycles, and increasing the life span of textbooks. Using resources more **effectively** means that better allocation of human resources as well as a serious revision on schools size is key. Larger classes can be achieved through greater teacher flexibility, in particular, reliance on class teachers for the lower basic school grades and multi-grade teaching so that small classes can be combined. **Effective multi-grade teaching results in both improved learning outcomes (as a result of the introduction of student-centered learning methodologies) and more efficient teacher utilisation and thus significantly lower unit costs.** By international standards, the duration of the basic cycle is too long (ten years). In the medium term, therefore, restructuring the current schooling cycles should be seriously considered.

21. **Improving the quality of basic education**. Quality improvement is clearly the main policy objective for the next five years. Research evidence on determinants of student achievement is consistently pointing to classroom variables and teacher behaviour in the classroom as having greater impact than school-wide variables or even system-wide inputs. This means that emphasis should be put on improving pedagogy and methodology, introducing innovations in learning technology, developing classroom management skills in teachers aimed at a more efficient use of time, focusing on school-based monitoring and evaluation, and emphasizing the centrality of students in their own learning process. Towards this end a set of policy reforms would need to be in place, including:

(i) re-shifting the emphasis of textbooks in the curriculum, and the production and dissemination of alternative curriculum materials, teaching aids, school libraries, science laboratories and ICTs; (ii) strengthening monitoring and evaluation capabilities at all levels; (iii) reform of pre-service and in-service teacher training and development of a national strategy for teacher development; (iv) revision by the Agency of Accreditation and Quality Assurance of pre-service teacher training programs, and the technical profiles used for their selection; (v) linking in-service teacher training to decentralized school-improvement policies; and (vi) developing a system of school indicators of quality improvement.

22. **Addressing the issues of relevance of education to the labour markets.** Palestinian society is heavily dependent on youth as the driving force for economic growth. However Palestinian young people continue to suffer from various difficulties, the most important of which is the high rate of unemployment (40 percent for the 15-24 year-old group). Increased emphasis on comprehensive secondary schooling and a diversified tertiary education system with advanced vocational training are a priority. Addressing the imbalance of the tertiary education system is a key factor to increase relevance to the labor market. Technical colleges and vocational education are costly and have little demand, as their offerings have little relevance for employability. A reform of technical education is therefore a main goal for the next five years.

Chapter 1:Impressive Achievements under Harsh Conditions

Introduction

1.   The Palestinian Education System comprises a Mandatory Basic Cycle covering Grades 1 to 10, divided into the Preparation Stage (Grades 1 to 4) and the Empowerment Stage (Grades 5 to 10). Optional Secondary Education covers Grades 11 and 12, with the option of general secondary education, and a few vocational secondary schools. Post secondary education is offered in 11 universities, (10 private and one public), 11 technical colleges (4 government, 2 UNWRA, 4 public and 1 private) which offer mainly 4 year programs. In addition there are 19 'community colleges' (1 government, 9 public, 2 UNRWA, and 7 private) that offer mainly two-year diploma courses in technical and commercial specialisations.

2.   The Ministry of Education and Higher Education (MOEHE) developed in 1999 a five-year Education Development Plan for the period 2000-2005. This was the first time after the establishment of the Palestinian Authority in 1994 that the MOEHE developed a National Plan with a unified vision for the Palestinian education system from pre-school to secondary education. This plan expressed the sector development vision and addressed the challenges around five goals:

- **Provision of access to education for all children**. The targets were to increase GRE from 96% to 98% for grades 1-10; and to increase the GRE for secondary (grades 11-12) from 57% to 68%.

- **Improvement of the quality of education**. The targets were to implement the new curriculum in all grades; produce and distribute textbooks at a ratio of 1/1 for all students; 30 hours of in-service teacher training per teacher per year; 45 hours for Ministry and District staff and 90 hours for school supervisors; and increase the supervisor/teacher ratio from 1/100 to 1/80.

- **Development of formal and non-formal education**. The targets were to develop a diversified secondary education and to upgrade the effectiveness of academic, technical and vocational schools, as well to strengthen the relationship with UNRWA schools and facilitate student mobility in the Palestinian education system.

- **Development of MOEHE's management capacity in planning, administration and finance.** This entailed the review and improvement of the organizational framework through the definition of roles, responsibilities (job description) and structures (staffing needs) at central and district level; to update and improve procedures for all management functions (personnel, finance, budget) at central, district and school level; to develop an EMIS; and to design mechanisms and tools for monitoring the implementation of the five year plan.

- **Capacity Development of teaching and non-teaching staff**. The main thrust was to improve pre-service and in-service teacher training programs.

3.   Despite this being an ambitious five-year plan, and the additional challenges brought by the second *Intifada*, impressive achievements have been made in the past five years in the education sector in Palestine. The system has experienced massive expansion and attained equitable access, reaching a level of development that by most accounts could be compared with middle-income countries

ENROLMENT PATTERNS AND STUDENT FLOW

4.   The main enrolment targets set for the 2000 – 2005 MOEHE Education Five-Year Development Plan have been met both for basic and secondary schooling. Almost all children attend school up until the age of 12. Access to basic and secondary education is highly equitable with respect to gender, location (rural and urban) and refugee status. The only sizeable gender disparities exist at the tertiary education level, and in vocational education. According to the 2005 Demographic and Health Survey, enrolment rate profiles are virtually identical in the Gaza Strip and in the West Bank (see Figure 1). In regards to Vocational Education targets, the goal was to reach 15 percent of the secondary enrolment in the vocational streams, which amounted to only 3 percent in 2005, down from a slight peak of 5 percent in 2003.

Figure 1:   Education Enrolment by Age
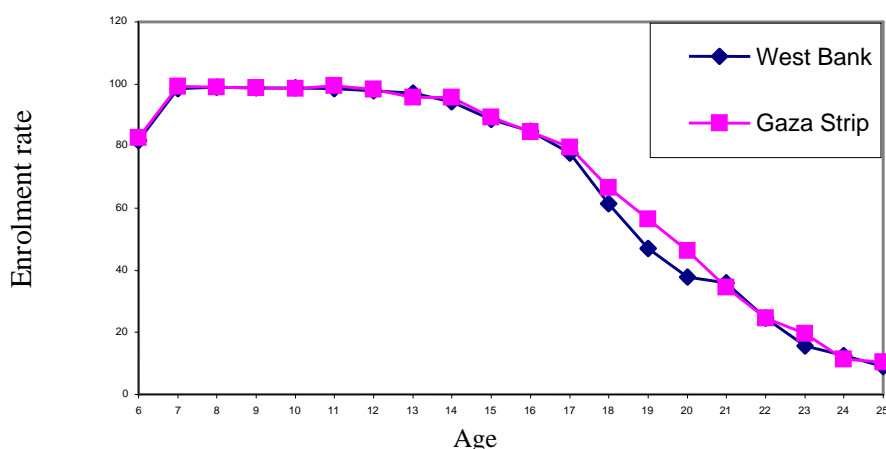
5.   Despite the serious disruption to schooling due to the intensification of the Israeli occupation since 2001, the number of children attending basic and secondary schools grew by nearly 25 percent between 1999/2000 and 2005/06. A total of 1,078,488 students enrolled in the basic and secondary school grades at the start of the 2005/06 school year (see Table 1.1). Slightly more than 40 percent of them were enrolled at schools in the Gaza Strip. The largest percentage increase in enrolments was at government schools, which is due mainly to the relatively very rapid growth in enrolments in Grades 10-12 (which are not taught at UNRWA schools) and the greater numbers of government schools that were constructed during this period. Government schools account for 70 percent of enrolments, while UNRWA has 24 percent and private schools 6.1 percent. UNRWA schools are concentrated in the Gaza Strip (with 44 percent of total enrolments in Gaza). Since 1999, the enrolment shares of these three types of schools have remained largely unchanged.[2] Despite the dramatic increase in poverty levels since 2000, private school enrolments have still grown by 18 percent during the last five years.

Table 1.1: Government, UNRWA and Private Enrolments, 1999/2000-2005/06

	1999/2000	2005/06	% increase
PNA	589,000	757,000	28.5
UNRWA	223,000	254,000	13.9
Private	56,000	66,000	17.9
Total	866,000	1,078,000	24.5

Source: EMIS

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2   The enrolment shares of UNRWA and private schools have fallen slightly (from 25.7 percent and 6.5 percent respectively) while the share of government schools has increased (from 68.0 percent).

6.	However, enrolment growth across the 12 school grades has not been even. It can be observed in Annex Table 2 that enrolments were actually lower in Grades 1-3 in 2005/06 than they were in 1999/2000.[3] In contrast, enrolment in Grades 10-12 increased by well over 60 percent during the same period. Household surveys indicate that the enrolment rate for Grade 1 is almost 100 percent which means that Grade 1 intakes are equal to the age six population. With annual population growth expected to be nearly four percent, the 2000-2005 education plan projected that the age six population would increase by 24 percent between 1999/2000 and 2004/05. In reality, primary grade enrolments fell by 8 percent compared to a 34 percent increase for the preparatory grades (5-10) and 55 percent increase for the secondary grades.

7.	More research is needed, but there are probably two main reasons for the quite unexpected fall in enrolment intakes for basic schooling. First, fertility rates may have declined due to the social and economic upheaval of the second Intifada. And secondly, emigration rates may have been much higher than expected. A DSP survey in Palestine reports that, between 2000 and 2004, at least one person had permanently emigrated in five percent of households and temporarily migrated in 11 percent of households. (see DSP, 2004).

Enrolment Patterns of Student Flow in Basic Education

8.	The main enrolment targets for basic education that were presented in the MOEHE Education Five-Year Development Plan (2000-2005) were to maintain the Grade 1 admission rate at 100 percent, to increase the gross enrolment rate for Grades 1-10 from 96.8 percent in 1999/2000 to 98.0 percent by 2004/05, and improve access to basic education for all children in 'under-served areas'. The gross enrolment rate (GER) for basic education based on the revised PCBS population projections fell from 96.8 percent in 1999/2000 to 93.2 percent in 2004/05. (Basic school enrolments were 931,000 in 2004/05, which was 91,000 lower than the 2000-2005 target enrolment of 1,022,000.[4]) However, household survey data yield higher enrolment rates. According to the Labour Force Survey, the enrolment rate for the 10-15 age group (i.e. the 'empowerment' or upper basic cycle) was 97.6 percent in early 2005, which is just under the 2000-2005 target GER of 98.0 percent for the full (Grade 1-10) basic education cycle.[5] Enrolment rates calculated from the DHS are slightly lower.[6] The differences in LFS and DHS 10-15 enrolment rates are very small.

9.	In aggregate terms, enrolment rates for the 10-15 age group increased by around two percentage points between 1999/2000 and 2004/05. Although there are still some slight variations with respect to gender, region and directorate, these are considerably less than five years ago. It should be pointed out that the very high gross and net enrolment rates for basic and secondary education in Palestine compares very favourably with those for other countries in the region. Given all that the schooling system in West Bank and Gaza has gone through in the past few years, to have achieved such high enrolment rates in less than a decade is a remarkable achievement.

Transition Rates to Secondary Education

10.	Transition rates from basic to secondary education have been consistently in excess of 90 percent over the last five years, which is high by international standards. The target transition rate of the MOEHE 2000-2205 plan for basic to secondary education was 97 percent by 2004/05. The actual transition rate

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[3]	It should be pointed out however that Grade 1 intakes in 199 were slightly higher than normal due to a change in regulations that enabled children to enrol two months earlier than in previous years.

[4]	Around 32,000 children in East Jerusalem attend 35 schools that are managed by the municipality and the Israeli Ministry of Education and are not included in the MOEHE enrolment statistics.

[5]	The Labour Force Survey only collects information on household members who are aged 10 and above.

[6]	This strongly suggests that the projected population growth rate of four percent, which was used to establish enrolment and enrolment targets for the EFYDP is too high (see Chapter 7).

was 95.2 percent in 2003/04. Aggregated data were used to compute transition rates and therefore there may be a small element of error in the percentage rate, owing to students who do not enter secondary education directly from basic at the earliest opportunity (i.e., the school year immediately following their graduation from Grade 10). Transition rates for female students have steadily risen over the last five years (2000/01 - 2004/05) to the present level of around 94 percent. From 2001/02 the transition rates for male students have been stable at just under 92 percent.

Table 1.2: Transition Rates to Secondary Education for Males and Females
(2000/01 to 2004/05)

	2000/01	2001/02	2002/03	2003/04	2004/05
Male	88.0%	91.6%	91.9%	91.3%	91.5%
Female	88.7%	90.2%	91.7%	92.2%	93.8%

Enrolment Patterns of Student Flow in Secondary Education

11.   Secondary Education in Palestine is separated into academic courses (Literature and Science) and Vocational Education which offers courses in Religion, Commerce, Agriculture, Industry and Hotels/catering. Enrolments in secondary education rose steadily for both male and female students over the five school years from 2000 to 2004. The 2000-2005 target for secondary education was to attain a GER of 'at least 68 percent' by 2004/05 (from 57 percent in 1999/2000). Secondary school enrolment grew by 54.8 percent between 1999/2000 and 2004/2005. There were 112,675 Grade 11 and 12 students in 2004/05, which means that the 2000-2005 enrolment target of 113,000 has been almost exactly met. However, this is not the case for secondary education vocational stream targets. The goal was to reach 15 percent of the secondary enrolment in vocational streams, which amounted to only 3 percent in 2005, down from a peak of just 5 percent achieved the previous two years. This is probably the one and only quantitative goal in that Plan that was far from being accomplished.

12.   If the secondary GER is calculated using PCBS projections of the school-aged population, it was 71.6 percent in 2004/05, up from 56.9 percent in 1999/2000. However, this is considerably lower than the enrolment rates for the 16-17 age group derived from household surveys. Unfortunately, the DHS and LFS cannot distinguish between primary and secondary students. However, only about two percent of basic school students are over-age (i.e., more than 15 years) so almost all students aged 16 and 17 are in the secondary school grades. If GER is calculated using LFS 2005 and DHS 2004 for this age group, then it was 85 to 83 percent. Secondary enrolment rates have increased by 13 percentage points for both females and males since 2000, reaching important gender parity for this age group (see Table 1.3.).

Table 1.3: LFS Enrolment Rates for the 16-17 Age Group by Gender and Region,
2000 and 2005

	2000 Female	2000 Male	Gender Difference	2005 Female	2005 Male	Gender Difference	Change 2000-2005 Female	Male
West Bank	74.6	64.4	9.2	89.6	78	11.6	16	13.6
Gaza Strip	77.3	73.9	3.4	86.6	85.5	1.1	9.3	11.6
Palestine	75.1	67.8	7.3	88.4	81	7.4	13.3	13.2

Source: Labour Force Surveys

13.   With only two grades in the secondary education cycle, it is more difficult to make comparisons with enrolment rates in other countries. However, the overall secondary GER was only 63.7 percent for Arab countries in 2001, which is the latest year for which international data are available. With respect to neighbouring countries, the secondary enrolment rate in Palestine is at least as high as in Egypt and Lebanon and almost double the rate in Syria.

14.   *The expansion of secondary education in the past few years has seen an unbalance between the scientific, literary and vocational streams.* As data in Table 1.4. clearly show, enrolments in the scientific and vocational streams have continued to drop and those in the literary stream have increased a further two percentage points since the academic year 99-00. In addition 3 out 4 students that pass the Tawjihi examination today are from the literary stream. Roughly speaking, 30 percent of the total number of students who sit the Tawjihi, leave secondary school with no skills and no marketable diploma, which is a main concern regarding the outcomes of the education system as a whole. The unbalanced enrolment in the literary stream of secondary education has also an important impact on the demand for university education.

Table 1.4: Percentage of Boys and Girls in each of the Three Secondary School Streams
(Percentage of students/branch)

Year	Scientific			Literary			Vocational		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
	(%)								
1999/2000	55	45.	29	45	55	67	77	23	4
2000/2001	54	46.	28	44	56	67	76	24	5
2001/2002	53	47	29	44	56	67	74	26	4
2002/2003	53	47	28	44	56	67	72	28	5
2003/2004	52	47.	27	45	55	68	71	29	5
2004/2005	51	49	28	45	55	69	71	29	3

15.   According to the Director General of the General Directorate Department, it is the case that more and more students originally enrolled in the scientific stream decided to move to the literary stream, apparently on the basis that the scientific stream is more difficult for students and that uncertain job prospects do not seem to justify—from the students' point of view—the extra effort and the extra cost involved in pursuing scientific studies at the university (or, for that matter, the extra fees that need to be paid by secondary students in the scientific stream). The low participation of girls, especially in rural areas, would also be attributable to that phenomenon. In rural areas, girls would be forced to go to co-education schools, and to travel fairly long distances to attend, so this is a strong deterrent for them to enrol in the scientific or vocational streams. It appears that there is also some trouble concerning teacher supply in science and technology subjects in rural areas. However, the overall enrolment figures by gender (see Table 1.4.) do not seem to support the perception expressed in many of the interviews and school visits carried out for this study. Boys continue to be the majority of science stream students, but girls' participation has increased steadily to reach 48 percent in 2005. Even in the small vocational education sector, the participation of girls has picked up in recent years and is now 29 percent.

16.   The projected enrolments (see Table 6.1) suggest that *secondary schooling will be the main area of expansion with enrolments growing by over 40 percent over the next five years* if all children are to be accommodated. Given the likely severity of fiscal constraints, the next five year plan will need therefore to consider very carefully whether 'secondary education for all' is feasible.

Enrolment in Vocational Schools

17.   School-based vocational training in Palestine has five steams - industrial, agricultural, commercial, hotel and home economics. Fifteen secondary industrial schools offer 17 specialisations with a total enrolment of 2185 students in 2004/05. All but three of these industrial schools are government funded. Commercial subjects are taught at 64 academic secondary schools with nearly 3000 students. The two hotel training schools are privately operated. Total enrolments for the five streams increased from around 3000 in 1999/2000 to 5561 in 2004/05, which is considerably lower than the

MOEHE 2000-2005 target enrolment figure of 9000. Part of the reason for this is that this type of training remains unpopular among most students and parents/guardians.

Figure 2: Trends in Vocational Education Enrolments, 2000/01 to 2004/05.
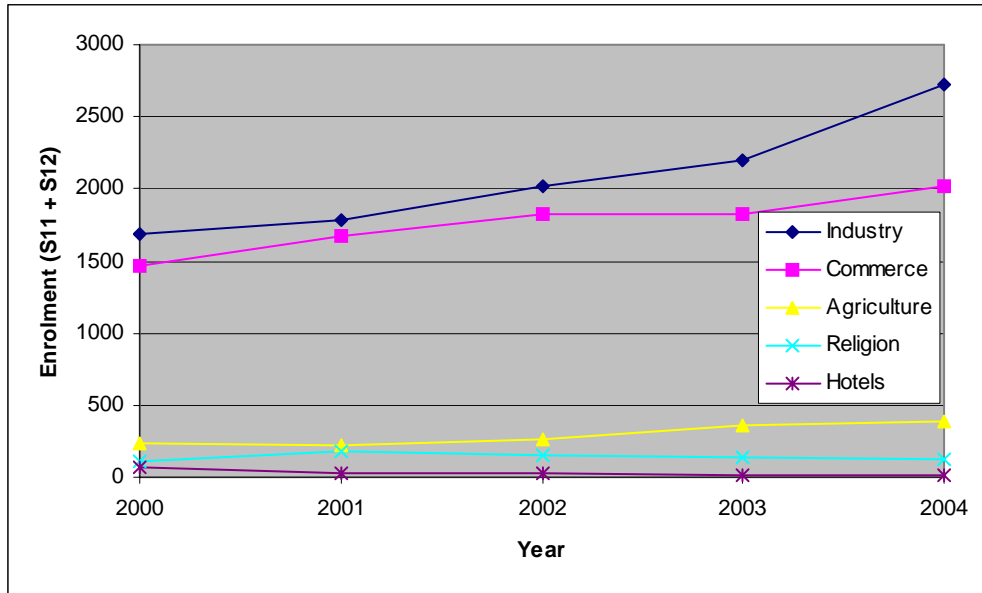
18.　　A few community colleges with limited capacity (200-300 students) have high applicant-place ratios (especially for nursing and the UNRWA Gaza Training Centre). The remainder, however, have ratios of only around one, which is symptomatic of the weak demand for most vocational training. Manual skilled occupations continue to have low status and only the least academically able students are expected to enrol at TVET institutions. As a result, only small numbers of specialisations offered by technical and community colleges are in demand and the majority of colleges are operating well under capacity with low student-teacher ratios and high unit costs. In addition to community colleges, other TVET opportunities are provided by the Ministry of Labour and Social Affairs. This ministry runs 12 Rehabilitation Centres that target dropouts, slow learners and 'social cases'. Total enrolments were around 850 in 2004/05 with 380 graduates. The Ministry of Ex-Detainees also offers TVET to around 1000 mostly males. The National Institute of Information Technology enrols 460 students. *Breaking the stigma that is attached to technical and vocational education will require major reform at all levels* and, as experience in other countries shows, will take time.

Cohort Survival

19.　　An important measure of the efficiency of an education system is how long does it take for a student to complete the basic education cycle. Repetition rates in Palestine are low by regional standards. For the basic grades, 1.1 percent at government schools, 2.4 percent at UNRWA schools, and 0.4 percent at private schools, and lower than 1 percent in the secondary grades. They have remained largely unchanged over the last five years and are about at the same level as the median value for developed countries. However, it is important to point out that levels of student repetition are not the outcome of student performance (as is the case in many countries), but rather the MOEHE's policy of almost automatic promotion. Repetition rates are slightly higher for boys than girls and vary to some extent across the 18 directorates ranging from 0.4 percent in Rafah to 2.3 percent in Jerusalem.

20.　　According to EMIS, cumulative dropout for basic education has remained at around 8 percent since 2000. Annual dropout rates for the basic school grades were 0.8 percent for government schools,

0.5 percent for UNRWA schools, and 0.2 percent for private schools in 2004/05 (see Annex Table 3)7. Only 1.2 percent and 2.7 percent of children aged 10-14 and 10-17 respectively were enumerated as being in the labour force in 2003. The age-specific enrolment rates presented in Figure 1 also show that around eight percent of children age 15 (i.e., after they should have been in school ten years) were not attending school in 2004. Thus, around one in 12 children do not complete the full basic education cycle.

21. There is very little dispersion in dropout rates across basic schools and between directorates. The highest rates of dropout predictably occur in secondary education and the higher grades of basic education, where they consistently hover around the 3 percent mark. Dropout rates for male students peak in Grade 10 and for female students the highest rates occur in secondary education. Dropout rates have tended to be higher at secondary literature schools. Specialist (science and vocational) secondary schools generally have large catchment areas, which can also lead to quite high dropout rates, especially when students face major problems travelling to school. Dropout rates at private secondary schools are minimal. A recently completed study of student dropout undertaken by MOEHE identified the main cause of dropout as being the direct costs of education. Opportunity costs especially for boys leaving school to gain employment to support their family, coupled with low achievement are also important contributing factors.

22. The construction of the Separation Barrier is making it considerably more difficult for children in communities situated close to the wall to attend school. To date, it is estimated that as many as 170,000 students in 320 schools are directly affected and that dropouts have increased appreciably (MAS, 2005).

23. EMIS data show that cumulative dropout in the two secondary school grades is around five-six percent, which, as with basic education, is low compared with developing countries. However, enrolment rates based on household survey data show that around 20 percent of children aged 17 and 18 (i.e., at the end of the secondary school cycle) were not in school in 2004. In other words, around one in five children do not complete secondary education. Unlike basic schools, there are high regional dispersion for dropouts in secondary, in some directorates, this figure is as high as 30-33 percent (see Annex Tables 4 and 5).

Enrolment Rates and Trends in Tertiary Education

24. There is a strong societal expectation in Palestine that all young people have a right to tertiary education. However, the MOEHE 2000-2005 education plan had no explicit access targets for this level of education. The lack of sufficiently detailed survey data makes it difficult to calculate accurately transition rates for students successfully completing secondary education and proceeding to tertiary education. However, over 80 percent of Grade 12 graduates who pass the tawhiji go on to some kind of post-secondary education or training.

25. The GER for the 18-21 age group[8] can only be accurately estimated from household surveys mainly because of the many (unrecorded) students who are studying both in Palestine[9] and overseas[10] and the large proportion of students at the Al-Quds Open University and other TEIs who are not Grade 12

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[7]   It is important though to identify any schools that have particularly high drop out rates. This information will be included in the final draft of the report.

[8]   Ideally, the GER for 17 and 18 year olds, which covers enrolments for the first two years of 4/5 university degree courses and all the (two-year) courses at community and technical colleges should be estimated. However, since enrolments at two-year colleges only account for less than 10 percent of total tertiary enrolments, the GER based on the 18-21 age group is reasonably accurate.

[9]   A recent survey located over 400 technical and vocation education training institutions providing long and short-term training, most of which are not covered in MOEHE enrolment statistics.

[10] A household survey of university students attending HEIs in Palestine in 2000 found that overseas students could account for as many as one-third of tertiary enrolments (see Al-Jafari, 2002). There were around 20,000 Palestinian students studying overseas during the mid-late 1990s.

graduates. DHS data indicate that 44 percent of 18-21 year olds were still in fulltime education in 2004, which is a very high rate by international comparisons. In 2003, the average found in other Arab states was 15 percent, and in other middle income countries like Mexico was (21 percent), Costa Rica (21 percent) and Malaysia (27 percent).

26.   Table 2.5 summarises enrolments at the four main types of TEIs during the last decade. There are 10 traditional universities, one open university, 11 university colleges, and 19 community colleges. The bulk of enrolments are found at the University level- 55 percent at the traditional universities, and 33 percent at the Open University. Enrolments at the six TEIs that are directly funded by the PA represent a small percentage. There are 2270 students enrolled at the four UNRWA colleges and training centres, which is less than 2 percent of all enrolments. The 11 university colleges (4 governments, 2 UNWRA, 4 public and 1 private) enrolled just over 6000 students in 2004/05, which represents 4.3 percent. These colleges offer both university degree and diploma courses. Business administration, teacher training and health courses account for nearly three-quarter of enrolments, and in total, there were 1900 graduates from colleges in 2005. The demand and supply for this type of education seems to have important failures. For instance the demand for places at the two UNRWA colleges in Ramallah is very high, and their capacity to enrol students is quite limited. Among the government/public colleges; however, applicant-place ratios for most specialisations are only around one.

Table 1.5: Enrolments by Type of TEI, 1996/97-2004/05 ('000)

	1996/97	2000/01	2004/05
Traditional universities	33.8	49.7	76.7
Open university	8.5	25.1	46.4
University colleges	3.1	0.8	6
Community colleges	4.6	5	9
TOTAL	50	80.6	138.1

Source: MOEHE

27.   Nineteen 'community colleges' (1 government, 9 public, 2 UNRWA, and 7 private) offer mainly two-year diploma courses in technical and commercial specialisations. Total enrolment at these colleges was 9000 in 2004/05 with 1700 graduates. The three main areas of specialisation are business and administration (35 percent), computing (19 percent) and nursing and health (19 percent). MOEHE does not produce statistics on dropout and completion rates for degree and diploma courses offered at TEIs. The Higher Education Financing Strategy reports that the overall dropout rate was only 7.5 percent for degree programmes at the traditional universities and 15.7 percent at the Open University in 2000/01, which is low by regional and international standards.

28.   Tertiary enrolments in Palestine are very high and present quite an unbalanced picture. Enrolments at the traditional universities and university colleges have doubled during the last decade and they have increased by over fivefold at Al Quds Open University. Three subject areas (education 23 percent, humanities and arts 21 percent, and social sciences, business and law 21 percent) account for two-thirds of enrolments at the 'traditional' universities. Half of all Open University students are studying education, 24 percent business and administration, and 19 percent social sciences (see Annex Table 21).

29.   The trend of high enrolments in education has tend to increase in the past decade. The shares of education enrolments have grown by 10 percentage points, while engineering enrolments at the traditional universities have increased only 4 percentage points, and the shares of business, law, and science have declined. Table 1.6 shows that compared to other countries, Palestinian tertiary enrolments in education, humanities and arts are much higher (44 percent) compared to developed countries (26 percent) and other countries in the region (Lebanon 23 percent, Israel 29 percent).

Table 1.6.: Percentage Breakdown of Field of Study among Tertiary Education Students, 2001

Country/region	Education	Humanities and arts	Social sciences, business. law	Science	Engineering	Agriculture	Health and welfare	Services	Not known
Palestine	23	21	24	14	11	1	7	0	5
Israel	17	12	34	11	20	1	6		1
Lebanon	3	20	40	16	12	1	7	3	0
Saudia Arabia	50	15	8	7	8	1	3		9
Morocco	5	25	45	15	5	1	3	0	0
Libya	12	19	18	10	21	3	17		1
United Kingdom	9	19	24	16	10	1	20	1	0
Sweden	14	13	26	11	18	1	16	2	0
Germany	7	16	26	14	15	1	15	2	4
Japan	7	17	30	3	18	2	11	7	6
Australia	8	14	34	14	12	2	13	2	1
Netherlands	14	8	41	6	11	2	16	2	0
India	1		52	15	5		1		26
Developed countries	11	15	35	13	10	2	10	3	2
North America & Western Europe	11	12	40	12	14	2	8	1	0

Notes: Palestine data are for traditional universities 2004/05
Source: UNESCO, 2004 Global Monitoring Report

Equity in the Provision of Education Services

30.   Although it can be said that almost all children up to the age of 12 are attending school and access to basic and secondary is highly equitable there are some other important considerations to be made:

31.   While education access inequities with regard to income appear to be relatively small, household expenditure on education varies enormously. The poorest households with total consumption of less than US$ 284 per month spend only US$ 10 per annum on education while the richest households with monthly consumption of more than US$ 1,400 spend over 80 times this amount. Furthermore, although most children attend school, the quality of the services that they are receiving has important variations. This variation seems to have a significant impact on student achievement (see Chapter 2).

32.   A close look at allocation of resources shows that there are important regional differences, mainly between West Bank and Gaza, and also among districts. These differences are observed in the number of schools operating double shifts, in student/teacher ratios, availability of libraries and computers in schools to name a few. Although one of the main factors to account for the difference in how these resources are allocated differently between the West Bank and Gaza is the difference in population density, it is important to analyze factors other than availability of school buildings.

33.   Overall, 28.8 percent of students are enrolled in either the morning or afternoon classes of double shift schools. However, the overall percentage hides the considerable difference between West Bank (9.1 percent) and Gaza Strip (73.3 percent). In most cases, the morning and afternoon classes that share the same building and facilities and classified as separate schools, and administered separately. There are also a number of schools offering morning and afternoon shifts that operate under a single administration. These are all found in the Gaza Strip.

Table 1.7:   Enrolment by Shift and Gender

	Gender	Total	One Shift\ Morning	Two Shift\ Morning	Two Shift\ Evening	Two Shifts\ One Admin
PALESTINE	Total	729,340	519,060	107,794	96,204	6,282
	Male	362,639	263,803	47,072	48,948	2,816
	Female	366,701	255,257	60,722	47,256	3,466
West Bank	Total	504,880	459,160	25,179	20,541	0
	Male	252,638	229,680	11,460	11,498	0
	Female	252,242	229,480	13,719	9,043	0
Gaza Strip	Total	224,460	59,900	82,615	75,663	6,282
	Male	110,001	34,123	35,612	37,450	2,816
	Female	114,459	25,777	47,003	38,213	3,466

34.   PCBS estimates that 42 percent of the population under 18 year are refugees. Around two-thirds of children from refugee households attended UNRWA schools (225,000 out of 342,000 in 2001/02), with the remainder attending PA and private schools. Ten percent of the total enrolment at UNRWA schools comprises of non-refugee children. There are virtually no differences in enrolment rates between children from refugee and non-refugee households (see Annex Table 7). UNWRA schools do not provide services beyond Grade 9, but no difficulties are reported in students transferring to government schools to finish their basic cycle. Ten percent of the total enrolment at UNRWA schools comprises of non-refugee children.

35.   On the basis of the DHS enrolment profiles, as well as EMIS shown in Figure 1, there are no differences between either location or gender enrolment profiles for basic and secondary education. The only difference in regional enrolment rates is a noticeably higher proportion of young adults (aged 18-20) living in the Gaza Strip enrolled in full-time education in 2004. With a few exceptions, enrolment rates are relatively uniform across the directorates for the basic school age cohorts. However, among the 16-17 age group, they vary quite markedly - from a low of 66.5 percent in Jericho to 99 percent in Jerusalem. Despite these inter-directorate differences, there appear to be no major enrolment disparities between rural and urban areas in Palestine (see Annex Table 8).

36.   Despite large income inequalities, enrolment rates vary by less than two percentage points between the richest and poorest deciles among children aged 6-12. It is also noticeable that enrolment rates for the 13-15 and 16-18 age groups are only appreciably lower for the lowest decile group (World Bank HD 2005). It is somehow different for access to tertiary education, where access is appreciably lower for the poorest 40 percent of households. Table 1.8 shows enrolment rates for ages 18-24 by income deciles.[11] The overall level of inequality in access to tertiary education is low compared to most countries. Key factors are the low direct costs of basic and secondary education and relatively high levels of student support (mainly from the Arab states) for tertiary education students.[12]

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[11]   It would have been desirable to calculate enrolments rates by household income quintile from the 2005 Labour Force Survey. However, PCBS indicated that the survey design does not allow robust estimates to be made.

[12]   A MAS study found that 70 percent of university students came from low-income households in the late 1990s with only 54 percent of student fathers' in permanent employment (see Al-Jafari,2002).

Table 1.8: Enrolment Rates for 18-24 Year Olds by Gender and
Household Income Quintile, 2003

Quintile	Female	Male	All
Poorest	19	16.1	17.7
2	19.5	24.4	21.6
3	28.3	29.6	28.9
4	27.1	32.5	29.4
Richest	29	30.1	29.5

Source: PCBS, National Household Poverty Survey, 2003

Out-of School Children

37.   Data from the 2004 Demographic and Health Survey (DHS) indicate that 0.65 percent of the 10-15 age group (0.9 percent in the Gaza Strip and 0.5 percent in West Bank) had never attended school in 2004. Although these percentages are small, this is still a sizeable group in absolute terms (around 7000 children). Little is known about who these children are and why they never enrol in school. Children from nomadic communities, disabled children, and children suffering from serious violence-related trauma may be disproportionately represented in this group.

38.   It is estimated that more than one in 20 children (6 % of children) is disabled in Palestine. Given that only 0.65 percent of Palestinian children aged 10-14 have never attended school, it would appear that most children with disabilities and special educational needs are receiving some formal schooling either in ordinary or special needs schools. However, with more children facing psychological trauma, the limited ability of the school system to provide for students with special needs has also become more evident. *Meeting the needs of children with disabilities and special educational needs should be among the key objectives in the next five-year education development plan.* A comprehensive survey of the learning needs and current provision of special educational services (both in specialized and mainstream schools)should be undertaken as soon as possible, which will provide the basis for a comprehensive strategy for special needs education.

39.   *Completing ten years of schooling is a top priority with regards to access and equity for the education sector in Palestine.* Currently, around 7 000 children probably never attend school and one in 12 children does not complete Grade 10. The next five year plan should therefore have clear policy goals that seek to eliminate non-attendance and non-completion in the basic school grades by 2011. Action research is needed in order to ascertain which children are never enrolling in schools and the reasons for this. The experience from other countries indicates that alternative forms of schooling provision may be required in order to reach these children.

CHAPTER 2: QUALITY OF EDUCATION

40.   When it comes to education quality, the situation in Palestine is much more complex than the socially perceived tradeoffs between equity and quality. The years of the Second Intifada and its aftermath have had a tremendous impact on school and family life in Palestine. Closures, curfews and all sorts of constraints on the physical mobility of both teachers and students have clearly undermined the education fabric of the country. And this happened as the school system continued to grow in enrolments and delivery of education services. Needless to say, the impact on student achievement of those "special circumstances" is impossible to quantify.

Learning Outcomes

41.   The combination of very rapid expansion of basic and secondary education with the effects of the ongoing political conflict on the school system has lead to a widespread perception that the quality of education is declining in Palestine. If learning outcomes are taken as a measure of quality of education, one indication that can be used is the performance of Palestinian students in international and national tests.

Analysis of TIMSS 2003 Data

42.   The scores of Palestinian students in TIMSS 2003 are low by international standards and yet quite acceptable when compared with the rest of the participating countries in the MENA region. Science scores look particularly encouraging, not far from the international average and otherwise well above the scores of countries like Egypt or Tunisia. TIMSS scores in Mathematics tell a somewhat different story. There Palestine is only above Morocco, Syria and Saudi Arabia.

43.   When looking at the science results of the three different types of schools in Palestine, there is a sizeable difference between PA and UNRWA scores with regard to the small private sector (which is even above the international average score). This points to wide dispersion of student performance between schools – and probably within schools as well – but those issues require more careful analysis. Data from the three different types of schools is not available for math scores, although a similar pattern to Science scores should be expected.

Table 2.1: TIMSS Scores (Science) in Palestine by Type of School

Supervising Authority	# of Students In the sample	TIMSS Score (Science)
Government	3363	427
UNRWA	1826	444
Private	168	491

44.   As already suggested, TIMSS scores in Palestine could be considered low in Math and acceptable in Science. The fundamental reasons why TIMSS scores may be "low" or "relatively low" are twofold:

- Firstly, because of the opportunity to learn argument, i.e., it could be that some of the content tested is not covered by the Palestinian curriculum – or it is covered but not with enough depth. Unlike PISA (which is curriculum-neutral, to put it that way), TIMSS is supposed to reflect the curriculum of the participating countries. Thus, opportunity to learn would be defined here as the opportunity to score high in TIMSS by designing the national curriculum as close as possible to the "international selection" which is de facto implicit in the test. In short, one straight way to

improve TIMSS results would be to review the curriculum following the "guide" which is implicit in the selection of content reflected by the test.

- Secondly, and more importantly, it could be the case that the curriculum fully reflects and covers the curriculum implicit in the tests. In such case, the results obtained are sending the message that there are problems with the implementation of the curriculum in terms of the teaching and learning that goes on in the classrooms. In that case, the best way forward is to analyze item by item of the test so that the areas and issues where students are really underperforming can be identified. Given the highly sequenced nature of the math and science curricula, whenever there is and issue, topic or procedure that is not well understood and mastered by students, it blocks the way to many others that use it as a foundation. Identifying and removing these "blocks" could boost results in relatively short periods of time.

45.   One of the most objective ways of determining the extent to which TIMSS results should be deemed as "high" or "low" in a given country is to relate them to the country's GDP per capita in the same year that the tests were administered. Figure 3 is showing the positioning of all participating countries—using the Math scores—along the GDP per capita benchmark. Palestine features just below the line, not very far away from where it "should be" in terms of this benchmark. A parallel graph using the Science results would obviously place Palestine in a much better situation.

46.   This is a very important benchmark when it comes to determine how "optimistic" or "pessimistic" we want to be with regard to education quality. And, once again, it should be combined with the mentioned constraints faced by Palestine at the time of participating for the first time in TIMSS. All in all, if the severe circumstances which disrupt classrooms and schools in the Palestinian territories could be taken into account and in some way "discounted" from this comparative results, one could not speak about "low" results in Palestine, especially when compared to the participating countries of the MENA region.

47.   High performing countries in these international testing studies usually combine high achievement with low dispersion – equality – of results among students and schools. Education inequality, as stated above, is one of the ways of conceiving the quality of education. In this account, Palestine obviously did not fare well at all in TIMSS 2003. Education inequality – performance dispersion – can be measured by establishing the ratio between the scores of the 95th percentile of the student distribution and those of the 5th percentile.

Figure 3: GDP and TIMSS Performance

18
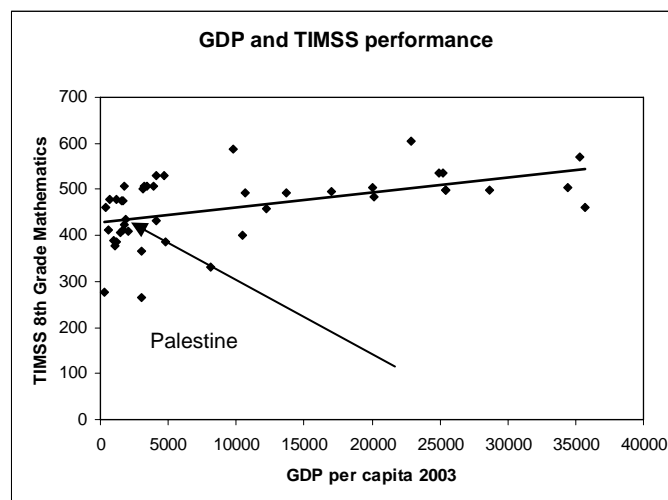
48.   Using the results in Mathematics (figure 5), Palestine emerges as one of the most unequal cases of all the participating countries. Only Saudi Arabia, Ghana and South Africa present more unequal performance among their Mathematics students. This high inequality is the result of low average scores and wide performance dispersion. More specifically, it should be noted that the Palestinian "elite" in terms of student achievement (95th percentile of the distribution) ranks 36 when compared to the corresponding "elites" of the 46 participating countries. And the very low achievers (5th percentile) rank 42 when compared with their "counterparts" of the other countries. Once again, this points to wide disparities in terms of achievement between Palestinian schools (notably the high average scores of the students in the private sector), which pose a huge challenge for the future of education quality in the country.   In general, when countries move towards greater internal equality in international testing studies, they do so more rapidly by raising the performance of the lower achievers.

Figure 4:   GDP and TIMSS Performance - Math Scores
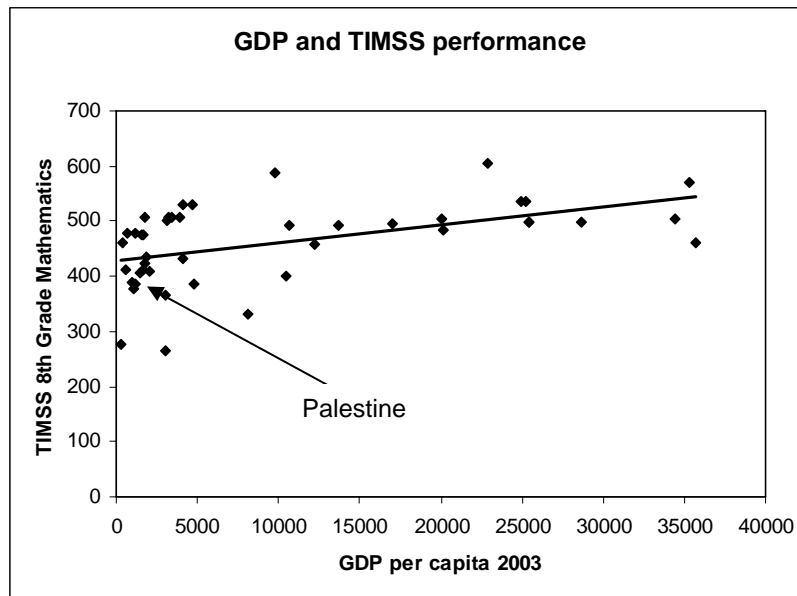
49.   Be it as it may, the right question to be asked in this regard is *how it can be explained that despite the extraordinary equality in access to schooling, Palestine shows high inequality in TIMSS results, especially in Mathematics*. Probably part of the explanation for this counterintuitive finding lies in the fact that the proportion of variation in TIMSS scores attributed to *between schools* differences is very small in Palestine – 20 percent for Mathematics and just 19 percent for Science – whereas the variation in scores attributed to *within schools* differences is then 81 for Science and 80 percent for Math. In other words, steep differences in achievement happen with students attending the same school and the same classroom, so that the issue is not so much access to schooling by itself. The schooling system is pretty egalitarian in that it does not make much of a difference which school a student attends. However, it would appear that the socioeconomic and family conditions and awareness of parents with regard to the education of their children (variables usually associated with within school variations in student achievement) cannot be offset by school effects.

Figure 5: TIMSS Data and Inequality of Performance Results (Mathematics)

Palestine's performance on educational inequality
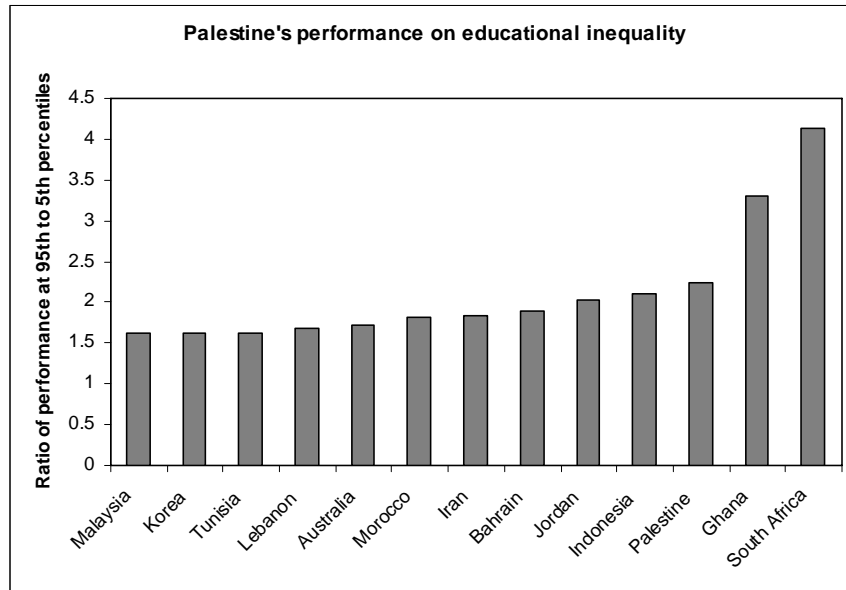
National Testing (Arabic and Mathematics in 4th Grade)

50.   In June 2005, the Center for Assessment and Evaluation of the MOEHE administered two national standardized tests of Arabic and Mathematics to a sample of 4th grade students throughout Palestine. These tests have come at a particularly crucial time, since they are the first ones to measure the impact on learning outcomes of the new Palestinian curriculum throughout its first four/five years of implementation. Besides, the testing process benefited from all the progress that the Center of Assessment and Evaluation has made in testing methodologies and techniques in the past few years.

51.   According to the MOEHE, these results can be compared with those obtained in 1998 and 2000 using similar instruments, although obviously the curriculum being used back then was a different one. Just to raise one of the key findings of these studies, in those rounds of national testing, and in the study on school effectiveness carried out by Shalabi (2001) in the schools of the West Bank, average scores in Arabic were just 12 to 15 points higher than in Math; however, the pass rates for students taking the test were nearly double in Arabic (57 to 64 percent) than in Mathematics (29 to 33 percent). While the publication of the corresponding report on the 2005 national testing is still pending, some key figures are presented in Table 2.2 (Arabic and Mathematics).

Table 2.2: Results of Test in the 4th Grade

Arabic		Mathematics	
Average Score (in academic year 2004/2005)		**National Indicator** (in academic year 2004/2005)	
Median	9.5	Median	22.89
		Standard deviation	17.4
Pass rate	58.6	Pass Rate	11
Achievement mean	53.71	Achievement mean	25.98
Average Scores in the Assessment of the Year 2000			
Standard deviation	24.2	Standard deviation	20.93
Ratio of success	56.8	Pass rates	28.8
Achievement mean	53.9	Achievement mean	38.65
Average Score (based on the Supervising Authority, 2004/2005)		**Average Achievement** (based on the Supervising Authority, 2004/2005)	
Private schools	69.83	Private schools	36.19
UNRWA schools	54.05	UNRWA schools	26.26
Governmental schools	51.93	Governmental schools	24.83
Average Score (based on school type, 2004/2005)		**Average Achievement** (based on school type, 2004/2005)	
Co-ed schools	55.78	Co-ed schools	26.41
Female schools	57.49	Female schools	27.57
Male schools	48.81	Male schools	24.31

Notes:
National testing conducted by the Assessment and Evaluation Centre in June 2005

Notes:
National evaluation conducted by the Assessment and Evaluation Centre in June 2005

52. There is little doubt that the most striking result coming from this national testing is the plummeting of average scores – and even more of pass rates – in Mathematics. Thus, while average scores and pass rates in Arabic seem to remain stable with regard to scores from national tests previously administered, the results in Mathematics are more than puzzling. No tentative explanations have been provided so far, either from the MOEHE or from education researchers in the country. Still it would be difficult to disagree with the strong suggestion that, also in primary schooling, the teaching and learning of Mathematics is demanding closer attention.

53. The overall test performance of UNRWA schools has been consistently better than MOEHE schools. First, these schools have been established for much longer and, up until the establishment of the PA in 1994, MOEHE schools were under the direct control of the Israeli government and, as a result, seemed to have received less attention. Secondly, teacher pay has, until recently, been considerably higher at UNRWA schools. And thirdly, UNRWA has well-established systems for the continuous professional development of both teachers and school managers, and a more effective and relevant network of supervision and inspection services.

54. On the other hand, UNRWA managers have administered their own achievement tests every year since at least 2000. Data are available for Arabic, Math and Science in 4th, 6th and 8th grades. Doubts emerge both about the sampling procedures and the technical aspects of the testing instruments when looking at Annex Tables 5 and 6. However, even if it is not easy to interpret these data when comparing

the subjects, some underlying trends can be identified when looking at the whole picture. Thus, the data show an overall fall of student achievement in UNRWA schools between 2001 and 2003 of 14.3 percent altogether. And the drop in average scores is consistently about the same in each of the three subjects and for each of the three grades. It could be argued of course that those were the core years of the Second Intifada, which would be enough to account for this spectacular plunge of student performance in Palestine.

55.　　Between 2003 and 2004 there is a slight recovery—a bit over 4 percent in average—although the scores of Science in all three grades and Math in 6th and 8th grades continued to fall dramatically. Finally, there is a further drop of more than 6 percent between 2004 and 2005. In this case, a graphic representation of the scores would look like a rollercoaster with, for instance, Science in 4th grade rising 18 points and Mathematics in the same grade falling more than 23 points. A necessary analysis to account for these results—at least partially—has to do with the process of implementation of the new Palestinian curriculum, which was progressively introduced precisely throughout these years. It could very well be that the testing instruments had to be redesigned after the introduction of the new curriculum and the resulting scores are just not comparable.

The Tawjihi Examination

56.　　The secondary school-leaving examination—Tawjihi—is a national institution, as it is also the case in many other countries with this type of public examination. Even though it is far from being a standardized test (like SAT in the US), it has an impact on the public perception about the quality of education and, in particular, upper secondary education. There have been no serious studies about the Tawjihi examination and since there are no standards either, pass rates in the exam depend pretty much on the level of difficulty of questions selected each year and the relative consistency—or inconsistency—of marking and grading exam questions.　Yet, daily life in schools during the last couple of years of the secondary cycle revolves around the Tawjihi, and both teachers and students gear their efforts with the Tawjihi score in mind. Thus, even if Tawjihi data are not amenable for rigorous statistical analysis, they are still relevant for any discussion about education quality in Palestine.　Moreover, Tawjihi data also yield other types of information which are worth considering in this study, namely, about success rates of students in the three streams of secondary education (literary, scientific and vocational).

57.　　Table 3 presents figures of the overall numbers of students sitting the exam in each of the three streams or branches of secondary school.　In addition, pass rates for each of the three streams can be compared over the last ten years, i.e, almost since the creation of the PA up until the last academic year. The first conclusion that comes to mind when looking at the data is the remarkable expansion of enrolment in secondary education, which can be seen in all three streams or branches of the system. While students in the scientific stream reaching the Tawjihi have roughly doubled over the ten year period covered by Table 3, those in the literary and vocational streams have tripled. It should be noted though that vocational students started from a very low number—less than 1000—and their share of the total enrolments is still negligible as compared to the other two streams.

Table 2.3: Results of the Tawjihi Examination in Vocational, Scientific and Literary Streams (1995-2005)

Year	Literary			Scientific			Vocational			Total		
	Total Students	Students passing	Pass Rate	Total Students	Students passing	Pass Rate	Total students	Students passing	Pass Rate	Total students	Students passing	Pass Rate
1995	16346	8691	53.20%	9164	5680	62%	949	519	54.60%	26459	14890	56.20%
1996	18284	9681	53%	9859	5444	55.20%	1001	542	54.20%	29144	15667	53.80%
1997	22778	11049	48.50%	10644	6503	61.10%	1093	617	56.50%	34515	18169	52.60%
1998	25686	13179	51.30%	11158	7880	70.60%	1146	768	67%	3799 0	21827	57.50%
1999	27155	14356	52.90%	11266	7911	70.20%	1186	671	56.60%	39607	22938	57.90%
2000	29684	15071	50.80%	11630	8531	73.30%	1383	831	60.00%	42697	24433	57.20%
2001	34037	18574	54.60%	12098	9690	80.10%	1752	1038	59.30%	47887	29302	61.20%
2002	37822	24482	64.70%	11675	9879	84.60%	2023	1573	77.80%	51520	35934	69.70%
2003	43096	25770	59.80%	13293	11291	84.90%	2177	1420	65.22%	58566	38482	65.70%
2004	43532	27274	62.65%	14217	12076	84.94%	2464	1619	65.70%	60213	40969	68.04%
2005	46424	29749	64.08%	14546	12644	86.90%	2767	1960	70.83%	63737	44353	69.60%

58.   A second conclusion from the data, and one that is much more related with the quality dimension of secondary education, is that the overall pass rate in the examination has increased from 56.2 percent in 1995 to 69.6 percent in 2005. This of course can be read in terms of lowering standards—some observers are convinced that this is the case as the examination administrators have been trying to offset the increasingly hard conditions that secondary students have been facing in Palestine—or, on the contrary, as a real improvement of student achievement in upper secondary education. On the one hand, it is true that pass rates "take off" right in 2001 (Second Intifada) and have grown steadily until 2005. On the other hand, student enrolments also go up dramatically after 2000, and some "correction" in pass rates could have been expected as the effect of a more massive secondary school population. Actually, there could be a bit of both trends, but the evidence to support or reject these hypotheses is not available. In this regard, it is necessary to carry out a study to determine the extent to which the characteristics of the Tawjihi examination itself may be creating incentives that lead to this evolution of enrolment shares and pass rates.

59.   A third important trend that emerges from the Tawjihi results is that students in the scientific stream, whose share of the total secondary enrolment has sharply decreased over the ten year period, obtain a pass rate in 2005 of 86.9 percent, up more than 24 percentage points from the 1995 rate. In contrast, students in the literary stream have improved their rate by less than 11 percentage points and the small minority in vocational education by 16 percent. The evolution of pass rates for vocational students, however, is quite irregular, especially between 2000 and 2005, with a top rate of 77.8 percent in 2002 and a bottom rate of 59 percent the year before. Obviously, the small numbers of students, the fact that the examination is not compulsory for them, and the specific difficulties of creating evaluation instruments for vocational courses and subjects could explain this phenomenon.

60.   The evolution of Tawjihi results clearly describes a process of democratization of secondary education in Palestine. The examination has opened up to an increasing number of students, including those in secondary vocational schools, and the pass rates have increased up to a point which is, incidentally, very similar to the rates for similar examinations in France or Germany. However, the expansion of the system is somewhat unbalanced as the literary stream accounts for almost three out of four students who pass the exam, and the otherwise increasingly successful students in the scientific streams are becoming a minority. This trend has an obvious impact on patterns of student demand for tertiary education and clearly explains the unbalances in tertiary enrolments, i.e., shortage of science and technology students and overcrowding of faculties of humanities, social science and education. The

relevance issue is especially obvious concerning the literary stream students who fail the exam—roughly 30 percent of the total number of students who sit the Tawjihi—as they leave secondary school with no relevant skills and no marketable diploma.

61.   The Directorate General for Assessment, Evaluation and Testing of the MOEHE is preparing radical reforms for the Tawjihi: First, it needs to be tailored to the new Palestinian curriculum; second, computerized scoring will be introduced; third, 50 percent of the examination questions will be multiple-choice, and an item bank is being created for that purpose; fourth, in order to ease the pressure on students, the MOEHE is considering administering the exam in two phases (February and June). During the past years the examinations have accounted a large share of non-salary expenses (Around two-thirds of non-salary recurrent expenditure is allocated to textbooks and examinations). This is partially due to the situation where specific arrangements had to be made for all the student to write the tests at the same time. The MOEHE could explore possibilities whether this reform could provide potential for savings.

62.   Annex Tables 15 and 16 show how the introduction of the new Palestinian curriculum in the top grades of secondary school will be reflected in the examination. Key subjects like Arabic in the literary stream, Mathematics in the scientific stream and English in both streams will lower their relative weight in the final score, and the newly introduced subjects of Economics and Management, Information Technology or, for instance, "modern issues" in the literary stream, will share the marks "lost" by those traditional subjects. The increase of curriculum areas being examined will result in less specialization of secondary education students and more chances for them to succeed in the examination. However, examination results will probably be perceived by universities as less relevant in terms of student admission to tertiary studies.

School and Classroom-based Student Assessment

63.   Monitoring and evaluation of student assessment at the school and, even more important, the classroom levels is a crucial ingredient of a quality education system. A strong school culture of evaluation helps teachers, parents and students alike to focus on the improvement of learning results. Teachers who have the skills and the instruments to monitor the progress of their students can really make a difference with regard to student performance. In this regard, Palestinian schools seem to score quite high as compared to other countries in the MENA region. There are monthly examinations in primary and secondary schools, up to two examinations per subject. As a result of these assessments, school principals and teachers set up "remedial" plans for low achievers and for students with learning difficulties. Emphasis on these remedial programs is widespread in Palestinian schools, and in UNRWA schools, for instance, a number of teachers are hired with that "remedial" profile. However, at present there is little information available about the implementation and moreover, about the impact, of these remedial actions. The distribution of marks throughout the school year (20 marks - mid term exam, 20 marks - student activities and homework, 40 marks - semester exam and 5 marks for each monthly exam) and in every subject in a typical school of Palestine clearly suggests that much effort and attention is given to monitoring and evaluation of student performance.

64.   The DG for Assessment and Evaluation of the MOEHE is targeting the school and classroom levels as priority areas. Training courses have been designed for teachers and principals, together with a variety of assessment instruments to be used in classrooms. A more recent initiative in this regard was the national Arabic test for 3rd graders which was administered in September-November 2004. This was carried out with the intention of enabling teachers to systematically and meaningfully evaluate their students' progress in the Arabic language. The test was not a standardized one and the scores were expressed only in qualitative terms. The test dealt with oral skills, silent reading, written composition, analysis and synthesis, loud reading, etc. Recent work in countries like Peru shows that strengthening classroom-based monitoring and evaluation can have an enormous impact on student achievement (particularly with regard to reading and comprehension skills in the first three-four grades of primary school).

Curriculum

65.   Until 1998, there was no national curriculum in Palestine. Schools in the West Bank used the Jordanian curriculum while those in Gaza used the Egyptian. And it was already in 2000 when the implementation of the newly designed national curriculum started simultaneously in the 1st and 6th grades. Thus, it would be fair to say that the key accomplishment in the development of education in Palestine in this last five year period has been the construction of a national curriculum, followed by the editing and distribution of textbooks and the delivery of targeted in-service training to all teachers for curriculum implementation. A national school curriculum is a central institution for nation building and citizenship formation. In the case of Palestine, and considering the circumstances surrounding the implementation of the curriculum in the 2000-2005 period, those goals were—and still are—critical and indeed the source of much controversy, both nationally and internationally.

66.   The new Palestinian curriculum contains many crucial innovations, some of them placing Palestine at the forefront in that field. Some key examples follow in the list below:

- First Arabic country to teach English from 1st grade.
- Technology is introduced in 5th grade all the way to 10th grade as a compulsory subject. In the 11th and 12th grades this subject is called Information Technology.
- Home Economics, Environment and Health are introduced in grades 7-10 as an elective subject.
- Third foreign language introduced as an optional subject.
- Free Activity in grades 1-4, with six different options suggested to teachers and principals.
- "Current Issues" introduced in 11th and 12th grades.
- Economics and Management introduced in 11th and 12th grades in both scientific and literary streams.

67.   Both from the quality and relevance points of view, the new Palestinian curriculum has been well received by all education stakeholders because of its impact on nation and identity building. Palestinian students finally have access to their national history, literature and art, and also to their own school versions of other key subjects such as Religion, Geography, Language, Civics, etc.

Overview of the Curriculum Reform

68.   There is little doubt that the process of design, development and implementation of the new Palestinian curriculum has been, on the whole, a success. Strong political will and consensus, together with the support of key international donors have allowed a relatively small agency—the Curriculum Development Center (CDC)—to create and coordinate 27 subject teams and then produce 335 textbooks, which will come up to a total of 422 by the end of this academic year. In just five years of implementation, and facing extremely challenging circumstances, the MOEHE is about to complete the "deployment" of the new curriculum in primary and secondary schools in Palestine. The CDC was also in charge of designing teacher training relevant to the new textbooks, editing teachers' guides and producing some extra teaching materials to accompany the textbooks in selected subjects and grades.

69.   Interviews held with subject team leaders at the CDC reveal that the composition of the curriculum teams was mainly academics from the university, school supervisors and teachers from the schools, although academics were the majority and nearly always the team leaders. Some could rightly argue that this is a recipe for a traditional and irrelevant curriculum, involving implementation bottlenecks from the point of view of teachers and other school practitioners. Yet it should be recognized that it was the first exercise of this type to be carried out in Palestine and giving up traditional "academic authority" would have probably been counterproductive in terms of national consensus over the new curriculum and the public perception concerning its quality and potential. On the other hand, the process of curriculum

design and development was carefully consulted with practitioners at schools. Every district directorate has a designated group of five practitioners (one supervisor and four teachers) in charge of providing such feedback. Moreover, external follow-up and evaluation of both curriculum guidelines and textbooks is being taken into account in the launching of the Curriculum Enrichment Project that the CDC will also be leading. This is probably the best indication that the MOEHE is conceiving curriculum design and development as a never-ending circular process, and not just as preparing and approving white papers and pieces of education legislation.

70.   All of the curriculum innovations amount to a considerable modernization effort. Emphasis on foreign languages and the introduction of subjects with a prominent applied dimension also point to a greater potential for increased relevance of the content taught at the school system and eventually of the credentials gained by students. Nonetheless, despite the constant feedback from schools sought by the CDC subject teams, the fact is that there is still no systematic evaluation of how all of these curriculum innovations have fared, both from the point of view of impact on student achievement and of relevance of the school system to national and labour market needs. Such evaluation is a must if the MOEHE wants to base future decision-making concerning the curriculum on hard evidence about its impact. Curriculum innovations such as the ones listed above may or may not work depending on a number of contextual, professional and resource-related issues, to name but a few. Quality data in that regard is crucial in order to fine-tune the curriculum in the desired direction and, more specifically, to really maximize the gains from curriculum innovations. On the other hand, the above mentioned curriculum evaluation and content analysis studies undertaken by the Centre of Assessment and Evaluation have not been completed—or published—yet.

71.   Despite the undeniable overall success of the process of design and development of the new Palestinian curriculum, evidence from the first few years of implementation reveals a serious problem of overload. Principals and teachers, parents and students, supervisors and teacher trainers, all concur that the new curriculum is "too long" and "too demanding." has implications and consequences both in terms of quality and relevance. Opportunity to learn is undermined when there is too little time devoted to many of the key subjects; the fact that teachers and students voluntarily extend their classroom time in some schools in order to be able to cover the curriculum really speaks for itself. A traditional approach emphasizing facts, descriptive knowledge and abstract theory does not leave curriculum space—or classroom time— for developing the cognitive and citizenship skills that are required from graduates in the 21st century. Moreover, curriculum overload consumes extra energy from principals, supervisors and other support personnel, who tend to concentrate in controlling the full coverage of the curriculum. Therefore, *it is necessary to systematically evaluate the new areas and main innovations introduced by the new Palestinian curriculum in a way that will enable the MOEHE and the CDC to review issues of articulation, scope and sequence, and to involve teachers and civil society in curriculum development and implementation.*

72.   Although there has been remarkable progress in recent years (more elective subjects, program of inclusive education), the curriculum has remained quite rigid in basic and secondary education. Rigidity here means that the curriculum is not "customized" enough to care for the individual needs of different groups of students, including those with special needs, the gifted, etc. Considering that students have to cope with a situation of permanent emergency and threat, and the consequences for daily school life, the rigidity of the curriculum becomes a major constraint on quality of education. A rather traditional, overly academic and overloaded curriculum is clearly the reason for such lack of flexibility. As far as secondary education is concerned, the Tawjihi examination also seems to be a strong determinant of the rigidity of the curriculum.

73.   An even more critical issue is the relatively weak alignment among the national curriculum, textbooks, teacher training and standards used to construct diagnostic instruments of student assessment. This relative lack of alignment may be the key factor accounting for TIMSS results, especially in Mathematics, and probably also for the recently conducted national testing of Arabic and Mathematics in the 4th grade. The same alignment and consistency would be required between ongoing classroom and

school-based assessment and the national testing instruments administered by the DG for Assessment and Evaluation. Even though there is a growing culture of evaluation in Palestinian schools, there is a great need to build capacity for assessment at the classroom, school and district levels.

74.   There is serious imbalance among the three streams in upper secondary education. Especially worrying is the shrinking student participation in the scientific stream due both to supply and demand factors and constraints. Conversely, the literary stream continues to grow in terms of student enrolments, and raises serious doubts in terms of both quality and relevance. The growing imbalance in secondary enrolments has two important consequences: Firstly, it reduces the size of the potential pool of candidates entering science and technology programs in higher education, thus "exporting" the imbalance to that sector of the education system. Secondly, it increases the percentage of students in the literary stream who leave secondary school with no qualification or skills. These problems become even more serious when considering that vocational education is not a real option for secondary school students (its enrolment share was down to 3 percent in 2005). Therefore, tackling the imbalance and its effects requires changes in the curriculum policy of basic and secondary education and the—already planned—reform of vocational education at the secondary and tertiary levels. It would also demand reviewing the current admission system to higher education, the courses of study offered at both universities and community colleges, and student financial aid policies.

75.   The CDC is now engaged in a number of actions and projects with great potential in terms of quality and relevance. Some of them require close coordination with other directorates and agencies of the MOEHE, such as the Centre of Assessment and Evaluation for the ongoing work regarding the alignment of curriculum guidelines with standards of student achievement. The CDC is also working on new teachers' manuals and on the production of extra teaching materials for some subjects (including packages, for instance, in English for every grade level). Using the newly launched website of the CDC, an "e-curriculum" is being designed and made available to teachers and students. The first step is to post online all of the textbooks produced so far, then the introduction of interactive teaching and learning, and finally the so-called "enrichment phase," which could entail electronic tutorials and organized access to open courseware now available on the Internet.

Textbooks, Curriculum Materials and the Use of ICT

Textbooks

76.   The new curriculum has relied on the textbooks almost exclusively, in other words, textbooks are the main vehicle for curriculum implementation. Many content analysis of Palestinian textbooks have been done. The content analysis of the Arabic Language textbooks sponsored by the MOEHE through the DG for Assessment and Evaluation has yielded very interesting results. Concerning the alignment between the overall curriculum objectives and the nature of the content and activities in the corresponding textbook, this as yet unpublished work, the percentage of textbook alignment with the general objectives of grades 5-10 Arabic language subject matter is 69 percent. And the percentage of alignment with the specific objectives is 39 percent. Although one would need to carefully examine the methodology that was used to reach these percentages, the author of this study clearly suggests that there could be a sizeable lack of alignment between the national curriculum and the textbooks published afterwards. Considering that the new curriculum has relied on the textbooks almost exclusively, this is a major implementation issue that has a potentially negative impact on the quality of the curriculum and it should therefore be examined more closely. More information about the content analysis of the textbooks is in Annex 1.

77.   At the request of MOEHE, Palestinian Textbooks were evaluated by the Georg Eckert Institute for International Textbook Research, in the interest of evaluating a Tolerance Education Program. This research looked at textbooks on language, religious education, history and civil education. One conclusion of this study is that the overall orientation of the curriculum is peaceful despite the harsh and violent realities in which schools operate. It emphasized that there is no open incitement to hatred or violence,

and that religious and political tolerance is emphasized in a good number of textbooks and in multiple contexts.

The Use of ICT

78.   While the mere availability of computers and the Internet in the classroom provides no guarantee that the quality and relevance of education and student learning would improve, many researchers and practitioners contend that effective use of technology tools in education can help build learning environments and improve student learning. Furthermore, computer literacy is becoming a baseline requirement for many jobs, and demand for highly skilled ICT workers has increased where new technologies have been introduced. In the particular case of Palestine, the promises and potentials of introducing and utilizing ICTs in education are greatly increased considering growing constraints to physical mobility for teachers and students. ICTs can ensure that education services are provided under these extreme circumstances and also that communication and access to relevant information and knowledge is not limited.

79.   Not surprisingly, the introduction of ICTs in Palestinian schools was already one of the priorities of the previous five-year plan (2000-2005). As a result, roughly 50 percent of primary and secondary schools in the country now have a computer laboratory (see Table 6.17), a total of 70 schools have Internet connections of which 23 have a wireless connection. In addition, some specific training has already been offered to teachers. The Palestinian Education Initiative (PEI) is currently the major ongoing program related to the introduction of ICTs in schools. The recently established National Institute for Educational Training (NIET) will be the locus of capacity building for top-level administrators and trainers for the pedagogical use of ICT. A total of 146 pilot schools equipped with computer labs and Internet connection will be taking part in the first phase of this initiative.

80.   A Directorate General of "Education technologies and Information technologies" was created within MOEHE to manage all policies and programs concerning ICTs: It is organized in three departments, dealing respectively with computer laboratories and education software, science laboratories and school libraries, and teaching and learning aids (mainly audiovisual media). This has allowed for the development of a national policy in the field of curriculum materials and teaching aids (although the alignment and consistency of such policy with the national curriculum and the textbooks has not been explored). Such policy is necessary in order to define priorities and prevent unbalances in the provision— and utilization—of teaching aids, materials and equipment. Table 4.3 presents a detailed account of basic equipment and aids which are available—and missing—in each of the Palestinian education districts. Annex Table 18 is even more telling in that the coverage of Computer Labs is compared to that of School Libraries, Science Labs, and other Education Resources (audiovisual). Two conclusions emerge from the data: First, dealing with the lack of school libraries in nearly half of the Palestinian schools (coverage is 54.3 percent) could probably be seen as more of a priority than making further progress in the introduction of Computer Labs (especially in districts like, for example, Jericho, where the latter already exist in 72 percent of the schools while libraries are only available in 50 percent of them). And second, that there are very important disparities among education districts in terms of availability of these materials and equipment. It is important to identify the reasons that account for those disparities and what can be done to deal with them.

Table 4.3: Percentage of Schools with Computer Labs, Libraries and Science Laboratories

District	Schools	Sc. Laboratories		Libraries		Edu. Resources		Computer Labs	
		Total	%	Total	%	Total	%	Total	%
Jenin	110	41	37.3	44	40	13	11.8	49	44.5
Nablus	194	85	43.8	103	53.1	24	12.4	103	53.1
Salfit	55	26	47.3	44	80	7	12.7	26	47.3
Tulkarm	104	36	34.6	44	42.3	11	10.6	44	42.3
Qalqilya	66	59	89.4	60	90.9	10	15.2	34	51.5
Ramallah	155	103	66.5	85	54.8	19	12.3	74	47.7
Ram	52	19	36.5	20	38.5	6	11.5	25	48.1
Jerusalem	35	22	62.9	21	60	5	14.3	22	62.9
Beithlehem	95	48	50.5	85	89.5	10	10.5	49	51.6
Jericho	18	4	22.2	9	50	3	16.7	13	72.2
Hebron	199	88	44.2	94	47.2	21	10.6	87	43.7
S.Hebron	155	66	42.6	58	37.4	17	11	63	40.6
Qabatia	101	33	32.7	34	33.7	8	7.9	56	55.4
Gaza	130	90	69.2	97	74.6	22	16.9	83	63.8
N.Gaza	73	23	31.5	24	32.9	8	11	39	53.4
Khanyounis	88	53	60.2	50	56.8	8	9.1	47	53.4
Rafah	31	30	96.8	30	96.8	4	12.9	18	58.1
Grand Total	1661	826	49.7	902	54.3	196	11.8	832	50.1

81.   As is always the case, more than providing the equipment and infrastructure to schools, the biggest challenge so far has been the training of teachers in the use of technologies and other aids. Over the last five years, 1200 MOEHE staff members have been trained. According to the Director General, the main obstacle has been in creating a positive attitude among those offered the training. As far as teachers of Technology are concerned, there is a clear shortage of specialized teachers. As of 2005, 400 teachers had a BA in computer science (roughly 50 percent of those in charge of the subject can then be considered as qualified).

82.   Intensive use of the Internet is facilitating the integration and accessibility of all teaching and learning materials at the school level. In December 2004, a brand new education website was launched featuring 2000 TV programs produced at the Ministry and by the schools. The new website is linked to the various websites of the Ministry of Education, including the one of the Curriculum Development Center. (At this point 8 percent of the population in Palestine has access to the Internet). In addition, the Directorate General also manages the videoconference network of the Ministry which began in 1999 and has made a big difference in terms of dealing with the increasing mobility constraints.

83.   Nevertheless, despite major progress in the provision of materials, equipment and ICT, the challenge—from the point of view of education quality and relevance—is to get evidence on their actual levels of use in schools and classrooms. This means exploring to what extent are they really used, how intensively and in which subjects, what the level of curriculum integration is, and, most importantly, the impact on student performance and learning outcomes. All of these are key elements for the future agenda of improving quality and relevance of education in West Bank and Gaza.

Time on Task and Opportunity to Learn

84.   Unfortunately no systematic studies of Time on Task (TOT) and Opportunity to Learn (OTL) have been carried out in Palestine. However, there is of course some general information about school days and hours in Palestinian schools (see Annex Table 11) and some anecdotal evidence from site visits.

85.   Annex Table 17, shows the number of contact hours in Palestinian schools, which according to the figures on the table are quite high by international standards. Further, when comparing that indicator between year 2000 and 2005 it would appear that school hours have increased. This is quite striking

considering the extreme circumstances that schools, teachers and students have suffered during the years of the Second Intifada and beyond. One would obviously assume that official data in Annex Table 17 simply do not reflect the impact of those circumstances on hours of instruction and also that such impact has probably been substantial over the last five years. In fact, a World Bank progress report of the Education Action Project, submitted in October 2002 (World Bank, 2002), gives an accurate account on some of the effects of the Intifada on school life: *"During the Israeli incursion to all Palestinian areas, starting late March and continuing to the moment (October 2002), 1289 schools were closed for three consecutive weeks, around 50 % of Palestinian students and 35.000 employees in the education sector were prevented to reach their schools and work locations"* (p. 2). But even after those critical months, 580 schools remained closed due to military curfews, and UNICEF was reporting that more than 226.000 students and over 9.300 teachers were unable to reach their classrooms. But there is another powerful reason why the data in Annex Table 17 may not fully reflect the actual time of classroom instruction, and it has to do with the implementation of the new Palestinian curriculum. Every principal, teacher and education district official interviewed for this study agreed that the new curriculum is "too long" and "too difficult." That is also the view of parents, researchers and other stakeholders in Palestine (MOEHE, 2005a). Principals interviewed for this study report that many teachers, both primary and secondary, voluntarily arrive either one hour earlier or stay longer after the school day so that extra work can be done with their students to cover the curriculum. As this is such a remarkable phenomenon, it is necessary to ascertain the extent to which this is happening in Palestinian schools and to quantify the number of extra hours that teachers and students add to their school day.

86.   Curriculum overload has an impact on both TOT and OTL. The introduction of new subjects in the curriculum—notably English in primary education and Technology in secondary education— inescapably reduces the number of weekly hours of instruction in the rest of the curriculum areas. While the weight of Mathematics and Arabic Language has been maintained to a certain extent (in 9th grade, for instance, they are the only subjects with 5 periods per week), other subjects such as Social studies, Technology, Arts and Crafts or the electives (7th grade and onwards) only get two periods per week (MOEHE-UNESCO, 1998).

87.   The selection of content and activities made by the textbooks also impacts opportunity to learn (again, when classroom instruction relies on the textbook). The first generation of Palestinian textbooks focuses on providing basic information, facts, definitions, descriptions, theories, scientific laws, etc., followed by questions and activities which emphasize the application of knowledge (experiments, classifications, identification) and finally—to a much lower extent— activities that foster higher order thinking skills (research projects, analysis and synthesis). Teachers in the focus groups held for the evaluation of the curriculum, report that those activities "are not dealt with in class as there is no time to do so, we have to completely cover the texts which are loaded with information and concepts that are above the cognitive level of the students at the age of the specified grade." This statement is extremely important because it reflects how teachers may perceive that there is a trade-off between the pressure to cover all of the curriculum content and the need to concentrate on meaningful learning and relevant skills. The very issue of the quality of the curriculum depends on the extent to which the implementation of the curriculum can reconcile those goals or rearrange the priorities of teachers and schools.

88.   Classroom observations also carried out for this study corroborate that teachers mostly utilize the lecture approach, followed by short periods of questions and answers. And current practices concerning the utilization of textbooks further reinforce this teacher-centered approach. In class, students participated only in answering straightforward questions, normally geared more toward controlling the discipline than promoting student engagement in the learning process. Students also repeated definitions after the teacher, sat still, and raised their hands to answer the teachers' questions when asked to do so. Now and then, they were called on by the teacher to write a statement on the board. In contrast, teachers in the focus groups claim that as a result of the implementation of the new curriculum students are now participating more than before.

Teacher Training and Development

Pre-service Training

89.   Every teacher in Palestine has undergone training at the tertiary level, fulfilling a substantial amount of academic requirements. However, the majority of the programs do not include teaching practical training—extended internships—at schools, which severely undermines the quality of the training and, as a result, the skills with which graduates enter the teaching profession. Programs offered by the UNRWA Faculty of Education Science and by Al-Quds Open University are some of the exception to that rule. Further, pre-service teacher training programs are the only "family" of higher education degrees which still have not gone through the recently created Agency of Accreditation and Quality Assurance. This obviously impacts quality negatively, and prevents the training system from establishing common standards and teacher certification requirements.

90.   We carried out a survey of the syllabi— required courses, electives, etc.—of some of these teacher training programs, including those of Al-Quds University, the Islamic University of Gaza, the Palestinian Technical College, and UNRWA Faculty of Education Science. With the exception of the latter, the training received by would-be teachers in those institutions almost entirely deals with disciplinary knowledge. Pedagogical and psychological issues, classroom management, assessment techniques, school organization, etc., are either absent or very superficially covered by those programs. Likewise, teacher education programs in Palestine are not aiming at equipping student teachers with the pedagogical skills and teaching competencies which are needed to implement a curriculum which is said to stress critical thinking, high-order thinking skills and the like. In other words, the current system of pre-service teacher training is too centred on traditional curriculum content and lacking the necessary practical training and internship components. Due to the impressive expansion of the school system in recent years, quality assurance of teacher training programs and policies of teacher certification and recruitment have not taken priority.

91.   While mastery of the curriculum content by teachers is still seen as critical, specific training in pedagogical skills and Pedagogical Content Knowledge (PCK) needs to be stressed from now on. Proper accreditation and quality assurance of teacher training programs, teacher certification and improved mechanisms for teacher selection, recruitment and induction should also become priorities. *One of the necessary actions of the MOEHE is a thorough reform of pre-service teacher training in the context of a systematic strategy for teacher development.* Proper accreditation and quality assurance of teacher training programs, teacher certification and improved mechanisms for teacher selection, recruitment and induction should also become priorities.

In-service Training

92.   Prior to 2000, teachers had, on average, received only a few hours training. Since 2000, when the first 5-year plan was established, almost every teacher in the PA has been provided with opportunities for training. On the other hand, the absence of a coherent and well functioning system of pre-service led to the essential need for an 'on-the-job' programme of *training for all teachers new to teaching*. Also, it was decided in the 5-year plan, that all teachers should have an entitlement to training referred to as *obligatory programmes* to receive orientation to the new curriculum, teaching methodologies and subject knowledge. The School as a Unit for Training (SUT) programme was developed subsequently, primarily to support schools to relate training to the development of the school and to enable them to take more responsibility for their own development. The Directorate for Training and Supervision and the one for Assessment and Evaluation have, since 2000, developed and established a demanding range of in-service training programs.

Impact Evaluation of In-service Teacher Training

93.   An independent evaluation was carried out by the British Council, financed by the World Bank through the Education Project (EAP) (World Bank/British Council, 2005). Results show that many of the teachers view the provision as well as the outcomes of the training more positively than negatively and, in some aspects, very positively. It should be noted at the outset, however, that the evaluation was not designed to investigate the impact on student attainment arising from changes in classroom practice. To do so would have required a different and more extensive process.

94.   The majority of teachers, in differing percentage amounts, report that they have gained new skills and that there had been some improvements in aspects of their teaching practices as a result of the training. Teachers are also more positive about the training materials and their use in the classroom. Principals, in the main, are less inclined to attribute improvements to the training to the same extent as the teachers and more so in schools not participating in the School as a Unit for Training Program (SUT). The majority of teachers also have fairly high expectations of the training unlike principals, especially of non-SUT schools, who are much less optimistic regarding the teachers gaining significant benefit from the training. Two particular groups of staff that were more negative than others and had, in particular, fewer expectations than others are qualified teachers and teachers with MA degrees.

95.   A further issue arising from the analysis is that of the follow-up to the training is only moderately well established. This has two aspects: firstly, and more importantly, work in school to support the practical application of the training in the classroom and with colleagues and, secondly, from the trainer for advice and support as required. The analysis suggests that principals claim to support teachers but the teachers see this more weakly.

96.   In summary, the majority of teachers commonly report positive outcomes from their training in the Obligatory programmes. Teachers further report that this is supporting some change and improvement in their classroom practice, although principals appear sceptical that the degree of improvement is as extensive as the teachers suggest. There are many things that can contribute to further professional development and improved performance and they include; accurate needs assessment, the opportunity to elect to undertake in-service training or other development activities that specifically meet the teacher's needs, the quality of the training provided and follow up and support to implement the training. The data suggests that these areas might be considered for review and further development

97.   As for the methodological framework used in in-service teacher training, the current 'model' is the cascade. It is a widely used model, largely because it is regarded as being efficient in terms of the logistics – a way of managing large numbers of people to be trained. In Palestine, the difficulties and constraints regarding access and travel that arise because of the occupation has meant that their cascade has been necessary, rather than just because it is efficient. The 'cascade' used by the Ministry has two distinct 'steps' and sometimes three. The first step is from the Central trainers to the District trainers and the second is from the District trainers to the teachers. This means, that one set of information, ideas, explanations, understandings and meanings are transferred in the first cascade from the Central Trainers to the District trainers. The District trainers have to digest all these things and then, in effect, re-present them to the teachers. It is inevitable that some things will be lost; others things will be changed and other things will be given a different emphasis or interpretation in that 'transfer'. The third possible cascade is when the Central trainers have not been directly involved in the preparation of the training materials which was not always the case in some of these programs. The 'dilution' as a result of the double cascade is clearly recognizable in the results of this evaluation by comparing the means for the relevant correlating sections. A further lesson to be learned from this evaluation is, therefore, that in the design of future in-service activities, it is more effective if all those that will be training the teachers are directly involved in the development of the program and the materials and have shared understandings of both the content and the process.

98.   A final conclusion coming from this evaluation is related to the certification of training and its incentive and career implications: Teachers very strongly want certification for the training they do (87 percent agreed or strongly agreed). Linked to this is the data that 65% of teachers disagreed or strongly disagreed that the training had increased their chances of promotion. This suggests that the design of future in-service activities might also wish to give consideration to the issue of incentives. Caution, however, might be exercised in respect of linking training to promotion – teachers may be good attendees at training but it may not always improve their teaching. If a more fully developed concept and approach to staff development in schools were to be established, and linked to a supported self-evaluation approach to quality assurance, it would be reasonable to expect to be linked to promotion but the evaluation did not specifically address this issue.

99.   The evaluation concluded that the obligatory programmes have served a purpose in improving teachers' subject knowledge, improving teaching methodology and supporting the introduction of the national curriculum. At present, the needs for training have changed and the evaluation suggests that the policy supporting the introduction of the obligatory programs (2000) should be reviewed and revised to meet the new circumstances which, other than a few specific groups of teachers, do not include the need to improve subject knowledge. This would also mean a critical review of the "entitlement" that the teachers have to 60 hours training each year.

100.   Various sources of information (Impact Evaluation, Review of Recommendations for the Functional Audit action plan) indicate that training within the MOEHE takes place in a random way. A national strategy is lacking in that regard —a gap that National Institute for Education and Training (NIET) of the MOEHE has come to close. It is also reported that training is not based on the actual training needs or required competencies. In addition, the heavy workload, the effects of forced redeployment and the lack of incentives to improve students' learning outcomes are all taking a toll on teacher quality and effectiveness. Despite this, most teachers have remained deeply committed and it seems obvious that if the education system has managed to endure present conditions it is largely thanks to those in the teaching profession. In addition, there is very little, if at all data about the actual impact of training activities.

101.   A national teacher training strategy is needed to link and include pre-service and in-service as a developmental continuum. This strategy is also needed to coordinate training efforts and to better meet the training needs at all levels. Importantly, the strategy should be based on quality assurance system and standards for new teachers, teachers, head teachers, School Supervisors and be linked to school-based development. The construction of a national strategy for teacher development should address and make specific choices concerning the following issues:

- The articulation between pre-service and in-service teacher training.
- The articulation between pre-service training of primary and secondary school teachers
- The articulation between teacher training as a whole and the higher education system (including quality assurance, accreditation and certification of teacher training programs).
- The arrangement of a set of coherent and mutually reinforcing policy measures which will make the teaching profession more attractive, both for secondary school graduates and for teachers in service.
- The existence of an external support system (resource centers, school advisors) and its relationship with in-service training, school supervision and the implementation of school grants and school improvement programs or policies
- The mechanisms in place for teacher certification and accreditation and its relationship with teacher recruitment and deployment policies.
- The viability and potential characteristics of induction programs for novice teachers.
- The design of a teaching career in terms of professional development: putting together a system of incentives, both salary and non-salary.

- Delivery modes of teacher training (both pre- and in-service). Diversification and use of distance education methodologies and ICTs.
- National definition of teacher education curricula (competency-based and content-based; emphasis on standards).

102.   There is certainly a strong case for integrating all of these aspects in a long-term national strategy. One-time adjustments or changes in programs are unlikely to be effective. The most feasible approach is to experiment with alternative incentive schemes. These might involve new contracts and approaches to teacher compensation, merit awards for schools, and the like. The crucial thing is that each new policy should be designed to improve student achievement directly.

Teacher Education and School Improvement Policies

103.   Effective teacher education programs can make a difference to student achievement. Research evidence points to a very strong link between teacher preparation and student learning outcomes. Measures of teacher preparation are by far the strongest correlates of student achievement in reading and mathematics, both before and after controlling for student poverty and language status (Darling-Hammond, 2000). Teachers' effects on student achievement appear to be additive and cumulative, and generally not compensatory. This means that individual teacher effectiveness in a given school is actually weighed with the aggregate effectiveness of the sequence of teachers that any student gets during his school years. Thus, overall school effectiveness and staff development play a crucial role in quality of teaching and individual teachers' effectiveness.

104.   In terms of school development and external support, the priority is to link teacher education to decentralized school quality improvement. This also entails integrating in-service teacher training and external support. The current drive for school-based development and increased school effectiveness in Palestine should be conceived in connection to the renewal of in-service teacher training and professional development. School development plans can function as the best possible context for meaningful in-service training that has a real impact on student performance and achievement. The experiences of the School as a Unit for Training (SUT) programme have been encouraging.

105.   Professional development for teachers should take place—and therefore be conceived and planned—within the framework of an overall System of External Support to Schools. This system should integrate all of the institutional and professional bodies related to technical assistance, evaluation, supervision and, indeed, training of school management teams, individual teachers and schools as a whole. Having a dynamic system of external support to schools is crucial with regard to the promotion, monitoring and sustainability of school improvement projects. This, in turn, facilitates the networking of schools and the dissemination of good practice throughout the school system. School-based in-service teacher training, a concept that allows for the emergence and utilization of teachers' practical knowledge, has proved to be highly effective not only for school improvement and development purposes, but also for a meaningful professional development of teachers.

106.   School indicators *of quality improvement.* Holding students and teacher characteristics constant, there is still a substantial difference in performance between different types of schools. The factors and indicators accounting for those differences have been the subject of extensive research in the realm of school effectiveness and school improvement and they could be used as a systemic map of quality improvement for schools (see for example Hopkins 1991 and Hopkins & Reynolds 2001). Also a locally developed alternative, the fruit of the highly successful Child-Friendly Schools Project (supported by UNICEF) (MOEHE, 2003) could also be considered as a "map" for school improvement:

- Have a clear social approach.
- Get students, authorities and society involved in the issues of the school, its programs and planning processes.

- Take into account individual differences among students.
- Provide education for all (boys and girls).
- Strengthen a democratic context which encourages dialogue and exchange of opinions.
- Provide a healthy environment.
- Create a climate of safety in both classrooms and common spaces.
- Increase the availability of drinking water.
- Increase health care and coverage.
- Keep low levels of student violence and antisocial behaviour.
- Strengthen students' self-confidence and their capacity to cope with difficulty.
- Have the student as the centre of every "education action."

107.   Setting up a system of professional development for teachers and concentrating on decentralized planning for school quality improvement are two different ways of stating the same policy goal. The former emphasizes the individual teacher as the unit for change and improvement, the latter takes the whole school as the protagonist of quality improvement efforts. In any case, it is not just that promoting local (district and individual school) school improvement plans requires in-service teacher training, but rather that such plans consist of—are equal to—in-service teacher training, and therefore are represent a very defined way of approaching the professional development of teachers.

Incentives for Teachers

108.   Incentives schemes for teachers can have an impact on quality, although the evidence for this is somewhat contradictory. Incentives which are not related to salary can be more effective than across-the-board salary increases. Often, teacher representatives have quite a different view on this matter from the one typically held by education administrators. Palestine is not an exception in this respect.

109.   Incentive arrangements are normally part of wider policies which encompass specific interventions for the evaluation of teacher performance, teacher and school accountability mechanisms, and the role of school leadership, supervision and inspection services. Every education district office employs supervisors, who are in charge of school inspection. Ramallah's education district, for instance, has 31 supervisors for a total of 159 schools and 3221 teachers (roughly 100 teachers per supervisor, which is quite a low rate by international standards). Supervisors have traditionally been in charge of teacher appraisal and evaluation, the official consequence of which was a tailored plan of in-service training for teachers.

110.   In terms of supervision, there are key differences between Government and UNRWA systems. UNRWA has a central supervisor for each subject and s/he provides meaningful support related to specific subject issues. PA supervisors appear to perform only inspection tasks, according to the relevant people interviewed. The common assumption is that supervision is better in UNRWA than in PA schools; however, there is no empirical evidence to support this claim.

111.   With the idea of creating a new incentive policy, the Directorate General of Training and Supervision has designed a new plan for the evaluation of teacher performance, linking it to salary increases and promotion opportunities (MOEHE, 2005b). The Plan, which could become new legal regulation in 2006, provides that school principals will perform appraisal visits to the classroom to every teacher in his or her school; and that supervisors will carry out similar visits at least twice a year. Good evaluation results will be tied to a higher salary increase each year; bad inspection marks will result first in a warning and the need for the teacher to take some extra training. When evaluations are positive in three successive years, teachers will qualify to apply for higher positions, including non-teaching positions. In the event of a succession of three negative evaluations, the plan is contemplating that those teachers could even be fired. An Evaluation Commission at each education district level, consisting of the directors of supervision, "field follow-up" and school administration, is in charge of final decisions of this sort, reviewing evaluations from supervisors and principals and averaging the scores in cases where there

are no sharp disparities between both evaluations. If there should be a big disparity between the supervisor's and the principal's evaluations, the Commission goes back to review all of the previous reports made by the supervisors in their visits to that particular school or particular classroom.

112.   Some doubts have been raised about the potential for quality improvement of this particular proposal. On the one hand, it does not seem to add much value to previous practices of supervision and inspection in terms of improving teacher quality. On the other hand, any system of teachers' performance evaluation should be carefully and thoroughly consulted with the teachers and their representatives— unions and/or professional associations. Supervisors, especially when they have a subject or curriculum area profile can be integrated in an overall system of external support to schools. They can be instrumental in improvement initiatives, school-based development and planning processes, and in facilitating partnerships between schools and other private or public institutions. This differs significantly from the impression we got from the school visits carried out as part of this study: principals and teachers perceived the supervisor's inspection visits just as routine bureaucratic events.

School Management

113.   The MOEHE has no plan for decentralization, although has been one of its policies since the preparation of the first five year plan. At present, the Directorates of Education can decide on minor issues without referring to the Ministry, except for employment that is completely centralized. Delegation of authority to the Directorates of Education is taking place in a very limited way, depending on the personal initiative of General Directorates, rather than on a systematic approach.. However, once the prevailing conditions are over, and there is stability, discipline and security, the Ministry can give additional power to the Directorates of Education.

114.   Although there is a long way to go to begin a de-ccentralization process, the self-managed schools pilot project represents an important experience towards de-concentration. The 60 schools participating in this experience were given administrative, financial and technical authority and monitoring is done by the District level without participation of the central authority. The evaluation of this initiative showed that the experience of self-managed schools has been a very positive. The general Directorate for Field Monitoring intends to expand the experience gradually to other schools.

115.   Another successful initiative is the "Schools as a Unit of Training" (SUT) –project. This project supported schools to identify their own training needs and take direct responsibility and action to meet their needs. This experience was brought to scale by the EAP, reaching 1,200 schools. Whereas the obligatory training programmes for teachers were designed to meet the needs of individual teachers the SUT programmes were more demand driven and oriented to support the needs of the teachers within the context of the development needs of the school. An evaluation of different teacher training programs, compared the SUT with other in-service teacher training programs. The results suggest that the demand-led programme is meeting the overall needs of school development more effectively than the obligatory programmes. There is also evidence that head teachers of SUT schools work more closely with teachers in terms of their staff development and school development plans than do their colleagues in non-SUT schools.

116.   Through these two projects the MOEHE has already gained positive experience about school-based management. It is important to address government and donor financed programs and projects directly to strengthen the capacity of schools: enhancing leadership, increasing autonomy for planning and implementation, opening up to the community, favouring partnerships with universities, NGOs and other institutions in the civil society, engaging in school development and improvement projects with the necessary incentives. Introducing this policies necessarily entails a process of political and administrative decentralization and changes in the overall governance and management of the school system. School level development could also be supported by extending the coverage and the quality of counseling and guidance services to schools, including specialized external support geared at students with special needs, gifted children, etc. and by reviewing the role and functions of supervisors.

CHAPTER 3: EDUCATION AND THE LABOUR MARKET

117.   With a high 91percent adult literacy rate, Palestinians are the most educated population in the MENA region. However, as in other countries in the region, an educated workforce is not correlated with economic productivity. There are important mismatches between education profiles and the labour market, with substantive gender differences. Female participation in skilled labour force is low, even though women represent about 50% of enrolments in tertiary education. Unemployment among male university graduates is lower than for those with only elementary or secondary school, showing that for males there are substantial private rates of return to higher education. However unemployment for women with university degrees is 34%. It is obvious that to obtain wage employment, university graduates have an advantage, regardless of the relevance of their knowledge or skills to the job profile. With public service being the main source of employment, and very limited possibilities for private sector development, it is understandable the high rates of enrolment in higher education, in particular in education sciences, as the ministry of education is the largest employer in the PA. However this leads into oversupply of graduates, for example, there were over 25000 graduate applicants for 2200 new teaching jobs advertised by the MOEHE in 2005.

118.   As discussed earlier, the expansion of secondary education in the past few years has been largely unplanned with an unbalance between the scientific, literary and vocational streams. The unbalanced enrolment in the literary stream of secondary education has an important impact on the demand for university education. Tertiary enrolments in Palestine are very high and present quite an unbalanced picture. Enrolments at the traditional universities and university colleges have doubled during the last decade and they have increased by over fivefold at Al Quds Open University. Three subject areas (education 23 percent, humanities and arts 21 percent, and social sciences, business and law 21 percent) account for two-thirds of enrolments at the 'traditional' universities. Half of all Open University students are studying education, 24 percent business and administration, and 19 percent social sciences. The level of effective demand for graduates of both tertiary and vocational training institutions in most disciplines is weak, resulting in an oversupply of certain professions and high rates of unemployment and poor utilisation of formally acquired knowledge and skills.

Technical and Vocational Education

119.   A few community colleges with limited capacity (200-300 students) have high applicant-place ratios (especially for nursing and the UNRWA Gaza Training Centre). The remainder, however, have ratios of only around one, which is symptomatic of the weak demand for most vocational training. Manual skilled occupations continue to have low status and only the least academically able students are expected to enrol at TVET institutions. As a result, only small numbers of specialisations offered by technical and community colleges are in demand and the majority of colleges are operating well under capacity with low student-teacher ratios and high unit costs. An important reform to improve the quality of technical and vocational programs is a priority. In addition to community colleges, other TVET opportunities are provided by the Ministry of Labour and Social Affairs. This ministry runs 12 Rehabilitation Centres that target dropouts, slow learners and 'social cases'. Total enrolments were around 850 in 2004/05 with 380 graduates. The Ministry of Ex-Detainees also offers TVET to around 1000 mostly males. The National Institute of Information Technology enrols 460 students.

120.   The relative cost of training at non-traditional TEIs also depresses the demand for middle-level training. The fees at both community and technical colleges range from $850 to $1100 per annum, which is about the same as the tuition fees at the traditional universities and is around two-three times more costly than studying at the Open University. In addition, the Open University admits school leavers with low Tawhiji scores.

121.   Another key issue is the inflexible qualification structure for TVET and the limited learning pathways, particularly to university-level courses. The poor quality and low relevance of outdated

traditional trade courses only compounds this problem. While the need to reform comprehensively the TVET system is widely recognised, only limited progress has been made to date in implementing the TVET National Strategy, which means that public and private investment in vocational training provision remains seriously inadequate. Responding to changing labour market conditions in an effective and timely manner is therefore a major challenge.

Education Profile of the Labour Force

122.   As shown in Annex Table 22, education attainment among the adult population is high and has tended to increase in the past ten years. The proportion of adults aged 25-29 who have only primary education or less is considerably lower than for the 45-49 age group, especially among females in both West Bank and Gaza, and particularly high in Gaza. Turning to the post-primary education group, the most striking change is among females in the West Bank; 22 percent of 25-29 age women have post-primary education compared to only 10 percent among the 45-49 age group, which shows that post primary education has been a recent interest for females. The situation is quite different for males both in the West Bank and Gaza, as the proportion with post-primary education has shown little change in the past 20 years. For young adults (25-29 age), gender gaps are in favour of young women in the West Bank, but against them in Gaza (by three and eight percentage points respectively).

Employment Profile by Industry Breakdown

123.   Female employment is heavily concentrated in just two sectors: agriculture and services. In contrast, the male labour force is more evenly distributed across the main sectors (see Table 3.1). The two main changes during the last five years are the relative decline in agriculture, manufacturing and construction and the quite marked increase in the share of the services sector.

Table 3:1: Distribution of Employed Persons in Palestine by Economic
Activity, 2004 and Change Since 1995
(rounded percentage)

ECONOMIC ACTIVITY	2004			PP change since 1995		
	Female	Male	Total	Female	Male	Total
Agriculture, hunting and fishing	34	12	16	7	-2	3
Mining, quarrying and manufacturing	8	14	13	-8	-4	-5
Construction	0	14	12	-1	-8	-7
Commerce, hotels and restaurants	7	22	19	-1	0	0
Transportation, storage and communication	1	7	5	0	1	0
Services and other branches	50	32	35	3	12	9
Total	100	100	100	0	0	0

Source: PCBS

Labour Market Status by Education Level

124.   Information on the employment and unemployment status of the 15-64 population disaggregated by level of educational attainment in early 2005 is presented in Tables 3.2[13] and Annex Table 23. The overall unemployment rate was 22.2 percent,[14] but it is important to note that only 15 percent of women are classified as being economically active. Just seven percent of women and 29 percent of men are employees. However, the incidence of wage employment is much higher for individuals who have post-secondary education. The predominance of public sector employment among higher educated groups is also noteworthy.

Table 3.2: Unemployment Rates among the 15-64 Economically Active Population
(by level of educational attainment, Q2-2005)

Education level	Female	Male	All
Illiterate/'Read&write'	5.2	27.1	20.6
Elementary school	4.2	27	24.5
Preparatory school	9.6	24.6	23.3
Secondary school	15.8	19.9	19.5
Associate degree	27.6	17.2	20.9
University degree	33.6	14	21
Overall	18.6	22.9	22.2

Source: Labour Force Survey

125.   The labour market impact of the economic crisis since 2000 has been considerably greater for males than females (see Table 3.3). The percentage of the male adult population in employment fell from 59 percent to 44 percent between 2000 and 2004 compared to an increase, albeit from a low base, from 10 to 11 percent for females during the same period. This is probably mainly due to the sectoral changes in employment noted above, which have particularly affected male-dominated industries.

Table 3.3: Labor Force Status by Educational Attainment, 1999 and 2004
(rounded percentage)

Years	% in labor force		Employment Rate		% ILF Employed	
Education	1999	2004	1999	2004	1999	2004
FEMALES						
0	9	8	97	97	9	8
1 to 6	10	12	94	92	9	11
7 to 9	6	7	90	87	5	6
10 to 12	7	7	84	83	6	6
13+	46	42	75	67	35	28
TOTAL	12	14	84	78	10	11
MALES						
0	31	24	87	69	27	17
1 to 6	74	72	81	58	60	42
7 to 9	75	72	81	61	61	44
10 to 12	70	65	83	63	58	41
13+	74	67	85	78	63	52
TOTAL	71	67	83	65	59	44

Notes: ILF is in labour force
Source: PCBS

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[13]   The same profiles were requested for the 20-29 population (i.e. 'youth'), but PCBS has stated that sample sizes are too small.

[14]   Unemployment figures cited in other documents are much higher. For example, the Palestine Recovery Programme document states that the overall rate of unemployment increased from 25.6 percent in 2003 to 26.8 percent in 2004 and that the 40 percent of the 15-26 age cohort were unemployed in early 2005.

Education-Employment 'Mismatches'

126.   The PCBS completed a survey of employment conditions of graduates of higher education and training in Palestine in late 2005. The survey covered a sample of 10,750 households and 5226 graduates. Unemployment rates among all graduates age 15 or over were appreciably higher for individuals with 'training certificate/vocational education' and lowest among university graduates (see Table 3.4). It is also contended that the skills possessed by university graduates remain limited and, in qualitative terms, fail to match job market requirements, particularly in the private sector.

Table 3.4: Labor Force Participation and Unemployment Rates of
Graduate, Diploma and Certificate Level Graduates Age 15 and Above, End 2005

	Bachelor and above	Associate Diploma	Training certificate/ vocational education
Labour force participation			
West Bank	88.2	76.6	71.6
Gaza Strip	90.7	77.5	86.1
Palestine	89.2	76.9	76.5
Unemployment			
West Bank	18.1	23.4	30.9
Gaza Strip	27.9	32	41.2
Palestine	22.1	26.4	34.8

Survey, December 2005-January 2006.

Private Rates of Return

127.   The rate of return to a particular type of education or training is the key indicator of labour market demand. While rates of return to university education are widely believed to be very low in Palestine, the fact remains that the demand for university places continues to grow. What then are the additional income benefits from investing in tertiary education? Figure 5 shows the age-wage income profiles for the Palestinian labour force by level of educational attainment in 2005. What is unusual is that employees with lower basic education earn more than those who have completed secondary school and that the income premium for tertiary education, at least up until the age of 40, is so low.

Figure 5: Age-income Profiles by Educational Attainment, 2005
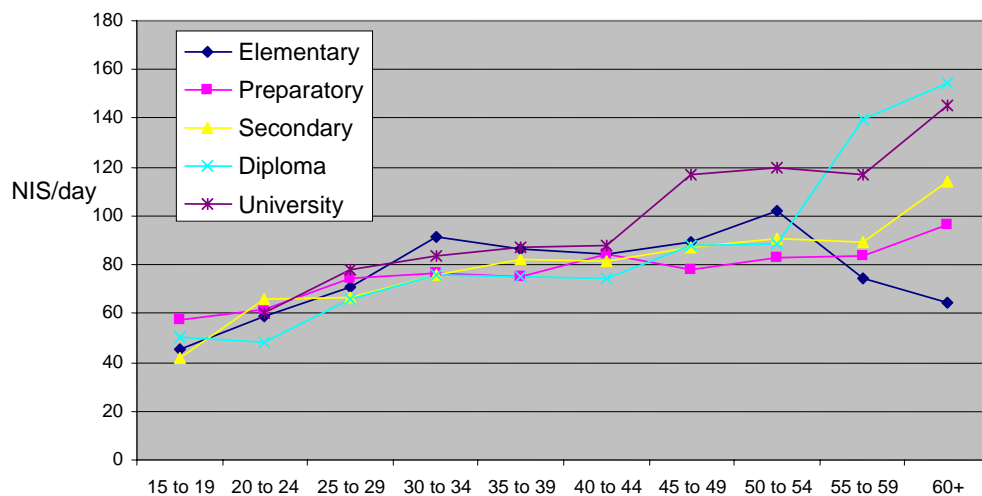
128.   The main reason why these income differentials between the main education levels are so compressed is that there is so much surplus labour in the economy and highly educated individuals have

no alternative but to accept quite unskilled and thus low paid jobs. However, the chances of finding wage employment are much greater for individuals with tertiary education. For example, nearly two-thirds of male university graduates are in wage employment compared to only one-quarter of males with only secondary education. The corresponding figures for females are even more extreme - 46 percent and two percent respectively. The shortage of training-related employment opportunities for graduates means that they 'filter down' into relatively low-skill, low-pay jobs, but they are far more successful in competing for these jobs than other groups. The number of students in the scientific stream has sharply declined in the past three years; in addition 3 out 4 students that pass the Tawjihi examination today are from the literary stream. Furthermore, the perceived income returns of tertiary education, especially in the medium-longer term, are likely to be quite high based in part on the employment experience of other family members who are university-educated and are employed in relatively well paying jobs in either Palestine or overseas.

129. The total costs of attending a university or other TEI is the other main determinant of the future rate of return of this education investment. In Palestine, the direct and indirect costs of higher education are relatively low. Given the acute shortage of employment opportunities for secondary school leavers, the indirect costs (i.e., the income given up or 'forgone' by being in full-time education) is close to zero. Furthermore, with regard to direct costs, large numbers of students receive financial assistance, and in addition, most students live at home or with relatives, which does not add costs to tertiary education.

130. While private rates of return for university graduates are likely to be quite high, they are probably lower for graduates from middle-level pre-employment occupational training courses at both university and community colleges. This does not necessarily mean that effective labour demand for these middle-level occupations is less, but that they tend to be captured by university graduates. In fact, it is argued that tertiary education provision is far too top-heavy in Palestine with too many university graduates and too little emphasis on training for middle-level and skilled manual occupations. Only 9 percent of all tertiary education students are enrolled at community colleges.

131. Addressing the imbalance of the tertiary education system is a key factor to increase relevance to the labour market. Technical colleges and vocational education are costly and have little demand, as their offerings have little relevance for employability. A reform of technical education is therefore a main goal for the next five years.

CHAPTER 4: MACROECONOMIC CONTEXT AND EDUCATION EXPENDITURES

132.   The overall economic situation in Palestine remains critical and is only expected to improve significantly with the creation of a stable political and security environment which allows for the resumption of normal economic activity. The Palestinian Authority (PA) is currently confronting a fiscal crisis that could threaten its very existence. The most recent financial data available (March 2006), indicates that for that month the PA received revenues of $33 million against total expenditures and net lending of $139 million.[15] The wage bill alone is running at around $93 million per month. The proximate causes are the Israeli decision to withhold clearance revenues, the termination of budget support from the donor community, and the U.S. threat to prosecute any banks engaged in financial transactions with the PA in the wake of the January 2006 election. The structural roots of the crisis run deeper. By late 2005 in fact, the PA had already reached a position that was fiscally unsustainable, in which assets were being liquidated or mortgaged to meet current salary costs.

133.   External donors have provided substantial budget support to the PA prior to the January 2006 elections. This has amounted to $0.9 –1.0 billion since 2001 and has been used for both salary and non-salary recurrent expenditures. In overall terms, external budget support accounted for 38 percent of the Palestinian Authority (PA) total recurrent expenditure between 2000 and 2004. The current crisis emerged from the lack of donor support to this sector is threatening to collapse the education system. When and if the current crisis of lack of salaries is solved, it is quite conceivable that there will be no real growth in the MOEHE budget over the next 3-4 years. It is essential, therefore, that the sector plans for this contingency. Ensuring quick efficiency gains will be vital to free up resources to accommodate the continued growth in enrolments and improve the quality of education services.

134.   Education expenditure has been expanding very rapidly over the last five years. Private expenditure accounts for almost half of all total expenditure on education, which is a concern given the diminishing capacity of families to pay for services. The MOEHE is heavily reliant on financial support from donors (both budget and project support), and in order to keep services running, this is to continue for the foreseeable future. A positive point is that the incidence of public expenditure is quite equitable because the share of basic and secondary education is very high compared to tertiary. However, resource allocation inequities between the Gaza Strip and the West Bank are large.

135.   The total population of West Bank and Gaza has been estimated by Palestinian Central Bureau of Statistics (PCBS) to be 3.7 million in 2005, of which 52 percent are under 18 years of age. However, population projections have recently been adjusted downwards to take into account much lower than expected inward migration of Palestinians due to the second Intifada. The latest population growth figure is 3.3 percent per annum down from 3.8 percent in 1997. Some questions, however, remain about the accuracy of these population projections. A recent demographic study by the Harvard School of Public Health estimates that the population of the Gaza Strip was 1.29 million in late 2005, which is almost exactly 100,000 less than the PCBS projection for this year (Harvard, 2005). A closer look at the demographic profile within Palestine may allow the PA to recognize considerable savings. The PA appears to have encountered a demographic bulge rather than a sustained expansion, which will allow it to forgo the recruitment of thousands of new teachers each year. Enrolments were actually lower in grades 1-3 in 2005/06 than they were in 1999/200. (In contrast, enrolment in grades 10-13 increased by well over 60 percent during the same period.) If such findings are true, the PA could potentially save as much as $17 million per year in reducing its intake from 2,800 new annually and limiting recruitment to replacements only (around 215 per year). More modest decreases projected on 2 and 4 percent per annum growth would also yield savings over current practices, albeit at reduced rates. Recruitment into education should focus exclusively upon front line service delivery in areas of critical need (such as secondary school teachers) and avoid categories such as administrative and support staff.

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[15]   Unless otherwise noted, all references to dollars ($) denote U.S. dollars.

Education Expenditure

136.   Education expenditures have been increasing in the past five years. Although unit costs for the provision of basic schooling in West Bank and Gaza are high compared to neighbouring countries, government funding for education as a share of national income is low by regional and international standards. Total education expenditure as a percentage of GDP increased from 7.5 percent in 2000 to 11.5 percent in 2003. However, government's share of total education expenditure fell from 42 percent in 2000 to just 34 percent in 2003. Private funding has been increasing and reached 46 percent of all education expenditure (including tertiary education which is mostly private) in 2003. This trend is unsustainable, given that the current overall economic crisis has eroded families' capacity to pay for student fees. UNRWA accounts for 20 percent of total expenditure and enrols 25 percent of students in basic education.

Table 4.1: National Expenditure Indicators for Education, 2000-2003

	2000	2001	2002	2003
Government expenditure (includes donor's budget support) on education as % Of total expenditure on education	42.3	32.2	34.5	33.9
Government expenditure on education as % Of total government expenditure	15	12.4	11.6	17.9
Education expenditure as % Gross National Income	6.3	9.7	7.4	10.7
Education expenditure as % Gross Domestic Product	7.5	9.8	9	11.5
Household expenditure on education as % of total annual household expenditure	3.3	5.8	6	6.1

Source: PCBS, National Accounts Department

137.   Within the PA, the majority of recurrent expenditure—an estimated 90 percent or $272 million—is for salaries. Around two thirds of non-salary recurrent expenditure is allocated towards textbooks and examinations. The MOEHE non-salary operational budget was halved by MOF in 2005, severely limiting the capacity to provide the system with resources needed for the provision of services. The rapid increase in the wage bill for government teachers is crowding out operational funding for schools.

Table 4.2: Public Expenditure on Education as %
of Total Government
Spending and gross national product, international
comparisons, 2001

Country/region	% public	% GNP	Unit cost primary ($)
Palestine	17.9	3.6	370
Israel		7.6	
Jordan	20.6	4.6	243
Lebanon	11.1	2.8	
Morocco		5.2	193
Syria	11.1	4.2	641
Tunisia	17.4	7.2	275
Median values			
Developed countries	11.6	5.1	
Developing countries	14.8	4.2	
Arab region	na	na	
East Asia and Pacific	15.3	3.6	
Latin America	13.4	4.6	
North America&Europe	11.6	5.6	
South and West Asia	13.4	3.3	
Sub-Saharan Africa		3.4	

Notes: Palestine figures are for 2004
Source: UNESCO, 2004

Table 4.3: MOF Non-salary Recurrent
Budget Allocations by Main Ministry
(NIS millions)

Ministry	2003	2004	2005
Education	122	142	60
Health	180	293	190
Ex-detainees	82	123	75
Social Welfare	198	275	113
President's Office	322	120	53
Interior	137	191	102
Finance	26	24	9
NGOs	30	37	7
ALL PNA	1461	1993	1026
Education % total	8.3	7.1	5.8

Source: Ministry of Finance

Investment Expenditures

138.   Up until the January 2006 elections, MOEHE's donor partners have funded the bulk of capital expenditure since 2000. A total of 266 schools and 7350 classrooms were constructed between 1994/95 and 2005. The MOEHE was directly responsible for the construction of 118 new schools, mostly in the West Bank (44 percent of the total) and 2675 classrooms (36 percent). NGOs and local communities built the remainder. In contrast, UNRWA construction expenditure on schools has been minimal in the past five years. Unit costs for school construction are 60 percent higher in the West Bank (averaging $350 per square metre compared to $220 in the Gaza Strip), which points to regional inequities in school infrastructure expenditure. This is because schools in Gaza are generally larger, constructed on flat land, are built of concrete, and labour costs are appreciably lower. Schools in the West Bank are built of stone and the hilly topography of the region significantly increases the costs of external works. Typically, however, communities in the West Bank contribute land for school construction, which is a significant cost saving.

Table 4.4: MOEHE Recurrent Expenditure, 2000-2005
(NIS millions)

	2000	2001	2002	2003	2004	2005
SALARIES	690	758.5	817.8	922.5	1118	1226.7
SCHOOL OPERATIONAL						
Textbook printing	21.2	2.4	34.2	31.8	32.2	35.1
Examinations	9.1	10.7	11.3	12.9	13.8	15.5
Rent	4.6	5.5	5.6	5.6	5.7	7.7
Transportation	1.6	1.1	0.7	1.8	2.4	2.4
Water & electricity	4.8	5.2	2.7	6.2	6.1	7
Telephone	2	2.3	1.1	2.6	2.3	2.5
Maintenance	1.6	0.2	0.3	0.5	3.2	0.5
Illiteracy	0.5	0.6	0	0	0	0
Sub-total	47.7	53.8	57.2	64.4	68.6	73.5
OTHER RECURRENT						
Social welfare	17.7	18.7	24.8	37.7	46.9	61.6
Universities support	7.5	8.5	8.5	63.4	71.1	100
Presidential awards	0	0	1.5	1.5	1.8	2
Sub-total	17.7	18.7	26.3	102.5	119.5	163.6
TOTAL	755.4	831.1	901.3	1089.4	1306.3	1463.8

Percentage breakdowns

Salaries	91.3%	91.3%	90.7%	84.7%	85.6%	83.8%
Schools operational	6.3%	6.5%	6.4%	5.9%	5.3%	5.0%
University support	1.0%	1.0%	0.9%	5.8%	5.4%	6.8%
Pensions	2.3%	2.3%	2.8%	3.5%	3.6%	4.2%

Notes: 2000-2004 actual expenditures. 2005 budgeted expenditures.
Source: Department of Finance, MOEHE

Sources of Funding

139.   There have been three main sources of donor funding for public education provision in Palestine, namely the UNRWA education programme, and budget and project support for MOEHE and other PA education and training programmes provided by donors. Despite sizeable annual fluctuations, donor assistance has remained relatively constant at around $23-24 million per annum during the periods 1995-1999 and 2000-2005. School building and other construction activities absorbed nearly 80 percent of donor support during the 1990s. Since then, however, it has declined to only one-third of total commitments. . The share of 'other' commitments, which include support to individual projects as well as targeted budget support for the education sector, increased from just 6 percent during the 1990s to 45 percent since 2000, increasing the proliferation of uncoordinated expenditures, and creating disincentives to introduce efficiency mechanisms in the use of resources.   Curriculum development and textbook production has been a major component of donor assistance amounting to 21 percent of commitments since 2000 (see Table 4.5). The 2006 crisis has severely limited donors' support for all types of expenditures.

Table 4.5: Financial Commitments of Donor Partners to MOE, 1999-2005
($ million)

Year	construction	material equipment	Curricul textbooks	Capacity Building	Training	Other inc. budget supp	Totals	% construction	% textbooks	% other
1995	22.6	0.1	0.8	0	0.2	0.1	23.8	95.1	3.2	0.6
1996	5.4	0.3	9.6	0.3	0.3	0.9	16.8	31.9	57.5	5.2
1997	53.0	1.8	0	0.7	0	0.5	56.0	94.6	0.0	0.8
1998	12.1	1.0	0	0	0.1	5.9	19.1	63.3	0.0	30.9
1999	7.5	0	1.7	0	2.3	0.4	11.9	34.9	25.2	6.3
Sub-total	100.6	3.2	12.1	1.0	2.9	7.8	127.6	77.9	9.9	6.4
2000	5.5	0	3.0	0	0	3.0	11.5	47.8	25.7	26.5
2001	27.2	1.5	1.1	0	0.5	13.1	43.4	57.8	3.0	34.2
2002	6.9	0	12.4	0	0.1	9.2	28.6	23.2	44.2	32.3
2003	3.3	0.1	2.9	0	0	37.0	43.2			
2004	0	0	0	0	0	0	0	0.0	0.0	0.0
2005	6.7	0	12.2	0	0.1	0.5	19.5	34.4	62.8	2.4
Sub-total	49.6	1.6	31.6	0	0.6	62.8	146.2	31.9	21.1	45.4
TOTAL	150.2	4.8	43.7	1	3.5	70.6	273.8	57.2	15.1	24.4

Source: Project Department, MOEHE

Expenditure by Type of Education

140.   The education system in West Bank and Gaza is structured by 10 years of basic education, and 2 years of secondary. The first cycle is sub-divided in Grades 1 to 4 designated as the Preparation Stage and Grades 5 to 10 the Empowerment Stage. Secondary Education comprises two grades, 11 and 12. Absence of a clear separation between basic and secondary among government schools in Palestine makes it difficult to estimate precisely the resource allocation breakdown between these two types of schools. However, probably around 77 percent and 18 percent of the MOEHE recurrent budget was allocated to basic and secondary education respectively in 2004/05. Given the relatively long basic and very short secondary schooling cycles in Palestine, international comparisons of sub-sector expenditure breakdowns are not meaningful. Public expenditure on higher education accounts for only 5.6 percent of total MOEHE expenditure on education, which is very low compared to 30 percent for MENA countries and 26.3 percent for OECD countries.

141.   Most tertiary education institutions (TEIs) in Palestine are in serious financial crisis. They have become to rely increasingly on cost recovery from student tuition fees, which currently account for around 60 percent of total expenditures. Public funding for tertiary education is of two types: annual subventions to public universities by the Ministry of Finance and direct funding of six 'government' TEIs, which is channelled through MOEHE. The MOF has made a formal commitment to provide $20 million of core support each year to the TE sector. However, fiscal constraints have meant that only slightly more than one-half of this amount was disbursed between 2002/03 and 2004/05, which amounts to around five percent of university recurrent expenditure during this period.

Unit Costs for Education Services

142.   Differing population densities between the West Bank and Gaza, combined with the toll that internal checkpoints exact upon the movement of students and teachers and the PA's ability to optimize the geographic distribution of schools, make it difficult to accurately compare costs between the PA and comparable educational systems. Class sizes and student teacher ratios vary significantly between the West Bank and Gaza, as well as between PA schools and those operated by UNRWA and other providers. During the period of the *intifada*, PA student teacher ratios have increased slightly from 23.3 to 26.3—a figure that compares favourably to UNRWA and less favourably to private schools. PA class sizes have decreased from 37.7 to 34.3—a figure that also compares favourably to UNRWA and less favourably to private schools.

Unit Costs for Basic Education

143.   Student-teacher ratios in Palestine are likely to be reasonably good indicators of recurrent unit costs. This is because: (i) salary costs account for 90 percent of total recurrent costs; (ii) other MOEHE resources are equitably distributed to all schools regardless of location; and (iii) school income (principally from fees) only accounts for a very small proportion of total school expenditures.

144.   According to the MOEHE 2000-2005 education plan, average annual expenditure per student (i.e., the overall unit cost) at government schools was $283 in 1999/2000 and was projected to rise to $370 in 2004/05 in 1999 prices. Table 4.6 shows that, even though UNRWA teacher salaries are over 40 percent higher than PA teacher salaries, there is little difference in personnel unit costs at government and UNRWA schools mainly because of the much larger numbers of support staff employed by MOEHE.[16] Taking into consideration that MOEHE staff perform functions (most notably curriculum development and examinations), which are not undertaken by UNRWA education personnel, the unit student costs at government schools need to be adjusted downwards slightly, although probably by no more than 2-3 percent. As seen in Table 4.4, besides salaries, the other main recurrent costs are textbooks and examinations. The unit cost of textbooks was around $6.5 in 2003/2004. The cost of the tawhiji examinations has increased appreciably since 2000, given restriction of movement, as more examination centres had to be established nearer to students' homes in order to ensure that they were able to sit their examinations as scheduled.

145.   The preponderance of combined basic and secondary schools makes it difficult to estimate unit costs for primary and secondary education separately. No information is available on the operational costs making reference to the two types of schools. However, given student-teacher ratios at basic and secondary schools, the unit cost differential between these schools is only likely to be around 30-40 percent, which is low by international standards.

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[16]   Expenditure per student at UNRWA schools in the West Bank and Gaza Strip were $393 and $331 respectively in 2004.

Table 4.6: Annual Expenditure per Student (unit costs) by Type of Education Provision, 2005 (US$)

	Average teacher Salary	Teacher Unit Costs	Personnel Unit Cost	Operational Unit Costs	Overall unit costs
Government schools (mid05)	6882	281	343	27	370
UNRWA teaching staff (2004)	9917	Na	329	16	345
Government TVET	10312				
UNRWA TVET	Na	Na	2438	1468	3906

Source: MOEHE and MOF

A Comparison between UNRWA and PA Basic Schools Unit Costs

146.   Overall unit costs were $370 for government schools in 2005/06 and, for UNRWA schools, $345 in 2004 and, provisionally, $391 in 2005. Unit costs for government schools have increased by 32 percent since 1999/2000 and by 30 percent for UNRWA schools between 2002 and 2005. No expenditure data is available for private schools. Up to date information on unit costs in MENA countries is not available. However, 2001 UNESCO data tentatively indicate that unit costs are higher in Palestine than in Jordan, Morocco and Tunisia, but considerably lower than in Syria (see Table 4.2).

147.   Even though UNRWA teacher salaries are over 40 percent higher than PA teacher salaries, there is little difference in personnel unit costs between government and UNRWA schools mainly because of the much larger numbers of support staff employed by MOEHE. In summary, better learning outcomes even with larger classes in the Gaza Strip coupled with roughly similar unit costs, albeit with a different allocation, means that UNRWA schooling can be more cost-effective.

Table 4.7: Key Input Efficiency Parameters by School Ownership

	2000/01	2001/02	2002/03	2003/04	2004/05
PNA					
Student-teacher ratio	23.3	23.2	22.3	22.7	26.3
Average class size	37.7	36.5	35.1	34.7	34.3
Average school enrolment	505.8	506.9	500.1	505.8	
Average school shift enrolment	455.0	456.9	444.7	455.5	Na
UNRWA					
Student-teacher ratio	35.8	34.9	32.2	33.6	33.4
Average class size	39.4	40.8	44.6	43.4	42.4
Average school enrolment	1208.1	1199.3	1261.3	1246.6	
Average school shift enrolment	832.8	842.4	878.9	859.7	Na
PRIVATE					
Student-teacher ratio	15.3	14.2	14	13.7	16.7
Average class size	25.7	23.8	23.6	23.9	23.9
Average school size	153.4	237.2	225.2	232.2	Na

Cost Efficiency of TVET Institutions

148.   In terms of cost efficiency, Vocational Schools present an important challenge, as there costs are 10 times more than traditional schools, there is very little demand for them and their graduates do not find jobs. The six-monthly activity profiles of secondary industrial school graduates between the beginning of 2002 and the end of 2005 shows that for 56 percent of secondary industrial school and 31 percent of technical college graduates their current employment is 'completely unrelated' to their training

specialisation. These percentages are particularly high for some specialisations, most notably computer maintenance, automotive mechanics, industrial electronics, and automotive electrics among school graduates. The most striking feature of this profile is that around one-half of all graduates enrolled in full-time degree and diploma level courses at higher education institutions for two-three years rather than finding training-related employment. On graduating from college, over 70 percent of female graduates were unable to find jobs during their first six months in the labour market and, while this has declined over time, over half were still unemployed during the latter half of 2005. In contrast, unemployment rates among male college graduates have been much lower; only 11 percent were unemployed in late 2005. Nearly 85 percent of males are in some kind of employment (either waged or self-employed) compared to only slightly more than 40 percent among the female graduates.

149.   The Directorate of Technical and Vocational Education and Training estimates that the annual operational unit cost for secondary industrial schools is currently $1707, which is 4.6 times higher than for academic schools. Including building and equipment depreciation increases this to $2510. These much higher unit costs are mainly because of the relatively high costs of workshops and equipment, much lower student-teacher ratios (11 compared to 22 for academic secondary schools), relatively large numbers of support staff,[17] and higher operational expenditures. Engineering graduates employed as instructors at these secondary schools are also paid an additional allowance of 60 percent of the basic salary compared to 20 percent (now 30 percent) for other university graduates.   The average unit cost for the four UNRWA vocational and teacher training colleges that are located in Palestine was $3906 in 2005, which is 10 times greater than the unit costs at UNRWA basic schools.[18]

Unit Costs in Tertiary Education

150.   MOEHE estimates indicate that the overall unit cost for the 10 traditional universities was $1312 in 2004/05 and $318 at the Open University. According to the Higher Education Funding Strategy, unit recurrent costs at all universities fell from $1287 in 1996 to $857 in 1999. At community colleges, however, they increased from $667 to $950.

151.   Unit costs vary markedly between universities. In the late 1990s, unit costs at the low-cost universities (Islamic, Al-Azhar) were around half those at the longer-established universities of Al-Quds and Birzeit. Unit costs at Al-Quds University are currently around $2200 and $3000 at Bethlehem University.[19] Average expenditure per university student is likely to be around 5-7 times higher than for the basic school student.   This is a relatively small cost differential compared to other developing countries, where it is typically over 10:1.

Efficiency in the Use of Human and Financial Resources

152.   There are important areas in which the education system needs to improve in order to use resources more efficiently. These needs emerge mainly from the uneven school supply structure which does not meet the school cycles; the vast number of small schools in the West Bank, the low student teacher ratios in the West Bank; the high rate of administrative staff and the additional costs of replacing textbooks on a yearly basis. Finding ways to introduce efficiency will imply policy options that are relatively easy to implement, and that should be taken as a priority in the next five year plan.

153.   Mandatory Basic Education covering Grades 1 to 10 is divided into the Preparation Stage (Grades 1 to 4) and the Empowerment Stage (Grades 5 to 10). Optional Secondary Education covers Grades 11 and 12. It is to be expected that a child could complete each stage without having to transfer between

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[17]   The 11 secondary industrial schools employed 207 teachers and instructors and 281 managers and other support staff in 2004/05.

[18]   The Gaza VTC has unit costs of US$2261 and the average unit cost for the three post-secondary training institutions in the West Bank is $5261.

[19]   Unit costs at the Open University are around $360.

schools, especially at the Preparation Stage when stability is an important factor. However, this is rarely the case in Palestine. Figure 4 shows the percentage of schools teaching the full range of grades in the two stages of Basic Education and the optional stage of Secondary Education.

Figure 6: Provision of School Cycles
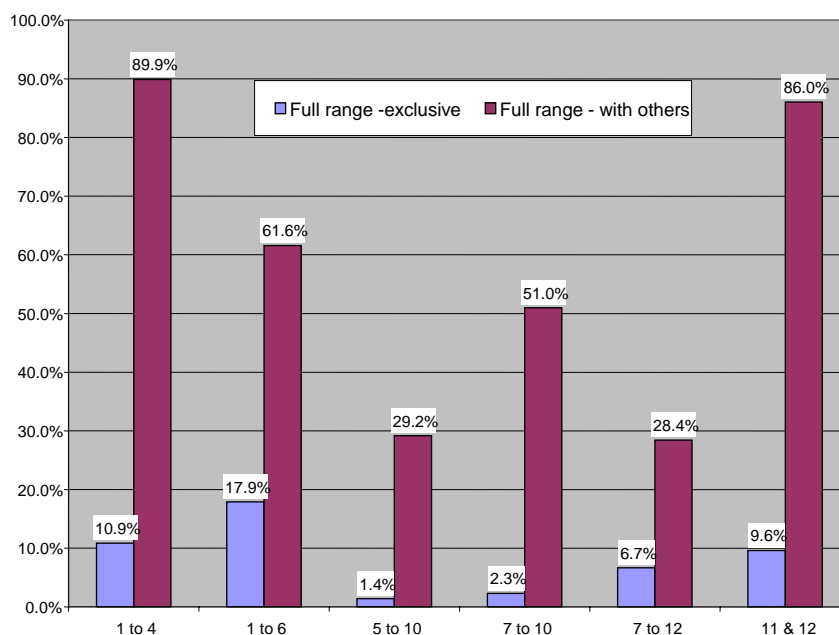
154. There is remarkable diversity of provision with respect to the grade structure of schools. This has important consequences as it implies that most children have to change schools in order to complete their education cycles. Table 4.1 shows that, among schools that offer only the basic grades, barely one-third of government schools have the complete elementary and preparatory cycles. UNRWA schools offer schooling only up to 9th grade, and students must shift to government schools to finish their basic cycle. It is important to note that there are only 72 stand alone secondary schools in the whole WBG.

155. The lack of correspondence between the schooling cycles, which form the basis for the curriculum, on the one hand, and the grade structure of schools, on the other, is not only likely to be inefficient from pedagogical and learning perspectives (particularly with so many children having to move schools mid-cycle), but is also likely to raise unit costs.

Table 4.8: Pattern of Grade Provision by School Ownership and Region, 2004/05

		Gd 1-4	Gd 5-10	Gd 1-10	Basic Only	Gd 11-12	Combined basic/sec	Total
Government	West Bank	109	19	110	812	28	500	1340
	Gaza Strip	8	0	9	227	36	59	339
	Total	117	19	119	1039	64	559	1679
UNRWA	Total	11	0	1	273	0	0	273
Private	Total	20	1	11	185	8	64	257

Source: EMIS

156. School buildings are intensively utilised in the Gaza Strip where nearly three-quarters of both government and UNRWA schools operate double-shifts. The figures for the West Bank are only 9 percent and 25 percent respectively. Students (except in Grade 12) alternate shifts every semester. In contrast, there is scope for improved use of existing school facilities in the West Bank. As seen in Annex

Table 9, there were a total of 123 classrooms that were not used in Government Schools in the 2004-2005 school year. Since the policy is to reduce afternoon shift schools, this analysis was confined to morning schools only. There is considerable variance across districts with nine of the seventeen directorates reporting empty classrooms.

157. Government schools in the West Bank are quite small by international standards which have important implications for resource utilisation and efficiency. Table 4.2 shows that nearly 20 percent of government schools have fewer than 200 students compared to only three percent among UNRWA schools. Part of the reason for this difference in school size profiles is different population densisties. UNWRA schools are mainly located in refugee camps with high population densities. In addition to the population dispersion in the West Bank, the impact of the Occupation and closures has meant that de facto school catchment areas have become much smaller since parents are reluctant to allow their children to attend schools outside of their immediate localities, especially when this involves crossing Israeli checkpoints. The predominance of single-sex schools is another important factor contributing to small schools, as only 31 percent of schools are coeducational.

Table 4.8: School Size Variation by School Ownership and Region, 2004/05

Enrolments	<100	101-200	201-500	501-1000	1000>	No. schools
West Bank						
Government	5.5%	12.8%	57.2%	24.3%	0.1%	1339
UNRWA	4.3%	3.2%	31.2%	44.1%	17.2%	93
Private	35.6%	23.2%	30.9%	8.6%	1.7%	233
Total	7.0%	37.6%	37.6%	16.8%	1.0%	1665
Gaza Strip						
Government	0.9%	0.3%	18.3%	69.9%	10.6%	322
UNRWA	0.0%	0.0%	1.7%	35.6%	62.8%	180
Private	20.0%	32.0%	20.0%	24.0%	4.0%	25
Total	1.5%	1.7%	12.7%	56.0%	28.1%	527
ALL						
Government	4.6%	10.4%	49.7%	33.1%	2.2%	1661
UNRWA	1.5%	1.1%	11.7%	38.5%	47.3%	273
Private	34.1%	24.0%	29.8%	10.1%	1.9%	258
Total	7.7%	10.9%	42.6%	31.1%	7.8%	2192

Source: EMIS

Class size

158. Relatively small class size is another key feature of government schools in the West Bank; 41 percent of classes had 30 students or less in 2004/2005 and only 18 percent of classes had more than 40 students (see Annex Table 10). In contrast, the corresponding figures for the Gaza Strip are six percent and 56 percent. As expected, given the differences in school size, smaller classes are much less common in UNRWA schools in the West Bank and are virtually non-existent in the Gaza Strip.

Student-Teacher Ratios

159. The complex pattern of school grade profiles makes it more difficult to analyse student-teacher ratios in Palestine. As shown in Table 4.9, primary and secondary school student-teacher ratios in Palestine are relatively high compared to MENA, which has a low regional average. However, they are low if compared to low income countries, and on the high side if compared to East Asia and Latin America.

160.   The student-teacher ratio for government schools that have only grades 1-10 is 28. It is slightly higher at 30 for elementary only schools (Grades 1-4). This is partly because, in Grades 1 and 2, class rather than subject teaching predominates, (unlike in most countries). Student-teacher ratios at both types of basic schools were appreciably higher in Gaza than in the West Bank. Student-teacher ratios in exclusively secondary schools (i.e., those offering only Grades 11 and 12) were much lower – 19 in the West Bank and 24 in the Gaza Strip. However, as discussed earlier, there are only 72 of this type of schools in Palestine (see Annex 3 for more analysis of student teacher ratios).

Table 4.9:   Ratio of Students to Teachers in Primary Global Data

	Weighted average
Palestine	*28*
Low & middle income	*27.9*
Low income	*42.6*
Lower middle income	*21.9*
Upper middle income	*18.7*
High income	*14.0*
Region	
Sub-Saharan Africa	*44.7*
East Asia & Pacific	*30.6*
Europe & Central Asia	*17.5*
Latin America & Caribbean	*25.1*
Middle East & North Africa	*21.9*
South Asia	*40.9*

Note: Palestine, Grades 1-4, 2004,
Source: EdStats 2003

Analysis of Salary Expenditures

161.   The main expenditure of education is salaries. MOEHE EMIS defines teachers as 'all teaching and non-teaching staff in school except service employees and janitors'. According to this definition, a total of 45,892 teachers were employed in 2004/05 (73 percent government, 17 percent UNRWA, and 10 percent private schools). The number of government teachers has increased considerably in the past five years, reaching 36 percent between 1999/2000 and 2004/05, and by 25 percent and 17 percent at UNRWA and private schools respectively.   MOF payroll data indicates that 29,763 teachers were working at government schools in August 2005 supported by 1,518 school managers and 5,135 other support staff. The increase in the number of support staff (for which there are no clear definitions of roles) has been almost four times in the past four years. It is important to note that inconsistencies were found between the MOEHE, Department of Administration, total teacher employment for 2004-2005 which figure was 31,786, 2000 higher than the MOF figure for the same year.

162.   Table 4.7 shows that the number of administrative staff at government schools is much higher that at UNRWA schools. Recruitment procedures are much rigorous at UNRWA than at PA schools. Given the current situation, every effort is made to post teachers in or very near to their home areas. Teacher attrition is minimal. Transfers of teachers between districts are also reported to be negligible, but intra-district transfers are more common. As a result of closures and other travel restrictions, senior MOEHE planners report that more than half of teachers at government schools have had to be relocated near their homes, which means that many of them have to teach subjects for which they are not qualified. Where necessary, teachers are shared among schools, but multi-grade teaching is not practised.

Table 4.10: Total School Employment by Ownership and Region, 2004/05

	Admin Staff	Teachers	Others
West Bank			
Government	3783	20558	1846
UNRWA	121	1957	133
Private	554	3272	678
Gaza Strip			
Government	998	9031	691
UNRWA	298	5629	288
Private	68	522	120
Total			
Government	4781	28589	2536
UNRWA	419	7586	421
Private	622	3793	798

Notes: Head office and directorate staff are not included in these figures.
Source: EMIS

163.   An important step in seeking financial sustainability is introducing efficiency gains. With the constant and increasing fiscal crisis, this should be a priority of the next five year plan. Key measures to achieve this goal are the need to increase school size, provide a coherent schooling supply with schools offering complete primary cycles, and increasing the life span of textbooks. By international standards, the duration of the basic cycle is too long (ten years). In the medium term, therefore, restructuring the current schooling cycles should be seriously considered.

CHAPTER 5: THE WAY FORWARD TO CONSOLIDATE A QUALITY EDUCATION SYSTEM

164.   The Education System in the West Bank and Gaza is facing an important turning point. Despite the very harsh conditions in which schools have to operate, impressive achievements have been made in the past five years in the education sector in Palestine. The system has experienced massive expansion and attained equitable access, reaching a level of development that by most accounts could be compared with middle-income countries. However, a main challenge lies ahead for policymakers in West Bank and Gaza, in order to build on these achievements and take the necessary steps forward to **consolidate the education system and introduce the strategic choices to improve the quality of education.**   One key aspect is a change in the spending policy of the last few years. To achieve improvement in learning outcomes, the MOEHE's spending pattern will have to shift from construction, textbooks and increased number of teachers, to include a more sophisticated set of policies to develop pedagogical methods and practices, monitoring and evaluation, and human resources.

a) Seeking Financial Sustainability.

165.   In the short term, the main challenge for the education system is to meet the financial requirements for keeping the school system operational. With 90 percent of MOEHE's expenditures being salaries, finding the mechanisms to guarantee payment of teachers' salaries is the main goal. The current crisis emerged from the Israeli decision to withhold clearance revenues, the termination of budget support from the donor community, and the U.S. threat to prosecute any banks engaged in financial transactions with the PA is a serious threat that could end up in a total collapse of the education system. To mitigate this crisis, an emergency mechanism to support schools is a priority. Keeping the schools operational will be a main factor to determine normalcy and prevent social upraise due to the economic and political crisis. In order to resume the school year to begin in September 2006, an emergency mechanism must be in place.

b) Efficiency in the Use of Human and Financial Resources.

166.   An important step in seeking financial sustainability is introducing efficiency gains. With the constant and increasing fiscal crisis, this should be a priority of the next five year plan. Key to achieve this goal are the need to increase school size, provide a coherent schooling supply with schools offering complete primary cycles, and increasing the life span of textbooks. By international standards, the duration of the basic cycle is too long (ten years). In the medium term, therefore, restructuring the current schooling cycles should be seriously considered.

167.   A more unified and coherent schooling system with larger schools offering complete elementary, preparatory and secondary cycles would considerably improve the efficiency of service delivery in the education sector. Wherever possible, more freestanding secondary schools should also be encouraged as there are currently only 72 in all of WBG. The high proportion of small classes in government schools in the West Bank significantly increases unit costs. Finding ways to ensure that all classes have at least 35-40 students would lead to major efficiency gains, as well as having a more rational deployment of teachers. Larger classes can be achieved through **greater teacher flexibility, in particular, reliance on class teachers for the lower basic school grades and multi-grade teaching** so that small classes can be combined. Effective multi-grade teaching results in both improved learning outcomes (as a result of the introduction of student-centred learning methodologies) and more efficient teacher utilisation and thus significantly lowers unit costs. In addition, class teaching has been found to be more effective than subject teaching among younger children in most situations. For this reason, class teachers are the norm in primary/lower basic schools in most countries. Increased reliance on class teaching, at least up to grade 6, would also substantially improve teacher utilisation and thus overall resource efficiency. Likewise, the current policy of annual replacement of textbooks is costly and unlikely to be financially sustainable.

Increasing the lifetime of textbooks should therefore be seriously considered. Three years is the norm in many countries.[20]

c) Attaining Universal Basic Education and equitable access

168.   Although access to schools is primarily constrained by physical conditions, and movement restrictions, particularly in areas where communities are vulnerable to these conditions (e.g., Southern Gaza, rural areas and communities around permanent barriers), insufficient investments in infrastructure expansion and upgrading has contributed to increased crowding and a general deterioration in the learning environment at schools. As schools have lost their revenue base from school fees, they have also faced difficulties in securing basic school supplies and educational materials. With more children facing psychological trauma, the limited ability of the school system to provide for students with special needs has also become more evident. Meeting the needs of children with disabilities and special educational needs should be among the key objectives in the next five-year education development plan. A comprehensive survey of the learning needs and current provision (both in specialized and mainstream schools) of special educational services should be undertaken as soon as possible, which will provide the basis for a comprehensive strategy for special needs education.

169.   In West Bank and Gaza, there are sizeable inequities in access to secondary education which should be redressed. Currently, around 20 percent of children do not complete secondary schooling. The results of the enrolment simulations show that secondary schooling will be the main area of expansion with enrolments growing by over 40 percent over the next five years if all children are to be accommodated. However, given the likely severity of fiscal constraints, the next five year plan will need therefore to consider very carefully whether 'secondary education for all' is feasible.

170.   Redressing the inequity in resource allocation between the West Bank and the Gaza Strip should be a major policy objective of the next five year plan. Class sizes in the Gaza Strip need to be reduced, which will require a significant increase in funding for school construction both for government and UNRWA schools. There are other important inequities in the geographical distribution of resources, especially the deployment and training of teachers, computers and library resources which need to be addressed through well designed policy interventions.

171.   Access to tertiary education is the other main area of enrolment inequity. Young people from poorer backgrounds are less able to shoulder the costs of attending TEIs. It is important therefore that bursary and student loan schemes are designed to provide additional support to these individuals.

172.   Preventing student dropout in the basic school grades poses a major challenge for all education stakeholders. Again, more detailed policy analysis is needed in order to design cost-effective interventions. Possible policy options include making basic education compulsory for all children and ensuring that children who are at most risked of dropping out are effectively targeted through financial and other forms of support including school counselling services.

e) Improving the quality of education

173.   Quality improvement is clearly a main policy objective for the next five years. While mastery of the curriculum content by teachers is still seen as critical, specific training in pedagogical skills and Pedagogical Content Knowledge (PCK) needs to be stressed from now on. Proper accreditation and quality assurance of teacher training programs, teacher certification and improved mechanisms for teacher selection, recruitment and induction should also become priorities. *One of the necessary actions of the MOEHE is a thorough reform of pre-service teacher training in the context of a systematic strategy for teacher development.* Research evidence on determinants of student achievement is consistently pointing

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[20]   Textbooks that are designed to last for three years or more are more costly, but these additional costs are significantly offset by much reduced annual replacement expenditure.

to classroom variables and teacher behaviour in the classroom as having greater impact than school-wide variables or even system-wide inputs. This means that emphasis should be put on improving pedagogy and methodology, introducing innovations in learning technology, developing classroom management skills in teachers aimed at a more efficient use of time, focusing on school-based monitoring and evaluation, and emphasizing the centrality of students in their own learning process. Towards this end a set of policy reforms would need to be in place including:

(i)   re-shifting the emphasis of textbooks in the curriculum, and the production and dissemination of alternative curriculum materials, teaching aids, school libraries, science laboratories and ICTs;
(ii)   strengthening monitoring and evaluation capabilities at all levels;
(iii)   reform of pre-service and in-service teacher training and development of a national strategy for teacher development;
(iv)   revision by the Agency of Accreditation and Quality Assurance of pre-service teacher training programs, and the technical profiles used for their selection;
(v)   linking in-service teacher training to decentralized school-improvement policies; and
(vi)   developing a system of school indicators for quality improvement.

Curriculum Policies

174.   A review the Palestinian national curriculum is essential with the criteria of enhanced relevance, increased responsiveness to student needs, competency-based and outcome-oriented approach. This entails revising curriculum articulation within and across subjects and updating the selection of content. Emphasis should shift from editing textbooks to producing quality teacher guides and manuals. Overall, the CDC should reconsider and update its core mission towards enhancing a "student-centered learning process that provides skills, knowledge, and experience that will lead to employment and the development of entrepreneurial mindsets" (Palestinian MTDP, 2006-2008, pg 47). It is also necessary to systematically evaluate the new areas and main innovations introduced by the new Palestinian curriculum in a way that will enable the MOEHE and the CDC to review issues of articulation, scope and sequence, and to involve teachers and civil society in curriculum development and implementation.

175.   Create a Task Force to appraise the teaching and learning of Mathematics in order to devise a national strategy to first identify the issues and constraints that can explain low student achievement in Mathematics and then the set of policies and interventions needed to improve the situation. This entails analyzing the consistency of the alignment between the Mathematics curriculum, textbooks, testing instruments, teacher training programs and teaching skills being used in the classroom.

176.   Make further progress towards a national strategy to produce and disseminate curriculum materials, teaching aids, school libraries, science laboratories and ICTs. The use of alternative delivery modes and intensive use of ICTs in education seems to be the appropriate path in Palestine, not only for the potential gains in quality of education but also because it is the best possible response to closures, curfews and other constraints on physical mobility. The Palestinian MTDP also encourages "innovation in the education system and throughout the Palestinian ICT industry by fostering a sustainable model of public-private partnership in the effective adaptation and use of ICT in the education system" (pg 47).

177.   Creation of an online data base with information of existing and available teaching and learning materials in each area of the national curriculum reform. Making updated, accessible and systematic teaching and learning resources available to be ordered and utilized by schools is critical, especially from the perspective of rural schools. This should be linked with current efforts carried out by the Curriculum Development Centre (CDC) to develop an "e-curriculum", i.e., an electronic data base with all software for educational purposes available in Palestine.

Strengthen Monitoring and Evaluation Capabilities at all Levels of the Education System

178.   It is urgent to get a better handle on what works and what does not in education in Palestine, and also to push for a school system much more focused on results, i.e., on student learning outcomes. Impact evaluation of the in-service training provided to teachers through the implementation of the new curriculum should be considered as the first priority in this regard. Increased political emphasis—and the corresponding financial investment—on impact evaluation of programs and projects will provide the needed evidence to enable policy makers to decide what to keep or drop, which programs to scale up, which ones to adapt or review, etc. This would in turn lead to a long-term strategy on the quality of education based on evidence and not just on good intentions or political whim. Institutionalizing and sustaining the right mechanisms to inform policy decision-making and enhancing of coordination and collaboration of the MOEHE units is among primary actions to enhancing the "culture of assessment and evaluation" in the MOEHE.

179.   Development of a Palestinian national system of indicators for the quality of education would be an initiative enjoying broad support and consensus among education stakeholders in Palestine. An education system which continues to expand and develop in the midst of ongoing conflict and military occupation needs a very specific context-based conceptual framework to look at the quality of education. Issues such as the acquisition of life-skills, school health, impact of schooling on citizenship skills, etc., become crucial in a country like Palestine. Thus, there is a need to develop a national system of quality indicators which is really relevant and fits the uniqueness of this education system and the everyday challenges that it has to face.

180.   Enhancing the capacity of universities for monitoring and evaluation and, in general, for education research. Universities and researchers need to play a variety of roles in any national strategy to improve the quality of education. Education research at universities and research institutions cannot be replaced by Ministry institutions or by international consultants. Improving the knowledge base required to improve policies and programs is an objective that needs to be pursued from within the education system, beginning of course with higher education institutions. In addition, universities will also contribute to dissemination of knowledge and policy dialogue with key education stakeholders. Increase institutional capacity in Palestine for the monitoring and evaluation of student achievement.   A fundamental step in that direction is to carry out comprehensive studies on the determinants of student performance, so that policy making can be sufficiently informed and evidence-based.

f) Managing the System Efficiently and with Transparency

181.   The Palestinian education system is characterized by a proliferation of supply-driven projects lacking a strategic vision and/or impact evaluation. Partly as a response to the increasing needs of the school system, combined with the tendency to react to emergency situations, and partly due to shortcomings of international donor coordination, recent years have witnessed a proliferation of donor-funded projects and initiatives, most of them supply-driven, whose sustainability and potential impact are not aligned with the overall goal of developing the education system. Too often, there is duplication of actions, very little coordination of initiatives and no built-in impact evaluation envisaged in these projects. In the few cases when evaluations are conducted, they tend to focus on inputs to the school system rather than on student learning outcomes or on the system's institutional capacity. In addition to the lack of performance monitoring and therefore lack of answers regarding the potential impact of such programs, the proliferation of these uncoordinated interventions have also created disincentives for introducing efficiency measures in the use of financial and human resources.

School Improvement Policies

182.   Currently, basic schools in Palestine do not face strong incentives to improve quality and learning outcomes. It is important to introduce performance evaluations at the end of the primary cycle. Measures to increase the accountability of schools to student and parents and the communities in which they are

located should be taken, as well as the development of a stronger sense of partnership and ownership. School management committees with significant parental and community representation and considerable decision making powers have been introduced or strengthened in many countries in order to achieve this. It is important to address government and donor financed programs and projects directly to the strengthening of the capacity of schools: enhancing leadership, increasing autonomy for planning and implementation, opening up to the community, favouring partnerships with universities, NGOs and other institutions in the civil society, engaging in school development and improvement projects with the necessary incentives. This necessarily entails a process of political and administrative decentralization and changes in the overall governance and management of the school system.

g) Improving Relevance of Education: Reform of Vocational Education at Secondary and Tertiary Levels

183.   Reform of vocational education at secondary and tertiary levels. Palestinian society is heavily dependent on youth as the driving force of economic growth and still Palestinian young people continue to suffer from various difficulties, the most important of which is the high rate of unemployment (40 percent for the 15-24 year-old group). Old-fashioned vocational training, with narrow specializations and extremely low labor insertion rated for graduates, is definitely not the way forward for this key sub-sector in Palestine. The answer rather lies on an increased emphasis on comprehensive secondary schooling and a diversified tertiary education system with advanced and demand-driven vocational training. This implies a reform of secondary and post-secondary education.

184.   Just as formal basic and secondary schooling should be a unified system, post-secondary school education and training need to be developed as a system. The poor articulation (particularly with respect to learning pathways) between tertiary and TVET institutions needs to be addressed. The challenge is to develop a common framework of skill levels and related qualifications, which a diverse range of training and other specialist service institutions are accredited to offer. The primary focus of post secondary education should be the preparation for skilled employment in the formal sector. However, given the importance that is attached to private sector development, every effort should be made to encourage higher levels of self-employment in viable enterprises.

CHAPTER 6: FUNDING REQUIREMENTS

185.   This chapter examines the funding requirements for the education sector and the likely availability of government and other funding to meet these needs. This represents an attempt to estimate the funding requirements based on the assumption that the current levels of expansion of the sector will be maintained, and that increased enrolments in secondary education would be a main goal for the upcoming years. These estimates have not taken into consideration potential savings from the policy recommendations contained in this report, nor the ways in which the new policies reflect the different recurrent costs. This is an attempt to estimate the costs of keeping the system operational, which represents the main priority. Given current enrolment patterns in Palestine, the key parameters that will determine future school enrolments are the growth in the intake population for basic schools, grade repetition and dropout rates, and the target enrolment rate for the secondary school grades. In view of the considerably uncertainty that exists concerning future population growth rates, enrolment projections have been modelled under two scenarios. The first is that the school intake population grows annually at an average rate of four percent over the next five years and the other that this rate of intake growth is half this level at only two percent per annum[21].

186.   It has also been assumed that the Grade 1 net intake rate will remain at 100 percent for the foreseeable future. A reasonable target for the next five year plan is to achieve universal basic education for all with 100 percent completion of ten years of education by the end of the plan in 2010. Two scenarios have therefore been adopted with respect to repetition and dropout rates: (i) both rates will remain at their current levels for all grades for the next 10 years; and (ii) they will gradually decline to zero by the end of 2009 as a result of more extensive safety nets, better learning outcomes, and a marked improvement in the economic and security situation..

Projected Enrolments for Primary and Secondary

187.   The enrolment projections for these different scenarios are presented in Table 6.1 and Annex Table 20.[22] <u>Regardless of the population growth and repetition/ dropout scenario, enrolment growth for basic schooling is only 6-10 percent between 2005/06 and 2010/11</u>. In contrast, secondary grade enrolments are projected to increase by 40-47 percent over this period, these estimates vary from one scenario to another. The overall increase in school enrolments is only 10-14 percent depending on the projection scenario.

188.   Basic school enrolments will only grow slowly because enrolment rates for grades 1-10 are already nearly 100 percent so it is only intake growth that leads to higher enrolments. For the secondary grades, however, enrolment rates are considerably lower and therefore enrolments will increase quite rapidly as the target enrolment rates of 100 percent are attained during the next five years.[23]

Funding Requirements for Recurrent Costs

189.   From these projections a few important conclusions emerge. First, the days of rapid expansion in PA education budgets are over. For the PA to achieve new qualitative goals, it will be necessary to

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[21]   According to the revised PCBS population projections, the average annual growth rate for the year-six population will be 3.5 percent between 2005 - 2010.

[22]   The Harvard School of Public Health study models future school enrolments for the Gaza Strip, but these seem to be based on inconsistent population growth estimates. On the one hand, the population aged 0-4 is projected to grow by almost five percent per annum between 2005-2010 but, on the other hand, the age 6 intake population used to make enrolment projections is projected to increase by only 1.2 percent (from 38913 to 39365) during this period.

[23]   A study by the Rand Corporation on the future Palestinian state estimates that basic and secondary school enrolments will increase by 29 percent and 44 percent respectively between 2005 and 2010 (see Rand Corporation, 2004).

introduce key policy changes. Education spending will need to shift from classroom construction, textbook procurement and the recruitment of more teachers towards a more sophisticated set of policies aimed at implementing more modern pedagogical methods and practices, introducing improved monitoring and evaluation, and developing a comprehensive strategy for human resource management.

Table 6.1: Projected Basic and Secondary Grade Enrolments 2005/06-2010/11
(rounded '000)

BASIC SCHOOLING	2005/06	2010/11	Increase	%increase
2% Per Annum Intake Growth				
No change in repetition and dropout	950	1004	54	6%
Zero repetition and dropout by 2009	938	990	52	6%
4% Per Annum Intake Growth				
No change in repetition and dropout	952	1049	97	10%
Zero repetition and dropout by 2009	946	1035	89	9%
SECONDARY SCHOOLING	2005/06	2010/11	Increase	% increase
2% Per Annum Intake Growth				
No change in repetition and dropout	126	183	57	45%
Zero repetition and dropout by 2009	128	187	59	46%
4% Per Annum Intake Growth				
No change in repetition and dropout	129	183	54	42%
Zero repetition and dropout by 2009	128	187	59	46%
TOTAL ENROLMENT	2005/06	2010/11	Increase	% increase
2% Per Annum Intake Growth				
No change in repetition and dropout	1076	1187	111	10%
Zero repetition and dropout by 2009	1066	1177	111	10%
4% Per Annum Intake Growth				
No change in repetition and dropout	1081	1232	151	14%
Zero repetition and dropout by 2009	1074	1222	148	14%

190.   Second, a closer look at the demographic profile within Palestine may allow the PA to recognize considerable savings. The PA appears to have encountered a demographic bulge rather than a sustained expansion, which will allow it to forgo the recruitment of thousands of new teachers each year. Enrolments were actually lower in grades 1-3 in 2005/06 than they were in 1999/200. (In contrast, enrolment in grades 10-13 increased by well over 60 percent during the same period.) If such findings are true, the PA could potentially save as much as $17 million per year in reducing its intake from 2,800 new annually and limiting recruitment to replacements only (around 215 per year). More modest decreases projected on 2 and 4 percent per annum growth would also yield savings over current practices, albeit at reduced rates. Recruitment into education should focus exclusively upon front line service delivery in areas of critical need (such as secondary school teachers) and avoid categories such as administrative and support staff.

191.   Table 6.2 presents total recurrent funding requirements for each scenario for 2005/06 and 2010/11, assuming no changes in current unit costs for basic and secondary education. The average annual rate of recurrent expenditure growth is 2.0-2.5 percent during this period, which is much less than the 11.4 percent rate of annual growth between 1999/2000 and 2004/2005. It is important to note that assuming no changes in the student-teacher ratio, the number of new teaching posts and additional classrooms needed to cater for enrolment growth actually declines quite appreciably for all but one of the four scenarios (see Table 6.2.). The additional funding requirements combining expansion of secondary

and keeping the current enrolments in primary are $35 million per year, much lower than what the increase in the past five years has been. The good news is that with two percent intake growth, **between 850 and 515, fewer teacher posts will be required in 2010/11 than in 2005/06.** These teacher projections have to be supplemented with accurate information on current teacher attrition and likely attrition during the next 5-10 years. In addition, an average of 213 teachers (0.8 percent of the total in post) will reach the compulsory retirement age of 60 each year over the next four years.

Table 6.2: Recurrent Funding Requirements under Four Scenarios ($ million)

	2005/06	2010/11	Increase	%increase
BASIC SCHOOLING				
2% Per Annum Intake Growth				
No change in repetition and dropout	261.3	276.1	14.9	6%
Zero repetition and dropout by 2009	258.0	272.3	14.3	6%
4% Per Annum Intake Growth				
No change in repetition and dropout	261.8	288.5	26.7	10%
Zero repetition and dropout by 2009	260.2	284.6	24.5	9%
SECONDARY SCHOOLING				
2% Per Annum Intake Growth				
No change in repetition and dropout	44.7	65.0	20.2	45%
Zero repetition and dropout by 2009	45.4	66.4	20.9	46%
4% Per Annum Intake Growth				
No change in repetition and dropout	45.8	65.0	19.2	42%
Zero repetition and dropout by 2009	45.4	66.4	20.9	46%
TOTAL RECURRENT EXPENDITURE				
2% Per Annum Intake Growth				
No change in repetition and dropout	306.0	341.1	35.1	11%
Zero repetition and dropout by 2009	303.4	338.6	35.2	12%
4% Per Annum Intake Growth				
No change in repetition and dropout	307.6	353.4	45.8	15%
Zero repetition and dropout by 2009	305.6	351.0	45.4	15%

Table 6.3: Projected Recurrent Expenditure for Basic and Secondary Schooling
2005/06-2010/11
($ million)

	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
BASIC SCHOOLING						
2% Per Annum Intake Growth						
No change in repetition and dropout	261.3	265.9	268.7	271.2	272.5	276.1
Zero repetition and dropout by 2009	258.0	261.3	271.4	265.4	268.4	272.3
4% Per Annum Intake Growth						
No change in repetition and dropout	261.8	267.9	272.3	276.7	281.6	288.5
Zero repetition and dropout by 2009	260.2	262.9	266.2	270.9	276.9	284.6
SECONDARY SCHOOLING						
2% Per Annum Intake Growth						
No change in repetition and dropout	44.7	51.1	57.9	61.8	64.3	65.0
Zero repetition and dropout by 2009	45.4	51.1	57.9	62.8	65.7	66.4
4% Per Annum Intake Growth						
No change in repetition and dropout	45.8	51.1	57.5	61.8	64.3	65.0
Zero repetition and dropout by 2009	45.4	51.1	58.2	62.8	65.7	66.4
TOTAL RECURRENT EXPENDITURE						
2% Per Annum Intake Growth						
No change in repetition and dropout	306.0	317.0	326.5	332.9	336.8	341.1
Zero repetition and dropout by 2009	303.4	312.4	329.3	328.2	334.1	338.6
4% Per Annum Intake Growth						
No change in repetition and dropout	307.6	319.0	329.8	338.4	345.9	353.4
Zero repetition and dropout by 2009	305.6	314.0	324.4	333.7	342.6	351.0

Capital Expenditure

192.   Assuming no change in the current class size norm of 35, the additional number of classrooms required to accommodate enrolment growth will **decrease from 750-1050 per year in 2006/07 (depending on scenario) to 430-860 in 2010/11 (**see Table 6.5). The current average unit cost of adding a classroom to an existing school is $16,000 in the Gaza Strip and $35,000 in the West Bank. The corresponding costs for building a classroom in a new school are $28,000 and $47,000.[24] Given the size of these cost differences, it is not possible to make robust capital expenditure projections without more detailed information on the location and type of classroom construction (in old and new schools). A new priority setting process for school construction is needed that is both transparent and equitable. New schools are most urgently needed where there are serious safety concerns about existing buildings and facilities and in order to prevent triple shifting and double shifting in particular in Gaza.

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[24]   Further investigation is needed to explain these very large differences in classroom unit costs in Gaza Strip and the West Bank.

Table 6.4: Projected Total Teacher Post-Requirements
2005/06-2010/11

	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
2% Per Annum Intake Growth						
No change in repetition and dropout	46180	47682	48927	49785	50300	50944
Zero repetition and dropout by 2009	45751	46953	49356	49013	49828	50515
4% Per Annum Intake Growth						
No change in repetition and dropout	46395	47983	49442	50644	51717	52876
Zero repetition and dropout by 2009	46094	47210	48584	49871	51159	52446

EXTRA POSTS REQUIRED

	2006/07	2007/08	2008/09	2009/10	2010/11
2% Per Annum Intake Growth					
No change in repetition and dropout	1502	1245	858	515	644
Zero repetition and dropout by 2009	1202	2403	-343	815	687
4% Per Annum Intake Growth					
No change in repetition and dropout	1588	1459	1202	1073	1159
Zero repetition and dropout by 2009	1116	1373	1288	1288	1288

Notes: Assumes overall student-teacher ratio of 23.3 (actual 2003/04 latest year available)

Table 6.5: Projected Classroom Requirements for Basic and Secondary Schooling,
2005/06-2010/11

	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
2% Per Annum Intake Growth						
No change in repetition and dropout	30743	31743	32571	33143	33486	33914
Zero repetition and dropout by 2009	30457	31257	32857	32629	33171	33629
4% Per Annum Intake Growth						
No change in repetition and dropout	30886	31943	32914	33714	34429	35200
Zero repetition and dropout by 2009	30686	31429	32343	33200	34057	34914

ADDITIONAL CLASSROOMS EACH YEAR

	2006/07	2007/08	2008/09	2009/10	2010/11
2% Per Annum Intake Growth					
No change in repetition and dropout	1000	829	571	343	429
Zero repetition and dropout by 2009	800	1600	-229	543	457
4% Per Annum Intake Growth					
No change in repetition and dropout	1057	971	800	714	771
Zero repetition and dropout by 2009	743	914	857	857	857

Notes: Assumes class size of 35

Funding Availability

193.   Based on these projections, the average annual rate of recurrent expenditure growth is estimated **to be between 2.0 and 2.5 percent over the next five years, which is much less than the 11.4 percent rate of annual growth between 1999/2000 and 2004/2005**. Assuming no changes in the student-teacher ratio, the number of new teaching posts and additional classrooms needed to cater for enrolment increases declines quite appreciably for all but one of the four scenarios. With two percent intake growth, between 850 and 515 fewer teacher posts will be required in 2010/11 than in 2005/06. Similarly, assuming no change in the current class size norm of 35, the additional number of classrooms required to accommodate net enrolment growth will decrease from 750-1050 in 2006/07 (depending on scenario) to 430-860 in 2010/11.

194.   At the end of 2005, the World Bank and the Ministry of Finance developed four possible macroeconomic scenarios for the 2006-2008 period. As an illustration, this scenario is used to estimate the funding needs. Only under the most optimistic scenario, 'economic recovery with aid', will the overall growth in public expenditure (10.7 percent over the four-year period 2006/07-2009/10) be sufficient to meet the projected increase in recurrent funding requirements for basic and secondary schooling.[25] Under the least optimistic scenario, 'disengagement', public expenditure increases by only 1.4 percent during this four-year period, which will not be enough to keep the system operating at its current level. New scenarios will need to be developed, taking into account the new fiscal realities.

Table 6.6: Prospective Scenarios under the Palestinian Recovery Program, 2005-2008
($ million)

		Disengagement				Disengagement with Aid			
	2004	2005	2006	2007	2008	2005	2006	2007	2008
GDP	3609	3927	3947	3995	4142	4042	4447	4809	5003
Real GDP growth	6.2	5.7	-0.2	0.6	3	7.1	6.7	6	2.1
Foreign assistance	950	1100	1100	900	900	1200	1400	1500	1400
Revenue	965	1060	1074	1095	1143	1091	1209	1318	1381
Expenditure	1517	1613	1594	1609	1626	1626	1649	1699	1732
Financing need	552	553	520	514	483	535	440	381	351

	Economic Recovery				Economic Recovery with Aid			
	2005	2006	2007	2008	2005	2006	2007	2008
GDP	3945	4000	4145	4428	4065	4548	5067	5622
Real GDP growth	6.1	0.5	2.6	5.9	7.7	10.5	10.5	10
Foreign assistance	1100	1100	900	900	1200	1400	1500	1400
Revenue	1065	1088	1136	1222	1097	1237	1388	1552
Expenditure	1615	1600	1626	1668	1628	1660	1728	1802
Financing need	550	512	490	446	531	423	340	250

Source: PRP, 2005

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[25]   Assuming there is no change in the share of the education in total public expenditure.

Annex 1: Overview of the content analysis of the textbooks

1.   Technical issues related to quality are highlighted by the content analysis of the Arabic Language textbooks sponsored by the MOEHE through the Centre of Assessment and Evaluation. This has yielded very interesting results concerning the alignment between the overall curriculum objectives and the nature of the content and activities in the corresponding textbook. According to this as yet unpublished work, the percentage of textbook alignment with the general objectives of grades 5-10 Arabic language subject matter is 69 percent. And the percentage of alignment with the specific objectives is 39 percent. Although one would need to carefully examine the methodology that was used to reach these percentages, the author of this study clearly suggests that there could be a sizeable lack of alignment between the national curriculum and the textbooks published afterwards. Considering that the new curriculum has relied on the textbooks almost exclusively, this is a major implementation issue that has a potentially negative impact on the quality of the curriculum and it should therefore be examined more closely.

2.   Curriculum and textbooks were also analyzed from the standpoint of the scope and sequence of the contents selected for instruction. Scope and sequence define and shape both the vertical articulation of the curriculum of a given subject in several grades and horizontal articulation of the curriculum content in each grade. These reviews of the Arabic curriculum and textbooks have found gaps in the sequence within lessons as well as across lessons and as concepts are developed. It was also stated that such curriculum fragmentation "makes it very difficult to adapt teaching to students' individual differences, by teachers, very difficult." To this effect, the authors recommended changing the sequence of most of the Grammar units.

3.   The selection of content for the Arabic curriculum is said to be well suited to the different age groups in primary and secondary education. However, a few concepts, vocabulary, structure, styles and expressions were deemed as very difficult and beyond the learning potential of the majority of students. Examples are drawn from lessons dealing with grammar, poetry, literature, reading passages, dictation and punctuation. Linguistics was especially criticized by teachers for its high level of difficulty and for being "abruptly" introduced in the textbook. Authors and administrators at the CDC point out that their own findings about the curriculum implementation process are that dissatisfaction of some teachers with Arabic textbooks happens mostly in the first year the books are used, then receding as teachers become more familiar with the books.

4.   The Mathematics curriculum is also taken to task by both researchers and teachers for being too traditional, abstract and de-contextualized. Moreover, the high level of difficulty and the overload of information not always relevant to the subject was said to be a recipe for student failure. Something very similar has been concluded about science textbooks: overloaded with facts, concepts introduced without the necessary foundations and gaps in the curriculum sequence (Wahbeh, 2004).

5.   Content analysis of some of the English textbooks (Dajani & McLaughlin, 2005) describes them as "not challenging." In this case, the problem is not so much the overload of information or the traditional approach to teaching and learning. These authors point to insufficient and irrelevant teacher training as the key problem with the implementation of the English curriculum. To be sure, introducing English as a compulsory subject from the first grade of primary education means a great challenge in terms of the availability of well trained teachers. In some of the schools visited for this study, principals admitted that their English teachers—especially in primary education—had serious difficulties handling their subject and their classes.

6.   Most of these issues about the quality of the curriculum are typical considering the fact that university academics led the subject teams who put together both the national curriculum itself and the textbooks. And those issues—including the lack of full alignment between curriculum and textbooks—

would not be as visible and worrying if the identification between the new curriculum and the textbooks were not as close as it seems to be in Palestine. In any case, there is a clear need for a careful review of the national curriculum in terms of its quality and relevance. The feedback and active involvement of teachers, principals, counselors, supervisors and evaluation experts is a must in order to progressively fine-tune the curriculum. Moreover, reducing the centrality of textbooks in curriculum development and implementation would also make a difference in terms of quality. This would mean, on the one hand, investing in alternative and complementary curriculum materials (including alternative textbooks) and, on the other hand, shifting political attention and investment to the training of teachers.

7.   A more sophisticated analysis of the quality and relevance of the new curriculum in Palestine could be carried out using the following framework. This could apply to the overall curriculum policy and to the analysis of any subject matter within the curriculum.

- Inclusion-Exclusion (in content selection, scope and pedagogy)
- Innovation-Tradition (selection, organization and scope)
- Rigidity-Flexibility (in scope and sequence)
- Standardization-Customization (in content selection, scope and sequence)
- Competency-based vs. more Content-based (this has an impact on the vocational/general balance in secondary education)
- Centralization-Devolution (central, regional, district, school, classroom)

Annex 2: Determinants of Student Performance

1.   A fundamental step in that strengthening evidence-based policy making is to carry out comprehensive studies on the determinants of student performance, so that policy making can be sufficiently informed. Such studies should focus on the following:

- Student characteristics affecting achievement. There are key student characteristics associated with student performance. These are gender, mother's education, parental expectations, advanced home resources, schooling experience such as pre-school attendance, private tutoring, etc. It is assumed that these data are easily available in Palestine and that systematic studies on their influence on student achievement have been carried out.

- *Teacher characteristics affecting achievement.* Controlling for student and school characteristics, teacher characteristics are important determinants of outcomes. Teacher preparation via pre-service training, teacher selection and recruitment systems, teacher deployment policies, incentives, in-service training and professional development opportunities, and teacher experience in general, all seem to matter with regard to student achievement. Furthermore, research evidence also shows that teachers' perceptions of the determinants of student performance, and of their own need for professional development, are associated with student outcomes. The effects of teacher quality are shown through opportunity to learn, based on student feedback.

2.   School and classroom characteristics affecting achievement. School variables to be explored should include at least school climate and environment, parent involvement, availability and role of external support and inspection services, pedagogical leadership, quality of curriculum implementation and consensus-cooperative planning. Sample research questions to be addressed by the study are the following:

- Are there differences, in terms of student performance, related to the attendance to different types of schools?
- What part of the variation in learning results is to be attributed to differential characteristics of schools vis-à-vis differential characteristics of students?
- Which are the characteristics of schools having an impact on student learning after controlling for their socioeconomic background?
- Are the effects of any given type of school uniform on the learning results of students consistent?

3.   At the classroom level, the focus would be on opportunity to learn (OTL), time on task and structured teaching. Opportunity to learn (OTL) is a factor that affects student achievement the most in many countries, holding everything else constant. For example, opportunity to learn is measured by asking the following questions:

- How is a new unit/topic introduced? (Is the focus of the lesson clear? Does the class discuss practical problems? Does the class solve related examples? Do students look at the textbooks?)

- How is a lesson being taught in class? (Does the teacher encourage questions? Is the teaching methodology stimulating? Does the class solve problems together? Do students copy notes from the board?)

- How does the teacher give and check the homework and tests in class? (Does the teacher give and check homework? Does the teacher provide feedback on homework? Does the teacher explain examination rules?)

**Annex 3: Teacher Deployment, Teacher Policies, Support to Schools
and Teacher Quality**

Teacher Deployment

1.   Student-teacher ratios at government schools do vary quite appreciably by directorate ranging
from a low 22 in Jerusalem to 28 in Nablus and 29 in Qabatya in the West Bank and, in the Gaza Strip,
from a low of 26 in Rafah to 32 in Gaza (see Table 3.1 and Annex Figure 1). The reasons for these
variations require further investigation, but are probably mainly due to spatial differences in average
school size rather than under/overstaffing, which is commonly the case in low-middle income developing
countries.

Table 3.1:   Student-teacher Ratios at Government Schools by Type of School and District, 2004/05

Directorate	Basic grades only		Secondary
	Gd. 1-4	Gd. 1-10	Gd. 11-12
Jenin	28	26	18
Nablus	30	28	21
Salfit	25	25	13
Tulkarm	31	27	16
Quaqilya	23	26	10
Ramallah	28	25	21
Jerusalem suburbs	28	22	
Jerusalem	25	22	18
Bethlehem	29	26	21
Jericho	32	25	
Hebron	30	28	20
South Hebron	30	26	22
Qabatya	34	29	9

2.   Student-teacher ratios also increase markedly with school size. Government schools in the West
Bank with less than 200 students have student-teacher ratios that are well under half those in large schools
with more than 1000 students, which means therefore that unit costs are also likely to be almost double.
The overall variation in student-teacher ratios at UNRWA schools is less marked, especially in the Gaza
Strip where they are relatively uniform with respect to school size.

3.   Private schools have on average a teacher for every 14 students, whereas UNWRA schools have a
teacher for every 32 pupils. Government schools fall in between with a teacher for every 22 students on
average. A comparison of student to teacher ratios by administrative authority districts can be seen for
each of the seventeen districts in Annex Figure 2. However, average student teacher ratios can be
misleading since average values across districts mask differences within districts caused by inappropriate
deployment of teachers. Using a Box and Whisker plots, the spread of student teacher ratios by schools
within districts is shown. Comparison of student teacher ratios across all districts is then shown in Annex
Figure 2.

4.   As expected due to the complex grade structure of schools and other constraints in the
deployment of teachers there is considerable dispersion in the student per classroom and student per
teacher ratios across districts. As expected the difference between West Bank and Gaza Strip are marked,
with a much higher density of pupils per classroom in Gaza. It is noticeable that the Lower Quartiles
(lower edge of each box) for all four Gaza Districts are above the Upper Quartiles for all thirteen West
Bank Districts. In other words, 75 percent of all schools in each district of Gaza have more than 37
students per class, whereas, 75 percent of all schools by district in West Bank have less than 37 students
per class. Jerusalem and Jerusalem Suburbs have the lowest median values. Salfeet District in the West

Bank stands out for its compact distribution of both students per classrooms and students per teacher. The four districts of Gaza Strip also have compact distributions, but in their case it simply means all classroom are crowded, and there is little room for improvement within existing numbers of classrooms.

Table 3.2: Student-teacher Ratios at Basic Grade only Schools
By School Ownership and Region, 2004/2005

	School Enrolments			
	<200	201-500	501-1000	1000>
West Bank				
Government	17	28	26	37
UNRWA	16	29	31	33
Private	14	18	17	
All	16	27	26	33
Gaza Strip				
Government		27	30	33
UNRWA		35	34	34
Private	13	17	18	24
All	13	26	32	33

Source: EMIS

Teacher Workload

5.   Teachers work a five hour six-day week in government and UNRWA schools. The prescribed teaching load norms for both government and UNRWA schools are 27 periods for the preparatory cycle (grades1-4) and 25 for the empowerment cycle (Grades 5-10). Teachers are required to teach 23 periods per week in the secondary grades. In terms of contact hours, this translates into 20, 19, and 17 hours respectively. A typical basic grade teacher teaches for slightly more than three hours a day. Only a limited amount of information is available on teaching loads in other countries. Table 3.3 shows that the number of teaching hours in government schools in Palestine is quite high by international standards.

Table 3.3: Number of Teaching Hours per Year,
Selected Countries, 1999

Country	Basic	Secondary
Argentina	855	972
Chile	860	860
Jordan	745	717
Philippines	1176	1176
Portugal	783	594
Thailand	706	634
Tunisia	642	548
Palestine	1100	1000

Source: OECD, Teachers for Tomorrow's Schools,
2001 (for Palestine 2005)

6.   There is also considerable dispersion in the number of periods taught by teachers (see Annex Table 11). Higher proportions of government teachers have lower teaching loads than UNRWA teachers. In the Gaza Strip, for example, nearly one-quarter of teachers at basic grade schools have 20 or less periods compared to only 11 percent for UNRWA teachers. This differential is much lower, however, at the same type of schools in the West Bank (14 percent and 8 percent respectively). Similarly, at schools that have both basic and secondary grades, almost one quarter of teachers in the West Bank and over one-half in the Gaza Strip have fewer than 21 periods per week. Part of the reason for this variation is that teaching loads are reduced for teachers who undertake additional duties and activities (including counselling, library, sports).[26]. However, this does not explain the large differences in teaching loads with respect to school ownership and location.

7.   The teacher-class ratio at government schools has increased slightly from 1.52 in 2000/01 to 1.58 in 2005/06. The corresponding figures for UNRWA schools are 1.29 and 1.38, but it be must be remembered that only Grades 1-9 are taught at these schools. Thus, at the typical government and UNRWA school, at any one time, for every 100 teachers who are in class teaching, 58 and 38 teachers are not in class The relatively high teacher-class ratio is due to a number of factors including subject-based teaching from Grade 3 and low teaching load norms. These ratios vary relatively little across districts ranging from 1.49 in Jenin to 1.7 in Rafah.

8.   Teachers' working conditions are complicated, like for everyone else in Palestine. The impact of closures, curfews and the overall violent environment obviously takes a toll on teacher morale and motivation. Increasing stress and violence suffered by students add even more coarseness to their daily life in schools. External support is scarce and the collaboration of parents is by no means ensured, i.e., appears to depend very much on the principal.

Teacher Salaries

9.   Average annual pay for government teachers is $6882 and, for all teaching staff at UNRWA schools and training centres, it is $9917. The considerably higher pay for UNRWA teaching staff (44 percent) means that UNRWA has been at a distinct advantage in recruiting and retaining competent teachers. In nominal terms, the MOEHE salary budget has increased by nearly 80 percent since 2000. Despite recent salary increases, most teachers at government schools believe that their pay is seriously inadequate. Government teacher pay only averages around NIS100 per day ($22), which is only double the daily wage of workers with basic education. By international standards, this is a very small income differential. The poverty income line (at $2 per person per day) for a six-person household is $365 per month (NIS1643). Average government teacher pay is only slightly more than 50 percent higher than this amount. However, government teachers are not poorly paid compared to other equivalent occupations in the public sector. And if their average net pay is compared in terms of GNI per capita, it comes to 5.1 for government and 7.5 times for UNRWA teachers, above the international norm of 3.5.

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[26] 'Development posts' have 4-6 periods.

Annex 4: Tracer Study of Industrial Secondary Schools in West Bank and Gaza

1.   A rapid assessment of labour market outcomes among graduates from secondary industrial schools and technical colleges was undertaken as part of this study. Samples of 300 each group were selected in a range of occupational specialisations at four secondary industrial schools and five colleges across West Bank and Gaza. Graduates who had completed the training in 2001 were selected in order that they have had sufficient time (i.e. four years) to undertake additional training and find training-related employment. Ninety-four percent were successfully traced and interviewed.

2.   Figure 5.1 shows the six-monthly activity profiles of secondary industrial school graduates between the beginning of 2002 and the end of 2005. The most striking feature of this profile is that around one-half of all graduates enrolled in full-time degree and diploma level courses at higher education institutions for two-three years rather than finding training-related employment. A key reason for this is that Secondary industrial school graduates did quite well in the tawhiji examination; over 70 percent gained an overall grade of 65 percent and thus were eligible to be admitted to the 'traditional universities'. However, it also reflects the low levels of vocational intent among graduates from these schools to pursue careers in their chosen areas of specialisation, which is a common feature school-based vocational training in many developing countries.

Figure 5.1: Activity Profiles of Secondary Industrial School Graduates, 2001-2005
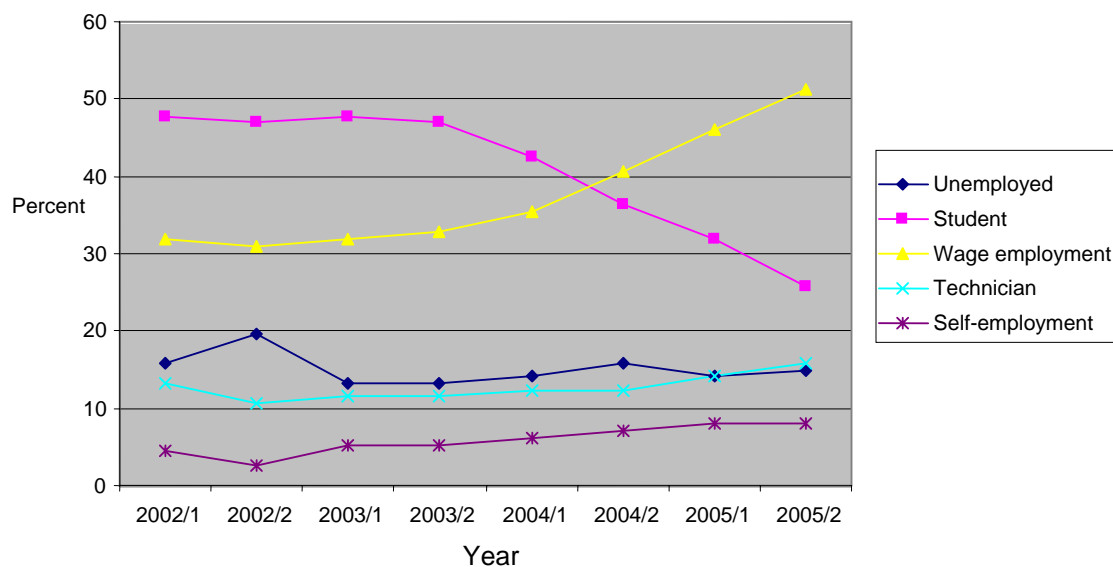
3.   Figures 5.2 and 5.3 show the activity profiles of male and female graduates of the five sampled technical colleges for the same period. On graduating from college, over 70 percent of female graduates were unable to find jobs during their first six months in the labour market and, while this has declined over time, over half were still unemployed during the latter half of 2005. In contrast, unemployment rates among male college graduates have been much lower; only 11 percent were unemployed in late 2005. Nearly 85 percent of males are in some kind of employment (either waged or self-employed) compared to only slightly more than 40 percent among the female graduates.

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Figure 5.2: Activity profiles of female technical college graduates, 2001-2005
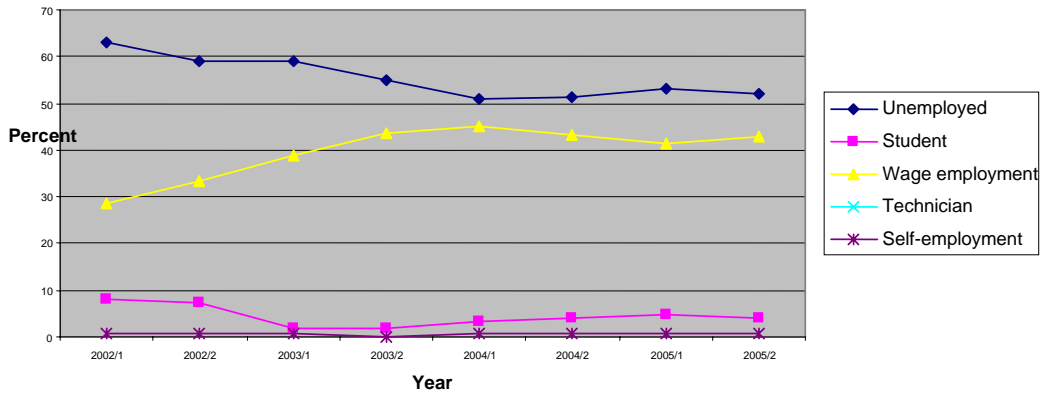
Figure 5.3: Activity profiles of male graduates from technical colleges, 2002-2005
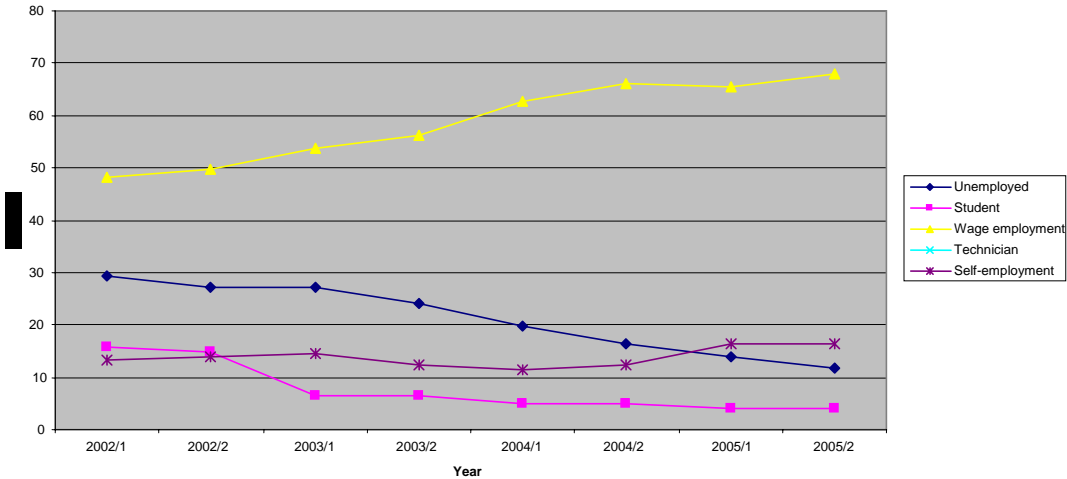
4.   The survey also reveals low levels of training-related employment among graduates in the majority of specialisations at both types of training institutions. There are three main reasons for this. Firstly, 20 percent of secondary industrial school and over one-third of technical college graduates are unemployed in early 2006 and were therefore unable to utilise any of the knowledge and skills they had acquired during their training. There are sizeable differences in unemployment rates among the specialisation areas for both groups of graduates. Among technical college graduates, this ranges from over 50 percent for textile design and manufacturing and graphic design to less than 10 percent for industrial automation. Secondly, less than 20 percent of graduates from both sets of institutions classify themselves as either 'professionals' or 'technicians'. The remainder are in relatively low-level occupations such as 'junior employee', 'worker' and trader, which are not at all training-related. And thirdly, 56 percent of secondary industrial school and 31 percent of technical college graduates indicated that their current employment was 'completely unrelated' to their training specialisation. Again, these percentages are particularly high for some specialisations, most notably computer maintenance automotive mechanics, industrial electronics, and automotive electrics among school graduates, and industrial automation, banking finance and management, architectural engineering and electro-mechanical engineering among technical college graduates.

5.   With such high proportions of industrial school and TC graduates employed in relatively unskilled occupations, their incomes are also low. Around 40 percent of both groups earn less than NIS 1000 per month, which (in the West Bank) is little more than the pay of a daily labourer and is under half the salary of a government teacher. There are also very marked differences in the income profiles of female and male technical college graduates as well as specialisations, which reflects the seriously disadvantaged position of female graduates in the labour market as a whole and the very different labour market conditions for middle-level occupations.

Annex 5: Tables and Figures

Annex Table 1: School Enrolments by School Ownership and Region, 2005/06
(rounded '000)

	Government	UNRWA	Private	Total
Gaza Strip				
Female	120	95	23	238
Male	116	101	32	249
Sub-total	235	195	56	486
West Bank				
Female	262	34	4	300
Male	261	25	7	293
Sub-total	522	59	10	591
Palestine				
Female	382	129	27	538
Male	377	126	39	542
Total	759	255	66	1077

Source: EMIS

Annex Table 2: Total Enrolments by Grade 1999/2000 and 2005/06

Grade	1999/2000	2005/06	Diff	% change
1	104090	96102	-7988	-7.7
2	96063	94847	-1216	-1.3
3	96442	93486	-2956	-3.1
4	91567	99313	7746	8.5
5	86633	103008	16375	18.9
6	79527	95616	16089	20.2
7	70705	107164	36459	51.6
8	64232	94491	30259	47.1
9	56901	89175	32274	56.7
10	46830	78619	31789	67.9
11	39393	65288	25895	65.7
12	33157	59579	26422	79.7
Total	865540	1076688	211148	24.4

Source: EMIS

Annex Table 3: Dropout Rates by School Ownership and Region, 2004/05

	BASIC GRADES				SECONDARY GRADES			
	Government	UNRWA	Private	All	Government	UNRWA	Private	All
West Bank	0.9	0.7	0.2	0.8	3.6	na	0.2	3.4
UNRWA	0.6	0.5	0.2	0.5	2.3	na	0	2.3
Palestine	0.8	0.5	0.2	0.7	3.1	na	0.1	3

Note: na= not applicable
Source: EMIS

Annex Table 4: Dispersion in Annual Dropout Rates in Grade 5 and 11, 2004/2005
(rounded percentages)

	<0.5	0.5-1.0	1.0-2.0	2.0-5.0	5.0-10.0	10.0>	Number	
							2%>	schools
GRADE 5								
West Bank								
Government	93	1	2	2	1	0	29	887
UNRWA	86	5	73	0	0	0	2	76
Private	98	0	0	1	1	0	2	151
Gaza Strip								
Government	89	3	5	2	1	0	5	158
UNRWA	84	10	4	2	0	0	3	135
Private	100	0	0	0	0	0	0	19
GRADE 11								
West Bank								
Government	69	0	1	7	12	12	237	813
Private	98	0	0	1	1	0	1	98
Gaza Strip								
Government	78	1	4	7	6	4	23	152
Private	100	0	0	0	0	0	0	5

Source: EMIS

Annex Table 5: Number of Grade 11 Schools with Dropouts
(greater than five percent in 2004/05)

Directorate	Number	% total
Jenin	7	10
Nablus	35	29
Salfit	8	16
Tulkarm	11	15
Quaqilya	11	23
Ramallah	36	33
Jerusalem suburbs	7	18
Jerusalem	3	21
Bethlehem	11	17
Jericho	0	0
Hebron	16	21
South Hebron	11	18
Qabatya	13	20
Gaza	5	8
North Gaza	3	14
Khan Younis	2	4
Rafah	1	6

Source: EMIS

Annex Table 6:   Schools per thousand of School-age Population

District	Total number of Schools	Estimated school-age Population			Schools per thousand school-age population
		Male	Female	Total	
West Bank	1665	311,487	299,922	611,409	2.7
Gaza	527	196,936	191,202	388,138	1.4
Palestine Total	2192	508,423	491,124	999,547	2.2

Annex Table 7: DHS Enrolment Rates by Refugee Status and Age Group, 2004 (percentages)

Age Group	% Enrolled		% Dropped Out		% Never Attended	
	Refugee	Non-refugee	Refugee	Non-refugee	Refugee	Non-refugee
6 to 9	95.5	94.3	0.2	0.2	4.4	5.5
10 to 15	96.3	96	2.1	1.3	0.6	0.7
16 to 17	81.2	82	13.1	13.4	0.8	0.8

Source: DHS

Annex Table 8: DHS Enrolment Rates by Location and Age Group, 2004 (percentages)

Age Group	% Enrolled		% Dropped Out		% Never Attended	
	Rural	Urban	Rural	Urban	Rural	Urban
6 to 9	94.4	94.5	0.1	0.2	5.5	5.2
10 to 15	95.3	96.6	2.3	2	0.6	0.7
16 to 17	83.2	81.7	12.8	13.1	0.7	0.8

Annex Table 9: Schools with Under-utilized Classrooms (in morning schools), 2004/05

Directorate	Number of schools with spare capacity	Number of empty classrooms
Nablus	15	24
Ramallah	1	3
Jerusalem	4	8
Hebron	7	17
South Hebron	10	34
Qabatya	10	16
West Bank Total	**47**	**102**
Gaza	1	1
North Gaza	3	9
Rafah	4	11
Gaza Total	**8**	**21**
PALESTINE TOTAL	55	123

Annex Table 10: Class Size Variation by School Ownership and Region, 2004/05

	<10	11 to 20	21-30	31-40	41-50	51-60	60>	No. classes
West Bank								
Government	1.4%	9.3%	29.9%	41.8%	17.5%	0.1%	0.0%	15789
UNRWA	1.0%	2.3%	14.3%	52.7%	30.0%	0.6%	0.0%	1626
Private	8.7%	26.1%	41.6%	21.3%	2.2%	0.0%	0.0%	2265
Total	2.1%	10.6%	29.7%	40.0%	16.6%	0.2%	0.0%	19680
Gaza Strip								
Government	0.2%	0.5%	5.0%	38.1%	52.7%	3.5%	0.1%	5473
UNRWA	0.0%	0.0%	0.1%	16.8%	78.2%	4.8%	0.0%	4330
Private	4.5%	22.6%	49.7%	22.9%	0.3%	0.0%	0.0%	332
Total	0.3%	1.0%	4.4%	28.5%	61.9%	3.9%	0.0%	10135
ALL								
Government	1.1%	7.0%	23.5%	40.8%	26.5%	1.0%	0.0%	21262
UNRWA	0.0%	0.6%	4.0%	26.6%	65.1%	3.7%	0.0%	5956
Private	8.2%	25.7%	42.7%	21.5%	2.0%	0.0%	0.0%	2597
Total	1.5%	7.4%	21.2%	36.3%	32.1%	1.4%	0.0%	29815

Source: EMIS

Annex Figure 1: Student Teacher Ratios by Administrative Authority
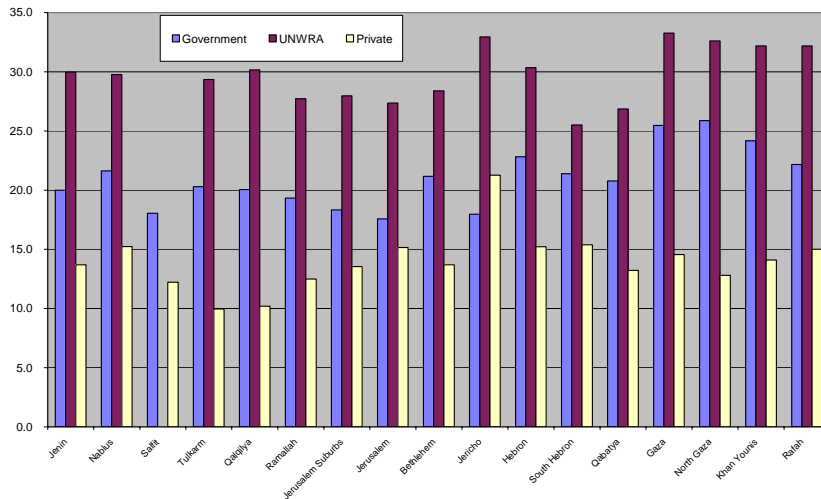
Annex Figure 2: Student Teacher Ratio by District
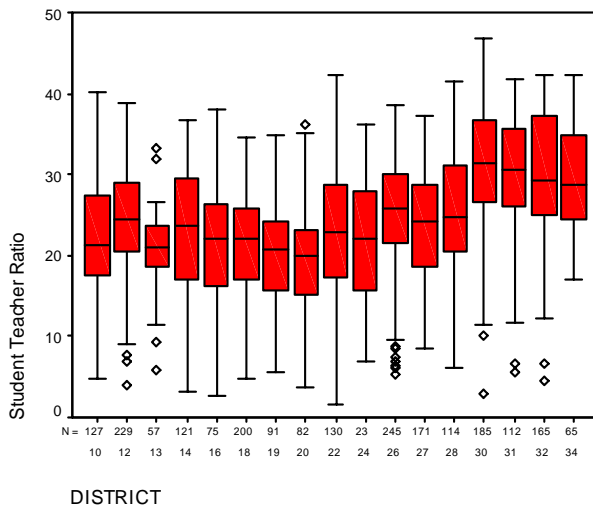
Key to District Codes	
10	Jenin
12	Nablus
13	Salfeet
14	Tulkarem
16	Qalqila
18	Ramallah
19	Jerusalem Sub
20	Jerusalem
22	Bethlehem
24	Jericho
26	Hebron
27	South Hebron
28	Qabatya
30	Gaza
31	North Gaza
32	Khan Younis
34	Rafah

Annex Table 11: Periods/week for Teachers by School Ownership and Region, 2004/05
(percentage of teachers in each cell)

SCHOOLS WITH BASIC GRADES ONLY

Periods/week	<15	16-20	21-25	26-30	30-35	35>	No. teachers
WEST BANK							
Government	8	6	36	49	1	1	9669
UNWRA	3	5	31	60	1	1	1749
Private	9	10	34	40	5	1	1521
GAZA STRIP							
Government	1	18	46	29	0	1	5024
UNWRA	2	8	43	44	1	2	5202
Private	9	12	31	41	6	0	383

SCHOOLS WITH SECONDARY GRADES ONLY

Periods/week	<15	16-20	21-25	26-30	30-35	35>	No. teachers
WEST BANK							
Government	9	21	52	9	9	0	563
UNWRA	0	0	0	0	0	0	0
Private	38	4	58	0	0	0	45
GAZA STRIP							
Government	12	35	53	1	0	0	1054
UNWRA	0	0	0	0	0	0	0
Private	0	0	0	0	0	0	0

SCHOOLS WITH BOTH BASIC AND SECONDARY GRADES

Periods/week	<15	16-20	21-25	26-30	30-35	35>	No.teachers
WEST BANK							
Government	10	14	64	11	1	1	8616
UNWRA	0	0	0	0	0	0	0
Private	11	16	45	24	3	1	1341
GAZA STRIP							
Government	11	41	44	3	0	0	1609
UNWRA	0	0	0	0	0	0	0
Private	19	13	20	44	3	0	142

Source: EMIS

Annex Table 12: UNRWA Education Expenditure for West Bank and Gaza
(2002-2005 in Millions of US)

	WEST BANK				GAZA				PALESTINE			
	2002	2003	2004	2005	2002	2003	2004	2005	2002	2003	2004	2005
Schools												
Salaries	19.5	21.6	22.5	25.7	51	56.9	61.3	65.2	70.5	78.5	83.8	90.9
Supplies	1.1	0.7	0.5	1.5	2.6	1.9	1.8	4.8	3.7	2.6	2.3	6.3
Premises	0.4	0.5	0.4	0.5	0.7	0.9	0.9	1	1.1	1.4	1.3	1.5
Total	21	22.8	23.5	27.7	54.3	59.8	64.1	71.1	75.3	82.6	87.6	98.8
Vocational Training												
Salaries	3.5	3.6	3.7	3.8	1.6	1.6	1.9	1.8	5.1	5.2	5.6	5.6
Supplies	0.6	0.7	0.7	0.8	0.3	0.4	0.3	0.4	0.9	1.1	1	1.2
Premises	0.4	0.4	0.4	0.5	0.1	0.1	0.1	0.1	0.5	0.5	0.5	0.6
Total	4.6	4.8	4.9	5.3	2	2.1	2.3	2.2	6.6	6.9	7.2	7.5
Teacher Training												
Salaries	0.5	0.5	0.5	0.5	0	0	0	0	0.5	0.5	0.5	0.5
Supplies	0	0	0	0.1	0	0	0	0	0	0	0	0.1
Premises	0	0	0	0	0	0	0	0	0	0	0	0
Total	0.6	0.5	0.5	0.6	0	0	0	0	0.6	0.5	0.5	0.6
ALL												
Salaries	23.5	25.7	26.7	30	52.6	58.5	63.2	67	76.1	84.2	89.4	97
Supplies	1.7	1.4	1.2	2.4	2.9	2.3	2.1	5.2	4.6	3.7	3.3	7.6
Premises	0.8	0.9	0.8	1	0.8	1	1	1.1	1.6	1.9	1.8	2.1
Total	26.2	28.1	28.9	33.6	56.3	61.9	66.4	73.3	82.5	90	95.3	106.9

Notes: 2005 expenditure is provisional

Source: UNRWA

Annex Table 13:   Student Performance at UNRWA Schools (2000-2004)

Subject	Grade	2000/2001	2002/2003		2003/2004	
		Percentage of Success		Difference	Percentage of Success	Difference
Arabic Language	4	71.9	61.6	-10.3	69.4	+7.8
	6	67.2	56	-11.2	55.3	-.7
	8	76.7	58.4	-18.3	64.3	+5.9
Mathematics	4	71.7	51.9	-19.8	66.7	+14.8
	6	68.7	49.3	-19.6	33.6	-15.7
	8	64.3	59.3	-5	50.7	-8.6
Science	4	71.5	54	-17.5	38	-16
	6	75.3	60.6	-14.7	48.7	-11.9
	8	57.5	43.4	-14	31	-12.4
			Average Fall	14.5%		4.1%

Annex Table 14: Student Performance at UNRWA Schools (2004-2005)

Subject	Grade	2003/2004	2004/2005	Difference
		Percentage of Success		
Arabic Language	4	69.4	62.2	-7.2
	6	55.3	42.07	-13.2
	8	64.3	46.32	-17.9
Mathematics	4	66.7	42.94	-23.8
	6	33.6	33.9	+0.3
	8	50.7	30.45	-20.25
Science	4	38	56.32	+18.32
	6	48.7	41.32	-7.4
	8	31	45.62	+14.62
			Average Fall	6.72%

Annex Table 15: Reforms in the Tawjihi (planned for 2007): Literary Stream

No	Sub	Marks 2006	Marks 2007
1	Islamic Education	100	100
2	Arabic Language	300	150
3	English Language	280	150
4	History	120	100
5	Geography	100	100
6	Economics & Management	--	100
7	Mathematics	100	100
8	Scientific Education	100	100
9	Information Technology	--	100
10	Modern Issues	--	100

Annex Table 16: Reforms in the Tawjihi (planned for 2007): Scientific Stream

No.	Sub.	Marks 2006	Marks 2007
1	Islamic Education	100	100
2	Arabic Language	200	150
3	English Language	200	150
4	Physics	160	100
5	Chemistry	100	100
6	Biology	100	100
7	Mathematics	240	200
8	* Economics & Management	--	100
9	Information Technology	--	100

Annex Table 17: Hours of Direct Classroom Instruction in Palestine

| Grade | Governmental | | UN | | Private | |
| | *no. of class hours/year | | no. of class hours/year | | No. of Instructions /year | |
	1999/2000	2005/2006	1999/2000	2005/2006	1999/2000	2005/2006
1st + 2nd	918	1020	918	1020	As per gov.+ more hours which varies from school to school.	
3rd + 4th	986	1020	952	1020		
5th	1156	1156	1122	1156		
6th	1190	1156	1190	1156		
7th	1156	1156	1156	1156		
8th	1156	1156	1122	1156		
9th	1190	1190	1156	1190		
10th	1224	1156				
1st Secondary (Scientific)	1122	1224				
2nd Secondary (Scientific)	1190	1224				
1st Secondary (Literary)	1020	1122				
2nd Secondary (Literary)	1020	1088				

*
1) The numbers include physical education & free activity lessons.
2) The numbers are calculated from the following formula.
no. of class hours per week x no. of working weeks per academic year (no. of working days per year divided by 6(working days per week)

Annex Table 18: Educational Materials Available and Needed in Schools

Device / District	Photo Copiers		Copy printers		TV		VCR		Cassette Recorder		OverHead Projector		Slide Projector		Book Projector		Camera	
	available	needed	available	needed	Available	needed	Available	needed	available	needed	available	needed	available	needed	available	needed	available	needed
Qabatia	85	15	56	10	88	12	88	12	101	0	86	15	27	15	18	0	47	25
Jenin	96	15	73	27	88	23	88	23	107	18	88	23	39	25	19	23	18	83
Nablus	193	10	120	11	194	8	194	20	194	30	188	20	50	_	20	_	25	_
Tulkarm	79	22	57	20	94	7	94	7	100	15	95	15	37	10	30	20	26	50
Qalqilia	50	13	47	16	60	10	60	10	63		59	25	30		4		18	45
Salfit	50	10	33	10	46	10	44	10	52	5	49	5	16	10	7	10	9	20
Ramallah	131	24	117	38	133	22	130	25	130	25	121	34	80	75	69	86	47	108
Ram	44	8	41	2	45	6	44	7	60	20	48	20	37	15	23	20	8	20
Jerusalem	48	5	33	5	71	2	68	2	158	20	80	6	39	9	6	20	21	20
Jericho	10	9	12	2	14	4	11	7	18	3	17	3	5	5	0	5	12	6
Beithlehem	93	15	82	13	100	16	90	11	436	50	155	30	58	37	43	52	41	60
Hebron	191	15	186	20	180	26	171	35	198	8	197	9	81	125	105	101	104	102
S.Hebron	126	29	70	89	102	51	96	57	155	10	99	58	36	50	26	50	72	83
Gaza	127	9	43	86	103	40	98	45	403	8	98	36	29	102	16	113	121	24
N.Gaza	60	15	43	32	59	16	56	19	73	2	57	18	16	59	2	73	64	11
Rafah	31	10	14	17	24	10	24	10	31	14	24	15	8	27	4	29	24	14
Khanyounis	87	20	36	14	68	28	66	30	87	30	81	15	17	13	11	19	74	22
Total	1501	244	1063	412	1469	291	1422	330	2366	195	1542	347	605	527	403	578	731	585

Annex Table 19: Coverage of Counselling Services in Palestine

District	# Counselors	# of Schools with Counselors	Total # of Schools	% Schools with Counselors	Total Students	Ratio Students per Counselor
Ramallah	55	90	155	58%	58225	1060
Nablus	67	112	194	58%	74894	1120
Jenin	35	70	110	64%	37513	1070
Qabatya	34	66	101	65%	38928	1145
Tulkarm	37	72	104	69%	39421	1065
Qalqilya	24	41	66	62%	24676	1030
Salkeet	21	37	55	67%	17781	850
Jericho	11	18	17	100%	5631	510
Jerusalem	15	23	35	66%	11844	790
Jerusalem Sub-district	19	34	52	65%	18080	950
Bethlehem	31	55	94	58%	35644	1150
Hebron	59	112	199	56%	84818	1440
South Hebron	46	85	155	55%	59466	1295
Gaza	67	120	130	93%	90684	1355
North Gaza	34	66	73	93%	52516	1545
Khanyunus	48	78	78	100%	64200	1340
Rafah	17	30	31	98%	19414	1140
TOTAL	620	1109	1659	72.2	733735	Average Ratio

Annex Table 20: Projected Enrolments for Basic and Secondary Grades under Four Scenarios, 2010 and 2015

	BASIC		SECONDARY		TOTAL	
Year	2010	2015	2010	2015	2010	2105
2% PER ANNUM INTAKE GROWTH						
Zero repetition and dropout by 2009	990	1085	187	191	1177	1276
No change in repetition and dropout	1004	1089	181	179	1185	1268
4% PER ANNUM INTAKE GROWTH						
Zero repetition and dropout by 2009	1034	1237	187	193	1221	1430
No change in repetition and dropout	1047	1239	182	181	1229	1420

Annex Table 21: Enrolments and Graduates at Traditional Universities by Subject Area, 2004/05 ('000)

Enrolments

Subject area	1996/97	2000/01	2004/05
Social sciences, business and law	9.8	12.7	18
Education	4.3	10.6	17.7
Humanities and arts	8.2	10.4	15.9
Agriculture	0.6	0.5	0.6
Health and welfare	2.2	2.3	5.5
Science	5.1	6.7	10.5
Engineering, manufacturing and construction	2.3	5.1	8.2
TOTAL	32.5	49.7	76.7

Percentage breakdown

Subject area	1996/97	2000/01	2004/05
Social sciences, business and law	30%	26%	23%
Education	13%	21%	23%
Humanities and arts	25%	21%	21%
Agriculture	2%	1%	1%
Health and welfare	7%	5%	7%
Science	16%	13%	14%
Engineering, manufacturing and construction	7%	10%	11%
TOTAL	100%	100%	100%

Graduates

Subject area	1996/97	2000/01	2004/05
Social sciences, business and law	0.5	Na	3.4
Education	1.1	Na	2.5
Humanities and arts	1.2	Na	1.6
Agriculture	0	Na	0.05
Health and welfare	0.1	Na	0.6
Science	0.6	Na	1
Engineering, manufacturing and construction	0.2	Na	0.9
TOTAL	3.7	7.8	9.9

Source: MOEHE

Annex Table 22: Educational Attainment of the Labor Force for Selected Age Groups
(rounded percentage)

FEMALES

	Primary Or less	Secondary	Diploma college	University
West Bank				
25-29	66	14	6	16
35-39	71	14	9	7
45-49	78	13	5	5
Gaza Strip				
25-29	56	27	5	12
35-39	61	25	9	6
45-49	71	18	8	5
Palestine				
25-29	62	18	5	15
35-39	67	17	9	7
45-49	76	14	6	5

MALES

	Primary Or less	Secondary	Diploma college	University
West Bank				
25-29	66	16	4	15
35-39	63	18	7	12
45-49	65	12	8	14
Gaza Strip				
25-29	51	24	5	20
35-39	61	19	7	13
45-49	62	14	6	19
Palestine				
25-29	61	19	4	16
35-39	63	18	7	12
45-49	64	13	7	16

Annex Table 23 : Education Attainment by Labour Force Status for 15-64 Population, Q2-2005

				ECONOMICALLY ACTIVE				NOT IN LABOUR FORCE				
		Self-	Wage-	Wage-	Unpaid		Active job		House			
	Employer	Employed	Public	Private	Family	Other	seeker	Old\illness	keeping	Studying	Other	Total
MALE												
Illiterate/'Read&write'	2.4	21.5	4.8	19.5	3.5	1.3	19.7	18.6	0.1	0.5	8.2	100
Elementary school	2.9	21.0	6.0	21.7	4.2	1.5	21.2	7.5	0.0	10.6	3.5	100
Preparatory school	2.2	13.2	6.5	17.3	4.7	0.8	14.6	3.1	0.1	34.6	2.9	100
Secondary school	2.8	12.2	12.0	14.3	2.8	0.4	11.1	2.7	0.0	33.6	8.1	100
Associate degree	3.2	17.7	31.4	17.9	1.0	5.0	15.8	3.2	_	1.1	3.6	100
University degree	3.4	6.8	43.1	15.0	1.4	7.7	12.6	2.2	0.1	1.4	6.3	100
Overall	2.6	14.9	11.7	17.6	3.7	1.7	15.5	5.1	0.1	22.4	4.8	100
FEMALE												
Illiterate/'Read&write'	0.1	3.1	0.6	0.9	10.6	0.1	0.8	8.0	72.3	0.2	3.2	100
Elementary school	_	2.2	0.4	1.4	5.7	0.2	0.4	1.0	76.5	11.8	0.4	100
Preparatory school	0.1	0.8	0.2	1.5	3.1	0.3	0.6	0.2	52.8	40.1	0.3	100
Secondary school	0.1	0.7	0.3	1.5	2.3	0.5	1.0	0.2	52.4	40.4	0.8	100
Associate degree	1.0	1.7	16.7	8.1	2.1	###	15.2	1.3	41.3	1.3	1.0	100
University degree	0.5	0.5	30.5	10.5	1.6	###	27.1	0.9	16.0	0.5	1.9	100
Overall	0.1	1.4	2.7	2.2	4.5	1.3	2.8	1.6	57.9	24.5	1.0	100
ALL												
Illiterate/'Read&write'	0.9	9.5	2.0	7.3	8.2	0.5	7.4	11.7	47.4	0.3	5.0	100
Elementary school	1.5	11.8	3.3	11.8	4.9	0.9	11.1	4.3	37.3	11.2	2.0	100
Preparatory school	1.2	7.2	3.5	9.7	3.9	0.6	7.9	1.7	25.5	37.2	1.7	100
Secondary school	1.5	6.8	6.5	8.3	2.6	0.4	6.3	1.5	24.7	36.8	4.7	100
Associate degree	2.2	10.0	24.4	13.2	1.5	7.6	15.5	2.3	19.7	1.2	2.4	100
University degree	2.3	4.4	38.3	13.3	1.4	8.6	18.1	1.7	6.2	1.1	4.6	100
Overall	1.4	8.2	7.2	10.0	4.1	1.5	9.2	3.4	28.6	23.4	2.9	100

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List of Persons Interviewed
(December 4-20, 2005 November 1-10 2005 and March 1-13, 2006)

Ministry of Education and Higher Education:

- Ali Abuzeid, Director of General Education Department.
- Alia Sha'ar, Consultant
- Amer Sabbah, Department of Training and Supervision
- Amira-Meela Rimewai, Principal, Kuper Secondary School for Girls
- Amjad Al-Masri, Director of Information Technology Department
- Basri Saleh, Director General, International and Public Affairs
- Deeb Haddad, Deputy Directo of Ramallah Education District
- Fahoum Shalabi, Director General, Development & Scientific Research
- Fateh El-Ramahi, Principal, Primary School in Ramallah
- Fawaz Mujahed, Director General Department of Construction
- Frosse Dabit, Director, International Relations, Higher Education Sector
- Gabi Baramki, Vice President, Higher Education Council
- Haifa'a F. El-Agha, Director General General Education, Gaza Strip
- Ihab Shukri, Director of School Health Education
- Ilham A. Muhessein, General Director Assistant, General Education
- Imen Hamayel, Principal, Secondary School for Girls (Spanish school)
- Ismail Faleh, Head of Division of Education Statistics
- Jamal Tarif, Director General Department of Examinations and Educational Assessment
- Jehad Draidi, Director, Project Unit Department
- Jehad Nazzal, Department of General Education
- Jehad Zakarna, Assistant Deputy Minister
- Kahramen Arafa, Director of the PR Department, National Training Institute
- Kayed Subhi, Director General of Education Technologies and Information Technology
- Lina Tutunji, Director, Project Management Unit MOEHE, World Bank
- Mahmoud Saleh, Acting Dean of Ramallah Girls College.
- Mohammad Jubran , Director General, Finance
- Mohammed Mustafa, Director, Assessment and Evaluation Center
- Mohammed O.M. Mustafa, Director, Assessment and Evaluation Centre.
- Naser H. Awad, Director, Vocational and Technical Education.
- Othman Amer, Head of English Language Division, Curriculum Development Center
- Rabah Salameh, Assessement and Evaluation Center
- Raida Dahadha, Principal of Abuqash Girls Primary School
- Rima M. Zeid Al-Keilani, Director General, Counseling Department
- Sa'adeh Hamoudeh, Director General, Department of Planning
- Saed Radwan, Director of Examination Results
- Said Assaf, Deputy Assistant Minister for Programs
- Said Jamjum, Head, Al-Ommah Community College.
- Salah Yassin, Director General, Curriculum Development Centre
- Samar M. El-Shorafa, Financial Manager, Gaza Strip
- Sofia Rimawi, National Training Institute
- Shahnaz El-Faar, Director, National Training Institute
- Tawfiq Deeb, Director, Department of Planning
- Tharwat Zied, Director General of Training and Supervision
- Ziad Jweiles, Director General Department of TVET

- Ziad Jweiles, Director General Department of Technical and Vocational Education and Training

Ministry of Finance:

- Farid Ghannam, Budget Director
- Mazen Jadallah, Head, International Relations Department
- Mohammed Harashih, Payroll Directorate
- Salam Fayyad, Minister

Ministry of Planning:

- Cairo Arafat, Director General

Ministry of Labor:

- Salah Alzaroo, Director General

Palestinian Universities:

- Abdul-Ghaffar Bader, Dean, Ibrahimieh Community College.
- Adnan Rashid Manassra, Assistant to the President for Development and Planning, Al-Quds University
- Ahmad Al Farajeen, Head, Modern Community College
- Ismael Khalil, Finance Director, Al-Quds Open University
- Khuloud Khayyat Dajani, Executive President Assistant, AlQuds University
- Maher Hashweh, Chair, Department of Education & Psychology, Birzeit University
- Mohammed Omran, Dean / Principal, Ramallah Men's Training Center
- Muhannad Beidas, Chief, Field Education Program, UNRWA
- Musa Bajali, Al-Quds University
- Ramzi Rihan, Vice-President for Planning and Development, Birzeit University.
- Salah Sh. Soubani, Director of Information and Research Department, Al-Quds Open University
- Sami El-Yousef, Financial Vice-President, Bethlehem University.

- Samir Abdullah, Director General, Palestine Economic Policy Research Institute
- Sufian Kamal, Vice President for Academic Affairs, Al-Quds Open University
- Tafeeda Jarbawi, Principal Ramallah Women's Training College, UNRWA.

Palestinian Organizations:

- Amin Ahmad Mustaffa Dreidi, Direrctor General, Administration and Finance, PCBS
- Fouad Moughrabi, Director, Qattan Centre for Educational Research
- Jehad Mandan, Vice Chairman, General Personnel Council
- Liana Jabr, Qattan Center for Educational Research
- Loay Shabaneh, President, PCBS
- Maher Sbieh, PCBS
- Musa Khaldi, Qattan Center for Educational Research
- Nancy Mahmood, Teacher Creativity Center
- Wasim Kurdi, Qattan Center for Educational Research

Donors:

- Christopher Nordahl, Deputy Director of Operations, Gaza, UNRWA
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- Dan Rohrmann, Special Representative, UNICEF
- Emadeddin Abdallah, Political, Financial and Administrative Advisor, Representative Office of Norway
- Joel Toujas-Bernate, Senior Resident Representative, International Monetary Fund
- Jouni Immonen, Project Director/Education, Helsinki Consulting Group
- Mark Poston, DFID.
- Olli Ruohomaki, Deputy Representative, Representative Office of Finland
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