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**An Assessment of Higher Education
Needs
in the West Bank and Gaza**

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Maher Hashweh and Mazen Hashweh

Notice

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Executive Summary

The aim of this study was to conduct a needs assessment of higher education in the West Bank and Gaza for USAID/West Bank and Gaza, under the Strategic Technical Assistance for Results with Training (START) contract. The consultants, after a preliminary review of recent studies of Higher Education in the West Bank and Gaza, identified the main challenges to Palestinian Higher Education, and used these challenges as a framework for the present investigation. It was decided to study the following aspects of higher education: Access and Capacity, Equity, Quality, Relevance and Governance.

The study was conducted in three phases. In phase one, we identified and reviewed the relevant literature. In phase two we collected and analyzed available statistics, mainly from the Ministry of Education, the Ministry of Higher Education (MOHE), and the Palestinian Bureau of Statistics (PBS). In phase three we designed research instruments, mainly a questionnaire to study the needs of the MOHE and another questionnaire to study the needs of the HE institutions. We supplemented the data from the questionnaires with interviews of selected officials in the Ministry of Higher Education and in a few higher education (HE) institutions.

The following presents the main conclusions of the study.

1. Access and Capacity

The Palestinian territories have witnessed an increasing demand for higher education, and for university education, in particular. This demand is expected to continue in the future. Universities, and some colleges, have responded well to this demand, mainly by opening new programs of study. However, the lesser demand for college education, and the competition from universities, especially Al-Quds Open University, have brought about a situation where a smaller percentage of tertiary students study in colleges. While the gross enrollment ratio for university education is still low compared to some neighboring countries, the gross enrollment ratio for college education is extremely low. In general, there is a need for more diversification, in term of type and quality of education at the tertiary level, and at the school level as well. [For a description of the differences between colleges and universities, see Chapter 1, Introduction, Section 1.2].

HE institutions face two obstacles in responding to the demand for higher education: they need to invest in upgrading and expanding their faculties and their facilities. The funding for this development is limited, given the low student fees and the limited abilities of these institutions to generate income. As will be shown later in this report, there are some indications that institutions that have expanded in response to this demand might have done so at the expense of the quality of education that they offer.

2. Equity

There are equity problems in HE in the West Bank and Gaza related to socio-economic status, gender, and region of residence. Poorer students are less likely to get tertiary education, and females are less likely to go to universities or to major in law, social sciences, or scientific fields. However, the gender inequity problem is not serious in comparison with other countries. Students living in some areas of the West Bank or Gaza are less likely to enroll in college or university, but this also depends on the sex of the student. Females in one region might be more underrepresented than males, but the situation could be reversed in another region. While many HE institutions gave scholarships or loans to needy students, few had proactive strategies to attract students from low SES, to attract females in certain fields, or to attract students from certain regions.

3. Quality

Previous studies, based on the examination of some quality inputs, such as student/teacher ratio, have concluded that the quality of HE in the West Bank and Gaza has declined. We constructed what we thought were other indices, such as journal/teacher ratio, percentages of teachers holding specific degrees. We tried to take a preliminary glimpse at research activity by examining trends in faculty promotions. It has to be noted that we looked only at some input indices of quality, such as student/teacher ratio, and neglected other input variables, such as teacher quality, a factor that the literature shows to be an important variable affecting quality. Nonetheless, the trends in different indices we used converged, indicating a deterioration in the quality of university education. The findings are to be considered exploratory and in need of further more detailed examination.

There is a need to look more carefully at quality in future studies. The unit of analysis should be the program or the department. Teacher quality can be examined by analyzing the institutions where the faculty received their training, the quantity and quality of their publications, and other professional activities. Teaching can be examined by scrutinizing course outlines, references, activities, assessment, and student evaluations. Facilities and access to books, journals, laboratories and work experiences can be also examined. Finally, outcome measures of quality can be used. These might include tracer studies, employer satisfaction, measures of learning, rates of acceptance to foreign universities for advanced studies.

Our limited investigation has revealed that quality seems to be declining in most universities, and that university administrators are aware of this decline. The student/teacher ratio is increasing, the percentage of part-time teachers is increasing, and faculty are moonlighting or taking overloads. Although the situation is improving, only about half of the faculty hold doctorate degrees. The books/student and journal/teacher ratios are decreasing. Research activity

seems to be meager. Nonetheless, there are marked differences between institutions on all of these indices.

On the other hand, the situation in colleges seems to be improving. There is a slight increase of full-time faculty members, a decrease in the student/teacher ratio and an increase in the books/student ratio. The student/teacher ratio is quite low, even by developing countries standards. This corroborates the findings of Chapter 2 of this report that this sector has more capacity to grow compared to the university education sector. Nevertheless, we also find a high variance on all of these indices among different colleges.

The variance on these indices and the fact that none of the institutions we examined had an institutionalized systematic program evaluation and development procedures, reveal a need for monitoring and improving academic quality. We agree with the administrators of these institutions that, in addition to monitoring and improving quality, the institutions need to develop their faculty, and to facilitate access to educational resources. Developing income, again, appears to be the means to achieving these goals. In this Chapter, and in Chapter 2, we found that increasing financial resources is needed to provide access to quality higher education. The biggest dilemma facing Palestinian HE is providing quality and relevant education, given the severe constraints on financial resources.

4. Relevance

How relevant is the Palestinian Higher Education System? In other words, how well does the higher education system support economic growth and enhanced individual welfare?

Although Palestinian statistics show that more education increases the likelihood of finding employment, the rates of return (RORs) to college and university graduates are either negative or close to zero for several reasons.

Demand for higher education graduates in the Palestinian Occupied Territories and Israel is low. The Israeli occupation and *intifada* have combined to undermine economic growth. Israeli labor markets primarily hire Palestinians for low skill jobs that require minimal educational attainment. Very high population growth rates, combined with low economic growth, have resulted in unprecedented unemployment rates.

Three basic issues were identified that affected the relevance of the Palestinian HE system. These include an inappropriate production in certain fields of study, irregular and un-institutionalized relationships between HE institutions and the local labor market, and insufficient data and studies on both the supply and demand for HE graduates and on their inter-linkages.

We are training and building human resources for the world of tomorrow and not of today. Assuming that tomorrow is comparable to the situation presently prevailing in the neighboring stable countries, and with the aim of ultimately attaining the status of a developed country, the comparison of the pattern of supply (the percentage of HE students and graduates by field of study) in Palestine to neighboring and developed countries, clearly shows an overproduction of Palestinian HE graduates in Education and Humanities, and an underproduction in Law and Social Sciences, and to a less degree in Natural Sciences, Engineering, and Agriculture. Qualitatively, Palestinian employers view HE graduates as too theoretical, as lacking in proper work ethics, as having weak educational preparation, as well as deficient English language skills; and a lack of management and entrepreneurial skills.

Moreover, despite the existence of relationships between HE institutions and the labor market on the one hand, and between HE institutions and their graduates on the other hand, these relationships are not regular or adequately institutionalized.

Collecting, modeling, and analyzing labor market data and linking these to the supply of human resources in the West Bank and Gaza on the macro and on the institutional levels, allows for a better understanding of the quantitative and qualitative gaps between the supply of and demand for Palestinian HE graduates; consequently is possible to formulate interventions to bridge that gap. It has been found in this regard, that despite the presence of good research institutions and up-to-date statistics in the West Bank and Gaza, much is still lacking or needs further development. This includes on the macro level up-to-date realistic occupational employment projections, crosswalk mapping, data on numbers and specializations of Palestinian graduates of HE institutions abroad and of local HE graduate going to work abroad, and age earning profiles. At the micro HE institutions level, regular and systematic graduates tracer studies, and evaluations of HE institutions external efficiencies are still lacking.

It is clear that much can be done. However, a positive change in the political situation is the only real viable solution for ensuring the employability of Palestinian HE graduates.

5. Governance

How well is the Palestinian higher education system governed and managed? In other words, is there adequate provision of leadership and direction for the overall HE system and for individual institutions?

Role of the State. The main governing bodies are the Ministry of Education and Higher Education (MOHE) and its related Accreditation and Quality Assurance Commission, the Advisory Council of Higher Education, and the Education Committee in the Palestinian Legislative Council. The newly established

Accreditation and Quality Assurance Commission is taking major steps to license HE institutions and accredit HE programs. The Advisory Council of Higher Education assumes only an advisory role, and the Education Committee in the Palestinian Legislative Council has yet to become engaged.

An in-depth study and analysis of MOHE has revealed that MOHE is assuming to varying degrees different roles with regards to higher education. It is: *Providing higher education* through all Palestinian Technical Colleges and Al Aqsa University; *Financing higher education* -- governmental HE institutions are fully financed by MOHE, while public ones are partially supported through the channeling of donor funds, and lately through the public budget; *Regulating higher education* – through, for example, the operation of the Accreditation and Quality Assurance Commission; and, *Providing information on higher education*. through, for example, the preparation and publication of the yearly annual HE statistics, and the publication of licensed HE institutions and accredited HE programs.

The Higher Education Law defines as many as 21 issues that MOHE should be responsible for. Almost all of these issues are related to regulation functions. The law does not define responsibilities related to the provision of HE, nor to information provision regarding HE. Some of the declared goals of MOHE are broad and overarching in nature, while others are more specific and concise. The goals are not presented in an organized understandable fashion, and consequently many stakeholders do not clearly understand or support the MOHE mission.

Only two third of the universities and less than half of the colleges are satisfied with the role played by the state. There is a shared expectation among stakeholders that MOHE should increase its financing to HE institutions. This is not very realistic, taking into consideration the economic situation, and the fact that more than 17 percent of the Palestinian National Authority's operating budget was allocated to education. At the same time, there are concerns regarding the capacity of MOHE to develop and implement adequate strategies, policies and regulations. The establishment and operation of a professional Accreditation and Quality Assurance Commission is definitely but slowly alleviating these concerns.

An in-depth assessment of the components of the organizational effectiveness of MOHE has revealed many areas where improvements can take place. The most important needs in the various areas are:

- **Governance:** recognition of stakeholders as partners; of senior management roles as providers of overall direction; and participatory leadership styles of senior management.
- **Management practices:** development and the regular updating of implementation plans at the ministerial and departmental levels; involvement of stakeholders in all phases of programs cycle; incorporation

- of ME&R activities, having trained personnel to manage information systems; and the preparation and dissemination of evaluation reports
- **Human resources:** development of a human resources development plan that reflects MOHE strategic directions and roles; performance based and equitable job appraisals; documented and updated job descriptions; competitive salary structures; hiring more PhD holders, particularly with a HE planning and economics background.
 - **Financial management:** integration of annual implementation plans into the budgeting process; development and implementation of annual financial projections; and use of financial reports for planning and review purposes.
 - **Service delivery:** development of indicators for measurement of achievements; collection and analysis of baseline and impact data; and the development of a marketing strategy.
 - **External relations:** presenting a credible image; enhancing relations with unions, chambers, the Ministry of Planning, the Legislative Council Education Committee, and the private sector; and the development and implementation of an adequate media strategy.
 - **Sustainability:** development of a fund raising strategy.

Governance and management of higher education Institutions. HE institutions have different types of governing bodies: governmental HE institutions have Advisory Councils, public HE institutions have Boards of Trustees (except for Al-Quds Open University, which has an Advisory Council), and private HE institutions have Boards of Directors.

An investigation of governance at the HE institutions level showed that many boards do not meet regularly, that not all provide financial oversight to their institutions, and that many do not set the strategic directions of their institutions. It was also found that only half of the colleges have written annual plans, and only one third have written staff development plans. Finally, it was learned that two thirds of universities and one third of colleges have diversified sources of funding. Less than half of the colleges have a strategy for funding diversification. Only 78 percent of the universities and 29 percent of the colleges have income generating plans.

Based on these conclusions, the following recommendations are offered.

Recommendations

Allocate funds to:

1. Hold a conference on higher education in the West Bank and Gaza. The conference aims to plan a five-year intervention, to engage the participants, and to launch the activities.

2. Establish a Higher Education Institutions Development Fund to support these institutions towards the improvement of the quality and relevance of their programs, and the efficiency of their operations.
3. Facilitate building the capacities of MOHE. Provide technical assistance resources, training, seconding staff, and conduct staff exchange programs.
4. Support the Palestinian Central Bureau of Statistics and other research organization or HE institutions to collect labor and educational data and to conduct relevant occupational and econometric research.
5. Promote the quality and intensity of involvement in Palestinian higher education of the Council on Higher Education and of the Education Committee in the Legislative Council.

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1.0 Introduction

1.1 Aims and Methodology

The aim of this study was to conduct a needs assessment of higher education in the West Bank and Gaza for USAID/West Bank and Gaza, under the Strategic Technical Assistance for Results with Training (START) contract. This activity took place under the task order entitled “Higher Education Support Initiative.” The consultants were asked to evaluate key issues in higher education, including: access to higher and post-secondary education, administrative management and management of information, faculty development and linkages with worldwide higher educational institutions, educational relevance to economic development and work force needs, priority fields of study, educational quality and accreditation, cooperation among institutions, program duplication, overarching Ministry management and coordination, physical damage to the infrastructure, and ability to absorb a growing student body. The consultants were also asked to assist in the preparation of a detailed implementation plan of assistance opportunities for the training and support of institutional and student development.

The consultants, after a preliminary review of recent studies of Higher Education in the West Bank and Gaza, learned that the main challenges to Palestinian Higher Education, were: meeting increasing demand (access), achieving financial sustainability while maintaining/improving quality, improving internal efficiency, raising external efficiency (relevance), improving equity, and enhancing management

The consultants decided to use these identified challenges as a basic framework for the present investigation of needs. Consequently, it was decided to study the following aspects of higher education: Access and Capacity, Equity, Quality, Relevance, and Governance.

These five points of focus form the basic structure of this report. However, given the constraints of time and available data, it was decided to limit the scope of investigation of some of these points of focus. In particular, in studying quality we did not attempt to study course contents or teaching methods. In studying relevance, we did not attempt to conduct tracer studies or to interview employers. The financing of higher education was also not studied, since MOHE¹, in cooperation with the World Bank, has very recently published an incentive-based financing strategy that is based on the following principles:

¹We use MOHE in this report to refer to the Ministry of Higher Education, although it recently became a part of the Ministry of Education (MOE). MOHE now refers to the separate and autonomous unit in the Palestinian Ministry of Education.

- Targeting public funds to national and regional human resource development needs, by focusing on programs identified as having high priority;
- Enhancing students' ability to pay for higher education over the sustaining of institutions as a primary means of public support;
- Promoting quality through competitive funding of selected projects by PNA;
- Promoting HE institutions investments for expanding capacity and improving quality, especially in priority fields, through the partial funding of selected projects on a competitive basis and through the identification of potential donors;
- Promoting research through competitive funding of selected projects by PNA;
- Combining the autonomy of public non-profit Palestinian universities with greater accountability, by emphasizing incentives more than regulations; and
- Improving the management of the institutions and higher education sector.

The present study was conducted in three phases. In phase one, we identified and reviewed the relevant literature. In phase two we collected and analyzed available statistics, mainly from the Ministry of education, the Ministry of Higher Education (MOHE), and the Palestinian Bureau of Statistics (PBS). In phase three we designed research instruments, mainly questionnaires to study the needs of the MOHE and of the HE institutions. We supplemented the data from these questionnaires with interviews of selected officials in the Ministry as well as in several HE institutions.

We were able to identify three relatively recent studies of higher education in Palestine, namely:

- TTW Consulting Group and AED. (1999). *Higher Education and Training Activities for Gaza Strip and the West Bank: An Assessment of Training Needs to Support Economic Development*. (A draft).
- Ministry of Higher Education and Scientific Research. (2002). *Palestinian Higher Education Financing Strategy*.
- Ministry of Higher Education and Scientific Research. (2001). *Palestinian Higher Education Strategy*. (A draft unpublished document).

A review of these studies allowed us to provide a preliminary description of the present status and main needs of Palestinian Higher Education. Appendix 1 is a summary of this review.

We also used the statistics provided by the MOHE, the Palestinian Central Bureau of Statistics, UNESCO and some other sources to supplement the findings reported in the previous studies and to construct our own statistical profile. We point out the convergence in findings, the discrepancies when present, and the areas or questions that need further investigation.

The first questionnaire (Appendix 2) was distributed to the 13 universities (and university colleges) and to the 25 colleges in the West Bank and Gaza. Nine universities (69%) and 15 colleges (60%) responded to the questionnaire. See Appendix 3 for a list of these universities and colleges. (Please note that we classified the Palestine Technical College in Tulkarem as a college, and not as a university college, since it is in the process of transformation). We also conducted interviews with two university and college officials. The second questionnaire (see framework in Appendix 4) was distributed to the MOHE top management staff, of which 21 out of 27 persons responded. We also conducted a series of semi-structured interviews with members of a committee set up by MOHE upon our request, and composed of the highest ranking five managers in the Ministry. The interviews followed the Organizational Capacity Assessment Tool (OCAT) framework (Appendix 5). For this report, we integrated the data collected by the questionnaire and the interviews with the previous data.

1.2 The Palestinian Higher Education System in Brief

The Palestinian Higher Education System is composed of 14 universities and university colleges and of 24 two-year colleges (as previously stated, one college is in the process of becoming a university). The most recent statistics by MOHE treat it as a university). There 85,616 students and 2,067 full time faculty members in the university sector, and 4,612 students and 547 full time faculty members in the college sectors.

Two-year colleges existed in Palestine since the fifties. These institutions, which focused on teacher training, technical education, or liberal arts, were private governmental or belonged to UNRWA. In the early seventies, three universities that granted bachelor degrees were established. These institutions, which came into being under occupation, were part of individual and collective efforts to preserve the Palestinian identity and to provide young Palestinians with the opportunity to pursue higher education, after it became increasingly difficult for them to pursue it abroad.

Prior to the Gulf War, about 60 percent of the community colleges and all the universities were funded with contributions from Arab Countries. After the Oslo II Agreement, international donor organizations funded the major share of the cost of higher education in Palestine. The outbreak of the second *Intifada* created new economic problems and further aggravated the situation of higher education. (Refer to Appendix 6 for a summary of the effects on the Palestinian Higher Education System during the second Intifada).

2.0 Access and Capacity

2.1 General Characteristics and Trends

The Palestinian Areas witnessed a rapid increase in population. At the end of 2001 the population had reached about 3.4 million, with 1.2 million living in the Gaza Strip (PCBS), and 47 percent of this population was under the age of 15. The quickly increasing number of high school graduates, at an average yearly rate of about nine percent, indicates a continued pressure/demand on higher education. Consequently, the present institutions of higher education, and in particular the universities, will not be able to accommodate future demands while at the same time attempting to maintain acceptable standards of quality.

Table 1 shows the numbers of students enrolled in 12th grade, the numbers of high school graduates, and the numbers accepted in institutions of higher education (colleges and universities). The table shows that in 99/00 about three quarters of high school graduates were able to continue their studies in local institutions. Due to the Intifada, the ratio decreased thereafter. Using the projections provided by Palestinian sources, and using the ratios of entering students/high school graduating students in 99/00, it is evident that by 05/06 the institutes will have to double their intake of students, compared to 99/00, so as to allow the same percentage of high school graduates to enter institutions of higher education. While universities in general have managed almost to triple their student population during one decade, as Table 2 indicates, it is questionable whether the existing institutions have the capacity to continue this expansion. As will be discussed in a later section, this expansion seems to have been achieved at the expense of quality.

Table 1. School Graduates and Students Accepted in HE Institutions

Year	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
Students enrolled in 12 th grade	28644	30049	33157	34949	37518	43608			
High school graduates	27000	28000	31000	35000	38000	43000	46000	50000	59000
Students accepted in universities	14566	15632	20790	19612	24468	28810	30820	33500	39530
Accepted in colleges	1897	3078	3081	3198	3554	4257	4554	4950	5841
Total	16463	18710	23871	22810	28022	33067	35374	38450	45371
Percent accepted in universities	53.9	55.8	67.1	56.0	64.4	67.0	67.0	67.0	67.0
Percent accepted in colleges	7.0	11.0	9.9	9.1	9.4	9.9	9.9	9.9	9.9
Percent accepted in HE	61.0	66.8	77.0	65.2	73.7	76.9	76.9	76.9	76.9

Red=prediction,

Sources: Five-Year Development Plan, MOE; Statistical Yearbooks of MOE and PCBS, MOHE.

Table 2. Number of Students in HE Institutions

Year	Number of Students			Percent in Colleges
	Colleges	Universities	Total	
94-95	3200	29508	32708	9.8
95-96	3600	36898	40498	8.9
96-97	4200	45399	49998	8.4
97-98	4299	52427	56726	7.6
98-99	5436	61847	67283	8.1
99-00	5157	65986	71143	7.2
00-01	4964	75579	80543	6.2
01-02	5313	84209	89522	5.9

Sources: MOHE and PCBS Yearbooks, PHES

Figure 1. Number of Students in HE Institutions

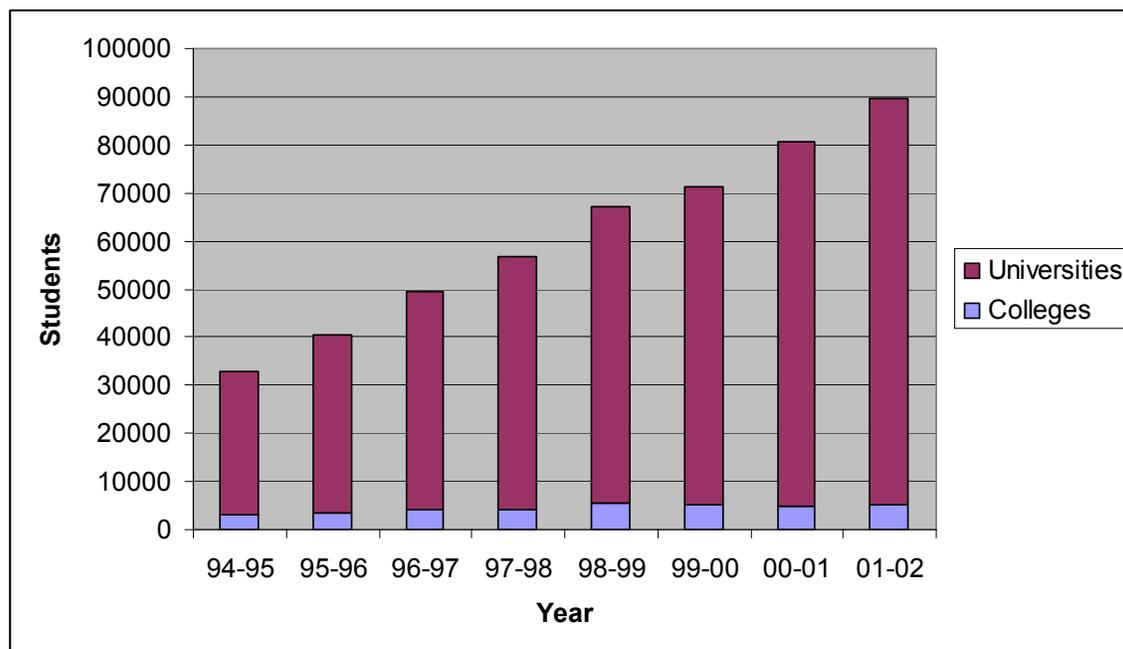


Table 2 and Figure 1 indicate that the great increase has been in universities and not in colleges. This leaves the question open as to why this expansion occurred in universities but not in colleges, a question that shall be discussed in more details later in this section of the report, where we shall identify factors affecting the growth of universities but not of colleges. Here it is important to point out one important factor, the differential demand for university and for college education.

Table 3 displays the application, acceptance and enrollment figures during the last few years. Some of the data in Table 3 is presented graphically in Figures 2, 3 and 4. It is clear from Figure 2 that the demand for university education has been greater than that for college education. Over the last six years, there has been an increase of 54% in the number of applications to universities, while the increase in the number of application to colleges has increased by only 24%.

Table 3. Trends in Applications, Acceptances and Enrollments in Palestinian Universities and Colleges.

Year		96-97	97-98	98-99	99-00	00-01	01-02
Applied	Universities	20607	20625	27749	31533	28900	31777
	Colleges	3855	3981	5249	4699	4882	4798
Accepted	Universities	na	na	18539	25998	23309	26356
	Colleges	na	na	3962	3081	3198	3554
Enrolled	Universities	13632	14566	15632	19548	18734	23184
	Colleges	2141	1897	3078	2705	2548	2790
Accepted/Applied	Universities	na	Na	0.67	0.82	0.81	0.83
	Colleges	na	Na	0.75	0.66	0.66	0.74
Enrolled/Applied	Universities	0.66	0.71	0.56	0.62	0.65	0.73
	Colleges	0.56	0.48	0.59	0.58	0.52	0.58

Figure 3 indicates that most of those who wish to continue their tertiary education in Palestine can do so. On the average, it is easier to get accepted into a university than to a college (the average acceptance/application ratio over the last four years was 0.78 for universities and 0.70 for colleges), but this probably reflects the better aptitudes of university applicants. It is important that these ratios have been relatively stable, indicating that the HE institutions had the capacity to grow in response to the growing demand. Figure 4 shows that, on average, a greater ratio of those who apply to universities end up enrolling in universities than the ratio of those who apply to colleges (0.65 and 0.55 respectively).

Figure 2. Trends in Applications to Palestinian Universities and Colleges.

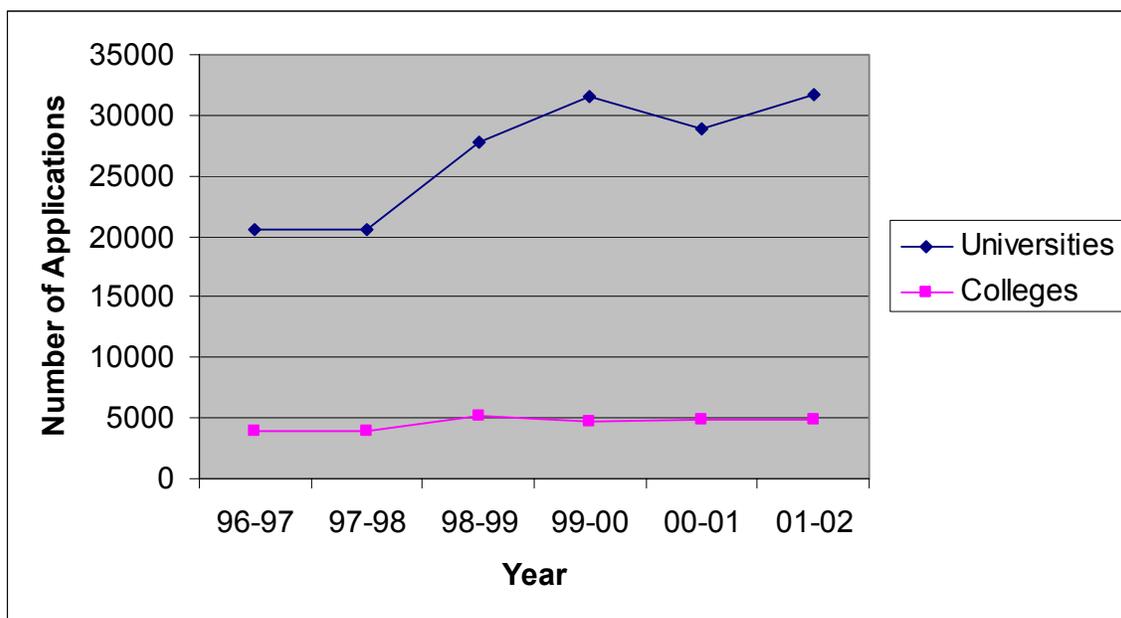


Figure 3. Trends in Acceptances/Applications Ratio in Palestinian Universities and Colleges

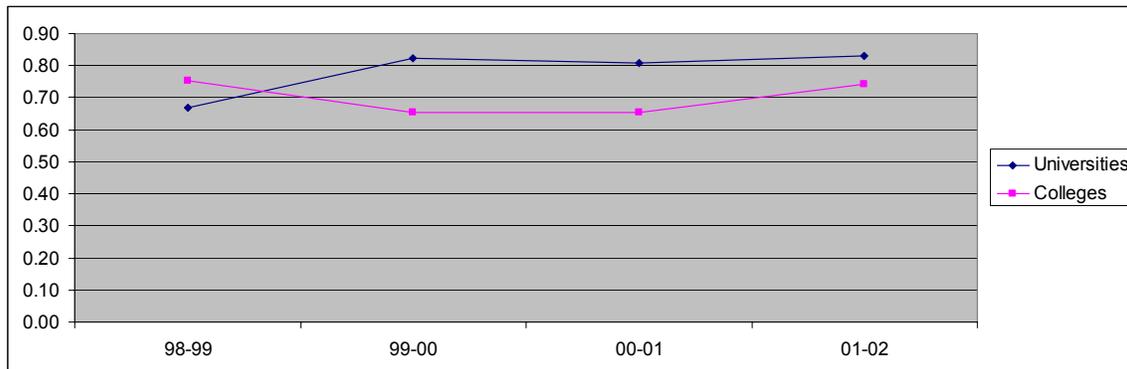
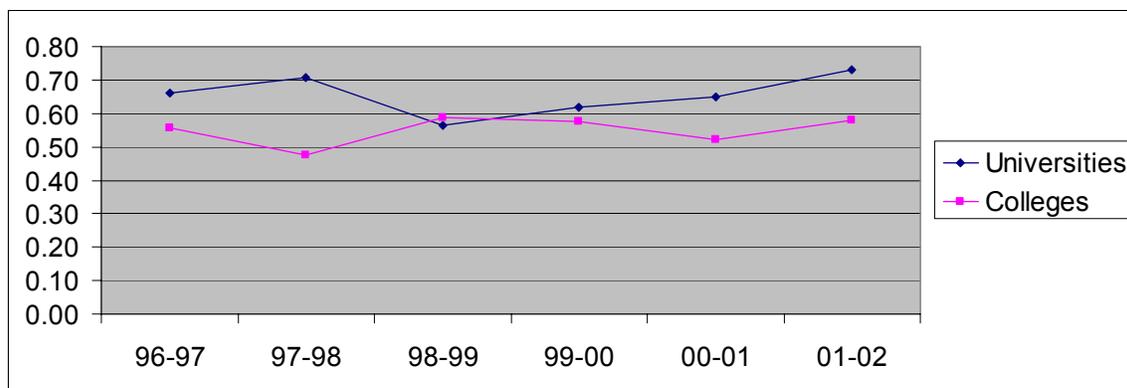


Figure 4. Trends in Enrollment/Applications ratio in Palestinian Universities and Colleges



In conclusion, one of the reasons why university enrollment increased at a much higher rate than did college enrollment is the higher demand for university education, and the better acceptance/application ratios for universities compared to colleges.

When discussing access and capacity, we need to compare the situation in Palestine to other places. Table 3 shows that by year 99/00 the gross enrollment ratio in higher education institutions in the West Bank and Gaza had reached 16.8 percent. (UNESCO estimated the ratio to be 24.9 for 98/99. The UNESCO figure (Tables 4 and 5) is consistently higher than is the MOHE figure. The UNESCO figure probably takes Palestinian students studying abroad into account, and the definition of a portion of the student population used in the calculation might be different).

Whether we use the MOHE or the UNESCO figures, we find that the figure for the gross enrollment ratio in higher education institutions is higher in the West

Bank and the Gaza Strip than it is in developing countries; it is slightly higher than in some other Arab states, although it was slightly lower a few years prior.

Table 3. Higher Education Enrollments 1995-1999

Year	95/96	96/97	97/98	98/99	99/00
Total population (X1000)	2483.2	2630.8	2783.1	2897.5	3084.9
Ages 18 to 24 years old	319.6	338.6	385.2	371.2	401.0
University enrollments	29.5	36.9	45.4	52.4	61.8
College enrollments	3.2	3.6	4.2	4.3	5.4
Total higher education enrollments	32.7	40.5	49.6	56.7	67.2
As % of total population	1.3	1.5	1.8	2.0	2.2
As % of 18-24 years old	10.2	12.0	12.9	15.3	16.8

Sources: Palestinian Central Bureau of Statistics (PCBS)
Ministry of Higher Education and Scientific Research (MOHER)

Table 4. Gross Enrollment Ratios, 1997, (UNESCO)

Region	Gross enrollment ratio (%)		
	Total	Male	Female
WORLD TOTAL	17.4	18.1	16.7
More developed regions	61.1	56.8	65.6
of which:			
Northern America	80.7	70.8	91.0
Asia/Oceania	42.1	43.3	40.9
Europe	50.7	47.9	53.6
Countries in transition	34.0	30.6	37.6
Less developed regions	10.3	12.0	8.5
of which:			
Sub-Saharan Africa	3.9	5.1	2.8
Arab States	14.9	17.3	12.4
Latin America/Caribbean	19.4	20.1	18.7
Eastern Asia/Oceania	10.8	12.5	9.0
Of which: China	6.1	7.8	4.2
Southern Asia	7.2	9.1	5.1
Of which: India	7.2	8.8	5.5
Least developed countries	3.2	4.6	1.7
Palestine (98/99 data)	26	27	24.9

If we compare the situation in the West Bank and Gaza with that in neighboring countries, we find that the ratio is still lower than in some other Arab states like Jordan and Lebanon (Table 5), and much lower than that of Israel or of developed countries.

Table 5. Gross enrollment ratio at tertiary level, 98/99, (UNESCO)

Country	Gross enrollment ratio (%)		
	<i>Total</i>	<i>Male</i>	<i>Female</i>
Jordan	28.6	26.8	30.6
Lebanon	36.7	35.2	38.2
Syria	6.09		
Israel	50.3	41.8	59.4
Palestine (UNESCO)	26.0	27.0	24.9
Palestine (MOHE)	15.3		
UK	57.8	51.8	64.2
USA	71.6	62.2	81.5
Australia	63.0	56.5	69.8

In conclusion, the two facts that high school graduates are increasing at an annual rate of nine percent and that the gross enrollment ratio of about 17 percent is still low compared to other neighboring countries, indicate a growing demand in the future. As will be shown in the section on quality, there are many indications that the universities have neared their limit in expansion, although, as we shall see, many are planning expansion. There seems to be some more capacity, and more need for expansion in the second sector, that of community colleges. We turn now to study each of these sectors in detail in the following two sections.

2.2 Universities

A partial explanation for the relative expansion of student population in universities compared to colleges is the great expansion of three institutions: Al-Quds Open University, Al-Aqsa University, and the Polytechnic in Hebron. Al-Quds Open University accepts students with Tawjihi averages below 65, while the rest of the universities require an average of at least 65 (Some university administrators we interviewed accused universities other than Al-Quds of accepting students whose Tawjihi averages fell below 65). Consequently, Al-Quds Open University became the main competitor for community colleges who had traditionally accepted students with low Tawjihi averages that did not allow them to enroll in universities. Tables 6 and 7, and Figure 5 show the expansion of different universities during the last five years, and the distribution of students in each.

It is interesting to note that the universities that were exhausting their facilities at the beginning of this five year period, such as Al-Azhar and An-Najah, ranked towards the bottom in terms of increase in students. Indeed Al-Azhar actually decreased its student population. Al-Quds Open University alone now holds 35.4% of the student population in universities. Additionally, it has attracted students who would otherwise have enrolled in community colleges. Hence the

quality and relevance of its programs will influence the nature of university education in Palestine as a whole, and therefore careful examination of these programs is warranted.

Table 6. Distribution of Students in Different Universities

Institution	Number of Students in 01-02	% of Students
Al-Quds Open University	29845	35.4
Islamic University	12248	14.5
An-Najah University	8467	10.1
Al-Azhar University	7980	9.5
Al-Aqsa University	5997	7.1
Al-Quds University	5937	7.1
Birzeit University	5319	6.3
Hebron University	3468	4.1
Bethlehem University	2063	2.4
Palestine Polytechnic University	1430	1.7
The Arab American University	874	1.0
Women's Community College	301	0.4
Ramallah Community College	280	0.3
TOTAL	84209	100.0

Source: MOHE Yearbooks, some data for other institutions missing.

Figure 5. Percentages of Students in Different Universities.

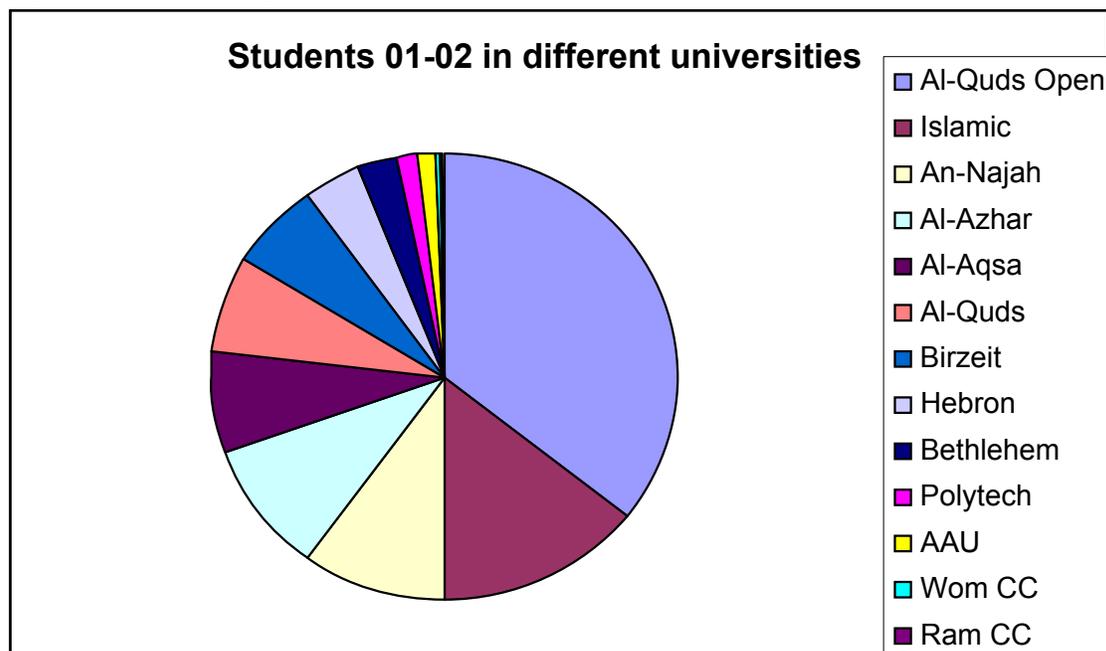


Table 7. Expansion of Universities During 1997-2002 Period

Institution	% increase 1997-2002
Al-Quds Open	352.2
Al-Aqsa	293.3
Polytech	272.4
Al-Quds	231.6
Hebron	223.0
<i>AVERAGE</i>	<i>185.5</i>
Islamic	182.4
Ram CC	149.7
Birzeit	145.9
An-Najah	111.4
Bethlehem	99.6
Wom CC	97.1
Al-Azhar	82.3

Sources: MOHE yearbooks.

In the questionnaire distributed to HE Institutions, we asked the universities for the reasons behind the increases in their student numbers. The only reason that was mentioned by more than one university was the opening of new programs of study. When we asked explicitly about the importance of different factors in accounting for the changes in student population, the factor that was rated as very important by two thirds of the responding universities was the development of new programs. Forty four percent of the responding universities (including Al-Quds Open) rated a second factor, that of increased demand, as very important. Other factors that were mentioned as responsible for decreasing, rather than increasing the student population, were the political and economic situation associated with the Intifada, and opportunities for study in other institutions, that is, competition from local and foreign universities.

Table 8. Programs of Study in Great Demand in Universities

<i>Program of study</i>	<i>Percent of universities mentioning program</i>
Information Technology	44.4
Education	44.4
Business administration	33.3
Engineering	33.3
Management Inform. Systems	22.2

Table 8 shows the programs of study that were most in demand during the last few years. The programs that had the least demand (mentioned by 44.4% of respondents) were those in the pure sciences. One university official interviewed summarized what seems to be the trend in many universities, namely a growth of

student populations in professional programs and a decrease in academic programs.

When asked about their plans for the future, most universities indicated that they planned for further growth, (a result we had not anticipated). Some universities planned for doubling their student populations within the next five years.

The obstacles to expansion that were mentioned by universities were a shortage of material capital (space, buildings, equipment), a factor mentioned by 67 percent of respondents; and a shortage of human capital (faculty, administrators), a factor mentioned by 44 percent of respondents. We also asked the universities to rate the importance of different factors as obstacles to expansion, using a five-point scale (1=very important, 5=not important at all; see appendix 2). We considered the factor as important if it received an average rating of less than 2.5. Table 9 summarizes the results of this question.

Table 9. Average Ratings of the Importance of Different Factors as Obstacles to Expansion as Seen by University Administrators.

Factor	Average Rating
Faculty: shortage in certain specializations	2.2
Financial effects on research	2.2
Financial effects on motivating staff	2.3
Material resources: labs	2.5
Space: Administration	2.6
Space: classrooms	2.7
Material resources: computers	2.8
Material resources: library	2.8
Space: labs	2.8
Space: Library	2.8
Material resources: networks	3.3

As can be seen, the most important obstacles to growth, as affirmed by university officials, are the shortage of faculty in some specializations, and the shortage of financial resources needed to motivate the faculty (adequate salaries), and to fund their research activity. We find it extremely interesting that university officials rated the three faculty-related factors as more important than the rest of the capital investment related factors.

The areas of specialization of faculty that were in short demand were:

- Computer science and computer engineering, information technology, multimedia.
- Business and economics: business administration, management, accounting and financial/fiscal management, marketing, public administration.
- Engineering: automation, surveying, industrial, mechanical.

- Medical sciences: medicine, veterinary medicine, dentistry, physiotherapy, functional therapy.
- Social Sciences and education.

2.3 Colleges

In colleges, there has been an increase in student numbers, as seen in Table 2, but this has been a very small increase compared to that in universities. Figure 6 indicates that the percentage of tertiary level students studying in colleges has been declining in the last few years, despite the increase in the absolute numbers studying in these colleges.

Figure 6. Percentages of Students in Community Colleges

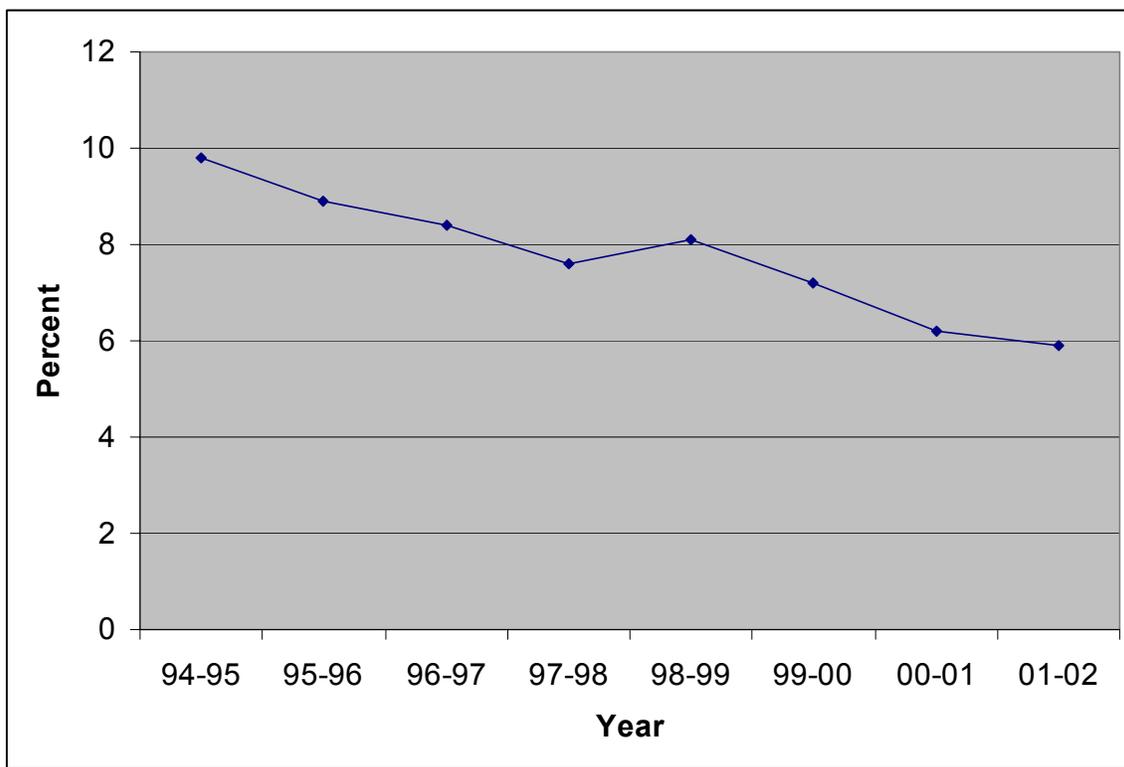
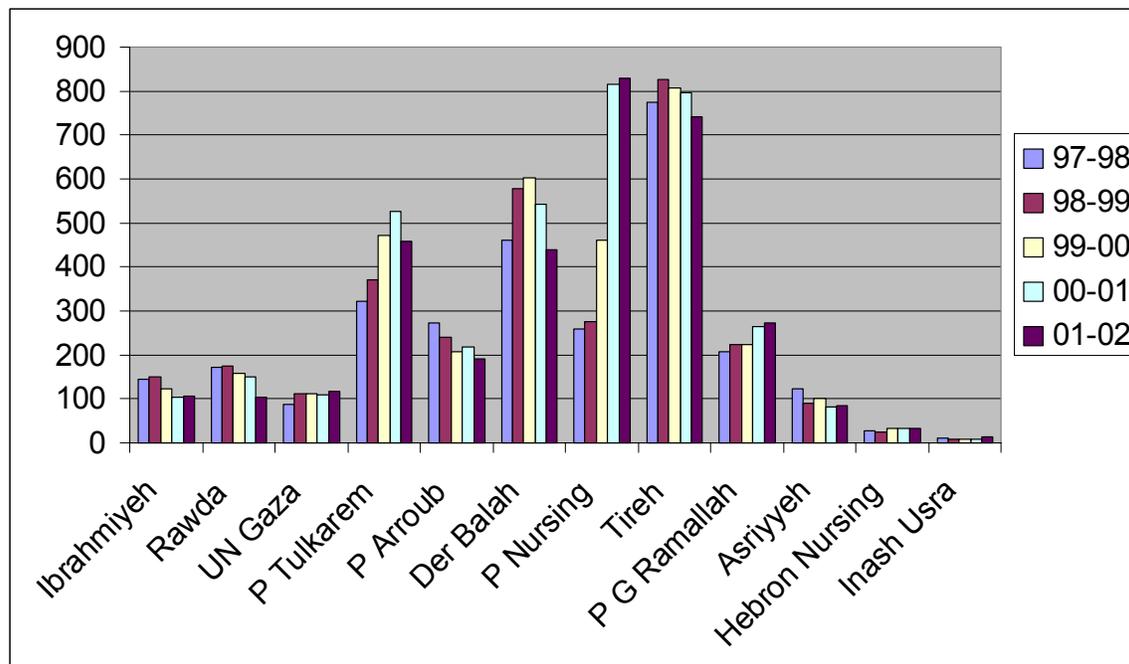


Figure 6 above indicates that the percentage of HE students who study in community colleges has dropped in 2001-2002 to about six percent. This is an unsatisfactory situation compared to that in other countries. In Israel the percentage is about 24 percent, while it reaches about 44 percent in the US.

Data from our questionnaire indicates that while there has been an increase in the number of students in UNRWA and in Government run colleges, private or public colleges have generally faced a decline in student populations (see Figure

7). There are some exceptions to this, as indicated by the decline in student numbers in Palestine Technical College at Al-Arroub, a government institution.

Figure 7. Student Numbers in Some Colleges During the Last few Years



Source: Data from institutions secured via questionnaire.

Figure 7 above indicates that the five government-run Palestine Technical Colleges (Tulkarem, Arroub, Der El-Balah, Nursing in Khan Younis, and Girls in Ramallah), hold the majority of the students. The only other institution of major size is the UNRWA-run Women Community College in the Tيره suburb of Ramallah. The other private or public institutions are small in comparison, and, as pointed out previously, are decreasing in size.

New programs offered by colleges have been mainly responsible for the increase in student population. Forty percent of institutions responding to our questionnaire have mentioned this factor as a cause for growth, while none of the institutions with decreasing student populations mentioned this factor. Two other factors were mentioned that adversely affected the colleges' growth and/or the composition of their student bodies. These were the political situation, and the closures in particular, and the competition from other institutions, with Al-Quds Open University being the most frequently cited institution. Sixty seven percent of the colleges mentioned closures as a factor, and 33% mentioned competition from other institutions. It seems that the restrictions on movement, the opening of new programs in the Palestine community colleges, and the expansion of universities, and in particular Al-Quds Open University -- have depleted the traditional pool of students of the private/public colleges, and have led to the decrease in their size. Without new attractive programs, these colleges have little chance to survive. The importance of new programs as a factor in growth was

further revealed when 40 percent of the colleges rated the need for new programs as very important.

The program that was most in demand, according to college administrators, was nursing (mentioned by 27%), while the program that was least in demand was office management (mentioned by 13%). There was very little consensus about the demand for other programs.

With regard to the colleges' plans for future growth, many indicated that they could not plan because they felt that external conditions beyond their control influenced their size. However, almost all private/public colleges and one Palestine Technical College (Tulkarem) indicated that they had the capacity to grow substantially; some as much as tenfold. Many of these colleges had much larger student bodies in the past, and they believe that they have the space necessary for growth (but not the equipment, as we shall see later). It is interesting to note that many of these colleges wished they could develop more programs leading to Bachelor's degrees. It is ironic that these community colleges, faced with competition from the universities, are responding by trying to emulate them.

When asked to mention the obstacles, 73 percent of the responding colleges mentioned facilities-related factors, and 33 percent mentioned human capital related factors, which were also indicated by universities. College administrators mentioned two other factors: closures (20%), and UNRWA or government policy that did not allow expansion (13%). For example, some MOHE-run colleges mentioned centralization of decisions, such as appointments of faculty, and the need to use a centralized curriculum, as impediments to growth.

When asked to rate the importance of different obstacle to growth, college administrators agreed with university administrators on the importance of higher salaries for the faculty and also on the need for funding to facilitate research. However, unlike universities, they did not rate the shortage in faculty specializations in certain field as important, but rated factors related to material resources (laboratories) as the most important. (Again, we considered an average rating of less than 2.5 as important). Given the expense of developing laboratories and workshops, especially for vocational education, this is not surprising. See Table 10 for details.

Table 10. Average Ratings of the Importance of Different Factors as Obstacles to Expansion as Seen by College Administrators.

Factor	Average Rating
Financial effects on research	1.9
Financial effects on motivating staff	2.0
Material resources: labs	2.4
Space: classrooms	2.7
Space: labs	2.7
Material resources: computers	2.8
Material resources: networks	2.9
Material resources: library	3.1
Faculty: shortage in certain special	3.1
Space: Library	3.2
Space: Administration	3.4

2.4 Conclusions and Recommendations

2.4.1 Summary

We have concluded that there will be a growing demand for higher education, in the future, since the high school graduate population in the West Bank and Gaza is increasing at an annual rate of nine percent while the gross enrollment ratio of about 17 percent is still low compared to other neighboring countries. Universities have responded well to the increased demand over the last five years, but not colleges. Most universities have approached their limit in expansion, but, nevertheless, many are planning to expand further. There seems to be some more capacity, and more need for expansion by the community colleges

The expansion in university education is attributed mainly to the huge growth of three institutions: Al-Quds Open University and Al-Aqsa University, and the Polytechnic in Hebron. Al-Quds Open University accepts students with Tawjihi averages below 65, thus attracting many students who would traditionally have enrolled in colleges.

Most universities have expanded as a result of starting new programs of study, the most popular being information technology, education, business administration, and engineering. Universities face two main obstacles to further growth: a shortage in material capital and in human capital. University administrators have indicated human-capital related factors as being the most important in inhibiting growth, namely the shortage of faculties in certain specializations mentioned above, including the medical sciences, as well as low faculty salaries and a shortage of funding for faculty research activities.

The percentage of tertiary level students studying in colleges has been declining in the last few years and is currently at six percent, despite an increase in the absolute numbers studying in these colleges. This is an unsatisfactory situation compared to that in other countries.

While there has been an increase in the number of students in UNRWA and in government run colleges, private or public colleges have generally faced a decline in student populations. New programs offered by colleges have constituted the major cause for the increase in student population. The restrictions on movement, the opening of new programs in the Palestine Community Colleges, and the expansion of universities, and in particular Al-Quds Open University, have all jointly attracted students from the traditional pool of students of the private/public colleges, and have led to a decrease in enrollment in these colleges. Additionally, all colleges were affected by the higher demand by students for university, rather than college education, and the fact that universities could accept a higher percentage of students from the pool of applicants, probably due to the better qualifications of university applicants compared to college applicants.

The program that was most in demand, according to college administrators, was nursing, while the program that was least in demand was office management.

Almost all private/public colleges and one Palestine Technical College (Tulkarem) indicated that they had the capacity to grow substantially; some as much as tenfold. Many of these colleges had much larger student bodies in the past, and they believe that they have the space (but not the equipment) necessary for growth.

The factors that inhibit growth in these colleges are the same as those in universities, namely, the shortage of material and human capital. College administrators agreed with university administrators on the importance of higher salaries for the faculty and for funding to facilitate research. However, unlike universities, they did not rate the shortage in faculty specializations in certain fields as important, but rated factors related to material resources (laboratories) as the most important.

The present findings converge with those of the three previous studies about the continued growing demand for HE in Palestine. They also corroborate the finding that the opening of new fields of study was the most important factor affecting growth. Finally, the findings agree with those of previous studies in identifying low faculty salaries and little funding of research activity as serious impediments to future growth. The detailed analysis conducted in the present study of each of the two sectors of HE revealed the other new findings summarized above -- findings that previous studies have not identified.

The findings from this section of the study support some recommendations that are enumerated below. However, it should be pointed out that findings and

recommendations from the different sections of the study are interrelated, and a final synthesis of the recommendations will be offered at the end of the report.

2.4.2 Conclusions

The West Bank and Gaza have witnessed an increasing demand for higher education, and for university education, in particular. This demand is expected to continue in the future. Universities, and some colleges, have responded well to this demand, mainly by opening new programs of study. However, the lesser demand for college education, and the competition from universities, especially Al-Quds Open University, have brought about a situation where a smaller percentage of tertiary students study in colleges. While the gross enrollment ratio for university education is still low compared to some neighboring countries, the gross enrollment ratio for college education is extremely low. In general, there is a need for more diversification, in term of type and quality, of education at the tertiary level, and at the school level as well.

HE institutions face two obstacles in responding to the demand: they need to invest in upgrading and expanding their faculty and their facilities. The funding for this development is limited, given the low student fees and the limited abilities of these institutions to generate income. As will be shown later in this report, there are some indications that institutions that have expanded in response to this demand, might have done so at the expense of the quality of education that they offered.

2.4.3 Recommendations

The Ministry of Higher Education (MOHE)

1. Make financial support to programs and to students interested in specific programs (and hence, admissions into programs) contingent on the quality and relevance of these programs.
2. HE financial strategy should take into consideration the need to provide better salaries for the faculty, and better funding for research activities. A serious effort should be made to reduce moonlighting and overloads. MOHE should facilitate, as it had in the past, the development and adoption of salary scales by HE institutions. It could fund, as it has started to do this year, some research activity in universities.
3. Develop a strategy for the development of HE in the West Bank and Gaza Strip, as well as the mechanisms for enforcing the policy in regards to HE institutions. A well-defined concise vision and mission for each of the two sectors of HE should be made available to HE institutions and to other stakeholders. This should provide some guidelines for developing community colleges, and the open university.

4. The development of the community colleges sector should become a priority, as well as giving clear guidance as to the aims and policy for the development of community colleges that would accord more autonomy to MOHE-controlled colleges, and that would facilitate the growth of private and public colleges. It is further recommended to examine the mission, size, quality and types of programs offered by Al-Quds Open University. For example, is it best to allow the University to continue to draw students from the pool of potential community college students? Furthermore information should be disseminated about the quality and relevance of different programs in different institutions, so that students can decide what benefits they would derive from their investment of time and money.
5. Develop incentives to attract more students to colleges (scholarships, data on employment opportunities, etc), and discourage admissions to universities, especially in non-priority fields of study (such as humanities and education).
6. Further investigate the need to develop new HE institutions, whether public or private. Facilitate accreditation of new institutions that meet quality and relevance criteria.

Funding Agencies

1. Initiate and support a faculty development program, especially for the universities.
2. Enhance the planning capacity of HE institution.

3.0 Equity

3.1 Socioeconomic Status

The Palestinian Higher Education Financing Strategy Study points out that the rate at which students from the lowest consumption quintile participate in higher education is less than one-half of the higher education participation rate for students in the highest consumption rate (Table 11). While this is an issue that is of concern and warrants further investigation, it is difficult to interpret by itself. The data refer to Palestinians in higher education in Palestine and abroad, and it is usually the rich that can afford studying abroad. We also need to compare the situation here to that in other places.

Table 11. University Graduates and Participation Rates by Quintile of Individual Monthly Consumption (1998)

Individual Monthly Consumption Quintile	Share of Population	Share of Graduates from Universities	# Of 18-24 Yr. Olds (In 000s)	# Of 18-24 Yr. Olds Enrolled in University (In 000s)	Participation Rate (4/3)
Lowest	20%	9.1%	81.5	7.6	9.3%
Second	20%	14.8%	87.5	12.0	13.8%
Third	20%	15.7%	83.2	13.7	17.3%
Fourth	20%	23.4%	79.3	13.7	17.3%
Fifth	20%	37%	79.1	16.4	20.7
All	100%	100%	41.1	63.4	15.5

Source: World Bank calculation based on Palestinian Expenditure & Consumption Survey, 1998.
 Note: These figures include those West Bank/Gaza residents who received degrees from non-Palestinian universities.

In response to a question in our questionnaire related to this issue, it appeared that none of the universities and only one of the colleges were aware of this equity problem. None of the universities positively discriminated in their admission policies to accept more students with low socioeconomic status, while 20 percent of the colleges affirmed such policies. However, only one college (7%) gave clear examples of the use of such a policy. Many universities and colleges, however, explained that while they did not positively discriminate in their admission policies, they facilitated access to loans and scholarships to needy students.

3.2 Gender

The Palestinian Higher Education Financing Strategy Study asserts that gender inequity is not an issue in Palestinian higher education. "Palestinian women participate in HE at slightly lower rate than men, but their rates exceed those for other Middle Eastern countries and other developing regions of the world. They are not significantly lower than the rates in many developed nations ... However, as in most other countries, female Palestinian students enroll disproportionately in education and in other non-scientific fields, a statistic that should be a source of concern." Table 12 shows the percentage of female higher education students in different regions of the world.

Table 12. Percentage of Female Higher Education Students by Region (1995)

Region	Percent Female Students
WORLD TOTAL	47
More developed countries	52
North America	55
Europe	51
Countries in transition	54
Less developed countries	40
Sub-Saharan Africa	41
Arab States	35
Latin America/Caribbean	49
East Asia	40
South Asia	34
Least developed countries	27
West Bank/Gaza	43

Source: UNESCO, World Conference on Higher Education, 1995

When one examines the latest UNESCO statistics for 1996, shown in Table 13, one realizes that gender equality is better in some neighboring countries like Jordan and Lebanon, in terms of percentage of females in higher education as a whole. The fact that in Palestine females are over-represented in the fields of education and humanities and under-represented in law, the social sciences and scientific fields, lead to a gender segregation index of ten, which is better than Jordan but worse than Lebanon. It is interesting, however, that in this regard,

Palestine ranks better than some developed countries, such as UK, Australia and Spain.

Table 13. Percentage of Female Higher Education Students in different fields of study, 1996, UNESCO

Country	Percentage of Female Students in each field of study, 1996, UNESCO						
	All fields	Education	Humanities	Law and social sciences	Natural sciences, engineering and agric.	Medical sciences	Gender segregation index (%)
Algeria	44	26	65	47	36	50	8
Egypt	42	54	53	36	29	43	9
Jordan	47	65	64	38	36	54	12
Lebanon	49	38	54	51	37	53	4
Syria	39	53	43	na	31	35	10
UAE	72	95	84	56	42	67	21
Palestine	44	57	57	31	32	54	10
UK	51	71	61	50	25	77	15
Australia	51	71	67	52	28	74	14
Spain	53	75	64	57	33	70	12

If we analyze the 2000/2001 data provided by the Ministry of Education for female under-representation as a whole, and not in certain fields of study, we find that while females constitute 52 percent of the high school students, they constitute nearly 47 percent of the university students and 57 percent of the college students. Consequently, the ratio of females in HE is improving. Females are slightly under-represented only among university students.

When asked about gender inequality, none of the universities and 13 percent of the colleges were aware of it. However, 22 percent of the universities and 47 percent of the colleges asserted that they discriminated in admission. One university has a clear policy of encouraging students to major in certain fields through the use of incentives (to encourage males to study TESOL and females to study nursing, for example). Most colleges positively discriminate because they are females-only institutions. In one particular college we found evidence of encouraging males to study nursing because the administration believed that males were more likely to stay in the profession after marriage.

3.3 Region

The West Bank and Gaza are divided into directorates. We calculated the percentages of students in high schools and universities in each directorate and compared them in Table 14. As can be seen, the Jenin, Hebron, and Qalqilya directorates are under-represented in universities, but the worst under-representation is in the Salfit district. In general the West Bank is under-represented compared to Gaza, and this is mainly due to the large number of students in the three Gaza universities.

Table 14. Percentages of Students in Universities and High Schools by Sex and Directorate (2000/2001)

Directorate	Percentage of students from Directorate in			Percentage of Female Students in		Difference %
	High School	University	Difference %	High School	University	
Jenin	8.1	6.9	-14.8	49.5	45.8	-7.5
Nablus	9.0	10.4	15.6	51.2	46.6	-9.0
Salfit	1.9	0.6	-68.4	50.7	44.0	-13.2
Tulkarim	4.4	5.0	13.6	51.4	46.1	-10.3
Qalqilya	2.4	1.8	-25.0	50.2	47.8	-4.8
Ramallah	8.6	8.6	0.0	53.7	51.0	-5.0
Jerusalem	5.2	6.1	17.3	60.7	60.8	0.2
Bethlehem	5.0	4.6	-8.0	52.4	56.6	8.0
Jericho	0.8	0.7	-12.5	56.1	58.7	4.6
Hebron	14.3	9.9	-30.8	53.2	48.0	-9.8
WB Total	59.6	54.7	-8.2	52.8	50.0	-5.3
Gaza Total	40.4	45.3	12.1	50.9	42.8	-15.9
Grand Total	100.0	100.0		52.0	46.7	-10.2

The data show a clear need for more students from the Salfit area to join higher education. There is also a need to facilitate the higher education studies for the Hebron and Qalqilya areas students. The table also indicates that while the percentage of females in high school in Palestine in general is 52 percent, the percentage of female students in universities is only about 47percent, indicating the gender discrimination previously discussed. However, the table indicates that there are important gender by region interactions. While the percentage of females in universities stays equal to that in high school or improves in the Jerusalem, Bethlehem and Jericho areas, it gets worse in all other areas, with the worst deterioration being in the Gaza Strip, followed by a less severe deterioration (but still worse than the average of -10.2) in Salfit. The percentage of females in universities is also lower than the average for the West Bank in Hebron, Tulkarim, Nablus, Jenin.

Table 15 uses the same approach to measure regional and gender inequity for access to colleges. The following can be deduced from the table.

There is a need to increase the number of college students in the Gaza Strip, compared to the West Bank. In the West Bank, there is a need to increase the number of college students from Jenin, Salfit, Bethlehem, and Jericho. The percentages of students who study in colleges from the Jericho area in particular is very low. Part of the reason for the low proportion of students in colleges in the regions of Jericho, Salfit and Jenin is that there are no community colleges in these regions. There is a lot of variation in access to colleges by region, compared to access to universities. In comparison, there is a high percentage of students who study in colleges in Tulkarim and Nablus, followed by Jerusalem and Hebron.

In the area of Jerusalem there is a much higher number of female college students compared to male students. This ratio is also high in the Ramallah area. The percentage of females is slightly higher in the West Bank than in Gaza, and it is higher in colleges than in universities. In the West Bank, there is a need to increase the number of female college students from Jericho, Bethlehem, Hebron, Salfit, and Jenin.

Consequently, there is a need for more access to college education for both sexes, and for females in particular, in Jericho, Salfit, Jenin, and Bethlehem. There is a need for better access for females in Hebron, and for males in Gaza Strip.

Table 15. Percentages of Students in Colleges and High Schools by Sex and Directorate (2000/2001)

Directorate	Percentage from directorate in		Change %	Percentage of Female Students in		Change %
	High School	College		High School	College	
Jenin	8.1	5.5	-32.1	49.5	44.5	-10.1
Nablus	9.0	15.2	68.9	51.2	58.4	14.0
Salfit	1.9	1.0	-47.4	50.7	41.2	-18.8
Tulkarim	4.4	8.4	90.9	51.4	56.4	9.6
Qalqilya	2.4	2.9	20.8	50.2	49.3	-1.8
Ramallah	8.6	10.3	19.8	53.7	75.7	41.0
Jerusalem	5.2	6.8	30.8	60.7	83.1	37.0
Bethlehem	5.0	2.4	-52.0	52.4	46.7	-10.9
Jericho	0.8	0.3	-62.5	56.1	43.8	-22.0
Hebron	14.3	18.0	25.9	53.2	48.8	-8.3
WB Total	59.6	71.0	19.1	52.8	58.4	10.7
Gaza Total	40.4	29.0	-28.2	50.9	53.9	5.9
Grand Total	100.0	100.0		52.0	57.1	9.8

In response to our questionnaire it appeared that only one university and one college were aware that there was unfair representation of different areas of Palestine in their student body. Three colleges claimed that they discriminated positively to ensure fair representation, and two gave specific examples about this policy as it applied to admission in general or to specific programs.

3.4 Conclusions and Recommendations

3.4.1 Summary

The rate at which students coming from the lowest consumption quintile in the West Bank and Gaza, participate in higher education is less than one-half the higher education participation rate for students in the highest consumption level. None of the universities and only one of the colleges were aware of this equity problem. None of the universities positively discriminated in their admission policies to accept more students with low socioeconomic status, while 20% of the colleges affirmed such policies. Scholarships and loans for the needy, however, are usually available.

Female Palestinian students are over-represented in the fields of education and humanities and under-represented in law, the social sciences and scientific fields. None of the universities and 13 percent of the colleges were aware of this. However, 22 percent of the universities and 47 percent of the colleges asserted that they discriminated in admission. The high percentage in the colleges is due to fact that there are many all girls colleges, while almost all universities are co-educational.

The Jenin, Hebron, and Qalqilya directorates are under-represented in universities, but the worst under-representation is in the Salfit district. In general the West Bank is under-represented compared to Gaza, and this is mainly due to the large number of students in the three Gaza universities. The percentage of females in universities stays equal to that in high school or improves in Jerusalem, Bethlehem and Jericho areas; it gets worse, however, in all other areas, with the worst deterioration being in the Gaza Strip followed by a less severe deterioration in Salfit. The percentage of females in universities is also lower than the average for the West Bank in Hebron, Tulkarim, Nablus, Jenin.

There is a need to increase the number of college students in the Gaza Strip, compared to the West Bank. In the West Bank, there is a need to increase the number of college students from Jenin, Salfit, Bethlehem, and Jericho. The percentages of students who study in colleges from the Jericho area in particular is very low. Part of the reason for the low proportion of students in colleges in the regions of Jericho, Salfit and Jenin is that there are no community colleges in these regions.

Consequently, there is a need for more access to college education for both sexes, and for females in particular, in Jericho, Salfit, Jenin, and Bethlehem. There is a need for better access for females in Hebron, and for males in the Gaza Strip.

One university and one college were aware that there was unfair representation of different areas of Palestine in their student body. Three colleges claimed that they discriminated positively to ensure fair representation

The present study does not add much to our knowledge about socioeconomic and gender equity problems in HE education in the West Bank and Gaza, as these have been discussed in previous studies. However, the present study reveals important under-representation of students of some regions in the West Bank and Gaza and sheds some light on region-gender interaction.

3.4.2 Conclusions

There are equity problems in HE in the West Bank and Gaza; these are related to socio-economic status, gender, and region of residence. Poorer students are less likely to get tertiary education, and females are less likely to go to universities or to major in law, social sciences, or scientific fields. However, the gender inequity problem is not serious in comparison with other countries. Students living in some areas of the West Bank or Gaza are less likely to enroll in a college or university, but this also depends on the gender of the student... Females in one region might be more underrepresented than males, but the situation might be reversed in another region. While many HE institutions gave scholarships or loans to needy students, few had proactive strategies to attract students from low SES, to attract females in certain fields, or to attract students from certain regions.

3.4.3 Recommendations

MOHE and HE Institutions

1. Conduct a well-designed study of the reasons for young people to enroll at the tertiary level, to enter a college or a university, and to enroll in a certain field of study.
2. Develop proactive strategies to attract:
 - Students with low SES to HE institutions.
 - Female students to universities in general, and to enroll in law, social sciences and scientific fields in particular.
 - Male students to community colleges.
 - Students from Hebron, Jenin, Salfit and Qalqilya regions to universities.

- Female students from Gaza, Hebron, Tulkarim, Nablus, and Jenin to universities.
- Students from the Gaza Strip, Jenin, Salfit, Bethlehem, and Jericho to colleges.
- Female students from Hebron, Jericho, Salfit, Jenin, and Bethlehem to study in colleges.

Funding Agencies and MOHE

1. Study in more detail the need for community colleges in Jericho, Salfit and Jenin. If our hypothesis that there is a need for such colleges is supported, then facilitate the development of community colleges in these regions.

4.0 Quality

Previous reports have all concluded that the quality of higher education in the West Bank and Gaza has declined during the last decade. The TTW and AED (1999) report, for example, indicated that the private sector found higher education to lack in quality and relevance. Many of the recommendations made in the report were related to improving quality: The report recommended department strengthening to address identified weakness in curriculum, faculty preparation and teaching methods, faculty development, and inadequate salaries.

The Palestinian Higher Education Financing Strategy (2002) asserted that universities tried to reduce per student expenditure, without trying to improve efficiency and preserve quality. Finally, the Palestinian Higher education Strategy ((2001) identified the need to reverse the declining quality of higher education. The report reached this conclusion due to the fact that enrollment doubled since 1994/95, while staff has almost stayed the same, and there has been no corresponding substantial investment in upgrading the facilities. These reports have focused on universities, but covered higher education in general. We found that there was a need to examine each of the two sectors separately, and to look at individual institutions as well.

4.1 Universities

We have examined trends prevailing in the last few years, given the constraints of the available data. We looked at trends in some ratios that we thought might serve as indicators of quality. Student/teacher ratio is one important indicator. Since many institutions used different ways of calculating and reporting the number of full time and part time faculty, we had no confidence in the calculated full-time equivalent numbers given, and resorted to using full time teachers only in another index. During the interviews we had with some university officials, and based on our personal experience in the area, we knew that part time faculty members usually offered instruction which was inferior to that offered by full timers -- mainly because the part-time faculty were working full time in another institution, and they dedicated their energies to their mother institution. Consequently, we considered that the percentage of full timers in an institution could be cautiously used as an indicator of quality. We also used books/student ratio as another indicator of instructional quality. To gain some preliminary insight into the characteristics of the faculty and of the research conducted by the faculty, we calculated the percentages of holders of at least a Master's degree, those holding Ph.D.'s and those who were at least associate professors in each institution, (assuming the latter were promoted partly due to research activity). We also had to consider the scholarly journals available to the faculty by calculating the ratio of journal/full time faculty member in each university.

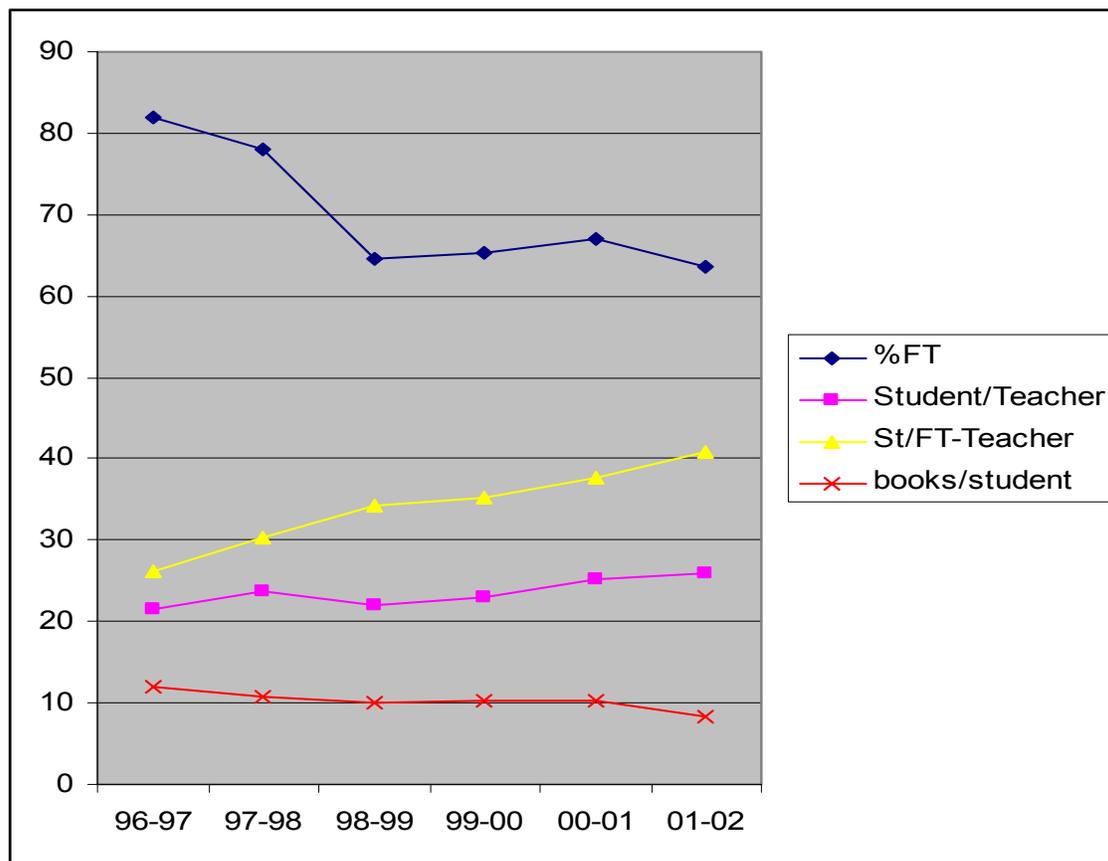
Table 16 and Figure 8 confirm what previous reports have asserted: universities have tried to decrease the cost per student by increasing their student populations, with no corresponding growth in faculty and facilities. In some cases, such as subscriptions to journals, we actually see a decrease in the number of journals in libraries. There has, in fact, been a steady increase in the student/teacher ratio, and a decrease in the books/student ratio and in the journal/teacher ratio. Universities have also tried to cut down their costs by hiring more part time faculty members who do not cost the universities the benefits afforded to full timers, such as health insurance, severance pay and provident fund. Interviews with some officials in some universities indicated that there has also been a substantial increase in overtime loads to full time faculty members. For example, in one university where we were able to access the required statistics, we found that faculty members worked, on average, the equivalent of 20 percent overtime load. In the current situation, faculty members are teaching more courses in their own institutions and in other institutions as well, to larger classes, which probably affects the quality of their teaching. With the increasingly smaller amount of time available to them to pursue research activities, they find that the library resources are becoming less adequate as evidenced by the decreasing journal/teacher ratio.

Moreover, the students are receiving instruction in larger classes by teachers with heavy loads, many of whom are part time faculty members in the institutions, and these teacher consequently are hard to find outside the classroom. These faculty members, overburdened with a large number of students in their classes, heavy teaching loads, and poor resources, find it hard to keep up with the advances in their field or to conduct research, which in turn affects the quality of their teaching.

Table 16. Some Indices of Quality in Palestinian Universities during the Last Few Years

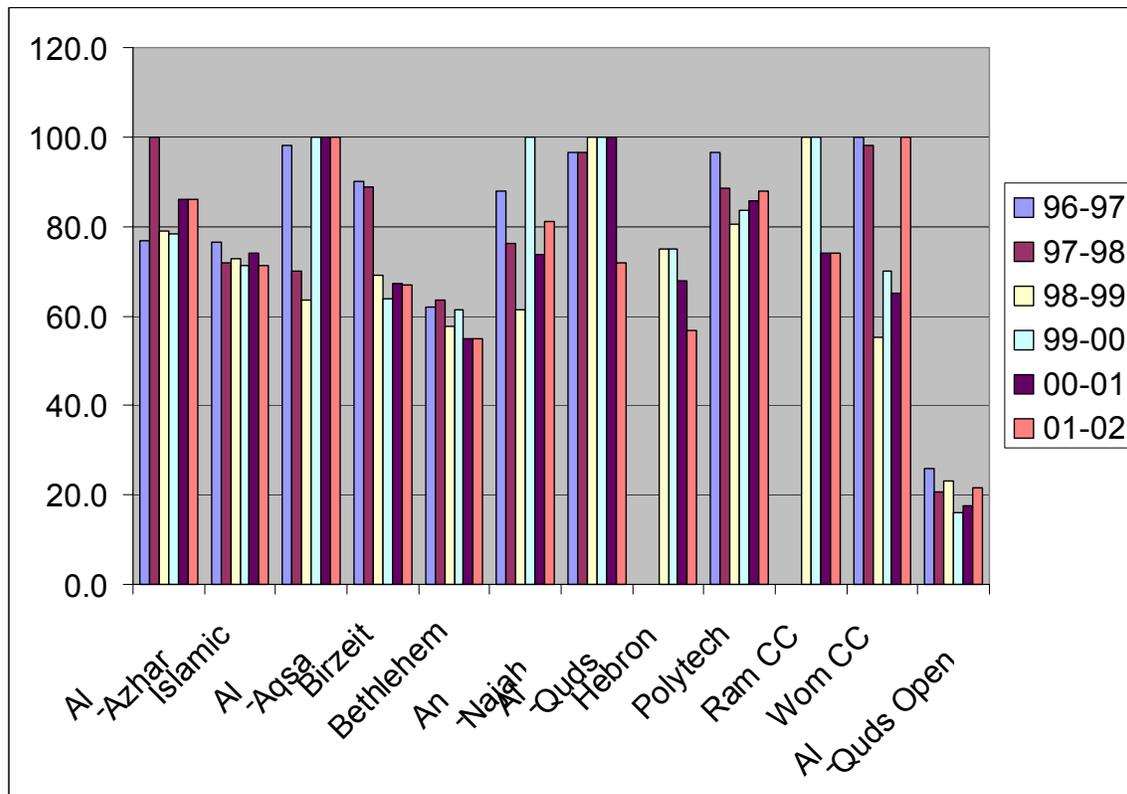
Year	% Full Time Faculty	Student/Teacher	Student/Full Time Teacher	Books/Student	Journals/Teacher
94-95	81.46	18.87	23.16	16.40	1.67
95-96					
96-97	82.02	21.54	26.26	11.88	1.51
97-98	77.92	23.67	30.37	10.88	1.47
98-99	64.46	22.01	34.15	10.08	1.42
99-00	65.33	23.06	35.31	10.31	
00-01	66.93	25.14	37.56	10.27	1.35
01-02	63.56	25.89	40.74	8.20	

Figure 8. Trends in quality indices during last five years



In an effort to identify the changes in particular institutions, and the strengths and weaknesses of these institutions, we calculated each of these indices for each institution. Figure 9 shows the percentages of full time faculty members in each institution. The figure shows that the general trend in the decrease of the percentage of full timers is most pronounced in Birzeit, Al-Quds, and Hebron universities. In Bethlehem and Hebron Universities the percentage of full timers has dropped close to 50 percent. The situation in Al-Quds Open University is in stark contrast to that in all other institutions. The percentage of full timers, starting from a very low one, has dropped to close to 20 percent. Whether this is acceptable for an open university can only be decided by comparing the situation to that in other respected international open universities.

Figure 9. Percentages of Full-Time Faculty Members in Palestinian Universities During Last Six Years



Figures 10 and 11 show the ratios of students per full time teacher in each institution. It is again clear that Al-Quds Open University stands in a category of its own, due to the huge student/teacher ratio in that university. Figure 7 shows that this ratio has increased in most institutions. The exception to this is Al-Azhar University where the ratio has actually decreased. This is a reflection of what seems a conscious effort to decrease the student population at Al-Azhar. The ratio is high in the Gaza universities, but it is also becoming high in some West Bank universities such as Birzeit and Hebron. Bethlehem and An-Najah universities managed to stabilize the ratio over the observed period.

Figure 10. Student/ Fulltime Teacher Ratios in Palestinian Universities During Last Six Years

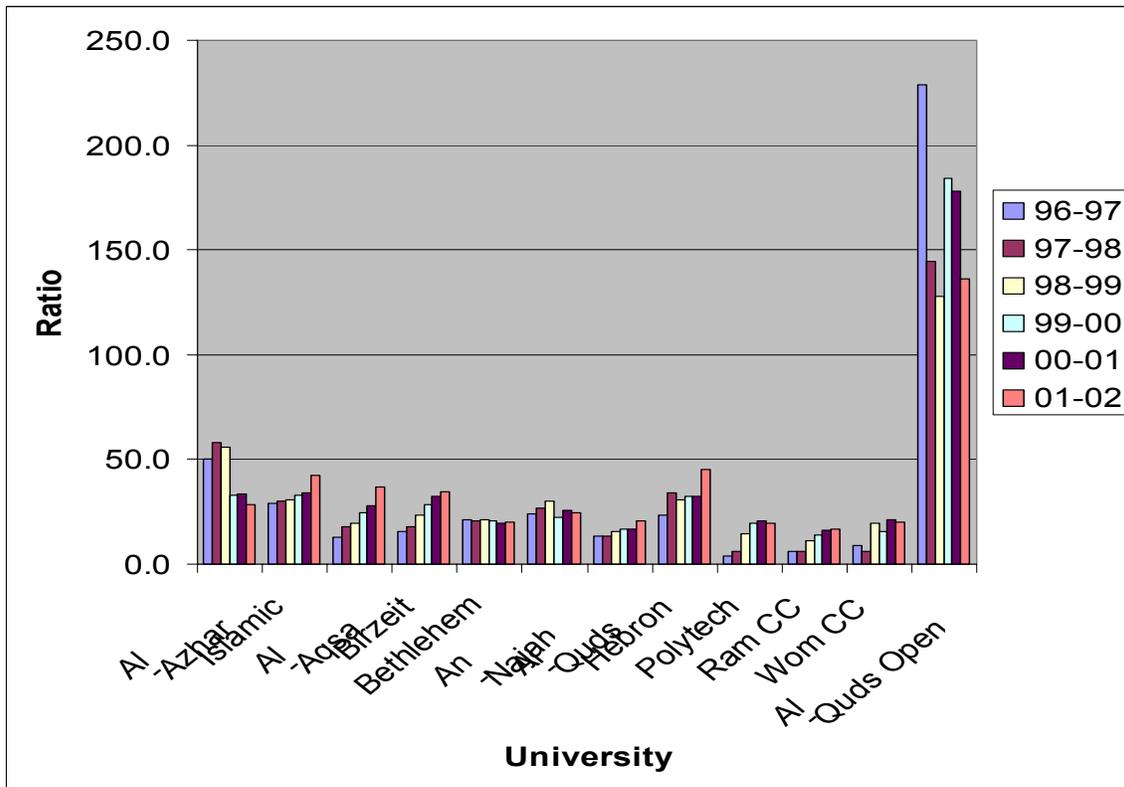
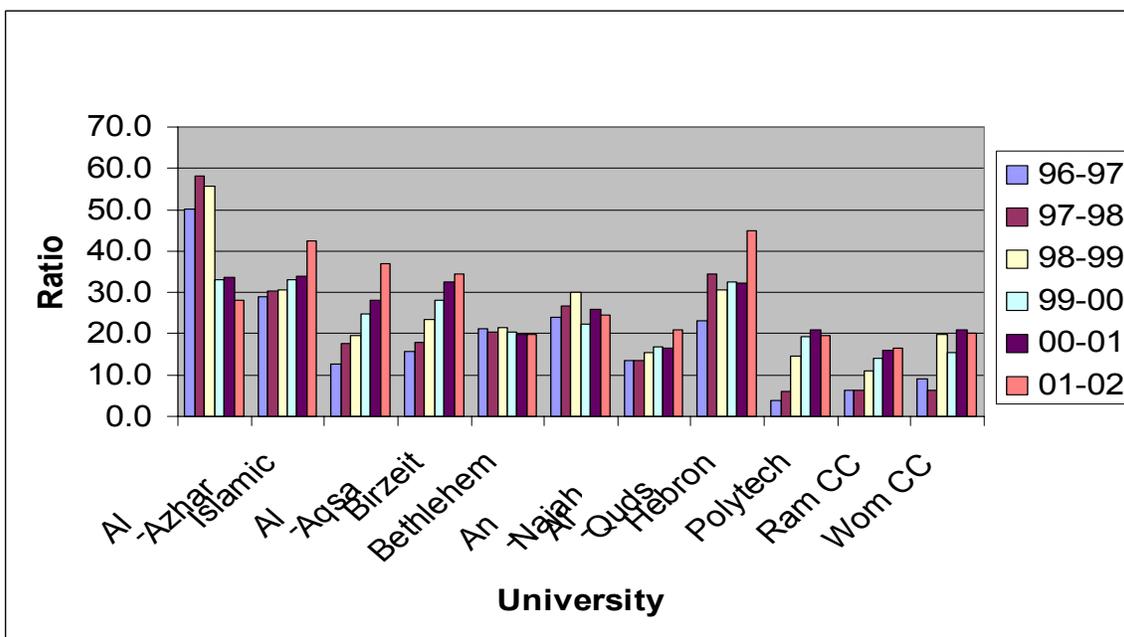


Figure 11. Student/ Fulltime Teacher Ratios in Palestinian Universities During Last Six Year (Al-Quds Open Universities Excluded)



To be able to better compare institutions with each other and with those of other countries, we calculated the student/teacher ratios again as follows, using the latest 2001/2002 statistics. We took into consideration faculty who hold at least a Master's degree. We multiplied the number of full timers by a factor of 1.2 (because we found that faculty usually worked overtime by about 20% in one university we studied). We assumed that a part timer taught at least one course or 1/4 load, and consequently we divided the number of part timers by four. (We had to make these assumptions because the statistics did not allow us to learn the full-time equivalent number of part time faculty). The results are shown in Table 17.

Table 17. Ratios of Students to Fulltime Equivalent Teachers With at Least an MA in Different Palestinian Universities

University	Students	FT MA+	FT MA+ X 1.2	PT MA+	Total MA+	Student/Teacher Ratio
Ram CC	280	17	20.4	6	21.9	12.8
Polytechnic	1430	73	87.6	10	90.1	15.9
Al-Quds	5937	283	339.6	102	365.1	16.3
Women CC	301	15	18.0	0	18.0	16.7
Bethlehem	2063	87	104.4	55	118.2	17.5
AAU	874	35	42.0	12	45.0	19.4
An-Najah	8467	298	357.6	81	377.9	22.4
Birzeit	5319	147	176.4	76	195.4	27.2
Al-Azhar	7980	229	274.8	40	284.8	28.0
Hebron	3468	77	92.4	51	105.2	33.0
Al-Aqsa	5997	125	150.0	0	150.0	40.0
Islamic	12248	226	271.2	63	287.0	42.7
Al-Quds	29845	219	262.8	797	462.1	64.6
Total Excl. Al-Quds						
Open	54364	1612	1934.4	496	2058.4	26.4
Total	84209	1831	2197.2	1293	2520.5	33.4

Again, we learn that Al-Quds Open University is in a category of its own. The three Gaza universities and Hebron and Birzeit universities in the West Bank have ratios higher than the average, while it might be more efficient to increase this ratio in the two UNRWA university colleges, and in the Polytechnic, Al-Quds and Bethlehem universities. The average student teacher ratio for universities excluding Al-Quds Open University is 26.4 which is close to the 22.3 estimate for the previous year found in a previous study.

Table 18 allows us to compare this ratio with that in other countries. Excluding Al-Quds Open University, we find the ratio higher than that in many advanced countries, but close to that in Greece and lower than that in Italy. It is much lower than that in Jordan. However, the ratio in Al-Quds Open University is clearly very high by all standards (64.6 in our estimate and 123.7 in an estimate in a previous study), and calls for re-evaluating the acceptance policy in that university, in spite of its dependence on distant autonomous learning.

Table 18. Student-Teacher Ratio in Various Countries (based on FTE), 1996

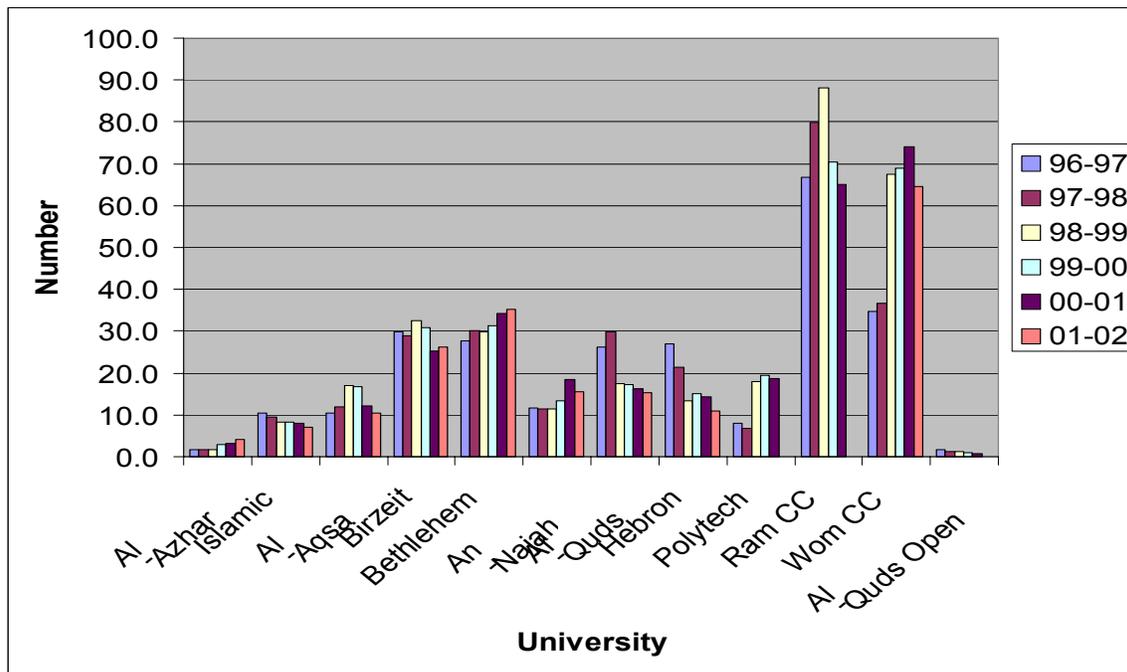
Country	Non-university level higher education	University-level higher education	All higher education
Canada	12.8	16.4	14.6
Germany	12.3	12.5	12.5
Greece	23.0	23.9	23.6
Ireland	12.2	21.6	16.7
Italy	7.6	29.0	25.7
Japan	10.8	13.5	12.4
Spain	12.3	17.6	17.4
United States	19.4	14.1	15.4
Jordan	15.2	72.4	39.8
Palestine (01-02)	9.3	26.4 (33.4)*	
Russian Federation	17.6	13.7	15.0

- The number in brackets is the average including Al-Quds Open University.
- The ratio for non-university level higher education in Palestine is an estimate with about 10% margin of error.

Source: OECD, *Education at a Glance*, 1998

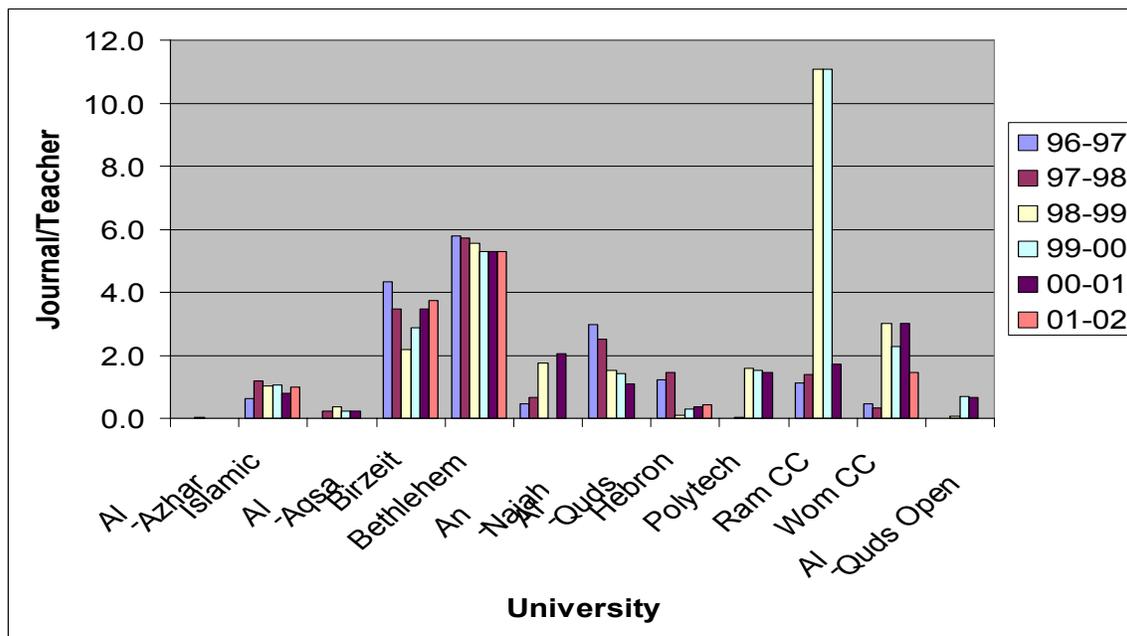
An examination of the number of books in library holdings in these institutions, as shown in figure 12, indicates that the two UNRWA university colleges hold, by far, the highest number of books relative to their student populations. Among other institutions both Bethlehem and Birzeit still compare favorably to others, although the situation at Birzeit is slightly deteriorating. Bethlehem, An-Najah, Polytechnic and Women CC have actually increased the book/student ratio. The ratio decreased in Islamic, Birzeit, Al-Quds, and Hebron. Compared to other institutions the ratio is quite low in all Gaza universities, and in Al-Azhar in particular. Again the lowest ranking institution is Al-Quds Open.

Figure 12. Number of Books per Student in Different Palestinian Universities During Last Six Years



An examination of the ratio of journals per full time faculty members in each institution, as in figure 13, shows the relative strengths of the libraries at Bethlehem, Birzeit, and the two UNRWA university colleges. The situation at Al Quds is alarmingly decreasing. The ratios in the three Gaza universities, Hebron and Al Quds Open are very low by almost any standard.

Figure 13. Number of Journals per Teacher in Palestinian Universities During Last Six Years

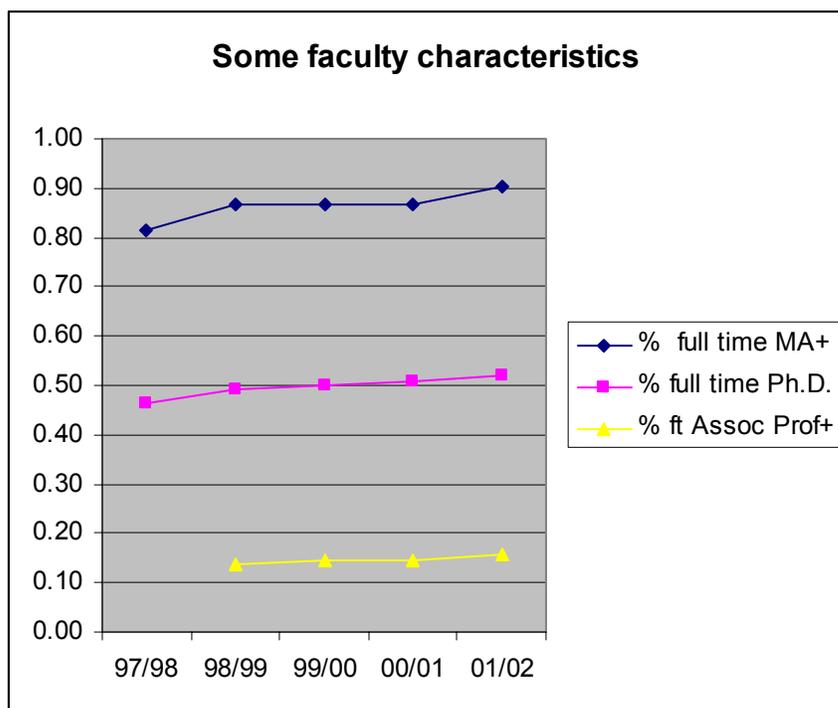


What about the characteristics of the full time faculty members in these institutions? As Table 19 and Figure 14 indicate, the percentage of those holding at least a Master's degree has increased by about 10 percent during the last five years, indicating that many of these institutions that employed faculty with lesser degrees (because they had developed from 2-years colleges), are gradually replacing these members. The percentage of faculty members with Doctorates has also moderately increased, but it is important to point out that only about half the faculty are holders of Doctorate degrees. The fact that the percentage of associate professors has hardly increased reflects, in our opinion, the low research productivity of faculty members.

Table 19. Some Characteristics of Full Time Faculty Members

% of FT Faculty	97/98	98/99	99/00	00/01	01/02
MA+	0.81	0.87	0.87	0.87	0.90
Ph.D.	0.46	0.49	0.50	0.51	0.52
Assoc Prof+	n.a.	0.14	0.14	0.15	0.16

Figure 14. Some Faculty Characteristics



In spite of these small improvements in the qualification of faculty members, the situation is deteriorating, because these improvements are not keeping up with the rapid growth in the student population.

Figure 15 shows the percentage of MA+ holders in each institution. It is clear that the three Gaza universities and Bethlehem University need to reduce the number of faculty who do not hold at least a Masters Degree.

Figure 15. Percentages of Faculty Members Holding as Least a Master's Degree in Different Palestinian Universities During Last Six Years.

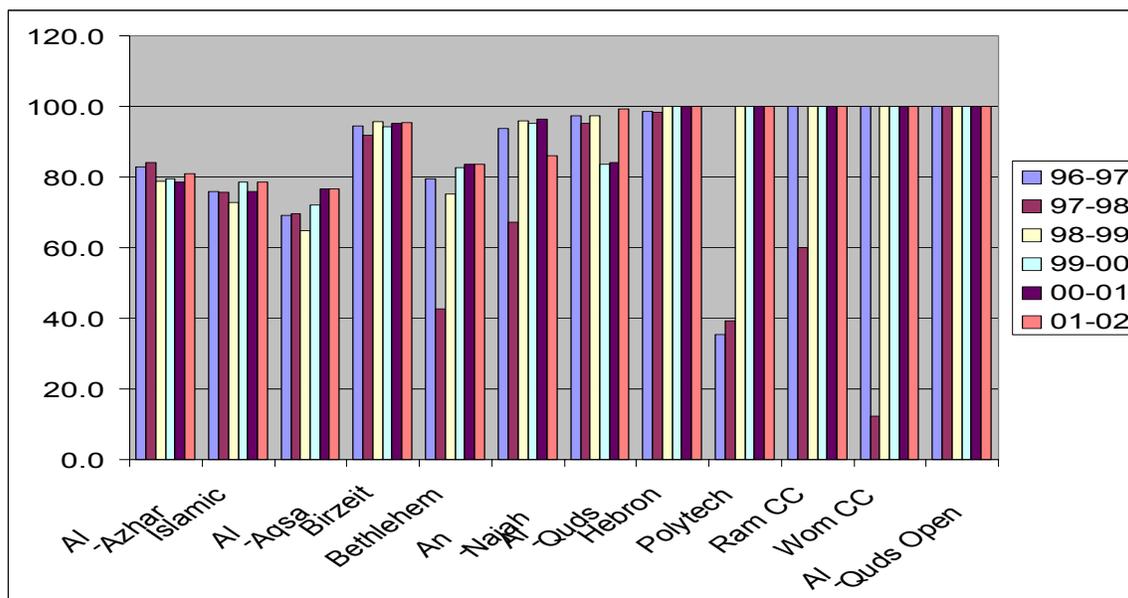


Figure 16 shows the percentages of faculty holding doctorate degrees. An-Najah and Hebron have the highest percentages. The percentage at Al-Aqsa was very low but is steadily improving. The Polytechnic and the two university colleges have the lowest percentages of doctorate holders.

Figure 16. Percentages of Faculty Members Holding Doctoral Degrees in Different Palestinian Universities During Last Six Years.

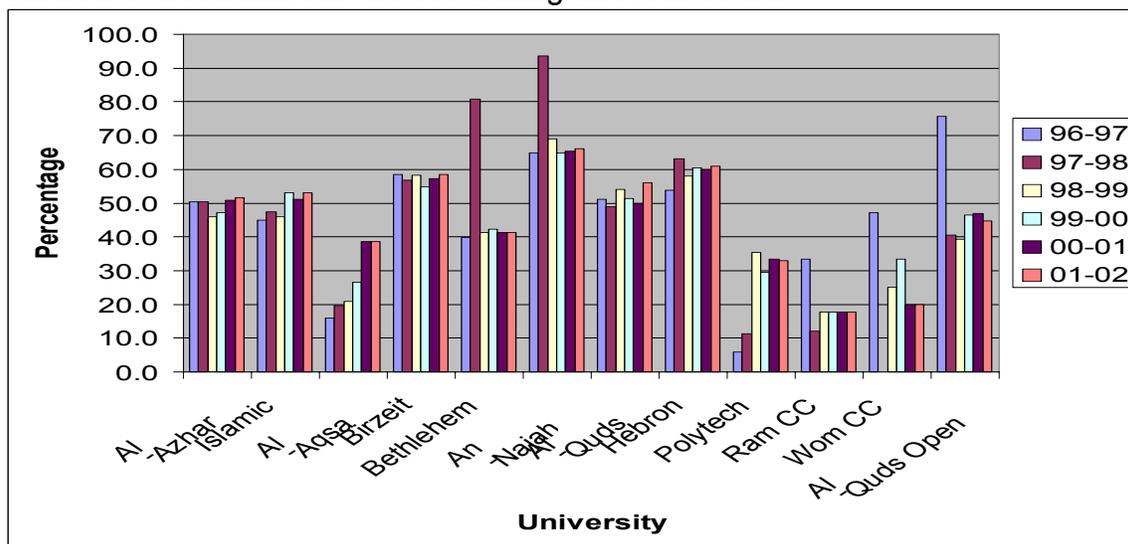
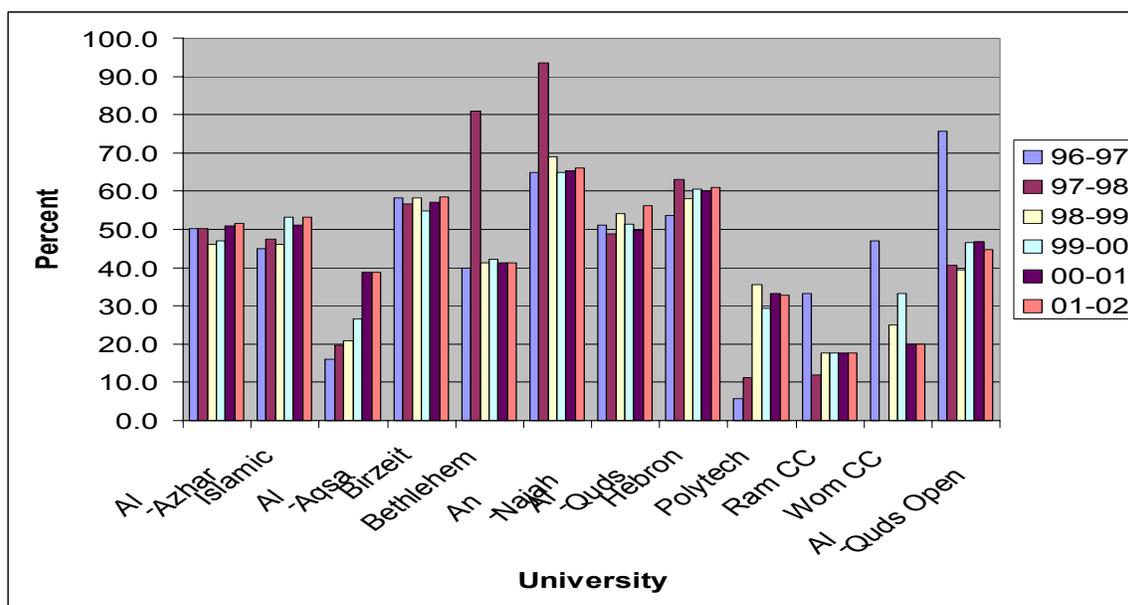


Figure 17 shows the percentages of Associate Professors or higher rank in each university. What is striking is the relative stability in these percentages in almost all institutions during the period covered by this Study. The only increase is at Al-Aqsa, but this increase reflects the increase in the percentage of faculty holding doctorates. It seems Al-Aqsa was able to attract some senior faculty members during this period from other institutions. (We believe that the "out of norm" data in this figure, such as the 97-98 data points for Bethlehem and An-Najah, reflect errors in reporting or in presenting some statistics. We disregarded such data and concentrated on trends).

Figure 17. Percentages of Faculty Members in the Rank of Associate Professor or Professor in Different Palestinian Universities during the Last Six Years.



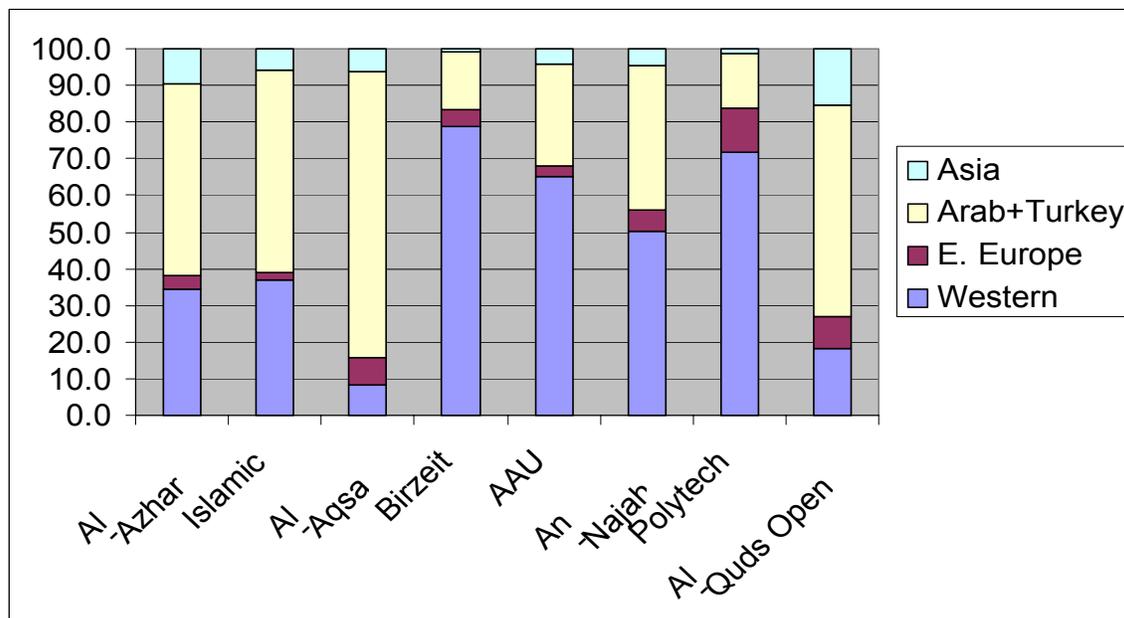
Finally we were interested to learn where the faculty members received their degrees. Table 20 and Figure 18 note the percentages of faculty who received their degrees in Western countries (United States and Canada, Western Europe, and Australia), the former Eastern European countries, Arab countries (including the West Bank and Gaza) and Turkey, and Asian countries (including Pakistan and India). There was some association between the place of study and the specialization. Faculty who specialized in Islamic Studies, Arabic and humanities usually obtained their degrees from Arab countries, especially from Sudan and Egypt. There was a higher percentage of graduates of Western countries who specialized in natural and social sciences, and in applied or professional scientific fields.

Table 20. Percentages of Faculty Who Received Their Degrees in Various Countries

	Al-Azhar	Islamic	Al-Aqsa	Birzeit	AAU*	An-Najah	Polytech
Western	34.4	36.9	8.4	78.9	65.2	50.1	71.6
E. Europe	3.9	2.0	7.2	4.7	2.9	5.8	12.2
Arab+Turkey	51.9	55.4	78.3	15.5	27.5	39.7	14.9
Asia	9.7	5.6	6	0.9	4.3	4.4	1.4

* The newly-established Arab American University. The data for this university are not used in other parts of this report since it was established recently.

Figure 18. Places of Graduation of Faculty in Different Palestinian Universities.



The high percentages of faculty in the Polytechnic and the American Arab University who graduated from Western European and American universities, partially reflect the predominantly scientific offerings in these universities. In general, more than 50 percent of the faculty in the three Gaza universities as well as Al-Quds Open University have graduated from Arab countries. The situation is different in the other West Bank universities, with Birzeit University having the great majority of its faculty graduating from Western universities. Part of the reason is that the West Bank older universities have benefited from the previous Amideast-administered faculty development program.

4.2 Colleges

Tables 21 and 22, and Figures 19 and 20 show the trends in some quality indices of Palestinian colleges. There is a slight increase in the number of full time faculty in these colleges, and a very slight decrease in the percentage of faculty holding at least a Master’s degree (or an increase in the percentage of those with a Bachelor’s degree or less). Both trends are in contrast to the trends in university education. It seems that while the colleges have not tried to cut down the cost per student through the employment of more part time faculty (a strategy

used by universities), they tried to cut down the costs by employing faculty with less qualifications, or have not increased their staff. It is evident that the great majority of faculty hold a Bachelor's degree or less. The low percentage of faculty holding at least Masters degrees in colleges in general, indicates a need for faculty development in these colleges.

Table 21. Trends in Some Quality Indices of Palestinian Colleges

Year	96-97	97-98	98-99	99-00	00-01	01-02
% Full Time	75.0	84.0	77.0	77.0	82.4	84.3
%MA+	28.3	30.9	21.2	22.8	24.5	25.8
Student/Teacher	13.8	9.3	12.2	10.4	10.4	8.9
Student/FT Teacher	18.4	11.0	15.8	13.5	12.7	10.5
Books/Student	23.9	26.1	24.1	27.9	26.9	31.4

Table 22. Trends in Faculty Qualification in Palestinian Colleges

Year	96-97	97-98	98-99	99-00	00-01	01-02
BA or less	65.2	71.5	77.0	74.3	68.9	72.9
Post-Graduate Diploma	6.8	1.6	1.7	2.9	6.6	1.4
MA	24.4	24.5	18.9	19.9	21.2	21.9
Ph.D.	3.6	2.4	2.3	2.9	3.3	3.9

In contrasts to universities, the student/teacher ratio in colleges has decreased and the books/student ratio has increased. (However, in our opinion, the accuracy of the latter ratio is not very accurate. When we examined the number of books in the libraries reported by different colleges over the last six years, we discovered many inconsistencies. Consequently, we did not trace trends for individual colleges, and aggregated the data. This problem of the unreliability of certain statistics has been pointed out previously). The number of books per student in colleges, though not highly reliable, is much higher than that for universities (31.4 and 8.2 respectively).

The student/teacher ratio in these colleges is somewhere between the two ratios we have calculated, namely between 8.9 and 10.5; it is impossible to give a more accurate estimate, given that we do not know the full-time equivalent number of part-time faculty. This student/teacher ratio for the colleges is lower than the 26.4 student/teacher ratio for Palestinian universities. It is quite low for tertiary non-university education, even by developed countries' standards (see Table 18), and it would be more efficient to increase the ratio. However, this figure reflects the conditions of access and capacity discussed in a previous section, in particular the low demand for college education, compared to university education, and the capacity of many colleges to grow substantially if they developed new programs and if the demand increased.

Figure 19. Trends in Some Characteristics of Faculty in Palestinian Colleges

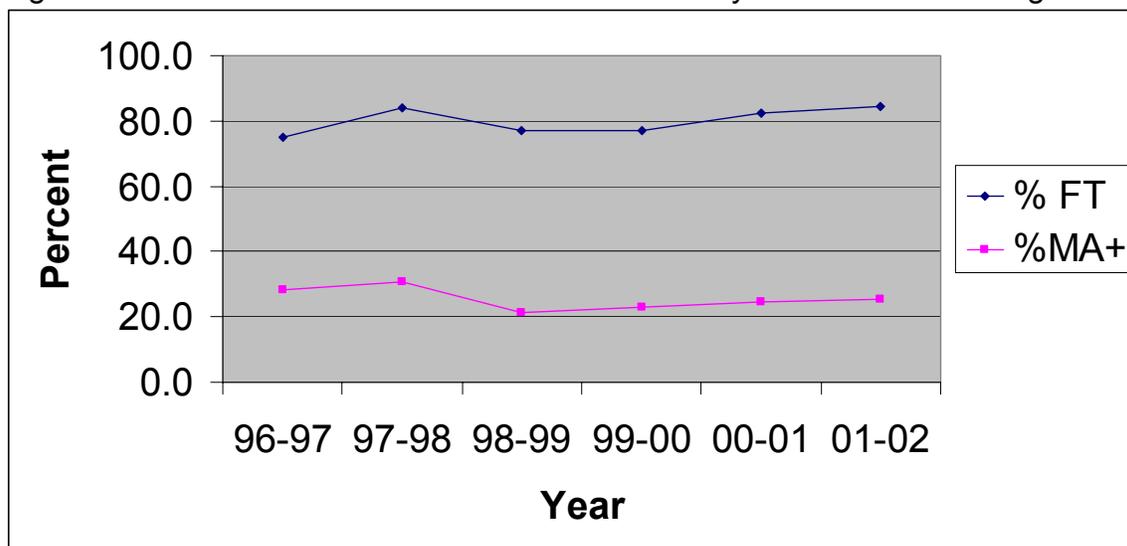


Figure 20. Trends in Some Quality Indices of Palestinian Colleges

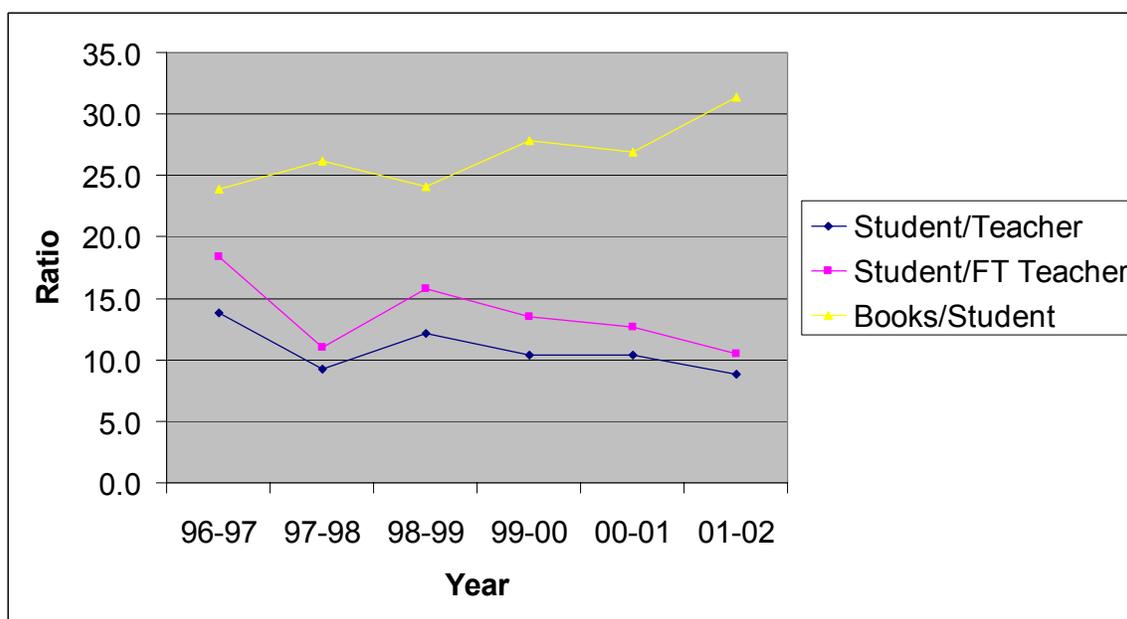


Table 23 allows us to compare various colleges on different quality indices. It bears notice that these indices indicate a big variance between colleges, with the student/teacher ratio ranging between 5.3 and 31.6. The percentage of full time faculty is 100 percent in some colleges, but it drops to 12.5 percent in one college, and is less than 50 percent in four colleges. The percentage of faculty holding at least a Master's degree ranges from 100 percent to 0. This variance in quality indices calls for a better accreditation and evaluation policy, or enforcement by the Ministry of Higher Education.

Table 23. Some Quality Indices of Palestinian Colleges, 2001/2002

College	St/T (FT)	College	St/T	College	% FT	College	%MA+
Inash Al-Usra	5.3	Comm. Health C.	1.5	Comm. Health C.	12.5	N. Hebron	100.0
P. Polytechnic	5.5	Inash Al-Usra	2.3	Amad Nursing	33.3	Ibrahemieh	83.3
Pal Tech Tulkarim	6.2	Asriyah	4.6	Ibrahemieh	37.5	An-Najah	81.8
W CC	7.2	Amad Nursing	4.7	Inash Al-Usra	44.4	P. Tech Aroub	52.9
Al-Rawda	7.4	Al-Rawda	5.2	Asriyah	58.3	Pal Tech Tulkarim	46.3
Ramallah CC	7.7	P. Polytechnic	5.3	An-Najah	61.1	Hisham Hijjawi	45.5
Asriyah	7.9	Pal Tech Tulkarim	5.3	P. Tech G. Ramallah	63.3	Asriyah	42.9
Average	10.5	Ibrahemieh	6.6	Al-Rawda	70.0	Comm. Health C.	33.3
Arab CC. Rafah	11.3	W CC	7.1	P. Tech D. Al-Balah	73.8	Amad Nursing	33.3
P. Tech Aroub	11.3	Ramallah CC	7.7	Al-Ummah	81.8	P. Tech G. Ramallah	31.6
Hisham Hijjawi	11.5	Average	8.9	Average	84.3	Ramallah CC	28.0
Comm. Health C.	12.0	P. Tech G. Ramallah	8.8	Pal Tech Tulkarim	85.4	S&T K. Younis	26.5
Al-Ummah	13.9	P. Tech D. Al-Balah	10.5	S&T K. Younis	89.1	Average	25.4
P. Tech G. Ramallah	13.9	Arab CC. Rafah	11.3	P. Polytechnic	96.4	Inash Al-Usra	25.0
Amad Nursing	14.0	P. Tech Aroub	11.3	W CC	98.4	Al-Ummah	22.2
P. Tech D. Al-Balah	14.2	Al-Ummah	11.4	N. Hebron	100.0	Al-Rawda	21.4
S&T K. Younis	16.6	Hisham Hijjawi	11.5	P. Tech Aroub	100.0	W CC	18.0
N. Hebron	17.5	S&T K. Younis	14.8	Ramallah CC	100.0	P. Tech D. Al-Balah	16.1
Ibrahemieh	17.7	N. Hebron	17.5	Arab CC. Rafah	100.0	P. Polytechnic	0.0
An-Najah	31.6	An-Najah	19.3	Hisham Hijjawi	100.0	Arab CC. Rafah	0.0

4.3 University and College Administrators' Perceptions of Quality

The above description of the quality of education in universities and colleges in the West Bank and Gaza was based on the statistics published by MOHE. We wanted to complement it by data based on the administrators' perceptions of quality, and to identify the needs from their perspectives.

When asked about the degree of satisfaction with the quality of education that their institutions were offering, these administrators answered as follows.

	Degree of Satisfaction with Quality of Education (%)		
	Very Satisfied	Satisfied	Not Satisfied
Universities	11.1	77.8	11.1
Colleges	46.7	40.0	13.3

While there is little difference between colleges and universities in their degree of non-satisfaction, it is clear that many more college administrators were very satisfied with the quality of education they offered than were university administrators. This corroborates the finding in sections 4.2 and 4.3 that university education has been deteriorating compared to college education.

The most recurrent reasons given for the degree of satisfaction are shown below. None of the reasons are based on a formal evaluation of quality in the institution.

Degree of Satisfaction	Reason	Universities	Colleges
Very Satisfied	Graduates easily employable, employer satisfaction with graduates	X	x
	Development of facilities, faculty, programs	X	x
	Results on public exam		x
Satisfied or not Satisfied	Effects of occupation measures (Closures, etc...)	X	x
	Low abilities of students		x
	Lack of facilities		x

The administrators were asked how they thought the quality of education had changed in the last few years. Two thirds of the respondents in both colleges and universities asserted that the quality had improved, which does not correspond with the results shown by the published statistics. More university administrators than college administrators asserted that the quality had declined, which corresponds with the findings derived from published statistics.

	Quality of Education (%)		
	Improved	No Change	Declined
Universities	66.7	11.1	22.2
Colleges	66.7	26.7	6.7

Positive judgments or high degree of satisfaction were attributed to: the development of faculty, facilities or programs, and employment, employer satisfaction or reputation. Colleges also took into consideration the results of their students on public Associate-level exams. Judgments of declining quality or standards and non-satisfaction were attributed to: low student abilities, the Intifada, and, sometimes, to the lack of facilities. In all cases, however, none of the institutions supported these judgments with the results of formal evaluation procedures.

Quality	Reason	Universities	Colleges
Improved	Development of human resources	X	x
	Development of facilities (labs, computers, etc..)	X	x
	Development of Programs	X	x
	Good Exam results		x
Declined	Intifada (closures, financial situation, etc.)	X	x
	Low abilities of students	X	x

When asked specifically if they evaluated the quality of education in their institutions, 100 percent of the respondents responded affirmatively. The procedures used in evaluation were:

- Internal course evaluation: student course evaluation and faculty evaluation of courses (the latter usually informal for course development purposes). (Mostly in universities).
- Internal evaluation/development: departments and councils develop their programs, usually in response to changes in requirements of the school or faculty. (Mostly in universities).
- Information from market/employers, usually informal, but formal in a few institutions.
- Performance on exams. (In colleges)
- MOHE/ Other external body (e.g. UNDP)
- Specialized internal unit (in one institution only)

When asked if they developed their programs consequent to evaluating them, all institutions responded affirmatively, but only about 40 percent of the universities and colleges were able to give specific examples to support this.

It seems there is a need for institutionalizing systematic program evaluation and development procedures in many of the HE institutions. The MOHE newly-established quality assurance and accreditation unit is badly needed also.

HE institutions were asked to indicate the best programs in their institutions in terms of quality. The table below summarizes their responses. Universities mentioned programs in science, professional programs in applied science, business and education. It is interesting that the only program mentioned in the social sciences was Birzeit's non-teaching Developmental Studies Program. Further examination is needed in the future to determine if these claims about

programs are warranted. If warranted, this might be a first step in identifying centers of excellence in the Palestinian HE system.

	Institution	Best Programs
Universities	Islamic	Civil Engineering, Computer Engineering, Business, Physics, Mathematics, Education
	Polytechnic	Computer Engineering, Information Technology, Applied Math, Industrial Automation
	Birzeit	Public & Community Health, and Development Studies
	Al Najah	Chemistry, Medical Labs, Pharmacy, Engineering, & Physics
	Bethlehem	Business Administration, Hotel Management and Tourism
	AAU Jenin	Physio- and Functional therapy, IT, Dentistry
Colleges	P. Der Balah	Electromechanics, Technology, Communication, Hotel Management, Television, Fashion
	P. Nursing	Midwifery
	Ummeh	Administration and Office Automation
	WCC	Education, Physiotherapy, Nursing, Secretary, Graphic Design, Ceramics
	P. G. Ramallah	Computer Programming, Fine Arts, Graphic Design
	Asriyyeh	Nursing
	Ibrahmiyeh	Preschool Education
	Rawda	Nursing, Comp. Programming
	UN Gaza	Business, Office Management, Physiotherapy, Industrial Electronics, Comp. Technology
	Hijjawi	Car Mechanics
	P. Tulkarem	Automation, Physical Education, BA in Technology
	Prof. Sc. CC Gaza	IT

The HE institutions were asked if they had faculty development programs. Eighty nine percent of the universities and 67 percent of the colleges reported that they did. The descriptions given did not allow us to find out about the exact nature of these programs, but it seems that few institutions had well-defined programs, and most had some individuals studying abroad on scholarships.

Finally, the HE institutions were asked to rate the importance of each of 13 factors that impacted the sustenance and improvement of the quality of education in their institutions. We used a four-point scale with: 1 equal to very important, 2 equal to important, 3 equal to slightly important, and 4 equal to not important. We then came up with an average rating for each of the issues that needed improvement.

Universities	Av	Colleges	Av
6. Monitoring and improving academic quality	1.2	5. Facilitating access to references to students and faculty	1.4
13. Developing income	1.4	2. Developing faculty members (Ph.D., MA)	1.6
11. Developing administrative staff	1.6	12. Developing MIS	1.6
2. Developing faculty members (Ph.D., MA)	1.7	6. Monitoring and improving academic quality	1.6
5. Facilitating access to references to students and faculty	1.7	7. Coordination in program development	1.6
9. Improving relevance	1.7	13. Developing income	1.6
1. Employing new faculty members	1.8	4. Networking with outside universities	1.7
10. Developing interaction with community	1.9	11. Developing administrative staff	1.7
12. Developing MIS	2.0	8. Coordination in access to library resources	1.8
3. Developing faculty - courses abroad	2.1	9. Improving relevance	1.8
4. Networking with outside universities	2.1	10. Developing interaction with community	1.8
8. Coordination in access to library resources	2.1	3. Developing faculty - courses abroad	1.9
7. Coordination in program development	2.3	1. Employing new faculty members	2.1

Consequently, the following are the needs that were perceived as important or very important by both university and college administrators:

- Monitoring and improving academic quality
- Developing income
- Developing faculty members (study for Ph.D., MA)
- Facilitating access to references (books, journals, etc) to students and faculty
- Improving the relevance of programs to the needs of society
- Employing new faculty members
- Developing interaction with community
- Developing the MIS in the institution
- Developing administrative staff

However, when we used more strict criteria to identify the most important needs (we chose factors which received an average rating of at most 1.7) that were shared by both colleges and universities, we found that the following four needs were of highest importance.

- Developing faculty members (study for Ph.D., MA)
- Facilitating access to references (books, journals, etc) to students and faculty
- Monitoring and improving academic quality
- Developing income

It is important in our opinion that three of these four needs are directly related to improving the quality of education, while the fourth provides the funding needed to improve quality. Although many of these institutions claimed that the quality of education was improving in their institutions, and that they were adequately evaluating and improving the quality of their programs, they gave the highest priority to: the need to monitor and develop the educational quality, to develop their faculties, and to develop access to educational resources. These are the final goals; developing income is a means to these ends, and not an end in itself.

4.4 Conclusions and Recommendations

4.4.1 Summary

In accordance with the findings of previous studies, we found that universities have tried to decrease the cost per student by increasing their student populations, with no corresponding growth in faculty and facilities. Consequently, there has been a steady increase in the student/teacher ratio, and a decrease in the books/student ratio and in the journal/teacher ratio. Universities have also tried to cut down their costs by hiring more part time faculty members. There has also been a substantial increase in the overtime loads of full-time faculty members.

The general trend in the decrease of full time faculties is most pronounced in Birzeit, Al Quds, and Hebron universities. In Bethlehem and Hebron Universities the percentage of full timers has dropped to about 50 percent. The situation in Al Quds Open University differs markedly in that the percentage of full timers, already very low one, has dropped to close to 20 percent.

Al Quds Open University stands in a category of its own due to the huge student/teacher ratio in that university. The increase in this ratio has formed a clear trend in most institutions. The exception to this is Al-Azhar University where the ratio has actually decreased (if the data about their student body is accurate). This is a reflection of what seems to be a conscious effort to decrease the student population at Al-Azhar. Bethlehem and An-Najah universities managed to stabilize the ratio over the observed period.

Hebron, Al-Aqsa and Islamic universities need to reduce their student/teacher ratio, while the two UNRWA university colleges, the Polytechnic, Al Quds and Bethlehem universities need to increase it, so as to improve the efficiency in their institutions.

The two UNRWA university colleges hold, by far, the largest number of books relative to their student populations. Among other institutions, both Bethlehem and Birzeit still compare favorably to others, although the situation at Birzeit is slightly deteriorating. Bethlehem, An-Najah, Plytechnic and Women CC have

actually increased the book/student ratio. The ratio decreased in Islamic, Birzeit, Al Quds, and Hebron. Compared to other institutions the ratio is quite low in all Gaza universities, and in Al-Azhar in particular. Again the lowest ranking institution is Al Quds Open.

An examination of the ratio of journals per full time faculty members in each institution shows the relative strengths of the libraries at Bethlehem, Birzeit, and in the two UNRWA university colleges. The situation at Al Quds in this regard is deteriorating alarmingly. The ratios in the three Gaza universities, Hebron and Al Quds Open are very low by almost any standard.

The percentage of faculties holding at least a Master's degree has increased by about 10 percent during the last five years -- indicating that many of these institutions that employed faculty with lesser degrees (because they had developed from 2-years colleges) are gradually replacing these members or encouraging/assisting them to continue their studies. The percentage of faculty members with Doctorates has also moderately increased, but it is important to point out that only about half of the faculties are holders of Doctorate degrees. The fact that the percentage of associate professors has hardly increased reflects, in our opinion, the low research productivity of faculty members.

It is clear that the three Gaza universities and Bethlehem University need to reduce the number of faculty who do not hold at least a Masters Degree.

An-Najah and Hebron have the highest percentages of faculty holding doctorate degrees. The percentage at Al-Aqsa was very low, but is steadily improving. The Polytechnic and the two university colleges have the lowest percentages of doctorate holders.

There is the relative stability in the percentage of associate professors and higher in each university in almost all institutions during the period of this study. The only increase is at Al-Aqsa, but this increase reflects the increase in the percentage of faculty holding doctorates. It seems Al-Aqsa was able to attract some senior faculty members during this period from other institutions

Some universities need to diversify the places in which their faculties pursue graduate studies; Al-Aqsa, Al-Azhar and Al-Quds Open universities predominantly rely on graduates from the West Bank and Gaza and from other Arab countries.

In contrast to the trends in university education, there is a slight increase in the number of full time faculty in Palestinian colleges, and a very slight decrease in the percentage of faculty holding at least a Master's degree (or an increase in the percentage of those with a Bachelor's degree or less). The low percentage of faculty holding at least Masters degrees in colleges in general indicates a need for faculty development in these colleges.

In contrast to universities, the student/teacher ratio in colleges has decreased and the books/student ratio has increased.

The student/teacher ratio in these colleges is somewhere between 8.9 and 10.5. The ratio is lower than the 26.4 ratio for Palestinian universities. It is quite low for tertiary non-university education, even by developed countries' standards, and it would be more efficient to increase the ratio.

The number of books per student in colleges, though not highly reliable, is much higher than that for universities (31.4 and 8.2 respectively).

There is a big variance between colleges on indices of quality, with the student/teacher ratio ranging between 5.3 and 31.6. The percentage of full time faculty is 100 percent in some colleges, but it drops down to 12.5 percent in one, college and is less than 50 percent in four colleges. The percentage of faculty holding at least a Master's degree ranges from 100 percent to zero. This variance in quality indices calls for a better accreditation and evaluation policy, and for enforcement by the Ministry of Higher Education.

When administrators of Palestinian colleges and universities were asked about their satisfaction with the quality of education in their institutions, many more college administrators were very satisfied than were university administrators. This corroborates the finding in sections 4.2 and 4.3 that university education was deteriorating compared with college education.

Two thirds of the respondents in both colleges and universities asserted that the quality had improved, which does not correspond with the results of the published statistics. More university administrators than college administrators asserted that the quality had declined. This does correspond with the findings from the published statistics.

However, none of the institutions supported these findings with the results of formal evaluation procedures. It seems there is a need for institutionalizing systematic program evaluation and development procedures in many of the HE institutions. The MOHE newly established quality assurance and accreditation unit is badly needed also.

HE institutions were asked to indicate the best programs in their institutions in terms of quality. Universities mentioned programs in science, professional programs in applied science, business and education

The following were indicated to be the most important needs for sustaining and improving education in HE institutions, according to administrators in these institutions.

- Developing faculty members (study for Ph.D., MA)
- Facilitating access to references (books, journals, etc) to students and faculty
- Monitoring and improving academic quality
- Developing income

4.4.2 Conclusions

Previous studies, based on the examination of some quality inputs, such as student/teacher ratio, have concluded that the quality of HE in the West Bank and Gaza has declined. We constructed what we thought were other indices, such as journal/teacher ratio, percentages of teachers holding specific degrees. We tried to take a preliminary glimpse at research activity by examining trends in faculty promotions. It has to be noted that we looked only at some input indices of quality, such as student/teacher ratio, and neglected other input variables, such as teacher quality, a factor that the literature shows to be an important variable affecting quality. Nonetheless, the trends in different indices we used converged, indicating a deterioration in the quality of university education. The findings are to be considered exploratory and in need of further more detailed examination.

There is a need to look more carefully at quality in future studies. The unit of analysis should be the program or the department. Teacher quality can be examined by analyzing the institutions where the faculty received their training, the quality and quality of their publications, and other professional activities. Teaching can be examined by scrutinizing course outlines, references, activities, assessment, and student evaluations. Facilities and access to books, journals, laboratories and work experiences can also be examined. Finally, outcome measures of quality can be used. These might include tracer studies, employer satisfaction, measures of learning, rates of acceptance to foreign universities for advanced studies.

Our limited investigation has revealed that quality seems to be declining in most universities, and that university administrators are aware of this decline. The student/teacher ratio is increasing, the percentage of part-time teachers is increasing, and faculty are moonlighting or taking overloads. Although the situation is improving, only about half of the faculty hold doctorate degrees. The books/student and journal/teacher ratios are decreasing. Research activity seems to be meager. Nonetheless, there are marked differences between institutions on all of these indices.

On the other hand, the situation in colleges seems to be improving. There is a slight increase of full-time faculty members, a decrease in the student/teacher ratio and an increase in the books/student ratio. The student/teacher ratio is quite low, even by developing countries standards. This corroborates the findings of Chapter 2 of this report that this sector has more capacity to grow compared to the university education sector. Nevertheless, we also find a high variance on all of these indices among the different colleges.

The variance on these indices and the fact that none of the institutions we examined had an institutionalized systematic program evaluation and development procedures, reveal a need for monitoring and improving academic quality. We agree with the administrators of these institutions that, in addition to monitoring and improving quality, the institutions need to develop their faculty, and to facilitate access to educational resources. Developing income, again, appears to be the means to achieving these goals. In this Chapter, and in Chapter 2, we found that increasing financial resources is needed to provide access to quality higher education. The biggest dilemma facing Palestinian HE is providing quality and relevant education, given the severe constraints on financial resources.

4.4.3 Recommendations

MOHE

1. Develop and strictly enforce policy that makes accreditation and funding of different programs contingent upon the fulfillment of strict quality criteria that take into consideration qualifications of faculty, status of faculty (full-time versus part-time; however, note that part-time faculty from business and industry add greatly to programs' relevance) and load, and facilities (books, journals, labs, etc...). Allow specific time for institutions to improve some programs before losing accreditation and/or funding. The situation in terms of percentages of full-time faculty or library holdings in universities, in general, is unacceptable by any standards.

Funding Agencies

1. Fund capacity building measures for HE institutions:
 - Undertake a faculty development program that is composed of long-term studies for doctorate and masters degrees, short term training, and the development of links with leading international universities. Fund collaborative research activities between local institutions and with international colleagues.
 - Connect faculty development with program development. Faculty development should be an integral part of plans to develop quality and relevant programs. Allow competition between programs for funding such specific program development proposals.

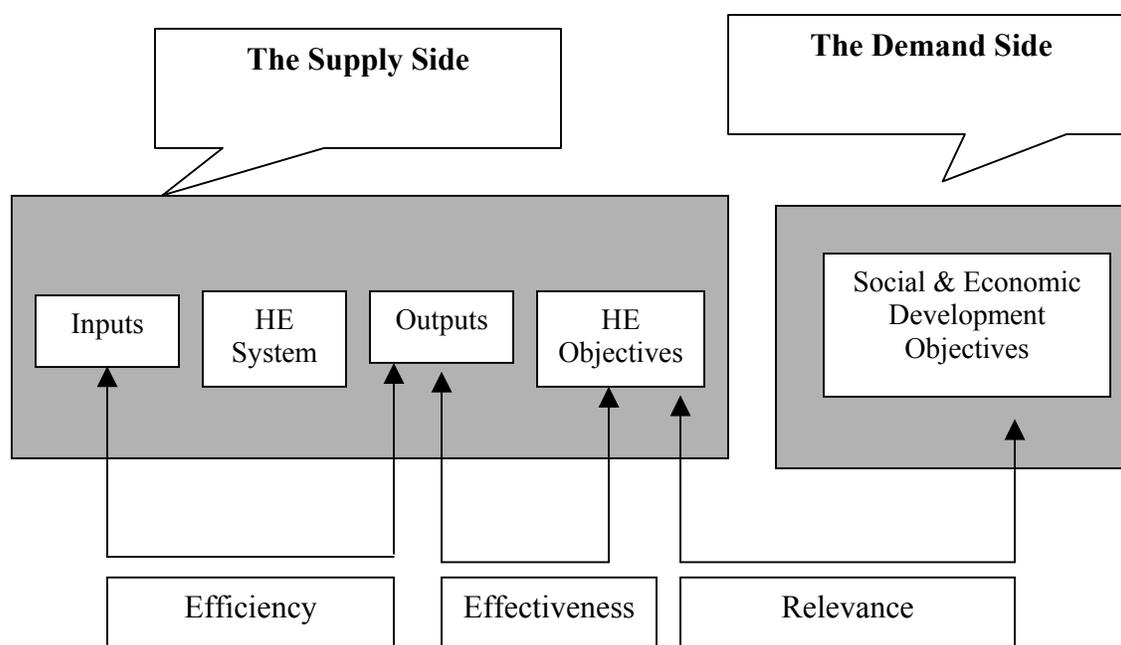
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- Fund the development of "model programs" in selected fields of study. Base funding on the evaluation of existing programs and on plans to become academically and professionally stronger.
 - Facilitate the development of libraries, and the shared use of resources. A unified on-line catalogue of library holdings and inter-library loans should be developed. Facilitate access to materials, databases, and journal articles electronically. Help institutions with the Israeli occupation-imposed problems of importing books.
 - Facilitate the development of systematic and systemic procedures for program quality monitoring and development in each HE institution.
 - Assist HE institutions in the development of financing and fund raising strategies. Support the main principles of the Palestinian Higher Education Financing Strategy.
2. Promote the growth of the Quality Assurance and Accreditation Unit at MOHE.

5.0 Relevance

5.1 Introduction

Relevance is the extent to which educational objectives correspond to the overall objectives, needs and priorities of the West Bank and Gaza and notably the economic growth and enhanced welfare of those territories.

Figure 24. Efficiency, Effectiveness, & Relevance of HE System
(Source: Fluitman, 1994)

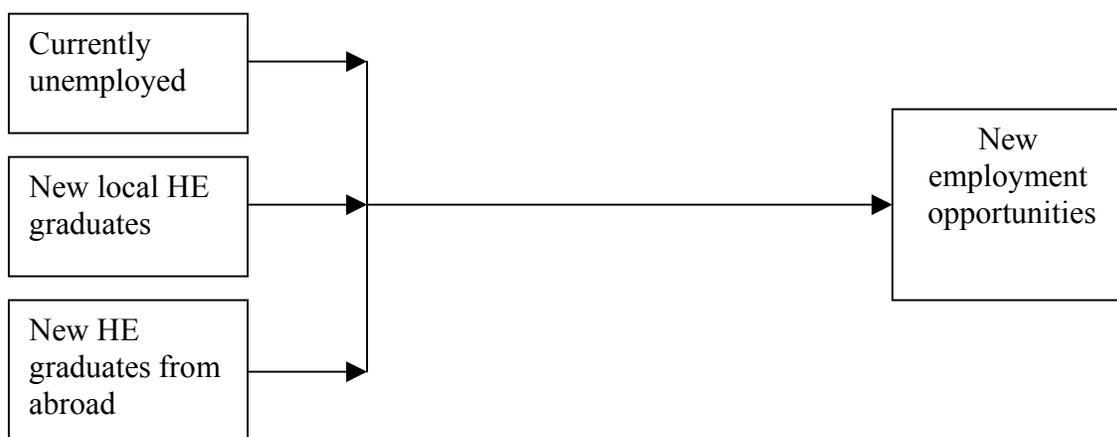


Is the higher education system in the West Bank and Gaza producing graduates that are relevant to the needs of the labor market and to the local economy, quantitatively and qualitatively?

“Higher education serves as an engine of economic development in at least three ways – research, the commercialization of intellectual capital, and providing of educated and skilled workforce.”¹ Although we would like to focus on the latter, and try to assess whether there are potential future gaps between the number of college and university graduates that the West Bank and Gaza produces each year, and the number of graduates it will require to meet the needs of a growing

¹SCHEV (2002), Systemwide Needs Assessment for Virginia Higher Education: 2001

economy; yet this is very important task that requires a variety of statistics and econometric projections that are in most cases unavailable.



Supply Side

Demand Side

As seen in the above figure, in order to assess whether there are potential future gaps between the number of college and university graduates that the West Bank and Gaza produces each year, and the number that these territories will require to meet the needs of a growing economy, one would require²:

- Firstly, accurate occupational employment projections. As with all econometric forecasts, occupational employment projections are predicated on the assumption that the past is a good predictor of the future. Even under normal circumstances that assumption is more likely to hold for occupations in which change takes place slowly than in occupations that are more volatile. Moreover, the economic uncertainty brought about by the tragic events of the Palestinian Uprising has further called into question the assumption that tomorrow can be accurately predicted on the basis of yesterday. A good example of this is the tourism sector; which was projected to be a leading sector in the Palestinian economy, and which sector is currently on the verge of total collapse.
- Secondly, a detailed diagram of the relationship between specific occupations, classified according to international Occupational Employment Standards, and individual instructional programs. Such a diagram is currently unavailable, and is highly complex since in some instances the relationships are simple (i.e., a one-to-one correspondence), and in some instances they are complex (i.e., a one-to-many, many-to-one, or many-to-many correspondence). Such

² Ibid

“crosswalk maps” however, do not provide information on the distribution of graduates from each instructional program across occupations. As a result, one has to assume that graduates from each instructional program are distributed across related occupations in proportion to the projected average annual openings in those occupations.

- Thirdly, very little is known about how many students are studying abroad and in which specializations, and as to which of these graduates would be returning. Also little is known regarding the number of new graduates and unemployed persons leaving the country and working abroad in the Arab countries, Europe and America.

As pointed out by the World Bank, labor outcomes in the West Bank and Gaza, as in all other countries in the world, are the result of many competing forces affecting labor supply and demand, something to be investigated in the rest of this chapter.

5.2 The Labor Market / The Demand for Skills:

5.2.1 Factors Influencing Demand for Workers

“Among the important factors influencing the demand for workers and the types of skills and occupations needed in the labor market are the following:

- **Economic growth:** A growing economy means more people are working and have more money to spend. Companies respond to increased business activity by investing to expand further to meet customer demands. Increased international trade also contributes to economic growth. As a result, new jobs are created across a wide range of occupations.
- **Technology:** Technological innovations in the production, distribution and sale of goods and services play a key role in both the types of jobs available and in the skills that are needed. The increased use of computers in the workplace, for example, is increasing the demand for computer programmers and systems analysts, but is reducing the demand for secretaries and clerks. Technological discoveries can create brand new occupations as well. For example, the growth of Internet use gave birth to the web page designer.
- **Demographics:** Population characteristics, such as age, gender and cultural background, can determine the demand for various products and services. A younger population requires more schools and therefore more teachers; an older population requires more health services and therefore

- more doctors and nurses. As well, certain occupations have a greater proportion of older workers who may soon retire, creating vacancies.
- **Consumer behavior:** People's needs change over time, depending on how much money they have, their changing tastes and the amount of leisure time they have. For example, eco-tourism is a relatively recent phenomenon. Developing and operating tourist attractions and accommodations has created many jobs in a large number of occupations such as hotel clerks, managers, tour guides and recreation consultants.

5.2.2 The Palestinian Economy & Labor Market

What is the situation of the Palestinian economy and labor market?

The Palestinian economy continues to suffer from massive unemployment and severe limitations on the flow of goods and services. According to a report by the Palestinian Central Bureau of Statistics, the median monthly income in the West Bank and Gaza decreased from NIS 2,500 before the intifada to NIS 1,400 in March 2003.³ Currently, it is estimated that the percentage of Palestinians living below the poverty line (USD 2/person/day) stands at 53.7% in the West Bank and 83.6% in Gaza. Unemployment in the Palestinian Occupied Territories stands at 53 percent of the workforce (World Bank, 2003). The physical damage resulting from the conflict rose to US \$1.7 billion by the end of 2002.⁴ According to a new study published by the World Bank, the proximate cause of the Palestinian economic crises is the internal and external closures enforced by the Israeli military.⁵ These restrictions prevent the flow of goods between cities, and also restrict the movement of laborers between cities in the West Bank, Gaza, and Israel.

The West Bank and Gaza have one of the most rapidly increasing populations in the world, with the fifth highest in the West Bank (3.4%) and the highest in Gaza (4.6%) population growth rates in the world. As seen in figure 25, although the population in general, and the labor force in particular were growing at great rates, the number of Palestinians employed in the Palestinian Territories has not even stayed the same over the past four years, but has, in fact, declined (453,000 in 1999 to 436,000 in 2001).

³ Palestine Central Bureau of Statistics (PCBS). Impact of the Israeli Measures on the Economic Conditions of Palestinian Households (5th Round: April-May 2003). www.pcbs.org

⁴ World Bank. Two Years of Intifada, Closures and Palestinian Economic Crisis. May 2003.

⁵ Ibid.

Figure 25. Palestinians Employed in the Years 99-02 in The Palestinian Territories

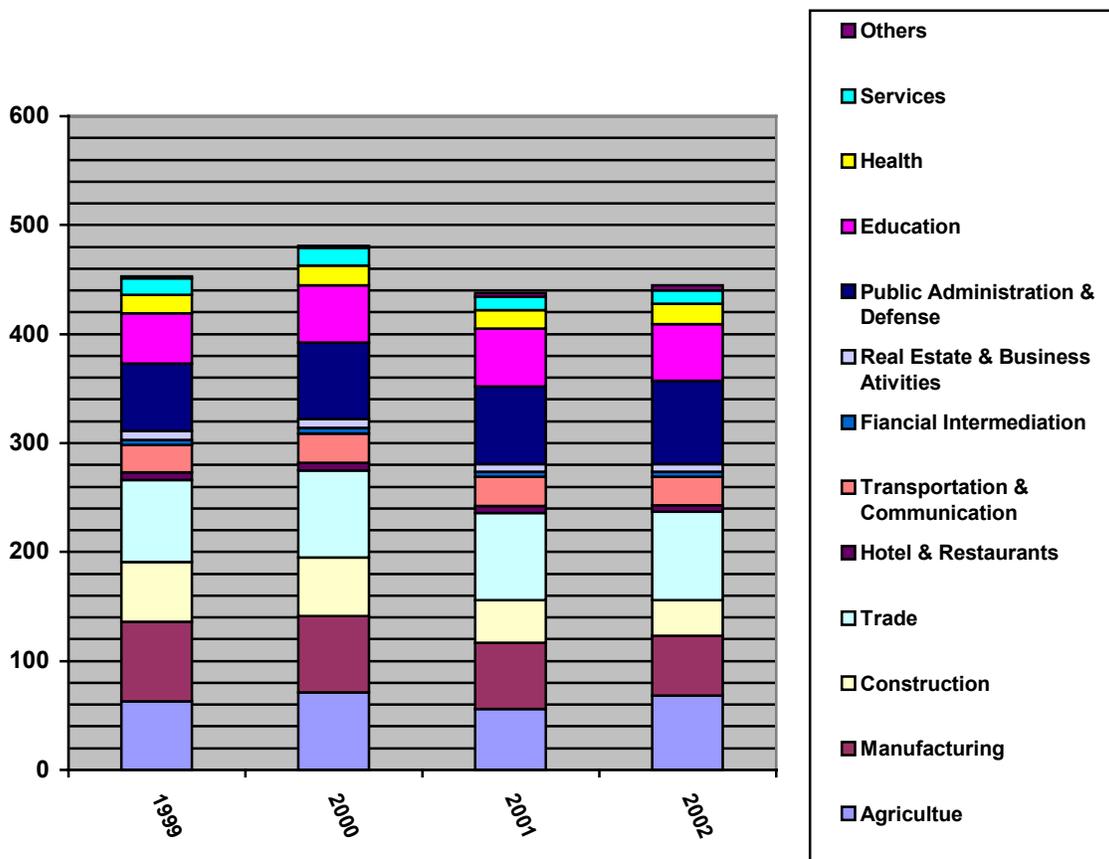
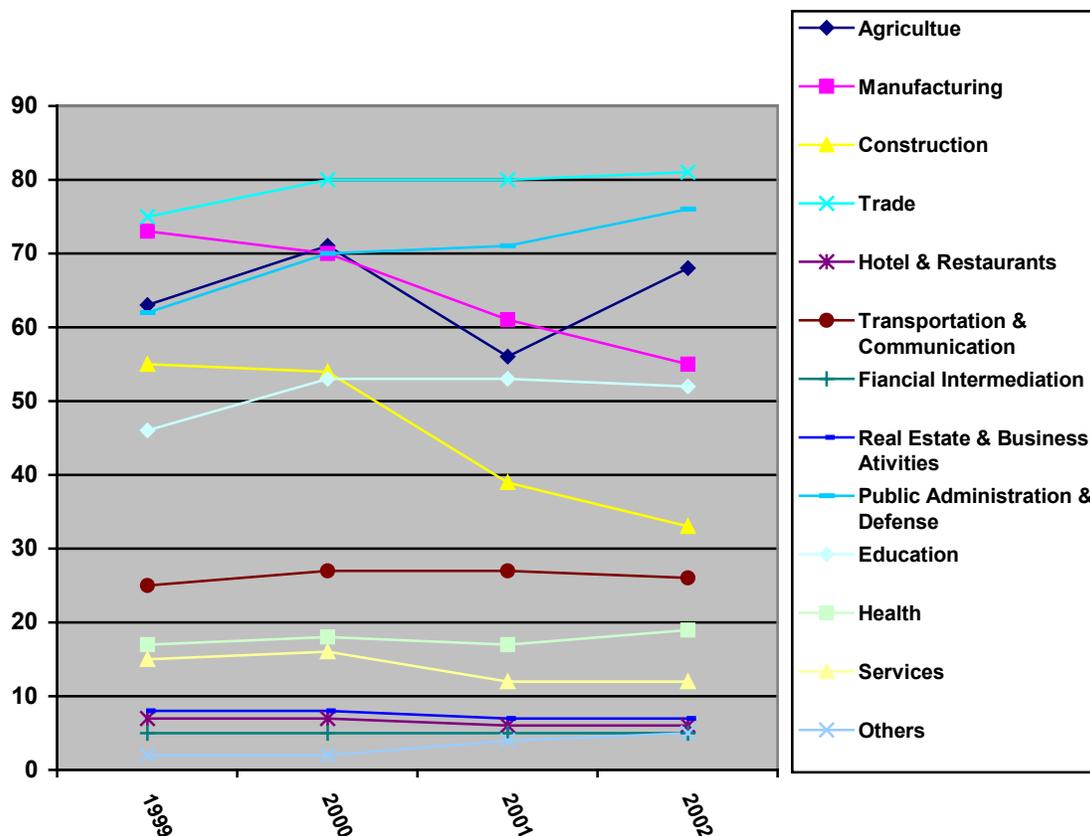


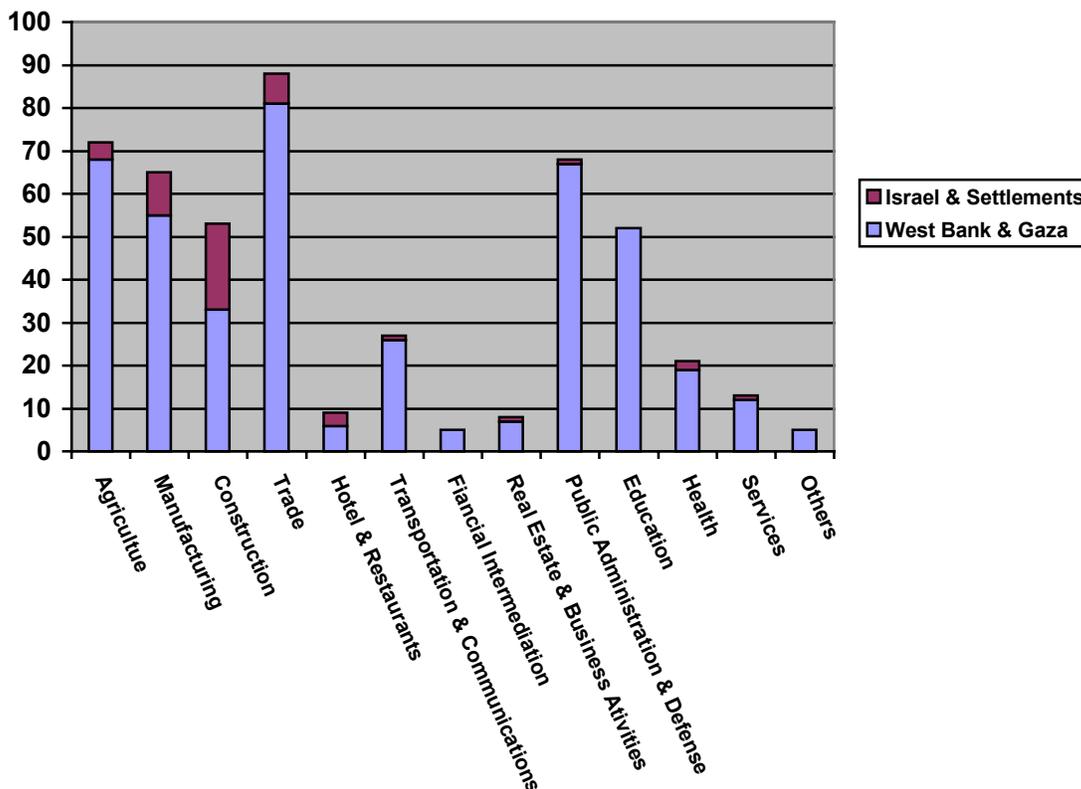
Figure 26 shows that the number of Palestinians employed in the West Bank and Gaza has increased in the past three years only in the trade, public and education sectors, and slightly in the health sector. Large declines were seen in the construction and manufacturing sectors. The World Bank points out that the domestic private sector has absorbed much of the shock to the economy, with well over 50 percent of the pre-intifada private workforce being laid off.

Figure 26. Palestinians Employed in the Years 99-02 in The Palestinian Territories & Israel (1000)



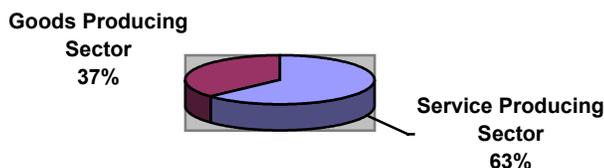
As seen in figure 27, most Palestinians working in Israel work in the construction, manufacturing, trade, and agricultural sectors. The occupations they hold are low skilled and require minimal educational attainment, and therefore, targeting the Israeli labor market with HE graduates does not make much sense.

Figure 27. Palestinian Employed in the Year 2002 in Palestinian Territories & Israel



Goods are produced by agriculture and other primary industries, manufacturing, construction and utilities. Together these industries constitute the so-called goods-producing sector. The service-producing sector provides the many different services demanded by today's consumers and businesses, including financial, educational, government and recreation. If we use the above definitions, 63 percent of Palestinians working in the Occupied Palestinian Territories are working in the service producing sectors as shown below.

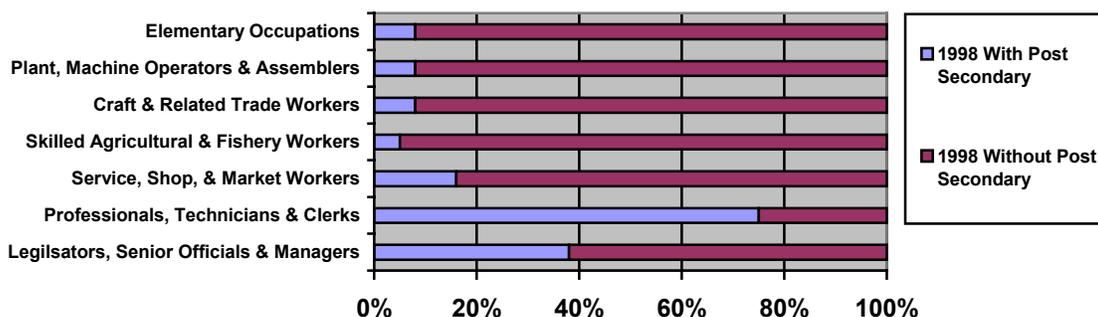
Figure 28. Employed Persons in OPT in 2002



5.2.3 Work Characteristics & Rates of Return on Higher Education

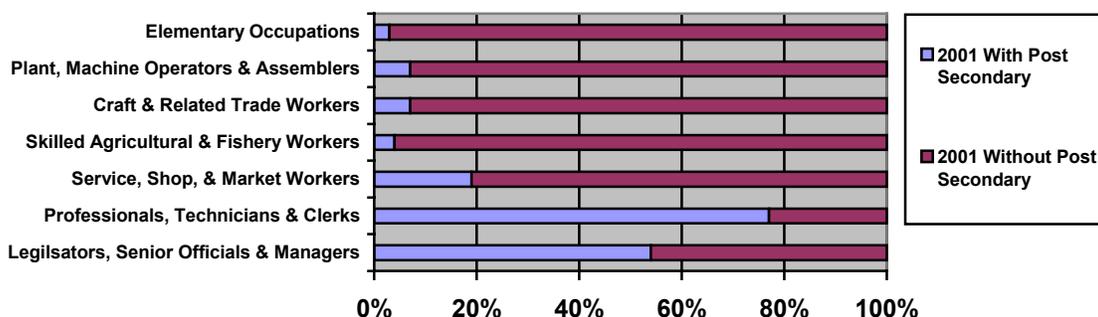
Statistics on employed persons in the Palestinian Territories by occupation and years of schooling for the years 1998 and 2001 collected by the Palestinian Central Bureau of Statistics, has allowed us to investigate the percentage of working persons with post secondary educational attainment at the level of each occupation.

Employment by Occupation and Educational Attainment, 1998



One can see that in the year 1998 for example, 75% of the persons employed as professionals, technicians and clerks had post secondary education, while only 5% of the persons employed as skilled agricultural and fishery workers had post secondary education.

Employment by Occupation and Educational Attainment, 2001

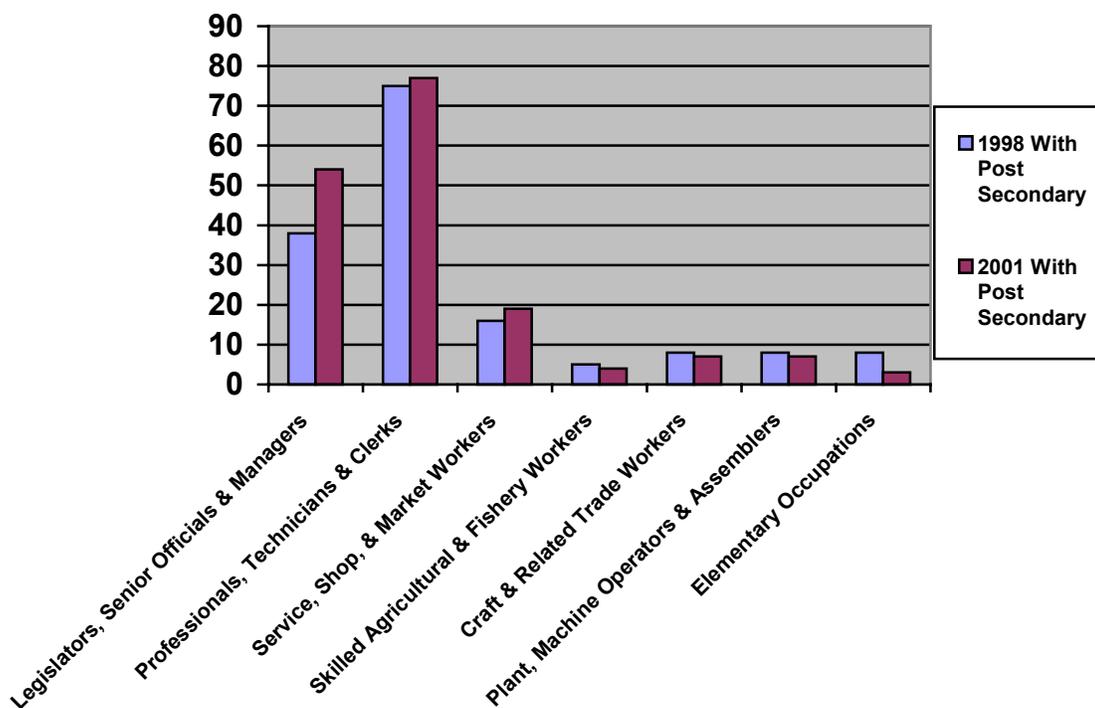


If we look at the figures for the year 2001, we see that the percentage of post secondary students employed as legislators, senior officials, and managers; professionals, technicians, and clerks; and service, shop, and market workers has increased.

Figure 29 clearly shows how educational requirements have changed over the last couple of years. The proportion of workers in the Palestinian Occupied Territories with post-secondary qualifications increased between 1989 and 2001

in the following occupational groups: 1) Legislators, senior officials, and managers; 2) professionals, technicians, and clerks; and 3) service, shop, and market workers. On the other hand, the proportion of workers in the Palestinian Occupied Territories with post-secondary qualifications decreased between 1989 and 2001 in the following occupational groups: skilled agricultural & fishery workers; 2) craft & trade related workers; 3) machine operators & assemblers; and 4) elementary occupations.

Figure 29. Employment of Post Secondary Students by Occupation (1998 and 2001)



Many HE graduates expect to be employed in the management, professional, clerical, and services occupations, and the data here shows that this makes sense.

In addition to the previous findings, the World Bank Financing Strategy presented several important findings that can be summarized as follows:

- Data from a labor force survey show that employed males average nine years of schooling compared to only eight years for unemployed males, suggesting that more education increases the likelihood of finding employment.
- Disaggregating into categories of educational attainment, two-thirds of employed men have only a preparatory education or less. For women, the result is the opposite, namely that women with more than a secondary education are more likely to be unemployed
- Data on wages by level of education in the West Bank and Gaza and in the region used to approximate rates of return to higher education (RORs), showed that RORs are either negative or close to zero for college and graduate studies at university, while they are just above zero for post-graduate studies. The report shows that these results are in contradiction with international evidence which shows that higher education is a profitable investment, both at the social (country) and individual level. The present values of RORs to higher education in the West Bank and Gaza are mostly linked to the closure of the country, which is a unique and temporary situation.

5.2.4 Global Economic Trends

“In most industrialized economies in the world, economy has changed dramatically over the past 100 years. The economy has evolved from one based on primary industries to one dominated by manufacturing after World War II, to one that today is driven by high technology manufacturing and services. Over the decades, the kinds of jobs available have undergone similar changes - away from occupations related to agriculture, forestry or mining to a wide variety of professional, technical and service occupations.

The number and the kinds of jobs available to workers depend on the goods and services produced in the economy.”⁶

5.2.5 Qualitative Needs of Employers

International research on the needs of employers shows that employers today look for a broader set of skills - called employability skills - in all workers. For example, the Conference Board of Canada developed the employability skills profile of the critical skills required of the Canadian workforce. The profile outlines foundation skills for employability, namely⁷:

⁶ Employment Trends – Ontario Job Futures 2000

⁷ Ibid

- **academic:** it provides the foundation for good communication skills; a capacity to analyze, evaluate and solve problems; and learn new assignments and new ways of doing the job when technology changes.
- **personal management skills:** positive attitude; ability to take responsibility and be accountable; ability to deal with changes in the workplace and be innovative; and respect for others.
- **teamwork skills:** the skills needed to work with others on a job and to achieve the best results.

The Glossary of International Vocational Education⁸ defines key qualifications as technical and economic qualifications not tied to one very specific type of work. These include the ability to cooperate, logical thinking, mastery of symbolic language, technical understanding, and creativity. In addition there are general and social qualifications, such as qualities of a good worker (diligence, attentiveness, thrift, and punctuality) and openness to lifelong learning, change of social roles, solidarity and opportunities for freedom of action.

Local research in the West Bank and Gaza⁹ has shown that the main reason that Palestinian employers rejected applicants for jobs was their lack of proper work attitudes.

The AED 1999 private sector reports portraying the views of the Palestinian private sector with regard to HE graduates showed that HE graduates:

- Are too theoretical, and their educational preparation is weak
- Do not have proper work ethics
- Have weak English language
- Need skills in: financial management, marketing, management, public relations

In summary, the employment potential within the local Palestinian economy currently looks gloomy for all, including HE graduates. "Secure and stable political environment is required to mobilize the resources necessary to facilitate access to the regional and world economy. Only such a change will provide chances for the local economy to absorb high-level human resources as the HE graduates."¹⁰ However, properly trained and educated people can better compete for available employment opportunities, if their education and training is relevant to the needs of employers. International and local research shows that no matter what job one is competing for, employers look for people with key qualifications. These qualifications include academic, personal management, and teamwork skills.

⁸ Glossar: Internationale Berufspädagogik. 1985.

⁹ Hashweh, M. 1996. Meeting the Challenge.

¹⁰ World Bank. 2003. HE Financing Strategy.

5.3 The HE System / The Supply of Skills:

5.3.1 Student Enrollment

The number of students enrolled in the Palestinian Higher Education System has increased greatly in the past years, as we have shown in Chapter 4. The number has increased by about 180 percent during the past six years, and almost tripled since the last decade. MOHE data shows that this trend in expansion started in the year 1992.

The total number of HE graduates was increasing regularly as a result of the increase at the universities level. This was not the case for the students at the community colleges, as seen in the following figure. The percentage of community colleges of the total HE students has decreased from 9.2 percent in 96/97 to 5.9 percent in 01/02.

Under all circumstances, this percentage is quite low if compared to other countries. The percentage of community colleges to HE students was 24.3 percent in Israel in the year 1998, and about 44.0 percent in the USA.

As rightfully pointed out by the World Bank, Palestinian HE may also have become less relevant over time, since student enrollment in community colleges has been declining in absolute terms and as a percentage of total HE enrollments, despite the fact that community colleges focus on the vocational and technical skills that are increasingly needed in the region.

5.3.2 Students Specialization

As seen in Table 24, a 1995 UNESCO comparison of students' percentages in the Tertiary Education showed that the percentages of Palestinians enrolled in Education, and in Humanities are quite higher than in any other country. The percentage of students in natural sciences, engineering, and agriculture is low, but comparable to other Arab States. The percentage of students studying Law and Social Sciences, and Medical Sciences is lower than in all other countries.

Table 24. Distribution of students, by field of study and by region, 1995 (in percentage)

Region	Number of Countries	Education	Humanities	Law and Social Sc.	Natural Sciences, Eng. & Agriculture	Medical Sciences
World Total	83	12	12	36	29	9
More developed countries	19	8	16	37	26	18
Countries in transition	7	14	12	28	34	9
Less developed countries						
Of which						
Sub-Saharan Africa	17	17	12	30	31	9
Arab States	9	15	22	34	20	7
Latin America/Caribbean	16	11	7	42	29	10
Eastern Asia	9	16	9	34	33	7
Western Asia	3	13	15	22	34	11
Least developed countries	13	15	22	37	22	5
West Bank and Gaza		25	28	22	20	3

* Source: UNESCO, World Conference on Higher Education, 1995

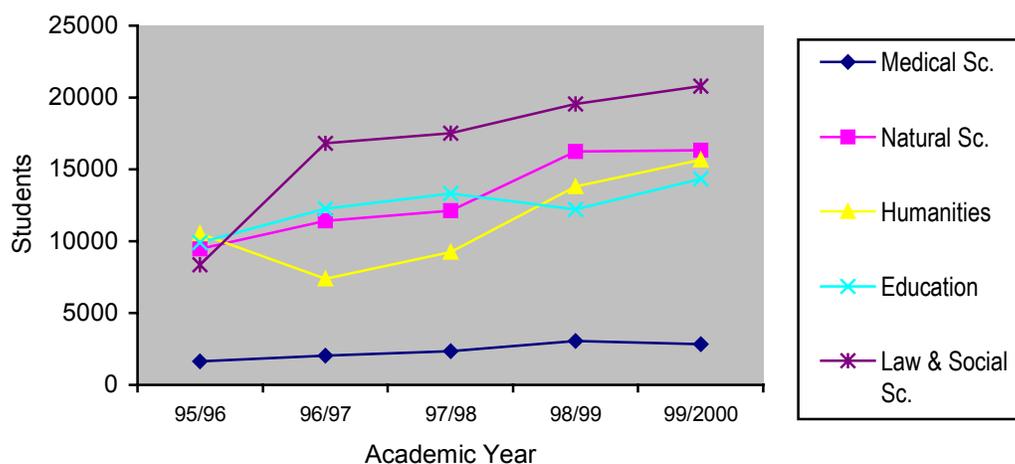
Another UNESCO comparison as seen in table 25, conducted in 1996 of tertiary education graduates showed a high percentage of Education and Humanities graduates, and a low percentage of Law and Social Sciences graduates.

Table 25. Tertiary education: graduates by broad field of study, 1996, UNESCO

Country or territory	Percentage of graduates				
	By field of study				
	Education	Humanities	Law and social sciences	Natural sciences, engin. & agric.	Medical sciences
Algeria	1	16	25	52	6
Egypt	24	16	33	15	10
Jordan	14	20	28	24	11
Lebanon	1	23	52	19	6
Syria	4	39	./.	41	16
UAE	47	15	13	23	2
Palestine	26	30	16	20	7
UK	12	17	33	28	10
Australia	15	14	32	23	14
USA	9	16	36	19	13
Spain	12	10	42	23	11

The trends of students' enrollment over the last five years show that the situation is still deteriorating, and more students are joining the Education and Humanities programs.

Figure 30. Students Enrollment by Field of Study



Source: MOHE, 2003

If we look at the 01/02 figures regarding the number of students at Palestinian Universities presented in Figure 31 and Table 26, it is clearly seen that the majority of students are enrolled in the Social Sciences, Humanities, and Education. The World Bank attributes that to "reasons that include: a) the high proportion of high school graduates in Humanities (approximately two thirds of

the total number of HS graduates), which is itself related to curriculum, teacher training and teaching practices, as well as to the absence of an effective student counseling and guidance system at the secondary school level; b) higher HE capacity in the non scientific and non technical fields; c) students interest; and d) the high demand for primary and HS teachers, given the fast expansion of enrollments at those levels.”

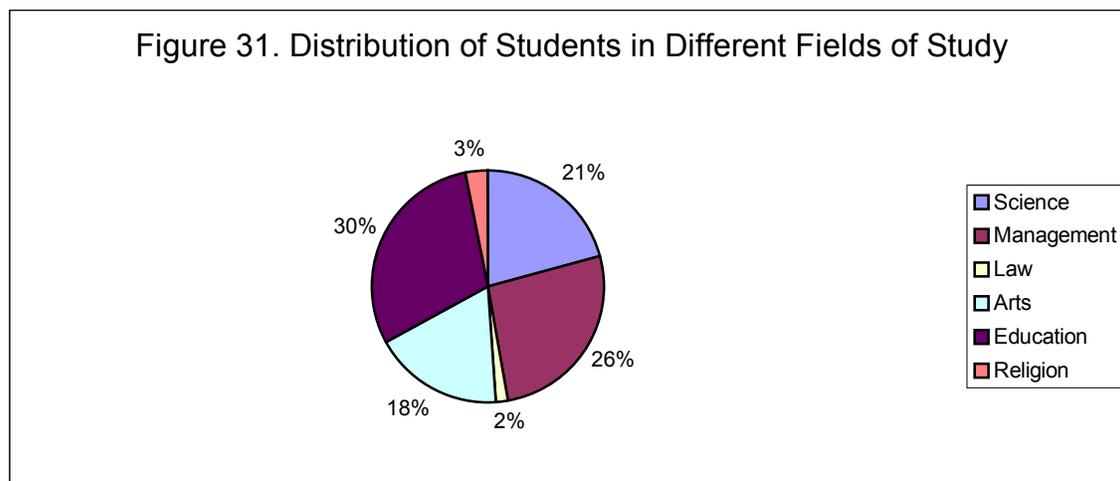


Table 26. Number of Students at Palestinian Universities in the year 01/02

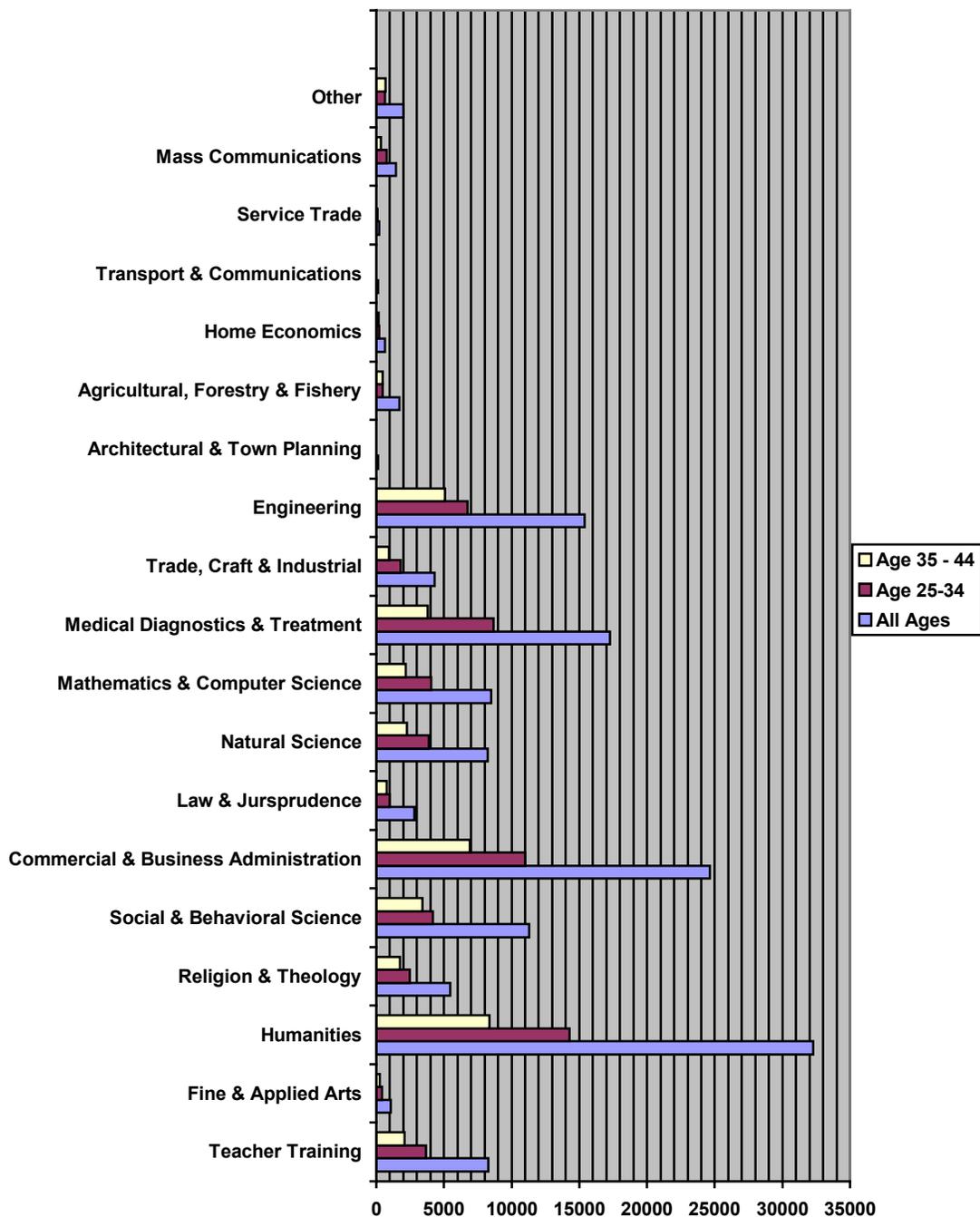
	Specialization	Number			Percentage			
		M	F	T	M	F	T	
Science	Pharmacy	337	666	1003	16144	23	18	21
	Med. Prof.	284	336	620				
	Nursing	233	231	464				
	Medicine	23	30	53				
	Dentistry	27	29	56				
	Science/Technology	2581	2914	5495				
	Agriculture	359	83	442				
	Veterinary	11	1	12				
	Engineering	3531	1692	5223				
	IT	2002	774	2776				
Management	Commerce / Management	14416	5961	20377	20377	35	16	26
Law	Law	1005	317	1322	1322	2	1	2
Arts	Arts	6835	7140	13975	13975	17	19	18
Education	Education	8016	15065	23081	23081	20	41	30
Religion	Religion	991	1382	2373	2373	2	4	3
Other	Other	75	9	84	84	0	0	0
	TOTAL	40726	36630	77356	77356	100	100	100

The result of years of turning out of these graduates had led to a situation that is presented in Figure 32. The figure shows that around 22 percent of the Palestinian population who had completed associate diplomas and higher had studied humanities programs, 8 percent had been in social science programs, 17 percent in commercial and business programs, 6 percent in natural science programs, and 10 percent in engineering programs. What is important to note is that this remains almost the same situation for the current age groups 20-24 and 25-34, implying that the supply by specialization of HE graduates has not much changed over the last years.

“These fields of study do not necessarily support the broader labor force needs in the region. This lack of relevance echoes the 1999 Vision Statement: ‘...the unchecked enrollment practice has led to the proliferation of graduates who are either unemployed (approximately 30%), or underemployed, especially in the humanities. By the same token the community is seeking qualified graduates in other fields, especially those related to technical skills and knowledge of advanced technology.’”¹¹

¹¹ Ibid

Figure 32. Palestinian Population Who Completed Associate Diploma & Above By Specialization



5.4 Supply and Demand at the Micro Level

This section sheds some light on the supply of and demand for specializations at the micro level. This is done by analyzing the relevant supply figures from the MOHE data, and by summarizing the main findings of various teams/subcommittees in regards to programs set up by MOHE. The quality of these findings varies, and we here simply present these findings, without endorsing them.

“The Ministry of Higher Education and Scientific Research took the initiative in setting up a Strategy Steering Committee, which in turn set up sub-committees for the different components of the proposed higher education strategy. The sub-committee on programs was set up to identify the needs of the country in the various fields of knowledge, for the coming ten years, with a vision of how the institutions of higher learning could meet these needs.

The work of the sub-committee was guided by an overall question: Are the programs being offered of the required quality and relevance to qualify Palestinian students in developing and advancing Palestinian society and economy in the coming future, and to help the country in its leap out of its third world status, by gaining a scientific competitive edge, regionally and globally? To this purpose, ten broad areas, covering the range of programs offered at Palestinian institutions of higher learning were identified. Teams were selected to prepare preliminary reports, which were then presented and discussed in workshops that included persons from the various relevant sectors besides universities and colleges.”¹²

¹² MOHE, 2003

5.4.1 Analysis at the Program Level

Natural Sciences

Programs, Students, & Graduates

		Programs	Students	Graduates
Universities	Biology	7		
	Chemistry	7		
	Geology	2		
	Computer. Sc.	7		
	Math	7		
	Physics	4		
	Statistics	1		
	Applied statistics/math	4		
	Mathematical Econ.	1		
	Environment	2		
	Communications	1		
	Applied technology	1		
	Biotechnology	1		
	TOTAL	45	5,495	1,490
Colleges				
	TOTAL	0	0	0
	GRAND TOTAL	45	5,495	1,490

01-02 data excluding Al Quds University for number of students, and using 00-01 data for Al Quds, Al Quds Open Universities.

The Sub-Committee on Natural Science Programs' main findings were that:

- Twelve percent of natural sciences graduates were unemployed in 1997 (PCBS Census).
- Science program graduates had been absorbed in various economic sectors that included mainly: the public sector – Ministry of Education & Higher Education and Ministry of Supplies, Industrial / Manufacturing sector, Agricultural sector, Health & Environmental sector, and universities and research institutions
- It is expected that 700 graduates of natural sciences will be needed each year for the next ten years
- New science specializations required included: Geology, environmental studies and pollution, nutrition and food processing, marine sciences, management of water resources, management of semi-arid areas.
- There was a need to introduce new courses in existing programs, such as biotechnology, industrial chemistry, renewable energy, solid waste and waste water management, medical physics, public health, natural reserves, bio diversity, etc.

Social Sciences & Humanities Programs, Students, & Graduates

		Programs	Students	Graduates
Universities	Pol. Science/planning	4		
	Philosophy	1		
	Archeology	2		
	English/linguistics/transl.	6		
	Arabic	6		
	French	3		
	Geography	5		
	History	6		
	Sociology	5		
	Social Work	4		
	Social Dev. (child care, ..)	1		
	Media/Journalism	3		
	Intern. Studies	1		
	Arabic Studies	1		
	Gender, Law and dev	1		
	Democracy and H. Rights	1		
	Urban studies			
	Fine arts	1		
	Theater	1		
	Music	1		
Plastic arts	1			
Interior Decoration	1			
	TOTAL UNIVERSITIES	54	13,975	1,748
Colleges	Arts & Crafts	2	113	71
	Applied Arts	7	889	394
	TOTAL COLLEGES	9	1,002	465
	GRAND TOTAL		14,977	2,213

The sub-committee on Social Sciences and Humanities Programs' main findings included:

- Women make up sixty percent of enrollment in the social sciences and humanities programs. Sixty four percent of total enrollment is in sociology and in social development. High percentages of students are enrolled in Arabic and in English languages specializations.
- Need for a liberal arts core.
- Need for interdisciplinary studies.
- Need for a comparative approach.
- Need for research methodology.
- Priority specializations include: Israeli society, Arab societies, Modern languages, Geography programs, Archeology, Social work, Psychology, & Political Science.

Administrative & Economic Sciences

Programs, Students, & Graduates

		Programs	Students	Graduates
Universities	Accounting/taxes	9		
	Bus. Administration	8		
	Banking/Finance	4		
	Economics	5		
	Marketing	4		
	Hospital & HC management	1		
	Nursing manag	1		
	Health manag.	1		
	Public Administration	1		
	Hotel Management/tourism	2		
	TOTAL UNIVERSITIES	36	20,337	2,434
Colleges	Business	14	2,035	660
	Hot. Management	2	38	18
	TOTAL COLLEGES	16	2,073	678
	GRAND TOTAL	52	22,410	3,112

The sub-committee on Administrative and Economic Sciences Programs main findings were that:

- Student/teacher ratio has been increasing and was twice the ratio for that of universities in general. The staff was attracted to work in the private business sector. There was no evaluation and development / restructuring of existing programs. There was demand, as evidenced by a requirement for higher grades for acceptance.
- Required fields of specialization included:
 - In **economics**: Monetary Economics, Health Services Economics, Financial Economics, General Finance, Financial and International Commerce, Quantitative Economics, Economic Law, & Information Economics and Internet
 - In **Business Administration**: Financial Management, Banking Management and Islamic Banking, Information System, Human Resources Management, Marketing of Banking services, Management Policies, Operations Researches and Decisions Making, Marketing and Promotion
 - In **Accounting and Taxation**: Management Accounting, Auditing and Monitoring, Taxation Accounting, Taxation Disputes, Banking and Insurance Accounting
 - In **Finance**: Investment Analysis, Insurance, Stock Exchange, Companies Finance, Forward and Public Markets, Investment Strategies

Educational Sciences**Programs, Students, & Graduates**

		Programs	Students	Graduates
Universities	Early Childhood	3		
	Basic Ed/ Class teach.	7		
	Math	6		
	Science	7		
	Arabic	6		
	English	6		
	Geography	3		
	History	2		
	Social studies	3		
	Isl. Studies	4		
	Middle school teacher	2		
	Psychology	4		
	Counseling	2		
	Supervision	1		
	Educational administration	4		
	Education	5		
	Occupational Therapy	1		
	Physical education	3		
	Arts/home econ.	1		
	Computer	2		
	Ed. Technology	1		
	Teaching Diploma	2		
	Library Science	1		
	TOTAL UNIVERSITIES	76	23,081	2,821
Colleges	Ed. Professions	1	15	0
	TOTAL COLLEGES	1	15	0
	GRAND TOTAL	77	23,096	2,821

The Sub-Committee on Educational Science Programs' main findings included:

- A need for establishing different educational paths for classroom teachers, middle school teachers, and secondary school teachers.
- A need for requiring a longer practical training duration for students.
- A need for offering new specializations such as curriculum development, teaching aids, educational and social counseling.
- A need to introduce new courses/improve existing courses such as IT and internet, education in the West Bank and Gaza, educational media, special education, educational statistics, educational technology, and measurement and evaluation
- A need for recruiting 1,560 teachers annually over the next 10 years.
- It is expected that in the West Bank there will be more graduates than needed after 2005.

- In Gaza there is an overproduction of graduates starting now.
- More detailed studies are needed. Need for partnership with schools in teacher preparation

Health Sciences

Programs, Students, & Graduates

		Programs	Students	Graduates
Universities	Pharmacy	2		
	Med.			
	Analysis/lab/Cl.Chem	5		
	General	1		
	X-ray	2		
	Physiotherapy	3		
	Public health	3		
	health care	1		
	Nursing	4		
	Op room	1		
	Pediatric	1		
	Community health	1		
	Midwifery	2		
	Neonatal care	1		
Medicine	2			
	TOTAL UNIVERSITIES	29	2,196	778
Colleges	Med. Prof. & Pharmacy	10	619	232
		TOTAL COLLEGES	10	619
	GRAND TOTAL	39	2,815	1,010

The Sub-Committee on Health Sciences Programs' main findings included:

- Overproduction in the following occupational sectors, especially in Gaza: pharmacy, nursing and medical technology.
- Problems of relevance and quality.
- New priority programs include:
 - **Medicine:** oncology, organ transplantation, cariothoratic surgery, advanced diagnostic techniques, geriatrics, anesthesia, nuclear medicine, nephrology, immunity and genetics, clinical pharmacology, biostatistics, neurosurgery, ophthalmology, trauma, plastic and reconstructive surgery, and provision of qualified tutors for the Palestinian school of medicine.
 - **Diagnostic and medical imaging:**
 - **Physicians:** Computerized Topography (CT) and Magnetic Resonance Imaging (MRI), angiography and interventional radiology, conventional radiology, ultrasound and nuclear medicine.
 - **Technicians:** masters and or doctoral degrees in radio-physics, radio-protection, medical physics, education, advanced medical imaging and general medical imaging.

- **Medical physicists:** qualify medical physicists at the doctoral level: radio-physics, radio- protection, and health – medical physics.
- **Dentistry:** mandibular surgery, dental surgery for children, community oral and dental hygiene.
- **Midwifery:** women’s health, reproductive health, and related specialties at the doctoral level.
- **Public health:** family medicine, health economics, environmental health and occupational safety.
- **Pharmacy:** preparing pharmacists at the doctoral level for teaching position in the academic programs.
- **Medical technology:** preparing medical technologist at the doctoral level for teaching position in the academic programs.
- **Rehabilitation:** preparing teachers at the masters and doctoral levels with emphasis on speech pathology, physical therapy, occupational therapy, management in rehabilitation, rehabilitation of hearing loss and blindness. Also there is a need for a rehabilitation physician

Engineering Sciences

Programs, Students, & Graduates

		Programs	Students	Graduates
Universities	Civil	3		
	Urban planning	1		
	Architecture	3		
	Electrical/electronic	4		
	Mechanical	1		
	Computer	4		
	Chemical	1		
	Industrial	1		
	Business and Inf Sys	1		
	Computer and IT	4		
	Medical Instrumentation	1		
	Car engineering	1		
	Building eng	1		
	Survey eng	1		
	Information systems	2		
	Information Technology	1		
	Water eng.	2		
	TOTAL UNIVERSITIES	32	5,223	675
Colleges	Engineering Prof.	7	352	180
	TOTAL COLLEGES	7	352	180
	GRAND TOTAL		5575	855

The Sub-Committee on Engineering Science Programs’ main findings included:

- A need to differentiate between college and university training according to practice.
- Pedagogical skills were needed by the staff.
- Poor facilities.
- A need for the development of staff.
- A need for a focus on the social and professional relevance of programs -- teaching was too theoretical.
- Need for new specializations.
- Need to integrate MIS and Data Analysis in all engineering specializations.
- Need for networking.
- Unemployment might be a problem.

Jurisprudence

Programs, Students, & Graduates

		Programs	Students	Graduates
Universities	Law			
	TOTAL UNIVERSITIES	4	1,322	340
Colleges				
	TOTAL COLLEGES	0	0	0
	GRAND TOTAL	4	1,322	340

The Sub-Committee on Jurisprudence Programs' main findings included:

- Shortage of faculty in international business law, etc.
- Law schools faculty needed training in Pedagogy.
- Curriculum changes were required.
- Resources were required.

IT & Computer Sciences

Programs, Students, & Graduates

		Programs	Students	Graduates
Universities	Computer	13	2,776	
	TOTAL UNIVERSITIES	13	2,776	
Colleges	Computer	13	749	194
	TOTAL COLLEGES	13	749	194
	GRAND TOTAL	26	3,525	194

The Sub-Committee on Natural Science Programs' main findings included:

- Only 8.13 percent of courses in higher education institutions were IT related.
- Non-IT related streams at HE institutions had a low level of IT literacy.

Agricultural Sciences Programs, Students, & Graduates

		Programs	Students	Graduates
Universities	Pl. Protection	4	442	92
	Food Manu.	4		
	Food Manu. Technology	1		
	An. Production	4		
	Soil & Irrigation			
	Rural Development	1		
	Agricultural economics	1		
	Veterinary	1	112	0
	TOTAL UNIVERSITIES	16	554	92
Colleges				
	TOTAL COLLEGES	0	0	0
	GRAND TOTAL	16	554	92

The Sub-Committee on Natural Science Programs' main findings included:

- Need to increase faculties and specializations.
- Teaching was too theoretical.
- Priorities:
 - **Agriculture Extension and Education Professionals:** extension specialists to *teach* farmers and farm workers in the latest techniques for production, post harvest management, adding value to products at the farm level, computer applications in agriculture, keeping records, decision making, economics, etc.
 - **Food Science and Nutrition:** Professionals trained in product planning, manufacturing, preservation, packaging, transportation, and food engineering
 - **Food Security:** Economists, planners, policy makers, and other experts in management, storage, and transportation
 - **Horticulture and Greenhouse Management:** The market for fresh fruits, vegetables, flowers, ornamental plants grown under greenhouse conditions will increase as incomes rise. Palestine will have to become highly competitive to compete in this market. Trained professionals with basic plant science background and knowledge of the latest technology will be required.
 - **Environment and Natural Resources:** Agriculture professionals with training in management, conservation, and maintenance of the plants, soils, wildlife, protection of the environment, enhancement of biodiversity, and prevention of degradation, such as desertification

5.4.2 Analysis at the Institutional Level

The analysis of the questionnaires filled out by nine universities and by 15 colleges provided the following data:

- Eighty nine percent of the universities and 80 percent of the colleges responded that they had collected information from the community in order to develop their programs.
- Seventy five percent of the universities and 80 percent of the colleges responded that they used information collected from the community in evaluating their programs
- All universities and 80 percent of the colleges responded that they followed up their graduates. Few said that they had placement services for their graduates.
- All universities and 86 percent of the colleges responded that they had ongoing relations with the labor market, associations, etc.
- The relationship between HE institutions and the labor market on the one hand, and between HE institutions and their graduates on the other, was not well institutionalized or regular. Much more can be done.

5.4.3 Shortages in University / College Teachers

The questionnaire distributed to all HE institutions as part of this study showed a need for university/college teachers in a variety of fields, as presented in Table 27.

These findings confirm and expand upon earlier finding of the AED study conducted in 1999, which identified shortages in PhD holders in the areas of Business, Finance, Accounting, Marketing, Management, Computer science, and Water resources.

Table 27. Shortages in Universities and Colleges of Teachers

	Polytechnic	Birzeit	Al Najah	Al Azhar	Bethlehem	Jenin	Der Albalah	P Nursing	PG Ramallah	P Tulkarem
Management	X									
Business Administration		X			X	X				
Economics		X								
Accounting			X			X				
Financial Management			X							
Market. Management			X			X				
Public Administration					X					
Hotel Management							X			
Applied Natural Science				X						
Statistics	X									
Computer	X			X		X				X
IT			X	X						
Multi media	X									
Control	X									
Automation	X									
Surveying Engineering	X									
Computer Engineering			X							
Industrial Engineering			X							
Mechanical Engineering			X							
Electrical Engineering										X
Electronics										X
Communications										X
Medicine				X						
ICR								X		
OR								X		
Midwifery								X		
Dentistry						X				
Physiotherapy						X				
Functional Therapy						X				
Social Sciences					X					
Fine Arts									X	
Fashion							X			
Education					X					
VET			X							
Physical Education									X	
TESOL					X					

* Note: Al Quds Open University identified shortages in all specializations

5.5 Conclusions and Recommendations

5.5.1 Summary

Relevance is the extent to which educational objectives correspond to the overall objectives, needs and priorities of the West Bank and Gaza concerning the economic growth and enhanced welfare of the area.

It is not easy to assess whether there are potential future gaps between the number of college and university graduates that the West Bank and Gaza produce each year, and the number of graduates that will be required to meet the needs of a growing economy -- due to the absence of a variety of statistics and econometric projections

Labor outcomes in the West Bank and Gaza, as in all other countries in the world, are the result of many competing forces affecting labor supply and demand

Starting with the demand side, among the important factors influencing the demand for workers and the types of skills and occupations needed in the labor market are economic growth, technology, demographics, and consumer behavior.

The Palestinian economy continues to suffer from massive unemployment and severe limitations on the flow of goods and services. The percentage of Palestinians living below the poverty level (USD2/person/day) stands at 53.7 percent in the West Bank and at 83.6 percent in Gaza. Unemployment in the Palestinian Occupied Territories stands at 53 percent of the workforce.

The number of Palestinians employed in the West Bank and Gaza has increased in the past three years only in the trade, public and education sectors, and slightly in the health trade sector. Large declines took place in the construction and manufacturing sectors. The domestic private sector has absorbed much of the shock to the economy.

Most Palestinians working in Israel work in the construction, manufacturing, trade, and agricultural sectors. The occupations they hold are low skilled and require minimal educational attainment.

Sixty three percent of Palestinians working in the Occupied Palestinian Territories are working in the service producing sectors, while the rest (37%) are working in the goods producing sectors.

Furthermore, the West Bank and Gaza have one of the most rapidly increasing populations in the world, with the fifth highest population growth rate in the West Bank (3.4%), and the highest in Gaza (4.6%).

The proportion of workers in the Palestinian Occupied Territories with post-secondary qualifications increased between 1989 and 2001 in the following occupational groups: 1) legislators, senior officials, and managers; 2) professionals, technicians, and clerks; and 3) service, shop, and market workers.

On the other hand, the proportion of workers in the Palestinian Occupied Territories with post-secondary qualifications decreased between 1989 and 2001 in the following occupational groups: skilled agricultural & fishery workers; 2) craft & trade related workers; 3) machine operators & assemblers; and 4) elementary occupations.

The World Bank studies on the Palestinian HE system has shown that:

- More education increases the likelihood of finding employment.
- Women with more than a secondary education are more likely to be unemployed.
- In contradiction with international evidence which shows that higher education is a profitable investment both at the social (country) and individual level, rates of return (RORs) in the West Bank and Gaza are either negative or close to zero for college and for graduate university studies, while they are just above zero for post-graduate studies. This is mostly linked to the closure of the country which is a unique and temporary situation.

In most industrialized economies in the world, the economy has evolved from one based on primary industries to one dominated by manufacturing to one that today is driven by high technology manufacturing and services. Over the decades, the kinds of jobs available have undergone similar changes - away from occupations related to agriculture, forestry or mining to a wide variety of professional, technical and service occupations

International research on the needs of employers shows that employers today look for a broader set of skills - called employability skills - in all workers. These include communications, personal management, and teamwork skills

Local research in the West Bank and Gaza indicated that the main reason that Palestinian employers rejected applicants for jobs was their lack of proper work attitudes. Private sector reports describing the views of the Palestinian private sector employers with regard to HE graduates indicated that HE graduates were too theoretical, that their educational preparation was weak; they did not have proper work ethics; they had weak English language; and that they needed skills in financial management, marketing, management, and public relations.

On the supply side, the number of students in the Palestinian Higher Education System has increased greatly in the past years (about 180% during the past six years, and has almost tripled since the last decade). This is the result of an increase in the number of university level students.

The percentage of community colleges of the total HE students has decreased from 9.2 percent in 1996/97 to 5.9 percent in 2001/02. This percentage is quite low if compared to other countries.

A 1995 UNESCO comparison of students' percentages in the Tertiary Education showed that the percentages of Palestinians enrolled in Education, and in the Humanities was markedly higher than any other country. The percentage of students in natural sciences, engineering, and agriculture was low but comparable to other Arab States. The percentage of students studying Law and Social Sciences, and Medical Sciences was lower than in all other countries.

Another UNESCO comparison conducted in 1996 of tertiary education graduates showed a high percentage of Palestinian Education and Humanities graduates, and a low percentage of Law and Social Sciences graduates compared to other countries.

The trends of students' enrollment over the last five years show that the situation is still deteriorating, and more students are joining the Education and Humanities programs. The year 2001/2002 figures show clearly that the majority of students in Palestinian universities are enrolled in Social Sciences, Humanities, and in Education.

In regards to the population in general, it was found that around 22 percent of the Palestinian population who completed associate diplomas and higher had studied humanities programs, eight percent had been in social science programs, 17 percent in commercial and business programs, six percent in natural science programs, and 10 percent in engineering programs. The variations in the supply of HE graduates over the last ten years do not seem to have had a clear effect on the composition of the population

Research guided by MOHE has provided a lot of specific findings and conclusions at the various programs level

Shortages in PhD holders in the areas of Business, Accounting, Marketing, Management, Computer science. and the Medical science were identified.

Moreover, although all HE institution have relationships with the labor market, and collect and use information from the labor market to develop and evaluate their programs, yet this relationship between HE institutions and the labor market on one hand, and between HE institutions and their graduates is not well institutionalized or regularized, and there is a great room for improvement.

5.5.2. Conclusions

How relevant is the Palestinian Higher Education System? In other words, how well does the higher education system support economic growth and enhanced individual welfare?

Although Palestinian statistics show that more education increases the likelihood of finding employment, the rates of return (RORs) to college and university graduates are either negative or close to zero for several reasons.

Demand for higher education graduates in the Palestinian Occupied Territories and Israel is low. The Israeli occupation and *intifada* have combined to undermine economic growth. Israeli labor markets primarily hire Palestinians for low skill jobs that require minimal educational attainment. Very high population growth rates, combined with low economic growth, have resulted in unprecedented unemployment rates.

Three basic issues were identified that affect the relevance of the Palestinian HE system. These include an inappropriate production in certain fields of study, irregular and un-institutionalized relationships between HE institutions and the local labor market, and insufficient data and studies on both the supply and demand for HE graduates and their inter-linkages.

We are training and building human resources for the world of tomorrow and not of today. Assuming that tomorrow will be comparable to the situation currently prevailing in the neighboring stable countries, and having the aim of ultimately attaining the status of a developed country -- the comparison of the pattern of supply, or the percentage of HE students and graduates by field of study in Palestine, to neighboring and developed countries -- clearly shows an overproduction of Palestinian HE graduates in Education and Humanities, and an underproduction of graduates in Law and Social Sciences, and to a lesser degree in Natural Sciences, Engineering, and Agriculture. Qualitatively, Palestinian employers view HE graduates as too theoretical, as lacking in proper work ethics, and as having an inadequate educational preparation; also as deficient in the English language; and as lacking in management and entrepreneurial skills.

It has been seen that despite the existence of relationships between HE institutions and the labor market on the one hand, and between HE institutions and their graduates on the other hand, yet these relationships are not regularized or adequately institutionalized.

Collecting, modeling, and analyzing labor market data and linking these to the supply of human resources in Palestine on the macro and the institutional levels, allows for a better understanding of the quantitative and qualitative gaps existing between the supply of and demand for Palestinian HE graduates, and

consequently makes it possible to formulate interventions to bridge that gap. It has been found in this regard, that despite the presence of good research institutions and up-to-date statistics in the West Bank and Gaza, much is still lacking or is needed for further development. This includes on the macro level, up-to-date realistic occupational employment projections, crosswalk mapping, data on numbers and specializations of Palestinian graduates of HE institutions abroad and of local HE graduate going to work abroad, as well as age earning profiles. At the micro HE institutions level, there is a need for regular and systematic graduates tracer studies, and for evaluations of HE institutions' external efficiencies.

It is clear that much can be done. However, a positive change in the political situation is the only real viable solution for ensuring the employability of Palestinian HE graduates.

5.5.3. Recommendations

HE Institutions

1. Inject key qualifications (communication skills, teamwork and collaboration attitudes, abstraction, problem solving, work ethics and attitudes, etc.) in all HE programs curricula and methodologies of teaching.
2. Develop and adopt measures for enhancing business – university interfacing, such as sponsorship, research, part time employment of industry professionals, etc.
3. Develop and adopt a system for the regular tracing of graduates.

MOHE

1. Develop and implement up-to-date career guidance and counseling services at secondary schools and for freshmen classes at colleges and universities.
2. Further develop “technological education” at the school level, and attract more students into vocational and scientific streams at the secondary school level.

Funding Agencies

1. Support the Palestinian Central Bureau of Statistics and other research organization to collect labor & educational data and to conduct relevant occupational and econometric research.
2. Support the development and institutionalization of interfacing strategies and mechanisms between HE institutions and the labor market on the one hand, and between HE institutions and their graduates.

6.0 Governance

Governance is defined as the provision of leadership and direction to a system or to an organization. In other words, it is a measure of the degree to which a system or an organization has an effective body that provides leadership and overall direction, as well as independent oversight of its senior management.

In investigating the governance issue, one has to address the governance at the macro system level as well as at the micro institutional level.

There are a variety of bodies / structures that can be considered as governing bodies for the Palestinian Higher Education System. These include:

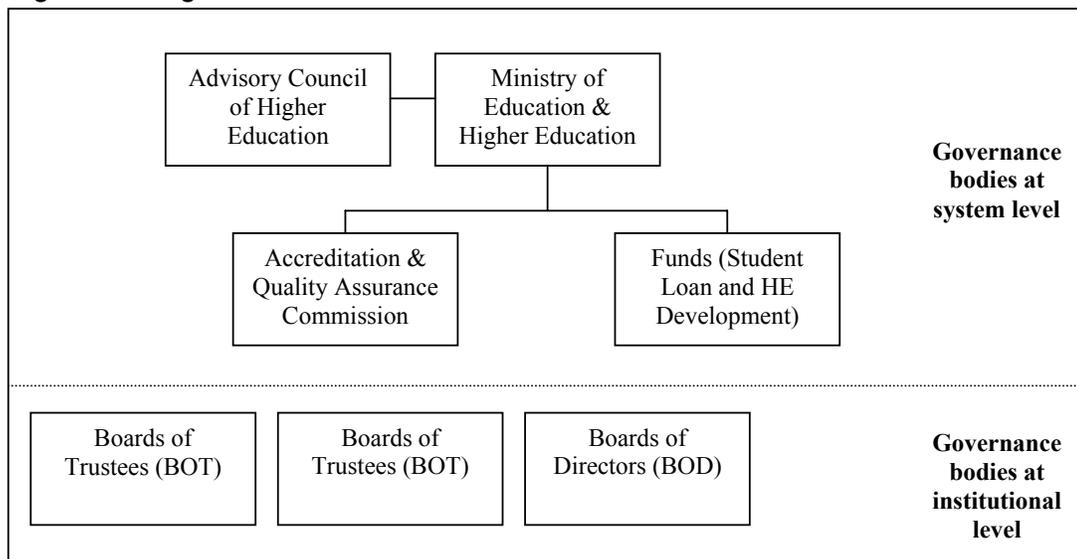
1. The Ministry of Higher Education
2. The Autonomous Accreditation and Quality Assurance Commission
3. The Advisory Council of Higher Education (COHE)
4. The Education Committee at the Palestinian Legislative Council

At the institutional level, the governing bodies include:

1. The College Deans' Committee
2. Boards of Trustees (BOT) for public and Board of Directors (BOD) for private universities

Figure 33 presents the HE governance structure in the West Bank and Gaza.

Figure 33. Higher Education Governance Structures



6.1 Governance at the system level

In order to investigate the governance at the system level, we will first present what theoretically any government can or should assume in terms of

responsibilities and functions regarding higher education. Secondly, we will look at what the prevailing Palestinian Higher Education Law stipulates regarding the responsibilities of the main HE governing bodies. Finally, we will focus on the Ministry of Higher Education, as the main HE governing body, and investigate its history and its declared mission and goals, its actual responsibilities, its staff characteristics, and its detailed capacity building needs.

6.1.1 Government Role in Higher Education¹

What role should any state have in higher education?

Theoretically, the role of the state in education is defined by the fact that education is a private good with externalities for the larger society. If education were simply a private good without externalities, the state would have no role. However, in addition to positive benefits captured by the individual, such as higher wages, education also has positive externalities for the collectivity, such as lower crime rates, better health practices that limit the spread of infectious diseases, higher rates of and more informed voter participation, contributions to economic growth that are not entirely captured by the individual in the form of higher wages, and, depending on occupational structures and labor markets, less inequality in incomes and therefore a lower probability of social unrest. For example, King and Basu (2001) find that increased enrollment in tertiary education is associated with better political processes, such as clean elections.

Markets do not always produce these positive externalities, either because they fail in particular ways or because they are not set up to provide them. In terms of higher education, important market failures are failures of capital markets and information asymmetries.

- Education is a long-term investment process: financial institutions are unwilling to take the risk.
 - It is difficult for providers to borrow against a future revenue stream.
 - It is difficult for students to borrow against a future income stream.
- Providers and students each have information which is unavailable to the other, so that providers may get worst students and students may end up in worst institutions than each would like.

Markets are not set up to protect equity. They don't fail in this regard—they are simply not organized to protect equity.

- Markets are mechanisms for the exchange of goods and services between producers and purchasers.
- If you can't buy, you don't get.
- Citizens vary in their capacities to buy.

¹ This complete section was prepared by Sue Berryman and obtained through a private correspondence

- Thus, government has a role to play in the redistribution of resources.

These problems with markets define the role of the state in education. This role can consist of *providing education*, *financing* it, *regulating* it, or providing *public information* about it. Nothing in the status of education as a private good with positive externalities argues for the *public provision* of education. The state does not have to run the steel plant to deal with the externality of the pollution co-produced with steel. Similarly, the state does not have to run the schools to secure the positive externalities co-produced with education or to ensure that families invest in education. At the same time, depending on the institutions of the society, such as legal traditions for enforcing contracts, the process of contracting with suppliers of education may be very complicated, costly to enforce, or vulnerable to abuses. In these cases it may be preferable to internalize contracting through state provision.

The state clearly has financing, regulatory, and information-providing roles. If it is assumed that all levels of education generate some, though possibly varying, positive externalities for the collectivity, the state has a *financing role* at all levels. However, regardless of level, there is no theoretical reason to finance education for all families—only for those that cannot pay or that can pay only partially, where public finance is used to protect equitable access. This is particularly true in countries where the cost of raising and spending public money is very high.

The state has a *regulatory role* to assure that providers, whether the state, local communities, non-governmental organizations (NGOs), or private providers, meet certain standards, such as safety or quality standards. At the level of higher education accreditation processes are an important part of both regulation and information. The state has an *information-providing role* to help consumers make informed choices among alternative providers, suppliers to make informed choices among consumers, and to create a basis for holding providers accountable for their performance.

It is important to keep in mind that there are also government failures. Thus, the role of the state should be reduced to the minimum required to compensate for problems with markets. Think about the contrast between buying a sandwich versus getting educated. If we buy a sandwich, we place an order. We watch the sandwich maker prepare the sandwich and are able to check that the right ingredients are going into the sandwich. We only pay if we get the sandwich, and we can choose whether or not to return to that sandwich maker tomorrow, depending on well we liked today's sandwich.

The supply and consumption of educational services are not a simple market transaction like buying a sandwich. They occur through the long route of accountability, and this route is vulnerable to government abuse.

- Governments do not always protect equitable access and quality. They can (and often do) focus resources on the elite and non-poor, not the poor. (In Africa, spending per student in higher education is 44 times that per primary level student.)

- Governments also do not necessarily deliver efficient and effective services. They can:
- focus resources on political constituents and voting blocks such as teachers' unions (political patronage)
- divert resources for personal gain (corruption)
- focus resources on less relevant learning outcomes (government is de-linked from the private sector and labor markets)

6.1.2 Responsibilities in Accordance with the Prevailing Laws

After having investigated the possible roles governments can assume with regard to higher education, let us look at what the Palestinian Law on Higher Education has stipulated regarding these roles. The Palestinian Law on Higher Education has defined the responsibilities of the main governing bodies of higher education. In accordance with this law, the main governing bodies will take on the following responsibilities:

Ministry of Higher Education:

- Setting of all basic plans for higher education and academic research in accordance with the homeland's needs.
- Representing Palestine in regional and international conferences in both the fields of higher education and academic research.
- Signing of all official government agreements relevant to organizing international cooperative relations dealing with the development of higher education.
- Preparing all projects dealing with rules and regulations and issuing the necessary instructions for all higher education institutions and apparatuses belonging to the ministry, in a manner that will ensure the quality of performance and continuous development.
- Supervising over all higher education institutions in accordance with the provision of this law and all related rules stemming from it.
- Accrediting higher education institutions according to the conditions of accreditation approved by the regulations issued according to the provisions of this law.
- Authorizing the establishment of higher education institutions within the larger framework of the general scheme for higher education.
- Approving of new educational programs in the various specialized fields in accordance with the provisions of this law.
- Accreditation of projects and programs of higher education institutions in sister and friendly countries.
- Coordinating the affairs of visiting students and instructors according to contracts previously agreed upon with their own countries.
- Recognizing Arab and foreign higher education institutions and forming special committees to be in charge of these issues; organizing and supervising student affairs, publishing a list of names and addresses of accredited universities and modifying this list as needed.

- Specifying conditions that allow branches or organizations of foreign higher education institutions to be established in Palestine and issuing of necessary licenses to conduct their work.
- Setting the general policy for scholarships and student financial aid, which include the establishment of regulations necessary for implementing this policy and the follow-up of these issues locally and abroad.
- Recommending consultants and attachés for documentation of cultural relations with sister and friendly countries.
- Providing additional funds necessary for covering extra expenditures of Palestinian Higher Education Institutions and academic research and specifying the bases and mechanism for distributing these funds.
- Coordinating with ministries and other related institutions for establishing the regulations for jobs that require an educational background.
- Setting the minimum grade point average of the high school matriculation certificate, or its equivalent, as a basis for acceptance in Palestinian higher education institutions.
- Limiting the number of students in each Palestinian higher education institution in accordance to the foundations that these institutions and their academic programs are found on based on the institution's means.
- Giving consent to administering any general examination after the secondary matriculation examination, which the institute of higher education deems necessary.
- Equating and certifying other higher education and high school diplomas in accordance with the regulations of equivalency and certification.
- Specifying licensing fees; equating and certifying diplomas.

Licensing and Accreditation Commission

- Review requests to open new higher education institutions.
- Set up "Quality Assessment Teams", one for each program of study, to review and evaluate all existing programs at HE institutions, within an agreed Plan of Action.
- Review requests to establish new academic programs.
- Review current Licensing and Accreditation criteria in comparison with international criteria, and based on the results of the quality assessment process.
- Initiate need assessment studies of the rapidly changing Palestinian society and economy, and reflect the results of those studies in strategic recommendations concerning the status of various programs of study.
- Make specific recommendations concerning public financing (or subsidy) of certain programs.
- Coordinate with similar international agencies, for the purpose of sharing information and periodic review of assessment criteria.

The responsibilities were recently revised as follows:

The general objective of the Commission is the improvement of the quality of Palestinian higher educational programs and institutions. It has the responsibility accreditation of new academic programs, and licensing and accrediting of any new educational institution, regardless of specialization and level of degree.

Towards this end, it:

- Reviews existing criteria
- Develops new criteria for accreditation and licensing
- Develops procedures for the ongoing comprehensive assessment of all programs of study that grant academic degrees.

The Advisory Council of Higher Education

- Participate in the formulation and planning of the Higher Education policy.
- Contribute to setting up the priorities of the plans of the Higher Education Institutions in Palestine and putting it in one master plan.
- Coordinate among the universities in all the joint fields, seek to develop them, achieve integration among them and contribute to finding solutions to the disputes and joint issues among them.
- Participate in reviewing fields of specialization at the different levels, which are proposed in the Higher Education Institutions in Palestine, give opinions regarding the fields of specialization by recommending their suspension, their total or partial cancellation, or their merger in light of changing needs.
- Seek to provide information and data on the educational reality in all the Palestinian universities on a regular basis with the aim of benefiting from them in the various fields.
- Participate in the formulation of admission policies as regards entrance scores in the universities and number of students admitted for every academic year in the various fields of specialization and the fees charged by the Higher Education Institutions.
- Contribute to setting up the mechanism for improving the academic and occupational level of universities' employees and teaching staff in an effort to serve both the institution and employees.
- Participate in formulating various regulations in the Palestinian universities in conformity with the content and spirit of the General Law and the Higher Education Law.
- Contribute to setting up mechanisms among the vocational, technical and community colleges and universities for the benefit of cooperative and collaborative society and for upgrading the academic levels of both.
- Discuss the annual reports of the Higher Education Institutions to evaluate their achievements.
- Discuss the annual budgets of the universities.
- Contribute to setting up equitable scientific foundations for distributing the available financial assistance based on the study of the annual reports of the Higher Education Institutions and their annual budgets.
- Submit projects proposals related to HE to the Ministry for follow-up.

- Submit the required advise for all the matters referred to it by the Ministry for consideration.
- Approve making examinations, practical or qualification training programs for the graduates of any specialization field of any higher education institution outside Palestine whenever necessary.
- Form provisional and standing committees required for the Council's works.

One can conclude here that the Higher Education Law defines as much as 21 issues that MOHE should be responsible for. Almost all (1 is on financing) of these issues are related to regulation functions. The law does not define responsibilities related to provision of HE and to information provision regarding HE. On the other hand, the Advisory Council of Higher Education assumes only an advisory role.

6.1.3 The Ministry of Higher Education

History, Mission, and Goals

The law of Higher Education (Law Number 11, 1998) defines the Ministry of Higher Education (MOHE) as the highest responsible authority for the sub-sector.

The history of a National Palestinian Higher Education System goes back to 1978 with the establishment of the Council of Higher Education. This Council was responsible for regulating higher education in Palestine all the way till 1994, following the Oslo agreement between Palestinians and Israel, by which the Ministry of Education and Higher Education was established.

"In June 1996, the Palestinian National Authority (PNA) established the Ministry of Higher Education and Scientific Research as part of the executive structure, thereby terminating the Ministry of Education's responsibility over higher education and research, and transferring the mandate of the Council of Higher Education to the new Ministry. In doing this, the PNA also signaled its commitment to the field, both administratively and financially, and raised it to the level of national priority.

The Ministry of Higher Education and Scientific Research is responsible for all issues related to higher education and scientific research in Palestine. It is also responsible for all the institutions, programs and activities of higher education and scientific research. Its role is to serve and promote a civilized society, encourage refined thinking, creativity and progress in natural, medical, sociological, human and applied sciences, to reinforce the human values and to contribute to human knowledge on the basis of equal opportunity. The Ministry seeks as well to provide the country with specialists and experts in all fields of knowledge, to train individuals with advanced methods of scientific research, and to consolidate human and scientific relations with Arab and international educational and cultural institutions.

The Ministry participates in building the country and enhancing a free democratic society. Together with the other ministries, the Ministry of Higher Education and Scientific Research shares in facing the various challenges of Palestinians in obtaining their right of self-determination and the establishment of a modern civilized Palestinian State with its capital Jerusalem. The Ministry considers all institutions of higher education and scientific research as centers for highly refined human thinking and for developing Palestinian human resources. The Ministry also encourages individual and collective initiatives within the concepts of responsible citizenship in order to achieve the Palestinian identity in both its Arab and human dimension.

Mission

To achieve a more effective, accessible, efficient, and a high quality system of higher education and research that is tuned to the realities and needs of the Palestinian people and is competitive on the regional and international levels.

Goals and Objectives

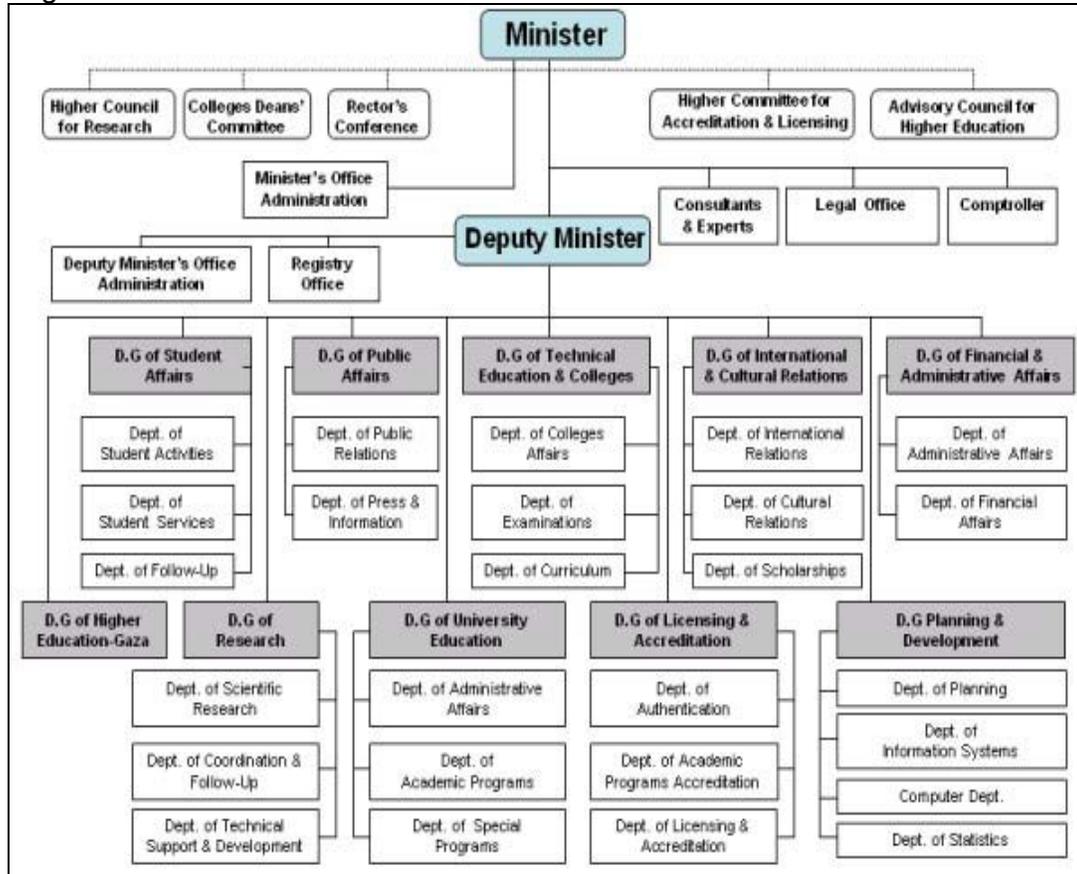
The Ministry seeks to lay down a comprehensive strategy and plans for higher education and scientific research in Palestine in order to:

1. Integrate higher education in the comprehensive development plan for Palestine in all fields.
2. Direct higher education towards meeting the present and future needs of society.
3. Improve the educational standards in the various institutions and support their achievements.
4. Consolidate, support, and activate scientific research.
5. Secure financial stability necessary for the survival and continuity of higher education and scientific research institutions and activities.
6. Establish the legal framework, rules, and regulations necessary to organize the process and the institutions of higher education and research.
7. Organize the international relations, cultural exchange, grants and scholarships for the benefit of higher education and research.
8. Coordinate and develop higher education institutions to ensure efficiency.
9. Promote civilized, cultural and intellectual interaction in all fields of knowledge.
10. Raise the level of consciousness and culture in Palestine in general.
11. Expand the educational base through public and liberal education.
12. Consolidate the concept of continuous education regarding higher education as part of an integral process aiming at the development of individuals.
13. Achieve balance in the individual's physical, intellectual, and moral development." (www.mohe.gov.ps)

It can be noticed that some of MOHE declared goals are broad and overarching in nature while other are more specific and concise. The goals are not presented in a hierarchical order that leads easily and logically to the mission statement.

Figure 34 presents the organizational chart of the Ministry of Higher Education and Scientific Research.

Figure 34. Ministry of Higher Education and Scientific Research Organizational Chart



The Ministry of Higher Education has been recently merged with the Ministry of Education to form a single ministry named “The Ministry of Education and Higher Education”. It is responsible for all education whether it is school level or tertiary higher education.

Actual Responsibilities Undertaken by MOHE

MOHE is assuming on the ground, to varying degrees, different roles with regards to higher education. It is:

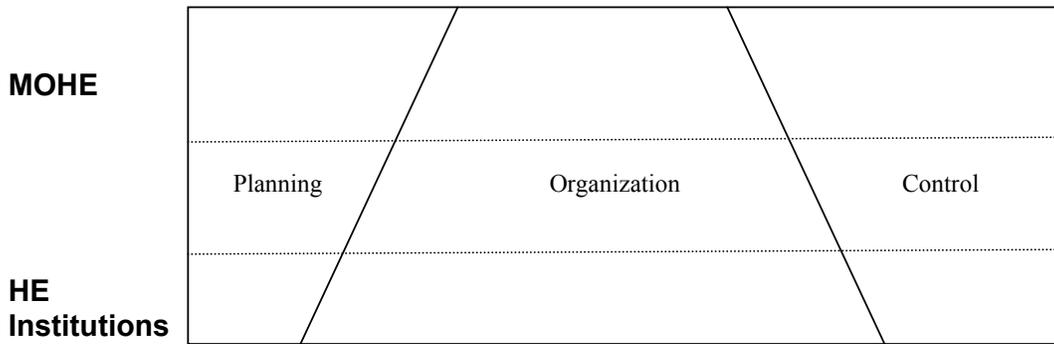
1. *Providing higher education*: all Palestinian Technical Colleges and Al Aqsa University;
2. *Financing higher education*: Governmental HE institutions are fully financed by MOHE while public ones are partially supported through channeling of donor funds, and lately through public budget;
3. *Regulating higher education*: through the operation of the Accreditation and Quality Assurance Commission for example;
4. *Providing information on higher education*: the preparation and publication of the yearly annual HE statistics, and the publication of licensed HE institutions and accredited HE programs are clear examples on this

The study showed that two third of the universities and less than half of the colleges are satisfied with the role played by the state. There is a shared expectation among stakeholders that MOHE should increase its financing to HE institutions. At the same time, there are concerns regarding the capacity of MOHE in developing and implementing adequate strategies, policies and regulations.

Stakeholders' recommendations for improvement included the following:

- Have MOHE guarantee funding for HE institutions
- Further empower / activate the Higher Council on Education
- Have MOHE develop & disseminate a national plan for HE
- Some wanted to have MOHE develop, monitor and enforce more strict criteria for accrediting new specializations, while other wanted less bureaucratic procedures and demanded more space for HE institutions
- Have MOHE further support scientific research and the development of technological specialization

In terms of providing higher education, MOHE takes a major responsibility in managing the institutions directly run by it such as Palestine Technical Colleges and Al Aqsa University. Management is creative problem-solving. This creative problem-solving is accomplished through five functions of management: planning, organizing, staffing, leading and controlling. The intended result is the use of an organization's resources in a way that accomplishes its mission and objectives. Literature shows (Figure 35) that the higher we move up the governance level, the more planning and control functions are undertaken, and the less organizational functions.

Figure 35. Admin. Functions at the Levels of Hierarchy of HE Administration²

Finally, and regarding provision of information on higher education, five principle that have been developed for the broader governance context, can be adopted by MOHE to guide it in effectively assuming its role.

According to Rogers W'O Okot-Uma³ there are five basic principles that government can adopt in relation to information management that can assist in providing good governance. These five principles are outlined in the table below:

Principle	Definition
Access	Making information widely available to citizens, consumers of services, voluntary and private-sector organizations.
Process	Providing information about how to gain access to government information systems and participatory access to the political process of good governance
Awareness	Providing information about the <i>political process</i> , about <i>services</i> and about <i>choices available</i> , and the <i>time horizons</i> for the decision-making process
Communication	Developing means for exchanging <i>learning experiences</i> , <i>views</i> , <i>information</i> and <i>knowledge</i> of mutual interest.
Involvement	Facilitating opportunities for involvement in the discursive development of information and knowledge for good governance

Staffing Characteristics

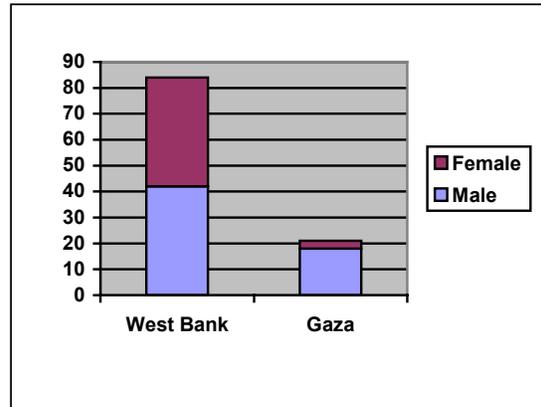
There are 105 persons working in the higher education section of the Ministry of Education. These are distributed as follows:

² Bessoth, Richard (1985) Some Aspects of School Management

³ Electronic Governance: *Re-inventing Good Governance*, Rogers W' O Okot-Uma, Commonwealth Secretariat London, 2000.

	Male	Female	Total
WB	42	42	84
GS	18	3	21
Total	60	45	105

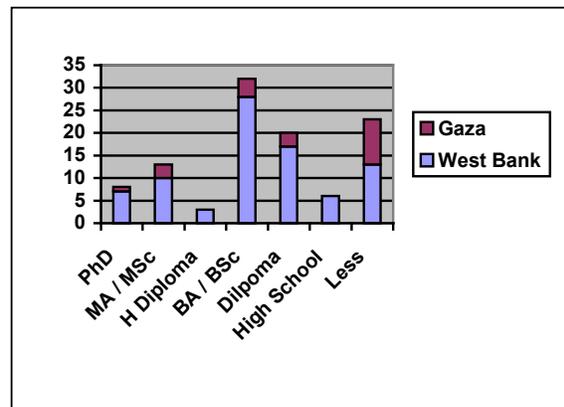
Distribution of staff according to gender & place of work



As seen 80% of the MOHE staff are employed in the West Bank (Ramallah), while the rest (20%) are employed in Gaza. Women make up about 43% of the total number of staff (50% in the West Bank, and 17% in Gaza).

	WB	GS	Total
PhD	7	1	8
MA / MSc	10	3	13
H. Diploma	3	0	3
BA / BSc	28	4	32
Diploma	17	3	20
High School	6	0	6
Less	13	10	23

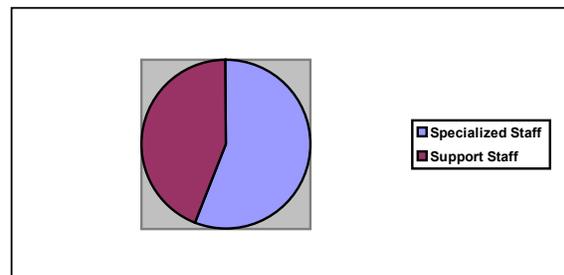
Distribution of all staff according to place of work & qualification



As seen, 20% of the MOHE staff have either a doctorate or a masters degree.

	WB	GS	Total
Specialized Staff	47	10	57
Support Staff	37	11	48
Total	84	21	105

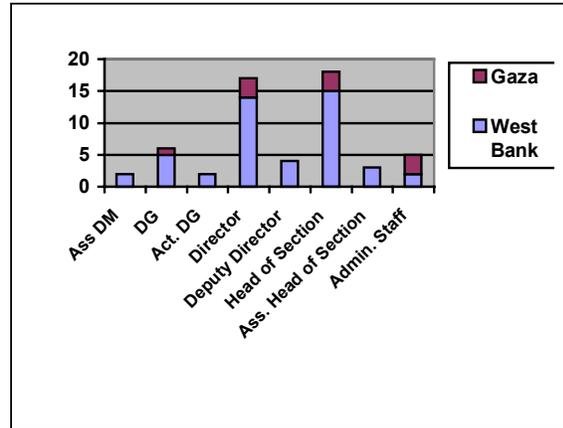
Distribution of all staff according to main type of work



It is seen that around 54% of the MOHE staff are specialized technical staff, while the rest work in support activities.

	WB	GS	Total
Ass. Dep. Minister	2	0	2
Director General	5	1	6
Act. D. General	2	0	2
Director	14	3	17
Deputy Director	4	0	4
Head of Section	15	3	18
Ass. Head of Section	3	0	3
Admin. Staff	2	3	5
Total	47	10	57

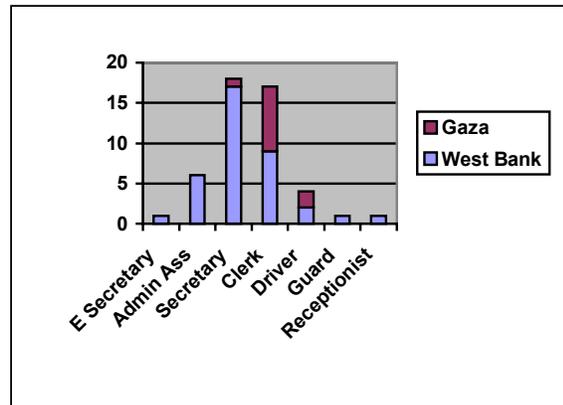
Distribution of specialized staff



Of the specialized staff, senior management (DM & DG) make up around 18% of the total number of staff.

	WB	GS	Total
Executive Secretary	1	0	1
Admin. Assistant	6	0	6
Secretary	17	1	18
Clerk (Murasel)	9	8	17
Driver	2	2	4
Guard	1	0	1
Receptionist	1	0	1
Total	37	11	48

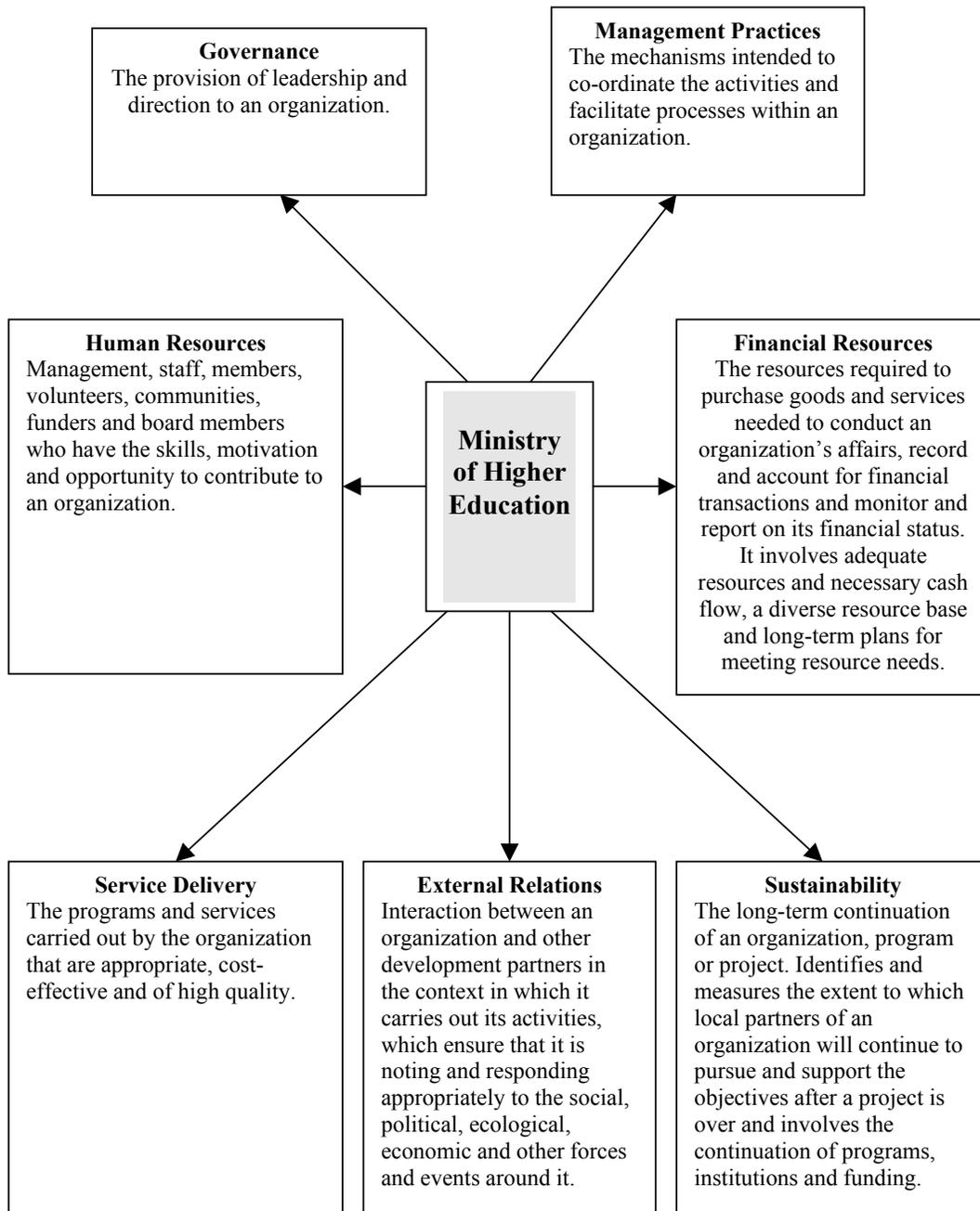
Distribution of support staff according to place of work & job



Executive secretaries, administrative assistants, and secretaries make up 52% of the total number of the support staff.

Capacity Building Needs

Capacity building assistance can be defined as an explicit intervention that aims to improve an organization’s effectiveness and sustainability in relation to its mission and context (James, R., 1994). Capacity-building programs are intended to strengthen an organizations ability to provide quality and effective services, while being viable as an institution. This means supporting an organization to be programmatically sustainable (providing needed and effective services), as well as organizationally sustainable (with strong leadership and having necessary systems and procedures to manage by), while ensuring that it has sufficient resources (human, financial, and material) that are utilized well. Finally, this support must help the organization understand the external environment (political, economic, and social) it operates in, and to develop a relationship with it that is sufficiently stable and predictable. Figure 36 depicts the components of organizational effectiveness. Figure 36. Components of Organizational Effectiveness



Using this framework of components of organizational effectiveness, a multi-step process to identify the capacity building needs of the ministry was followed, and we came up with the following findings:

Governance

Board / Governing Body

- It is not very clear what constitutes or assumes a governing role for the Ministry of Higher Education. A governing body usually provides overall

policy direction and oversight, and provides accountability and credibility

- The Council of Higher Education assumes only an advisory role. The Minister is accountable to the cabinet
- There is also an Education Committee in the Legislative Council

Mission / goals

- The Higher Education Law provides a large number of responsibilities to be undertaken by MOHE, but provides no clearly articulated mission statement and goals. The Higher Education Vision and Strategy provides somewhat a better attempt at producing a mission statement and goals
- Stakeholders whether HE institutions, students, parents, ...etc. do not clearly understand MOHE mission
- Even for the few that actually understand the MOHE mission, many resist the mission
- MOHE strategies are aligned with its mission, and mostly take the form of clear objective statements

Legal status

- The ministry, and after a great deal of debate at the legislative level, benefits now from the best financial and legal status permissible under the law

Stakeholders

- There is no real recognition of stakeholders as partners
- The only results of stakeholder needs assessments integrated into the planning process are the financial results

Leadership

- Not all senior management have a clear understanding of their respective roles and responsibilities as providers of overall direction
- The leadership style of senior management varies greatly. Few have real participatory styles
- Senior management is not really accountable to key stakeholders. Yet to some degree, one can see many situations with students and their unions exerting pressures on MOHE
- In general, leadership is accessible to all stakeholders

Management Practices

Organizational structure

- The ministry has an organizational chart that describes roles, functions and responsibilities of all individuals
- The ministry's organizational chart and management policies are continuously reviewed and updated
- There are a variety of committees at MOHE that ensure involvement of all levels of staff in decision making

Planning

- In general, there is no comprehensive implementation plans for MOHE. Some but not all departments have detailed implementation plans
- The implementation plans reflect a strategic plan
- Implementation plans are rarely updated
- Resources are not adequately planned for or allocated properly
- There is little flexibility to adjust plans as a result of the monitoring process

Personnel

- Selection criteria for staff is in place
- Recruitment processes are clearly defined and transparent, but not competitive particularly when compared to the private or non-governmental sectors
- Work on clearly defined job descriptions is currently underway. New staff are deployed according to these descriptions
- Management encourage mutual respect among staff

Program development

- Mainly staff are involved in program design, implementation, monitoring, and evaluation. Other stakeholders are very little involved
- Program design incorporates monitoring, evaluation and reporting activities. However, this is not the situation at all levels of the Ministry. In addition, this is mainly true for the externally donor-funded program and projects, and not for the rest of the programs

Administrative procedures

- Adequate procedures for recording, filing, purchasing and intra-office communications exist and adhered to
- However, procedures and administrative manuals are not regularly reviewed and updated

Risk management

- There are systems in place to minimize organizational abuses
- Regular audit of inventory is conducted
- The audits conducted by the public control and inspection body mainly reviews financial procedures. Management practices are not well inspected, and the quality of the audit is low

Information systems

- Systems exist to collect, analyze and report data and information, however there is a lack of trained personnel to manage the information systems

Program reporting

- MOHE has in general modest ability to produce appropriate reports
- Although activity reports are prepared regularly and submitted to the cabinet, however evaluation reports are rarely prepared
- MOHE does publish and disseminate information on its operations, however the formats used are not flexible and do not respond to stakeholders information requirements

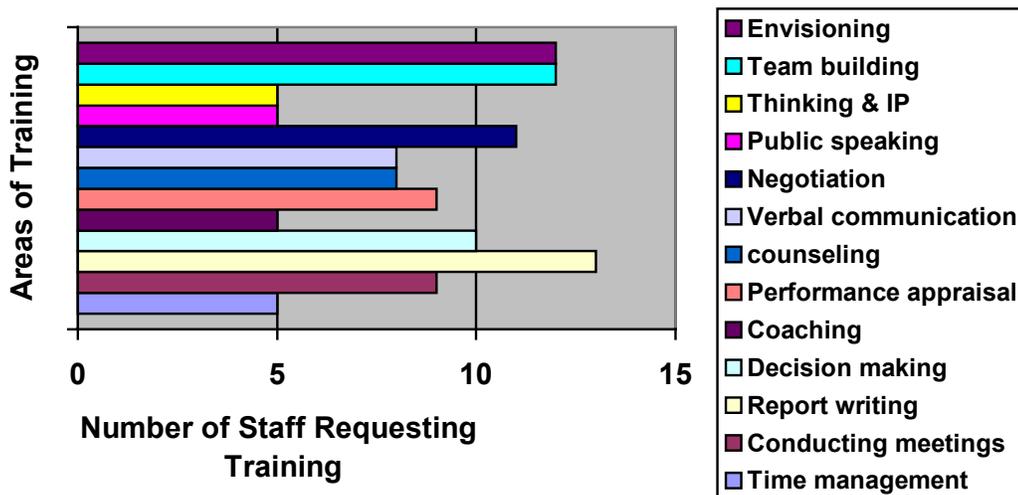
Human Resources

Human resources development

- No human resources development plan is in place. Accordingly, staff training is rarely based on capacity, needs and strategic objectives
- Job appraisals and promotions are not performance based or equitable
- In depth study of training needs of 21 MOHE staff members showed the following:

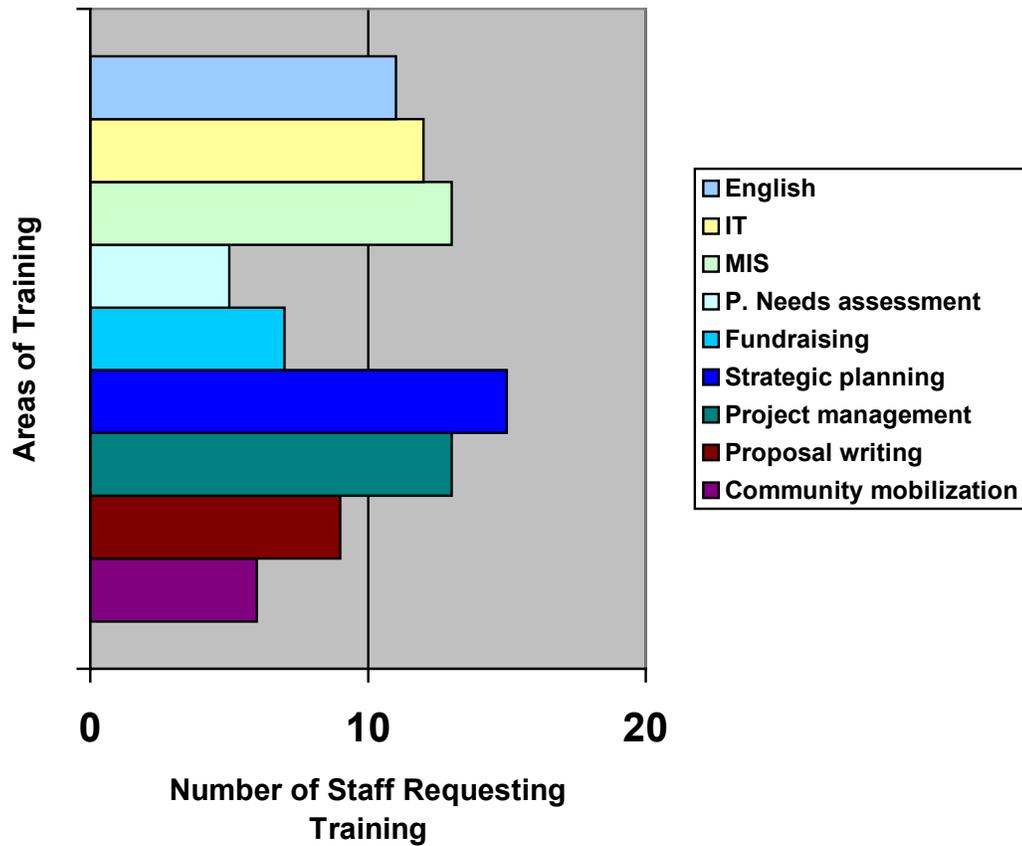
As seen Figure 37, the main management & leadership skills required by staff as identified by these staff include but are no limited to report writing, envisioning, team building, negotiation, and decision making.

Figure 37. Management & Leadership Skills for Specialized MOHE Staff



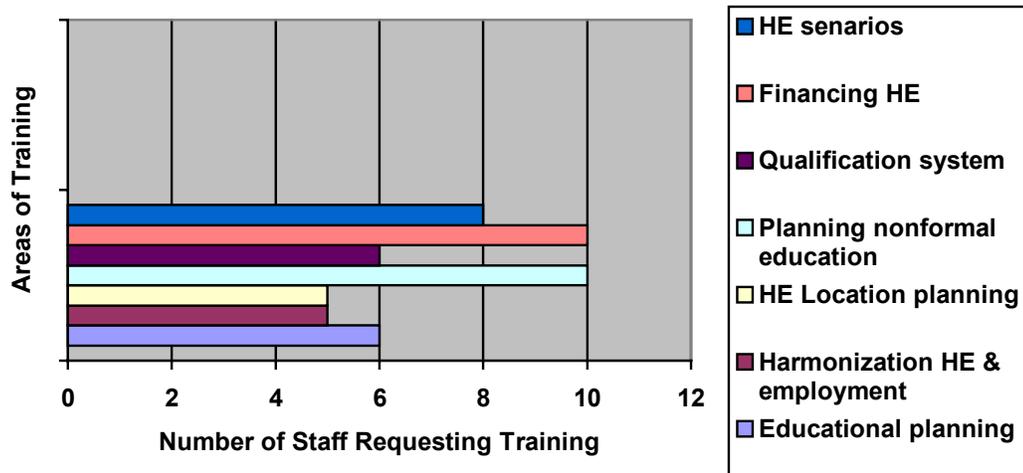
As far as general areas of training, and as seen in Figure 38, the main skills required by staff as identified by these staff include but are no limited to strategic planning, project management, and management information systems.

Figure 38. General Areas of Training



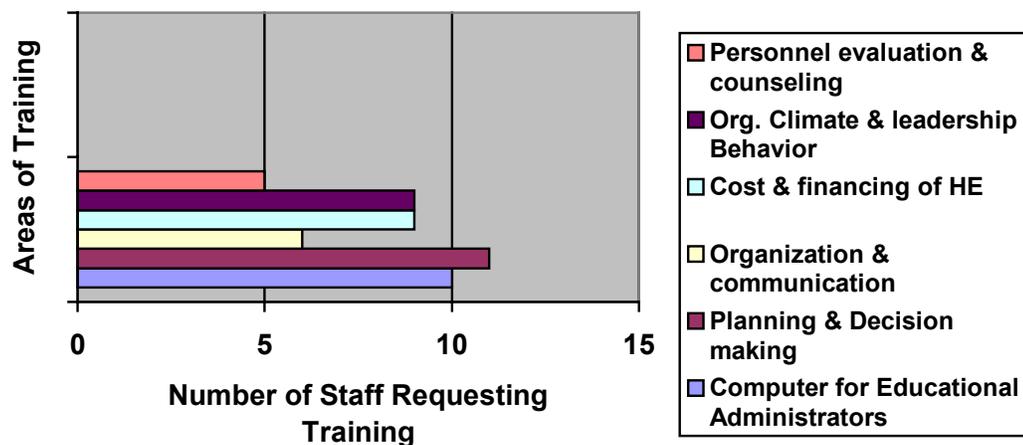
As far as training in educational planning and economics of education is concerned, and as seen in Figure 39, the main skills required by staff as identified by these staff include but are not limited to financing higher education, planning non-formal education, and developing higher education scenarios.

Figure 39. Educational Planning & Economics



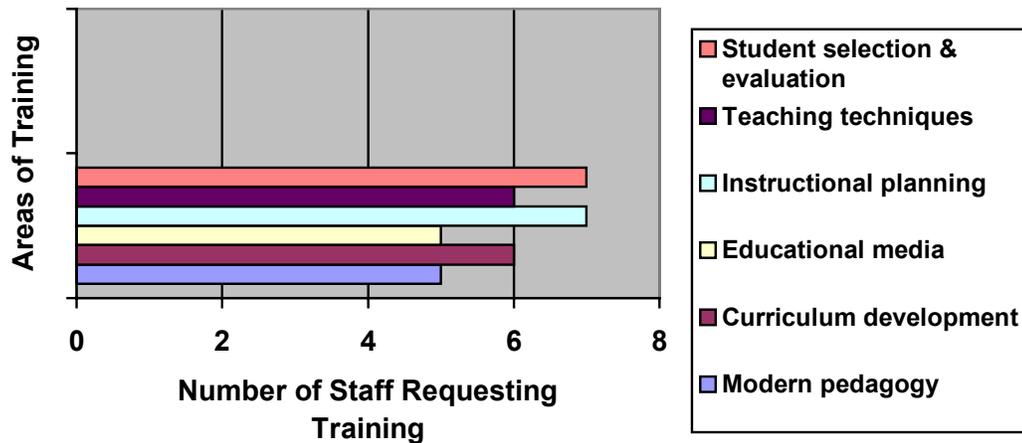
In the area of educational administration, and as seen in Figure 40, the main skills required by staff as identified by these staff include but are no limited to planning and decision making, computer use in educational administration, organizational climate and leadership behavior, and costs of higher education.

Figure 40. Educational Administration



Finally, and the area of general pedagogy, and as seen in Figure 41, the main skills required by staff as identified by these staff include but are no limited to student selection & evaluation, instructional planning, teaching techniques, and curriculum development.

Figure 41. General Pedagogy



Other training areas identified by staff included:

- Policy Aspects
- Website
- Distance learning
- Educational leadership
- Human Resources Development

Human resources management

- Job descriptions are currently being documented and updated
- No clearly established links exist between staff capacity and MOHE mission
- Salaries are clearly structured, but are far from being competitive compared to the private and non-governmental sectors
- In general supervision occurs on regular basis
- Adequate grievance and conflict resolution procedures as well as health and safety policies are in place

Work organization

- Staff meetings are held regularly
- Team work is encouraged all over the ministry, and in general, staff are encouraged to take initiative and be self-motivated
- Not all staff participate in management decisions. Information is poorly shared among all staff members

Diversity issues

- In general, the diversity of community is reflected in the composition of the MOHE staff

Financial Resources

Accounting

- Financial procedures and reporting systems are in place
- Accounting categories exist for separating project funds

Budgeting

- Budgeting process is not integrated into annual implementation plans
- Although a financial unit responsible for the preparation, management and implementation of the annual budget exist, however annual financial projections are scarcely made, and rarely implemented
- Budget is controlled on an ongoing basis

Stock control audits

- There are adequate requisitioning, purchasing, and stock control procedures in place
- Pay, petty cash, transport, and procurement needs of the MOHE in general, are met as required
- Internal and external financial audits are regularly conducted

Financial reporting

- Adequate and timely financial reports are prepared for funders and the government
- Sadly, the reports are not adequately used for planning and review purposes

Diversification of income base

- MOHE has multiple funders, has a cost recover plan in place, and has developed and adopted a strategy to diversify its funding sources

Service Delivery

Sectoral expertise

- Relatively speaking, relevant sectoral expertise does exist within MOHE, something that is recognized by the full range of stakeholders
- MOHE is capable of adapting program and service delivery to changing needs of stakeholders

Stakeholder ownership

- MOHE programs are mainly based on actual needs. Program priorities and services are in general defined in collaboration with stakeholders
- Not all MOHE programs are efficient, adequate, cost effective, and timely

Assessment

- In general, the ministry has mechanisms for integrating results of program evaluations into its planning process and for adapting and changing program direction and approach in response to information received?

- Indicators have not been identified to measure achievements of results for all programs
- Baseline and impact data are not regularly collected or analyzed, and are rarely used to make adjustments to the programs

Marketing and awareness building

- The ministry does not have a marketing strategy
- The ministry does not adequately and actively educate or build awareness among its stakeholders

External relations

Stakeholder relations

- MOHE is not seen as credible by all stakeholders
- Although MOHE is generally seen as a valuable resource by stakeholders, yet its relationship with its stakeholders is not one of partnership for a common purpose

Business, Industry and NGO collaboration

- MOHE does have a relatively good working relationship with most non-governmental organizations, research institutions. The same applies to the major businesses and industries
- There are no relationships with unions or chambers
- There is a lot of room for these relationships to be further developed

Government collaboration

- MOHE has good working relationships with most ministries
- Relationships with the Ministry of Planning, and the Education Committee in the Legislative Council have to be further developed

Funder collaboration

- MOHE has diversified contacts with the funding community, and is seen as credible and as a valuable resource by funders
- In general, MOHE engages in open and frank dialogue with funders

Public relations

- MOHE rarely engages in public relations
- MOHE has a positive image among stakeholders
- To some extent, information is disseminated on MOHE activities

Local resources

- MOHE has weak relationships with the private sector for technical expertise, material and / or human resources
- There are no structures in place to facilitate working relationships between MOHE and civil society

Media

- The ministry has no strategy to work with mass media and had made little use of mass media resources to disseminate information about itself and its achievements
- MOHE has not yet attracted positive media attention, however, media does consult MOHE on relevant issues

Sustainability***Program/benefit sustainability***

- The fees paid by HE institutions for licensing and accreditation are proof that MOHE programs are supported by those being served
- MOHE has developed systems for continuation of its programs and services in the medium and long term
- The ministry has no program phase-out strategies or procedures

Organizational sustainability

- The ministry's vision is similar to other organizations working in the same sector
- Many of MOHE current programs are conducted in partnership with international organizations, universities, research institutes or other groups

Financial sustainability

- MOHE has the ability to access diversified resources to contribute to its activities
- Although MOHE has developed a modern financing strategy for the higher education sector, yet no fund raising strategy was developed
- Local fund raising opportunities have not been identified
- MOHE has the capacity to develop proposals and respond to tenders

Resource base sustainability

- The existing sources of the ministry's financial resources are public budget, students fees, and donors contributions
- There is a longer-term business/funding/resource development plan for the needed financial resources as defined in the adopted strategy
- There are no adequate plans to access additional resources to finance activities

6.2 Governance at the Institutional Level

Having investigated governance at the system level, we move now to governance at the institutional level. In this section we will look first at what the Palestinian higher education law regarding HE institutions states, the move to examining selected indicators that shed some light on the colleges and universities governance and management.

6.2.1 Higher Education Law Regarding HE Institutions

In accordance with the provisions of the Higher Education Law, higher education institutions enjoy an artificial personality. **(Art. 7)**. Each campus of higher education institutions shall enjoy immunity in accordance with the provisions of this law. **(Art. 8)**

Categorization of Higher Education Institutions

The law categorizes Higher Education Institutions according to establishment and to academic programs offered.

1- Categorization of higher education institutions according to establishment:

- Governmental higher education institutions: established upon a decree issued by the Palestinian Cabinet. They are administratively, financially and legally part of the Ministry.
- Public higher education institutions: established in accordance with the provisions of this law.
- Private higher education institutions: established in accordance with the provisions of this law.

2- Categorization of higher education institutions according to academic programs offered:

- Universities: All institutions that comprise no less than three university colleges that offer academic programs, which culminate in granting a bachelors degree (the first university degree). The university can offer graduate programs, which grant students a higher diploma, an MA or a PhD. It can also offer academic programs that grant students a Diplome (diploma) in accordance with specified regulations for this certificate.
- Colleges: All institutions that offer academic or vocational programs that grant students a bachelors degree; colleges may also offer academic and / or vocational and /or technical two or three year programs that grant students a Diplome certificate (diploma) in accordance with regulations for Diplome certificates.
- Polytechnic: All institutions that offer vocational and / or technical programs that grant students a Diplome certificate (diploma) in accordance with diploma regulations; polytechnic institutions may offer vocational and / or technical programs that grant students a Bachelors degree and /or a Masters degree or a PhD in specialized vocational and / or technical fields.
- Community Colleges: All institutions that offer academic and / or vocational and /or technical programs over a period of no less than one academic year that grants students an academic and or a vocational and /or a technical Diplome certificate (diploma) in accordance with diploma rules and regulations. **(Art. 10)**

Governing Bodies

Each public higher education institution has a board of trustees. A private higher education institution has an administrative council; it is permissible for any governmental higher education institution to form an advisory council conditional upon specifying all duties and responsibilities of these councils in accordance with special rules and regulations that do not contradict with the provisions of this law. **(Art. 11)**

Each higher education institution may have its own internal system for organizing its affairs on condition that it does not conflict with the provisions of this law and is certified by the ministry. **(Art. 12)**

Administration of Higher Education Institutions

Administration of Governmental Higher Education Institutions:

- 1- Each governmental higher education institution has a president, a council, and the right to form an advisory council.
- 2- The President of the National Authority shall appoint the president of a higher education institution; accordingly its advisory council shall also be appointed upon recommendation from the minister.
- 3- Jurisdictions of the president of the institution, its councils, and all its affairs are determined by an order issued in accordance with the provisions of this law.
- 4- Administratively, financially, and legally, all governmental higher education institutions fall under the ministry's jurisdictions. **(Art. 14)**

Administration of Public Higher Education Institutions:

- 1- A board of trustees bears responsibility for each public higher education institution whereby its Council runs the administration.
- 2- Each public higher education institution organizes its own affairs and work methods in accordance with regulations approved by the ministry.
- 3- The ministry supervises over these institutions in accordance with public and private licensing and accreditation regulations.
- 4- These institutions receive partial funding from funds allocated for higher education in accordance with the regulations and criteria set by the ministry for this purpose, and conditional upon the submission of these institutions' final budget and expenditures reports to the ministry. **(Art. 15)**

Administration of Private Higher Education Institutions:

- 1- The Council is responsible for the administration of the private higher education institutions in accordance with the institution's basic law.
- 2- Each private higher education institution organizes its affairs and work methods through an internal system of rules and regulations conditional upon having those rules and regulations certified by the ministry.

- 3- Implementation of programs and approval of faculties of these institutions are subject to monitoring and supervision by the ministry in accordance with licensing and accreditation regulations. **(Art. 16)**

Public universities have Boards of Trustees (BOT), while private ones have Boards of Directors (BOD).

6.2.2 Governance and Management Indicators at Institutional Level

The study showed several strengths and weakness at the level of higher education institutions' governance and management. The findings can be summarized as follows:

Governing Boards

- All universities and 91% of colleges have board of directors / trustees
- 67% of the universities and 50% of the colleges said that their boards meet regularly
- 78% of the universities and 71% of the colleges said that their boards provide financial oversight to their institution
- 75% of the universities and 56% of the colleges said that their boards set the strategic directions of their institutions

Mission and Goals

- 100% of the universities and 86% of the colleges said that their institutions have written mission statements
- 89% of the universities and 93% of the colleges said that the mission statement is known to all staff and employees
- 100% of the universities and 93% of the colleges said that their institutions have written goals and objectives

Planning

- 89% of the universities and 50% of the colleges said that their institutions have written annual plans
- 89% of the universities and 36% of the colleges said that their institutions have written staff development plans

Financial Management

- 89% of the universities and 79% of the colleges said that their institutions have annual budget projections
- 89% of the universities and 71% of the colleges said that their institutions follow these budget projections
- 89% of the universities and 79% of the colleges said that their institutions monitor budgets and spending regularly
- 67% of the universities and 36% of the colleges said that their institutions have diversified sources of funding
- 89% of the universities and 43% of the colleges said that their institutions have a strategy for funding diversification

- 78% of the universities and 29% of the colleges said that their institutions have an income generating plan

The results clearly show a need for:

- Governing bodies to meet more regularly, to provide better financial oversight, and to set strategic directions of their institutions.
- Colleges to develop written annual plans and staff development plans
- Universities and colleges to diversify their sources of funding, and to develop income-generating plans

6.3 Conclusions and Recommendations

6.3.1 Summary

Governance is defined as the provision of leadership and direction to a system or an organization. In other words it is a measure of the degree to which a system or an organization has an effective body that provides leadership and overall direction, as well as independent oversight of its senior management

In investigating the governance issue, one has to address the governance at the macro system level as well as micro institutional level.

There are a variety of bodies / structures that can be considered as governing bodies for the Palestinian Higher Education System. These include: the Ministry of Higher Education; the Autonomous Accreditation and Quality Assurance Commission; the Advisory Council of Higher Education (COHE); and, the Education Committee at the Palestinian Legislative Council

At the institutional level, the governing bodies include: the College Deans' Committee, and Boards of Trustees (BOT) for public and Board of Directors (BOD) for private universities

Starting with the governance at the system level, what role should any state have in higher education? Theoretically, the role of the state in education is defined by the fact that education is a private good with externalities for the larger society. If education were simply a private good without externalities, the state would have no role. The role of any ministry of higher education as representing the state in higher education could consist of providing higher education, financing it, regulating it, or providing public information about it.

Investigating the Higher Education Law shows that there are 21 issues that MOHE should be responsible for. Almost all of these issues are related to regulation functions. The law does not define responsibilities related to provision of HE and to information provision regarding HE. On the other hand, the Advisory Council of Higher Education assumes only an advisory role.

Investigating the Ministry of Higher Education shows that the Ministry, according to law of Higher Education (Law Number 11, 1998) is defined as the highest responsible authority for the sub-sector. Its mission is to achieve a more effective, accessible, efficient, and a high quality system of higher education and research that is tuned to the realities and needs of the Palestinian people and is competitive on the regional and international levels. A closer look at the MOHE goals show that some of declared goals are broad and overarching in nature while other are more specific and concise. The goals are not presented in a hierarchical order that leads easily and logically to the mission statement.

On the ground, MOHE is assuming to varying degrees, different roles with regards to higher education. It is:

- *Providing higher education*: all Palestinian Technical Colleges and Al Aqsa University;
- *Financing higher education*: Governmental HE institutions are fully financed by MOHE while public ones are partially supported through channeling of donor funds, and lately through public budget;
- *Regulating higher education*: through the operation of the Accreditation and Quality Assurance Commission for example;
- *Providing information on higher education*: the preparation and publication of the yearly annual HE statistics, and the publication of licensed HE institutions and accredited HE programs are clear examples on this

The study showed that two third of the universities and less than half of the colleges are satisfied with the role played by the state. There is a shared expectation among stakeholders that MOHE should increase its financing to HE institutions. At the same time, there are concerns regarding the capacity of MOHE in developing and implementing adequate strategies, policies and regulations.

There is a well-established structure at MOHE that enables it to assume its roles and responsibilities. The study revealed that there are 105 persons working in the higher education section of the Ministry of Education. 80% of the MOHE staff are employed in the West Bank (Ramallah), while the rest (20%) are employed in Gaza. Women make up about 43% of the total number of staff (50% in the West Bank, and 17% in Gaza). 20% of the MOHE staff have either a doctorate or a masters degree. Around 54% of the MOHE staff are specialized technical staff, while the rest work in support activities. Of the specialized staff, senior management (DM & DG) make up around 18%. Executive secretaries, administrative assistants, and secretaries make up 52% of the total number of the support staff

The capacity building needs assessment for MOHE has revealed several areas and elements of strengths that have to be maintained and reinforced. The following depicts the main areas where MOHE can improve upon:

In the area of **governance**, the following was noted:

- There is confusion of what MOHE roles and functions are. The Higher Education Law as well as the declared Ministry's goals and objectives do not provide structured hierarchical presentation of this. Stakeholders do not clearly understand or support the MOHE mission. There is a shared expectation that MOHE should do more with regards to the financing function. At the same time, there are concerns regarding the capacity of MOHE with regard to the regulation / development of policy initiatives function
- There is no real recognition of stakeholders as partners within MOHE
- Not all MOHE senior management have a clear understanding of their respective roles and responsibilities as providers of overall direction. The leadership style of senior management varies greatly. Few have real participatory styles

In the area of **management practices**, the following was noted:

- There are a variety of challenges faced at the planning level within MOHE. In general, there is no comprehensive implementation plan for MOHE. Some but not all departments have detailed implementation plans. Although the few implementation plans reflect a strategic plan, yet these plans are rarely updated. Resources are not adequately planned for or allocated properly, and there is little flexibility to adjust plans as a result of the monitoring process
- Although recruitment processes are clearly defined and transparent, yet they are not competitive particularly when compared to the private or non-governmental sectors
- Mainly MOHE staff are involved in program design, implementation, monitoring, and evaluation. Other stakeholders are very little involved. Program design incorporates monitoring, evaluation and reporting activities. However, this is not the situation at all levels of the Ministry. In addition, this is mainly true for the externally donor-funded program and projects, and not for the rest of the programs
- Procedures and administrative manuals are not regularly reviewed and updated
- The audits conducted by the public control and inspection body mainly reviews financial procedures. Management practices are not well inspected, and the quality of the audit is low
- Although systems exist to collect, analyze and report data and information, however there is a lack of trained personnel to manage the information systems
- MOHE has in general a modest ability to produce appropriate reports. Although activity reports are prepared regularly and submitted to the cabinet, however evaluation reports are rarely prepared. MOHE does publish and disseminate information on its operations, however the formats used are not flexible and do not respond to stakeholders information requirements

In the area of **human resources**, the following was noted:

- No human resources development plan is in place. Accordingly, staff training is rarely based on capacity, needs and strategic objectives

- Job appraisals and promotions are not performance based or equitable
- MOHE Staff noted their requirement for training in the following areas:
 - Management and Leadership Skills: Include but not limited to report writing, envisioning, team building, negotiation, and decision making. General areas include but not limited to strategic planning, project management, and management information systems
 - Educational Planning & Economics of Education: Include but not limited to financing higher education, planning non-formal education, and developing higher education scenarios and policies
 - Educational Administration: Include but not limited to planning and decision-making, computer use in educational administration, organizational climate and leadership behavior, and costs of Higher education
 - General Pedagogy: Include but not limited to student selection & evaluation, instructional planning, teaching techniques, curriculum development, and distant learning
- Job descriptions at MOHE are currently being documented and updated. No clearly established links exist between staff capacity and MOHE mission. Salaries are clearly structured, but are far from being competitive compared to the private and non-governmental sectors
- Not all MOHE staff participate in management decisions. Information is poorly shared among all staff members

In the area of **financial resources**, the following was noted:

- Budgeting process is not integrated into annual implementation plans. Although a financial unit responsible for the preparation, management and implementation of the annual budget exist, however annual financial projections are scarcely made, and rarely implemented
- Adequate and timely financial reports are prepared for funders and the government. However, the reports are not adequately used for planning and review purposes

In the area of **service delivery**, the following was noted:

- Indicators have not been identified to measure achievements of results for all programs of MOHE
- Baseline and impact data are not regularly collected or analyzed, and are rarely used to make adjustments to the programs
- MOHE does not have a marketing strategy. The ministry does not adequately and actively educate or build awareness among its stakeholders

In the area of **external relations**, the following was noted:

- MOHE is not seen as credible by all stakeholders. Although MOHE is generally seen as a valuable resource by stakeholders, yet its relationship with its stakeholders is not one of partnership for a common purpose
- There are no relationships with unions or chambers

- There are no strong relationships between MOHE and the Ministry of Planning, and the Education Committee in the Legislative Council
- MOHE has weak relationships with the private sector for technical expertise, material and / or human resources. There are no structures in place to facilitate working relationships between MOHE and civil society
- The ministry has no strategy to work with mass media and had made little use of mass media resources to disseminate information about itself and its achievements. MOHE has not yet attracted positive media attention, however, media does consult MOHE on relevant issues

In the area of **sustainability**, the following was noted:

- Although MOHE has developed a modern financing strategy for the higher education sector, yet no fund raising strategy was developed. Local fund raising opportunities have not been identified

Moving from governance at the system level to governance and management of higher education Institutions, it is seen that HE institutions have different types of governing bodies: governmental HE institutions have Advisory Councils, public HE institutions have Boards of Trustees (except for Quds Open University which has an Advisory Council), and private HE institutions have Boards of Directors.

The study showed weaknesses in the governance and management of HE institutions at different level. These weaknesses are more severe at the college level, but are also present at the university level. These include:

- Regarding Governing Boards: Many boards do not meet regularly. Not all provide financial oversight to their institutions. Many do not set the strategic directions of their institutions
- Regarding Planning: Only half of the colleges have written annual plans, and only one third have written staff development plans
- Regarding Finances: Two thirds of universities and one third of colleges have diversified sources of funding. Less than half of the colleges have a strategy for funding diversification. Only 78% of the universities and 29% of the colleges said that their institutions have an income generating plan

6.3.2. Conclusions

How well is the Palestinian higher education system governed and managed? In other words, is there adequate provision of leadership and direction for the overall HE system and for individual institutions?

Role of the state. The main governing bodies are the Ministry of Education and Higher Education (MOHE) and its related Accreditation and Quality Assurance Commission, the Advisory Council of Higher Education, and the Education Committee in the Palestinian Legislative Council. The newly established Accreditation and Quality Assurance Commission is taking major

steps to license HE institutions and accredit HE programs. The Advisory Council of Higher Education assumes only an advisory role, and the Education Committee in the Palestinian Legislative Council has yet to become engaged.

An in-depth study and analysis of MOHE has revealed that MOHE is assuming to varying degrees different roles with regards to higher education. It is: *Providing higher education* (all Palestinian Technical Colleges and Al Aqsa University); *Financing higher education* (Governmental HE institutions are fully financed by MOHE while public ones are partially supported through channeling of donor funds, and lately through public budget); *Regulating higher education* (through the operation of the Accreditation and Quality Assurance Commission for example); and, *Providing information on higher education*. (the preparation and publication of the yearly annual HE statistics, and the publication of licensed HE institutions and accredited HE programs are clear examples on this)

The Higher Education Law defines as much as 21 issues that MOHE should be responsible for. Almost all of these issues are related to regulation functions. The law does not define responsibilities related to provision of HE and to information provision regarding HE. Some of MOHE declared goals on the other hand, are broad and overarching in nature while other are more specific and concise. The goals are not presented in a hierarchical order that leads easily and logically to the mission statement. This leads to having many stakeholders not clearly understanding or supporting the MOHE mission.

Only two third of the universities and less than half of the colleges are satisfied with the role played by the state. There is a shared expectation among stakeholders that MOHE should increase its financing to HE institutions. This is not very realistic taking into consideration the economic situation, and the fact that more than 17% of the Palestinian National Authority running budget used to go to education. At the same time, there are concerns regarding the capacity of MOHE in developing and implementing adequate strategies, policies and regulations. The establishment and operation of a professional Accreditation and Quality Assurance Commission is definitely but slowly diminishing these concerns.

An in-depth assessment of the components of organizational effectiveness of MOHE has revealed many areas where improvements can take place. The most important needs in the various areas are:

- **Governance:** recognition of stakeholders as partners; senior management roles as providers of overall direction; and participatory leadership styles of senior management
- **Management practices:** development & regularly updating of implementation plans at level of ministry and departments; involvement of stakeholders in all phases of programs cycle; incorporation of ME&R activities, having trained personnel to manage information systems; and the conduction & dissemination of evaluation reports
- **Human resources:** development of a human resources development plan that reflect MOHE strategic directions and roles; performance

- based & equitable job appraisals; documented & updated job descriptions; competitive salary structures; hiring more PhD holders, particularly with HE planning and economics background.
- **Financial management:** integration of annual implementation plans into budgeting process; development and implementation of annual financial projections; and use of financial reports for planning and review purposes
 - **Service delivery:** development of indicators for measurement of achievements; collection and analysis of baseline and impact data; and the development of a marketing strategy
 - **External relations:** having credible image; enhancing relations with unions, chambers, Ministry of Planning, the Legislative Council Education Committee, and the private sector; and the development and implementation of an adequate media strategy
 - **Sustainability:** development of a fund raising strategy

Governance and management of higher education Institutions. HE institutions have different types of governing bodies: governmental HE institutions have Advisory Councils, public HE institutions have Boards of Trustees (except for Quds Open University which has an Advisory Council), and private HE institutions have Boards of Directors.

Investigation of governance at the HE institutions level showed that many boards do not meet regularly, not all provide financial oversight to their institutions, and many do not set the strategic directions of their institutions. It was also found that only half of the colleges have written annual plans, and only one third have written staff development plans. Finally, it was found that two thirds of universities and one third of colleges have diversified sources of funding. Less than half of the colleges have a strategy for funding diversification. Only 78% of the universities and 29% of the colleges have income generating plans.

6.3.3. Recommendations

HE Institutions

Embark on a capacity building program for enhancing management and governing practices of HE institutions, emphasizing the need:

- for boards to meet regularly, provide financial oversight to their institutions, and set the strategic directions of their institutions
- to develop and follow written annual plans, and have written staff development plans
- to diversify sources of funding, develop a strategy for funding diversification, and develop and implement income generating plan
- to adequately collect, classify and store, process, and disseminate data. In this regard, HE institutions should agree

on operational definitions of terms used in data collection and classification.

MOHE

1. Conduct a strategic planning exercise to reinvestigate MOHE mission, goals, and responsibilities, and to develop an updated 5-year strategic plan
2. Investigate and further develop the following systems and processes; management information system; recruitment; performance appraisal; budgeting & financial management; and PME&R
3. Develop and implement a comprehensive human resources development plan that targets senior and mid level MOHE staff and addresses various areas of management and leadership, educational planning and economics of education, educational administration, and pedagogy
4. Develop strategies for: marketing MOHE & its services; working with mass media; cooperation & networking with the private sector & professional organizations; and fundraising
5. Lobby with Ministry of Finance and the Legislative Council to having a more competitive salary scale for MOHE staff in order to attract and retain highly qualified staff. Supplement this with having one-year expert ad hoc positions sponsored by donors or through exchange programs with other countries

Funding Agencies

1. Support capacity building for the HE institutions and MOHE through provision of physical and technical assistance resources, training, and seconded staff and staff exchange programs.
2. Support the Council on Higher Education's and MOHE's attempts in identifying priority fields of study. In order to ensure that this activity is protected from political distortions and special interests as much as possible, donor support should focus on creating highly transparent mechanisms (e.g., published feedback from employer surveys) and credible statistical databases and modeling that can be used to identify priority fields.
3. Support the Education Committee in the Legislative Council in becoming more and better involved in Palestinian higher education. This can be done through exposing members to experiences of similar committees in other countries for example.

7.0 Recommendations and Implementation Plan

7.1 Recommendations

Allocate funds to:

1. Hold a conference on higher education in the West Bank and Gaza. The conference aims to plan a five-year intervention, to engage the participants, and to launch the activities.
2. Establish a Higher Education Institutions Development Fund to support these institutions in the improvement of the quality and relevance of their programs, and the efficiency of their operations.
3. Facilitate building the capacities of MOHE. Provide technical assistance resources, training, seconding staff, and conduct staff exchange programs.
4. Support the Palestinian Central Bureau of Statistics and other research organization or HE institutions to collect labor and educational data and to conduct relevant occupational and econometric research.
5. Promote the quality and intensity of involvement in Palestinian higher education of the Council on Higher Education and of the Education Committee in the Legislative Council.

7.2 Implementation Plan

This study modestly adds to the wealth of studies and research conducted on the topic of Palestinian Higher Education..

This study agrees with previous studies on a variety of issues, including:

1. A need to identify priority areas/fields of study. This is to be conducted by COHE and MOHE; already a lot of data and proposals are available from this study and from other studies. Still more work is needed.
2. A need to formally endorse developed national strategies and policies on HE, ensure the necessary buy-in and ownership from all stakeholders, and set up and empower the required structures to implement these strategies and policies
3. A need to support MOHE and HE Institutions in their capacity building endeavors
4. A need to support HE institutions in the improvement of the quality of their programs (faculty / staff development, training, programs / curriculum development, enhancing distance learning, improving and sharing of educational resources, ...etc.), in conducting research, in interfacing with business and industry, and in developing their capital

development needs (construction, maintenance, & repair of facilities, especially for creating centers of excellence). Joint Venture Programs between different universities and other players to enhance efficiency and to ensure the transfer of knowledge are deemed necessary.

In order to achieve the above, the following path of action is proposed:

1. Support the holding of a well-prepared 3-5-days conference on HE with MOHE, HE institutions, COHE, Education Committee of the Palestinian Legislative Council, ...etc. and with the donor community (EU, USAID, World Bank, IDB, ...etc.) to discuss all studies and proposals, share information, get buy in, decide on a 5-year plan of action, and commit funds. Set up a committee to prepare well for the conference (3-4 months). Hold a conference in January 2004.
2. Develop detailed program interventions (Refer to proposed projects for a preliminary list). Development of plan details: January – April, 2004.
3. Negotiate and finalize funding, contractual, and other management and logistic arrangements, April – June, 2004.
4. Start a 5-year Comprehensive HE Reform Program, July 2004 – July 2009.

7.2.1 Proposed Projects

The following five specific projects are proposed:

Project 1: Conference on Palestinian Higher Education

A project aiming at supporting the holding of a well-prepared (3-5)-days conference on HE with MOHE, HE institutions, COHE, Education Committee, etc. and the donor community (EU, USAID, World Bank, IDB, UNESCO,...etc.) to discuss all studies and proposals, share information, get buy in, decide on 5-year plan of action, and commit funds.

Budget Required: \$ 150 – 200 thousands

Project 2: Higher Education Institutions Development Fund

A project aiming at supporting HE institutions in the improvement of the quality and relevance of their programs, and the efficiency of their operations. This includes the provision of physical and technical assistance resources, long and short term training, seconding staff, ...etc. for the purpose of: faculty/staff development; programs/curriculum development; enhancing distance learning; improving and sharing of educational resources; conducting research; interfacing with business and industry; conducting tracer studies, planning, developing and implementing fundraising strategies, development and operation of management information systems; and developing capital development needs (construction, maintenance, & repair of facilities, especially for creating centers of excellence, the development of libraries and

information centers; and for the development of few selected high priority fields of study).

The most expensive component in this Project is the faculty development component. Currently there are about 2400 faculty members, half of whom do not hold Ph.D. degrees. Funding the studies of about 200 Ph.D. students (about 17% of those in need) would cost about \$24 million, at an estimate of \$120,000 per student. The second most expensive component is supporting the development of few selected high priority fields of study. As is shown below, the World Bank report advocated allocating 14 million dollars for this component.

Budget Required: \$40 million.

Project 3: MOHE Capacity Building

A project aiming at building the capacities of MOHE. This includes the provision of technical assistance resources, training, seconding staff, and conducting staff exchange programs. This may include assistance to:

- Conduct a strategic planning exercise to reinvestigate MOHE mission, goals and responsibilities, vision for the two HE sub-sectors, and to develop an updated 5-year strategic plan.
- Investigate and further develop the following systems and processes; management information system; recruitment; performance appraisal; budgeting & financial management; career guidance and counseling; and PME&R
- Develop and implement a comprehensive human resources development plan that targets senior and mid level MOHE staff and addresses various areas of management and leadership, educational planning and economics of education, educational administration, and pedagogy.
- Develop strategies for: marketing MOHE & its services; working with mass media; cooperation & networking with the private sector & professional organizations; fundraising; attracting more students to colleges and to priority fields of study; addressing regional, gender, and socioeconomic equity
- Conduct studies on: the basis of young people's choices to enroll at the tertiary level, to enter a college or a university, and to enroll in a certain field of study; and on the capacity, quality, and potential of distance education programs
- Promote the development of the Quality Assurance and Accreditation Commission.

Budget Required: \$2.5 million

Project 4: Higher Education and Labor Market Observatory

A project aiming at supporting the Palestinian Central Bureau of Statistics and other research organization to collect labor & educational data and to conduct relevant occupational and econometric research.

Budget Required: \$0.5 million

Project 5: Higher Education Macro Planning and Legislative Support

A project aiming at promoting the quality and intensity of involvement in Palestinian higher education of the Council on Higher Education and the Education Committee in the Legislative Council. This can be done through exposing members to experiences of similar councils and committees in other countries for example

Budget Required: \$300 thousand.

7.2.2 Finances

We recommend taking the financial proposal of MOHE and the World Bank into consideration in planning for financing the funding of HE in Palestine. The report advocated funding HE at a total of \$30 million, over a period of five years, that is, an average of \$6 million per year. We think that this figure is too low, and does not take into full consideration the expenses of raising the quality of HE. That is, we think the report does not propose enough money for the Quality Improvement Fund. The MOHE/World Bank report advocated the following:

- Capacity building support to MOHE, COHE, and HE Institutions. This might include establishing HE MIS, training MOHER and institutions high-level staff, development of HE strategy that includes the identification of priority fields of study (\$3 million)
- Supporting the student loan scheme (\$8 million)
- Establishing the Quality Improvement Fund, (faculty-development, program development, sharing of, and access to, educational resources, upgrading facilities, etc) and contributing to its funding for targeted interventions (\$5 million)
- Supporting the development of few selected high priority fields of study (\$14 million)

This study proposes a sum of \$ 43.5 million in total, required over a duration of five years.

Refer to Appendix 7 for a list of Arab and European contributions to the Palestinian HE system.

Appendices

Appendix 1: Review of Previous Studies

Main Challenges Facing Palestinian Higher Education:

(Based on HE Financing Strategy, HE Strategy, and AED HE Needs Assessment Study¹)

The main challenges facing Palestinian higher education are:

1. Meeting Increasing Demand (Access)
2. Achieving Financial Sustainability while maintaining / improving quality
3. Improving Internal Efficiency
4. Raising External Efficiency (Relevance)
5. Improving Equity
6. Enhancing Management

1. Meeting Increasing Demand

- Palestinian HE occupies a somewhat unique position in the constellation of international HE. As Table 1 shows, by 1999, 2 percent of all Palestinians - 1 in 50 - were enrolled in HE. The gross enrollment rate (total enrollments divided by the 18-24 age group) was close to 17 percent. In 1995, the year for which comparative data exists, slightly over one percent of the total population was enrolled in HE, and the gross enrollment rate was slightly 10 percent.
- Palestinians had a higher percent of the total population enrolled than the average for the developing countries and for the Arab states. They had a higher gross enrollment rate for 18 to 24 year olds than the average for the developing nations, but slightly lower than the average for the Arab states (See table II.1, appendix II).
- The pressure came from a quickly increasing number of high school graduates, induced by the impact of high demographic growth on enrollments in a quasi-generalized secondary education (see table 2), and with a strong bias toward humanities in the proportion of Tawjihi holders. Admissions into universities increased by 31 percent in 3 years, from 1997/98 to 2000/01, while enrollments increased even more (50 percent), because of the establishment of new fields of study and time lag between admission and graduation.
- Criteria for admission into HE are based on achievement on the Tawjihi (end secondary exam). A minimum score of 65 is required by all HE institutions to apply in all fields of study, except Medicine (minimum 85) and Engineering (minimum 80). Students compete for existing seats on

¹ MOHE. (2002). *Palestinian Higher Education Financing Strategy*. Ramallah: MOHE.

Kaiser, J., McCloud, P. Gillies, J. (1999). *Higher Education and Training Activities for Gaza Strip and the West Bank: An Assessment of Training Needs to Support Economic Development*. (Draft).

MOHE. (2001). *Palestinian Higher Education Strategy*. (Draft).

the basis of their achievement. Lower scores are accepted for admission into Al Quds Open University and Community Colleges.

- In 2000/01, admissions into all universities and community colleges amounted to nearly 67% of high school graduates of the previous year, backlog included², but Al Quds Open University admitted by itself over 27% of HS graduates, or 41% of all students going into HE.
- Since 1992, the number of students enrolled in the universities has more than tripled, while community college enrollments, although beginning to increase, are still less than they were in 1992, adding further pressure on universities.

2. Achieving Financial Sustainability

- Public spending on higher education as a percentage of GDP (0.3 percent), the PNA total budget (1.9 percent) and the PNA budget allocated for education (8 percent) are very low by international standards (see tables 3 and II.2, appendix II). Public spending/student as a percentage of GNP per capita (44.1) is also low by international standards, while tuition fees as a percentage of university recurrent costs and as a share of their total revenues – 68% and 86% respectively, in 1999– are very high.
- Universities responded to financial constraints in various ways:
 - (a) They increased cost recovery, with tuition fees reaching 68 percent of per student recurrent costs and more than one-third of GDP per capita by the end of the 1990s (see table 3);
 - (b) They opened new programs to compete for students and enlarge their resource base, while students became more selective of their fields of study, with their choice being influenced first by the local labor market opportunities and second fees to be paid. In this competition, universities tended often to offer the same programs, running the risk of ending up with extra capacity and low external efficiency;
 - (c) Universities tried also to control their expenditure: since 1996, recurrent spending per student has declined by 33.4% in universities. In colleges, they started declining in 1998 only, but fell then by one fourth in one year (See Table 4). At the same time, enrollments have more than doubled; and
 - (d) Since 1996, in spite of quick enrollments expansion, capital expenditure has remained stable in universities, while they declined in colleges. Development projects were postponed because of the need to fund recurrent expenditure.
- The options adopted by universities to control their expenditure in a context of fast increasing enrollments due to pressing demand and competition for students may be analyzed as reducing per student expenditure without trying to improve efficiency and preserve quality:
- Changes in per student recurrent expenditure over the 1997/98 – 2000/01 period may be explained by the following factors:

² The backlog is composed of Tawjih holders not accepted in HE during the 2/3 preceding years

(a) Overall decline of student teacher ratios: When compared with international averages, student teacher ratios (STRs) at Palestinian universities were high in 1995 (see table II.3, Appendix II). During the 1997/98 – 2000/01 period, STRs declined slightly, especially in public non-profit universities³, but are still above average by international standards (see table 5). Over the period, STRs decreased in 5 fields (Commerce & Economics; Law; Information Technology; Medicine; and Medical Professions), and increased in only two fields (Social Sciences and Engineering). But no systematic attempt has apparently been made to use teachers more intensively, since STRs declined in 2 fields where they were high (Commerce and Economics, and Law), but equally in 2 fields where they were rather low (Information Technology and Medicine).

The high variance in student teacher ratios across fields of study (in 2000/01, STRs varied from less than 9:1 to over 45:1) reveals both over and under utilization of teaching staff. STRs should probably be lowered in some fields of study in some universities and increased in others. However, the reasons for these variations need to be better understood in order to assess their implications for educational quality and efficiency. The assessment of the teaching staff should also include its distribution by level (full professor, associate professor, assistant professor, etc.).

No trends are available for Al Quds Open University and the Arab-American University, which have been opened recently. In 2000/01, Al Quds Open University showed high ratios related to its very nature, and further economies of scale should be achieved in the future. STRs in the Arab-American University are not significant for the time being.

In PNA colleges, student/teacher ratios have also declined to some extent over the period 1997/98 – 2000/01 and show the same pattern as in universities (see table 6): STRs are low in fields such as Engineering, and much higher in other fields such as Commerce and Economics, indicating that teachers are under-utilized in some colleges while they are most probably over-utilized in others. As for universities, the implications of these variations for quality and efficiency need to be evaluated.

(b) Overall decline of student administrative staff ratios: Although their average level is rather low, student administrative staff ratios (SASRs) in PNP universities have declined on average over the 1997/98 – 2000/01 period (See Table 7). SASRs declined in 7 fields, and increased in 3 only (Engineering, Social Sciences and Humanities). Surprisingly, they declined in 4 fields where their average level was already low (Education;

³ In 2000/01, public non profit universities and Al Quds open university represented respectively 58.8 and 34.5 percent of enrollments in universities, and 54.7 and 32.1 percent of enrollments in HE as a whole

Information Technology; Medicine and Science), leading to the preliminary conclusion that institutions were not aiming at rationalizing the utilization of their administrative staff. SASRs vary to a large extent between types of institutions and fields of study. They are extremely low in fields such as Education and Information Technology (maybe because this last field has been developed recently), while they are very high in Commerce and Economics, Law and Social Sciences. It is hard to understand why there are such variations, and their implications for quality, efficiency and management need to be evaluated through specific studies. Similar trends may be observed for SASRs in PNA colleges (see table 8).

(c) Declining staff salaries and operational expenditure: Two main factors have counteracted the decline in student staff ratios and explain why per student recurrent expenditure in PNP universities has decreased: a) decreasing average salaries for academic and administrative staff, although salary scales have been maintained (see table 9); and b) decreasing unit expenditure for operational expenses.

- These problematic financial and enrollment trends have led to the widespread perception among Palestinians that the quality of Palestinian HE has declined as a result of stretched resources and intensified pressures for enrollment growth. There are no systematic data to support this perception, but a prolonged period of enrollments growing much faster than resources should diminish the quality of the education provided. As stated in the 1999 Vision Statement, there is a growing perception amongst Palestinian and non-Palestinian academics that the quality of education (basic as well as higher) in Palestine has declined within the past decade. It also appears that Palestinian higher education has remained traditional in its approach (specialized rather than integrated) in the programs it offers, and the delivery system it employs (instructor-centered rather than student-centered).

3. Improving Internal Efficiency

- There is a high degree of variation in internal efficiency across Palestinian universities and colleges. Among universities, newly admitted students as a share of total enrollments vary from less than one in six to more than one in three. Admissions represent a high proportion of total enrollments in newly established institutions and fields of study, but this is only a partial explanation and universities do differ in terms of internal efficiency. In public non profit universities, dropout rates vary from less than 4%, in medical professions, to nearly 14% in information technology, showing that admission criteria are probably inadequate in newly established fields such as information technology and quality is not up to standards (See table 10). Finally,

dropout rates are high at Al Quds Open University as in most open universities around the world.

4. Raising External Efficiency

- Labor outcomes in the West Bank and Gaza are the result of many competing forces affecting labor supply and demand. The Palestinian labor market can be broadly characterized by a rapidly expanding labor force with shifting age and educational attainment structures, large Palestinian unskilled labor flows to Israel, significant levels of unemployment, a large civil service, and regional differentiation between the West Bank and Gaza.
- Data from a labor force survey with a sample size of about 7,600 households located in WBG (excluding East Jerusalem) show that employed males average 9 years of schooling compared to only 8 years for unemployed males, suggesting that more education increases the likelihood of finding employment (see table 11). Disaggregating into categories of educational attainment, two-thirds of employed men have only a preparatory education or less. For women, the result is the opposite, namely that women with more than a secondary education are more likely to be unemployed....⁴
- Data on wages by level of education in Palestine and the region (see Table 12) have been used to approximate rates of return to higher education (RORs). Those RORs must however be interpreted with caution since no age-earning profiles were available, only average wages by level of education: age-earning profiles were therefore approximated from those limited data. Sensitivity analysis showed, however, that RORs are not too sensitive to the way in which differences in average earning by level of education are distributed according to age. RORs have not been corrected to account for unemployment and are therefore over evaluated.
- RORs are either negative or close to zero for college and graduate studies at university, while they are just above zero for post-graduate studies (Table 13). This derives from the following reasons:
 - There is nearly no wage difference between people with 10-12 and 13-16 years of schooling (Table 12). The additional cost of higher education (direct cost plus income foregone) does not translate into, and is not compensated by higher income;
 - Although wages increase significantly for people with 17+ years of education, as compared to people with only 13/16 years, longer studies mean additional costs that are not compensated by increased wages.
- These results are in contradiction with international evidence which show that higher education is a profitable investment, both at the social (country) and individual level. The present values of RORs to higher education in Palestine are mostly linked to the closure of the country which is a unique and temporary situation. There is an urgent need therefore to invest in the reform of higher education for long term sustained development. This is also based on the political vision of the

⁴ 'Palestinian Labor Market Outcomes and Policies'

future of the country in the region. That vision emphasizes reintegrating the Palestinian State in the regional and world economy, and designing and implementing economic policies that will lead to this integration and fast economic growth. The intention is to build comparative advantage of the Palestinian economy through the provision of high level human resources. Because of the time needed for implementing the reform process and the need to turn from a supply oriented to a demand driven and flexible higher education system, the reform process should start as soon as possible.

- Global rates of return to higher education must therefore be interpreted while taking into consideration the following points:
 - Without the presence of a secure and stable political environment, it would be extremely difficult to mobilize the resources necessary to facilitate access to the regional and world economy;
 - The present situation in Palestine further aggravates the employment problem, especially for HE graduates;
 - The market for HE graduates is presently narrow in Palestine, and many HE graduates employed in Israel are hired for jobs much below their level of education;
 - University graduates qualifications are presently almost irrelevant to the needs of Palestinian economy.
- About three-fourths of Palestinian students are enrolled in Social Sciences, Humanities, and Education for reasons that include: a) the high proportion of high school graduates in Humanities (approximately two thirds of the total number of HS graduates), which is itself related to curriculum, teacher training and teaching practices, as well as the absence of an effective student counseling and guidance system at the secondary school level; b) higher HE capacity in the non-scientific and non-technical fields; c) students interest; and d) the high demand for primary and HS teachers, given the fast expansion of enrollments at those levels.
- These fields of study do not necessarily support the broader labor force needs in the region. This lack of relevance echoes the 1999 Vision Statement (this refers to a document by the Ministry of Higher Education that we have not seen, but that was incorporated in the two recent documents that we reviewed): ‘...the unchecked enrollment practice has led to the proliferation of graduates who are either unemployed (approximately 30%), or underemployed, especially in the humanities. By the same token the community is seeking qualified graduates in other fields, especially those related to technical skills and knowledge of advanced technology.’
- Palestinian HE may also have become less relevant over time since student enrollments in community colleges have been declining in absolute terms and as a percentage of total HE enrollments: Since 1992, the number of students enrolled in the universities has more than tripled, while community college enrollments have dropped sharply, and are still lower than in 1992, in spite of a late recovery. Yet the community colleges focus on the vocational and technical skills is increasingly needed in the region.

- The Ministry of Higher Education and Scientific Research took the initiative in setting up a Strategy Steering Committee, which in turn set up sub-committees for the different components of the proposed higher education strategy. The sub-committee on programs was set up to identify the needs of the country in the various fields of knowledge, for the coming ten years with a vision of how the institutions of higher learning could meet these needs.
- The work of the sub-committee was guided by an overall question: Are the programs being offered of the required quality and relevance to qualify Palestinian students in developing and advancing Palestinian society and economy in the coming future, and to help the country in its leap out of its third world status, by gaining a scientific competitive edge, regionally and globally? To this purpose, ten broad areas, covering the range of programs offered at Palestinian institutions of higher learning were identified. Teams were selected to prepare preliminary reports, which were then presented and discussed in workshops that included persons from the various relevant sectors besides universities and colleges. The reports findings can be summarized as follows:

	Area	Main Findings	Specializations Needed
1	Natural Science	Unemployed in 1997 12%. They expect a need of 700 graduates each year for the next ten years. Basis very questionable for these projections	Geology, environmental studies and pollution, nutrition and food processing, marine sciences, management of water resources, management of semi-arid areas.
2	Social Science and Humanities	60% of enrollment are women. A big percentage is in social development Need for a liberal arts core Need for interdisciplinary studies Need for a comparative approach Need for research methodology	Israeli society Arab societies Modern languages Geography programs Archeology Social work Psychology Political Science
3	Administration and economics	Student/teacher ratio has been increasing and is twice the ratio for universities in general. Staff attracted to work in business. No evaluation and development/restructuring of existing programs. There is demand as evidenced by higher grades necessary for acceptance.	In economics : Monetary Economics, Health Services Economics, Financial Economics, General Finance, Financial and International Commerce, Quantitative Economics, Economic Law, & Information Economics and Internet In Business Administration : Financial Management, Banking Management and Islamic Banking, Information Systems, Human Resources

			<p>Management, Marketing of Banking Services, Management Policies, Operations Research and Decision Making, Marketing and Promotion</p> <p>In Accounting and Taxation: Management Accounting, Auditing and Monitoring, Taxation Accounting, Taxation Disputes, Banking and Insurance Accounting</p> <p>In Finance: Investment Analysis, Insurance, Stock Exchange, Companies Finance, Forward and Public Markets, Investment Strategies</p>
4	Education	<p>A need for 1560 teachers annually over the next 10 years. It is expected that in WB there will be more graduates than needed after 2005. In Gaza there is an overproduction of graduates starting now. More detailed studies are needed. Need for partnership with schools in teacher preparation</p>	
5	Health Sciences	<p>Overproduction in some areas, especially in Gaza: pharmacy, nursing and medical technology. Problems of relevance and quality</p>	<p>Medicine: oncology, organ transplantation, cardiothoracic surgery, advanced diagnostic techniques, geriatrics, anesthesia, nuclear medicine, nephrology, immunity and genetics, clinical pharmacology, biostatistics, neurosurgery, ophthalmology, trauma, plastic and reconstructive surgery, and provision of qualified tutors for the Palestinian School of Medicine.</p> <p>Diagnostic and medical imaging:</p> <p>Physicians: Computerized Topography (CT) and Magnetic Resonance Imaging (MRI), angiography and interventional radiology, conventional radiology, ultrasound and nuclear medicine.</p> <p>Technicians: masters and or doctoral degrees in radio-physics, radio-protection, medical physics, education,</p>

			<p>advanced medical imaging and general medical imaging. Medical physicists: qualify medical physicists at the doctoral level: radio-physics, radio- protection, and health – medical physics. Dentistry: mandibular surgery, dental surgery for children, community oral and dental hygiene. Midwifery: women’s health, reproductive health, and related specialties at the doctoral level. Public health: family medicine, health economics, environmental health and occupational safety. Pharmacy: preparing pharmacists at the doctoral level for teaching positions in the academic programs. Medical technology: preparing medical technologists at the doctoral level for teaching positions in the academic programs. Rehabilitation: preparing teachers at the masters and doctoral levels with emphasis on speech pathology, physical therapy, occupational therapy, management in rehabilitation, rehabilitation of hearing loss and blindness. Also there is a need for rehabilitation physicians.</p>
6	Engineering	<p>Differentiate between college and university training according to practice Pedagogical skills are needed by staff Poor facilities Development of staff Increase the social and professional relevance of programs; teaching is theoretical Need for new specializations Networking needed Unemployment might be a problem</p>	
7	Jurisprudence	Staff needed in international	

		business law, etc... Pedagogy in law schools Curriculum changes Resources required	
8	IT and computer science	No specific priority areas defined	
9	Agricultural sciences	Needs in faculty numbers and specializations Teaching is theoretical	<p>Agriculture Extension and Education Professionals: extension specialists to <i>teach</i> farmers and farm workers in the latest techniques for production, post harvest management, adding value to products at the farm level, computer applications in agriculture, keeping records, decision making, economics, etc.</p> <p>Food Science and Nutrition: Professionals trained in product planning, manufacturing, preservation, packaging, transportation, and food engineering</p> <p>Food Security: Economists, planners, policy makers, and other experts in management, storage, and transportation</p> <p>Horticulture and Greenhouse Management: The market for fresh fruits, vegetables, flowers, ornamental plants grown under greenhouse conditions will increase as incomes rise. Palestine will have to become highly competitive to compete in this market. Trained professionals with basic plant science background and knowledge of the latest technology will be required.</p> <p>Environment and Natural Resources: Agriculture professionals with training in management, conservation, and maintenance of the plants, soils, wildlife, protection of the environment, enhancement of biodiversity, and prevention of degradation, such as desertification</p>
	Arts	Curriculum problems	New specializations needed:

	Lack of qualified staff	graphic design, interior design, fine arts, etc
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- These findings are mainly from the MOHE studies. Additionally, the AED 1999 study (see footnote on page 1) concluded the following:

Shortage in (Ph.D.'s needed)

1. Business
2. Finance
3. Accounting
4. Marketing
5. Management
6. Computer science
7. Water resources

Private sector reports:

- There is a lack of relevant quality education: too theoretical, educational preparation weak
- Graduates do not have proper work ethics
- English language weak
- Skills needed in: financial management, marketing, management, public relations
- No industry-education communication present
- Training at Associate level needed
- Need for continuing education

Higher Education:

- Shortage of teaching staff, especially in business including cost accounting, and computer science/IT
- Demographics indicate continued pressure
- Professional development needs:
 - Graduate training
 - Short-term study
 - Research opportunities
 - Faculty exchanges
- Critical shortfalls in revenues
 - Dependence on part-timers to reduce costs, moonlighting
 - Student-teacher ratio 25:1

Public sector:

Shortage of mid-level and technical personnel

5. Improving Equity

- Access to Palestinian HE varies by family income, but not significantly by gender. Students from poorer Palestinian families do not have access to the full range of opportunities: tuition and fees are high, and there is insufficient financial aid to help students and their families pay the high costs. These income-driven variations in participation and attainment can be seen in Table 14. The rate at which students from the lowest consumption quintile participate in higher education (9 percent) is less than one-half the HE participation rate for students

from the highest consumption quintile (21 percent). Table 14 also shows that socioeconomic status is also correlated with the years of education completed. Less than one-tenth of West Bank/Gaza residents from the lowest consumption quintile have received a university degree whereas more than one-third of those in the top consumption income quintile are university graduates.

- Another aspect of equity is the rate at which women participate in higher education. Gender inequity is not an issue in Palestinian HE. Palestinian women participate in HE at slightly lower rates than men, but their rates exceed those for other Middle Eastern countries and other developing regions of the world. They are not significantly lower than the rates in many developed nations (see Table II.4, appendix II). However, as in most other countries, female Palestinian students enroll disproportionately in education and other non-scientific fields, a statistic that should be a source of concern.

6. Enhancing Management

- Palestinian HE institutions and the MOHER (Ministry of Higher Education and Research) both lack the management capacity to deal with the serious challenges that the HE sector faces. This lack of effectiveness, cast in terms of the broadest definition of management, is evident in many forms:
 - Lack of transparency in the financing of the higher education sector. The funding actually provided by the PNA to HE institutions is not precisely known and differs significantly from the amounts allocated through legislation. In the most recent years, for example, \$15 million in PNA funds was appropriated, but only \$5 million was actually allocated to the universities. The PNA distributes emergency funds to institutions, but outside of the budget process and in ways inconsistent with transparent management principles.
 - Lack of coordination between the MOHER and institutions. In the absence of significant public funding for HE that is funneled through the MOHER, the Ministry has little control and leverage over the activities of HE institutions. This undermines its ability to coordinate a sector that has lacked coordination since its inception 30 years ago. The system has developed in response to incentives that undermine the achievement of the nation's equity, quality, and relevance objectives. This requires governmental intervention and presence that maintains the non-governmental, non profit nature of the HE sector and at the same time aims at rationalizing the sector by altering these incentives to meet the human resource development needs.
 - Minimal cooperation among Palestinian HE institutions. The political and economic situation in West Bank/Gaza adds to the imperative for Palestinian universities and colleges to cooperate more with each other. Currently, there is little academic cooperation, yet competition for students continues and seems to have intensified in recent years, coupled with duplication of academic programs, shortage of academic staff, and inadequate facilities, resulting in the

- unplanned rapid growth that stretches far beyond the ability of the system to finance this expansion.
- Inadequate accreditation procedures. The current accreditation system is more of a checklist of certain criteria pertinent to availability of staff, resources such as the library, and to some extent program structure. More ominous, institutions of higher education neither have pre-established criteria of quality nor statements of mission to guide their paths. None has been subjected to an objective evaluation process to determine the quality of education it is providing – in other words, comprehensive accreditation evaluation.
 - Lack of system-wide or institutional MIS and budget systems. The HE system lacks a modern, uniform higher education management information system (HEMIS). The statistical data now provided by higher education institutions are few and of questionable quality. They do not result in a coherent information base that can be used for HE planning. Key demographic and economic information published by the Palestinian Central Bureau of Statistics (PCBS) is not incorporated into any HE data base that can be used for planning purposes. The existing accounting and reporting system is weak and does not conform to generally accepted accounting principles (GAAP). At the microeconomic level, it does not provide institutional financial reports which can be compared and aggregated. At the macroeconomic it fails to provide the data base for sectoral policy.
 - Inability to recruit mid-level staff at MOHER. MOHER lacks the technical expertise and, because of the low PNA salary scale, is unable to attract qualified staff to carry out many essential functions, including planning for expansion of the sector. Given the absence of an incentive system, and a capacity building scheme, it is likely that MOHER will continue to face the same problem.
 - The lack of an adequate management structure for the HE sector and the general ineffectiveness of the sector should be a matter of great concern to all Palestinians. A society without an adequate means for providing a quality higher education to its citizenry is a society that will fall even further behind in the global competition.

**Appendix 2: Questionnaire of Palestinian Higher
Education Institutions**

***Questionnaire of Palestinian Higher
Education Institutions***

Needs Assessment Study

Dear Reader,

This questionnaire constitutes a part of the data collection procedures that we use in a needs assessment study of the Higher Education Sector in Palestine. The study, conducted for the Academy for Educational Development (AED) and in coordination with the Palestinian Ministry of Education and Higher Education, will provide a basis for future support of this sector. We hope that you can answer the questionnaire, using the appropriate assistance from others in your institution, and return it to the Ministry of Higher Education within ten days. We thank you sincerely for your cooperation.

Please do not hesitate to contact us if you have any questions.

Sincerely,

Dr. Maher Hashweh
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We kindly request that this questionnaire be completed by the Dean of the college/community college or by the Vice-President for Academic Affairs of the university.

Name _____

Signature _____

Position _____

College/University _____

Date _____

Admission and Enrollment Capacity

1. Please give the total number of students enrolled in your institution during each of the last five years. How many applications for admission were received? How many students were admitted, and how many actually enrolled? (Please mention the total for the two semesters if there were admissions during the second semester.)

Academic Year	Number of			
	Students	Applications	Admitted	Enrolled
2001-2002				
2000-2001				
1999-2000				
1998-1999				
1997-1998				

2. Please explain the reasons for any trends (increase, decrease or stability in numbers)?

3. How much does each of the following factors affect the change/stability in student numbers?

- 1. Responding to the number of applications Greatly Moderately No Effect
- 2. Improving the financial status of the Institution Greatly Moderately No Effect
- 3. Opening new programs Greatly Moderately No Effect

Please explain any other factors:

4. Were there any changes in the number of applications (increase/decrease in demand) to specific academic programs or colleges or departments? Please explain, and enclose any statistics if available.

5. Do you have a plan regarding the maximum number of students enrolled in your institution? Is there a specific number you are targeting, and when do you think you will reach this target?

6. Please explain the reasons behind this policy or decision:

7. What were/are the major obstacles to your former or future expansion (space, equipment, quantity and quality of staff, etc.)? How did you deal with such obstacles and what are your plans for overcoming these obstacles?

8. What is the importance of each of the following as an obstacle to the expansion or improving the quality of education in your institutions?

(Please put a circle around the suitable choice: 5 Not Important, 4 Little Importance, 3 Moderate Importance, 2 Importance, 1 Very Important).

(Not Important Very Important)

Space for:				
Teaching	5	4	3	2
1				
Labs	5	4	3	2
1				
Library	5	4	3	2
1				
Administration	5	4	3	2
1				
Other	5	4	3	2
1				

a. Equipment, apparatus, acquisitions:

Labs	5	4	3	2
1				
Computers	5	4	3	2
1				
Networks	5	4	3	2
1				
Library	5	4	3	2
1				

b. Academic Staff:
 Shortage of specific specializations 5 4 3 2
 1
 Please mention these academic specializations:

Financial resources and their effect on:

Motivating the academic and administrative staff	5	4	3	2	1
Research Activity	5	4	3	2	1

9. a. Do you think that there is student inequity regarding the following in your institution:

1. Gender	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
2. District of Residence	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
3. Economic Status	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>

b. Do you take any of the following factors into consideration in the admission process?

Sex	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Living District	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Economic Status	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>

Please explain:

Relevance

10. Do you get information from the community/market to develop the different programs in your institutions?

Yes No

Please explain:

11. Do you get information from the community/market to evaluate the different programs in your institutions?

Yes No

Please explain:

12. Is there any follow up for the graduates or any services for employment?

Yes No

Please explain:

13. Is there any coordination between academic programs and professional/market-related entities?

Yes No

If yes, please mention which programs and the nature of relationships.

Quality

14. To what extent are you satisfied with the quality of education you are providing to students?

Very Satisfied Satisfied Not Satisfied

Please explain:

15. Have there been any changes in the academic standards in the last five years?

Improved academic standards
No changes in standards
Decline in standards

Please explain the reasons:

16. What is (are) the most distinguished program(s) in your institution, compared to other programs in your institution or in other institutions? (Distinguished programs are centers of excellence that excel in educational quality, research quality, or community service.) Please explain your answer and provide us with any supporting documents.

17. Do you evaluate program quality in your institution?

Yes No

If your answer is yes, please explain when and how this evaluation occurred?

18. Were any programs developed or updated based on their evaluation?
Yes No

Please explain in detail:

19. Do you have any faculty development programs?
Yes No

Please explain:

20. Please provide us with information about the following:

- a. The academic degrees of the faculty, and the names of the universities they graduated from.
- b. Information about the published research of faculty.
- c. Information about the contribution of the faculty to the community.

21. Please fill the following table to clarify the development needs of your educational institution in specific areas:

Area	Needs			
	Very Important	Important	Moderately Important	Not Important
1. Recruiting new faculty				
2. Helping faculty get higher education degrees (Master & PhD)				
3. Developing faculty knowledge through study courses in foreign universities				
4. Developing communications/ networks between your faculty and that of foreign universities.				
5. Facilitating access to references, books, and journals for faculty and students				
6. Monitoring and improving academic quality				
7. Cooperating and coordinating with other Palestinian universities/ colleges in the areas of program development and initiation				
8. Cooperating and coordinating with other Palestinian universities/ colleges in sharing resources such as library resources				
9. Increasing the relevance of academic programs to community and industry needs				
10. Developing better interactions between the institution and the community, including industrial and commercial organizations				
11. Upgrading the administrative staff				
12. Developing an information collection, management and dissemination system				
13. Developing the income of the university/college				

22. Please answer with “yes” or “no”:

Question	Yes	No	Not Applicable
1. Does the university/college have a board of trustees?			
2. Does the board meet regularly?			
3. Does the board have an effective role in financial monitoring?			
4. Does the board have an effective role in identifying the vision and strategic goals of the university/college?			
5. Is there a written mission statement for the university/college?			
6. Do the personnel know the mission?			
7. Are there written general goals?			
8. Are there annual written plans?			
9. Are there written plans for humans resources development in the university/college?			
10. Are there statements for future budgetary needs?			
11. Are annual budgets implemented?			
12. Are the budgets followed up continuously?			
13. Does the university/college have diversified resources of income?			
14. Does the university/college follow a strategy for diversifying income?			
15. Is there a plan for generating income?			

Administration of Higher Education System at the National Level:

23. Are you satisfied about the administration of the higher education system?

Yes No

24. What are your suggestions for developing the administration of the higher education system?

Final Comments

25. If you were given a magic stick that would enable you to fulfill all your wishes, what are three things which you would do to improve the quality and the continuity of your institution?

- 1) _____
- 2) _____
- 3) _____

26. Please write or comment on important issues not mentioned in the questionnaire that are related to the needs of your institution.

End of Questionnaire
Thank you for your cooperation

Appendix 3: Palestinian Higher Education Institutions, 2001-2002

	Institution	Estab. Date	Supervision				District
			P	Pr	G	UN	
	Universities						
1	Al Azhar University	1991	√				Gaza
2	Islamic University	1978	√				Gaza
3	Al Aqsa University	1991			√		Gaza
4	Hebron University	1971	√				Hebron
5	Palestine Polytechnic University	1978	√				Hebron
6	Bethlehem University	1973	√				Bethlehem
7	Al Quds University	1984	√				Jerusalem
8	Al Quds Open University	1991			√		Jerusalem
9	Birzeit University	1972	√				Ramallah
10	An Najah University	1977	√				Nablus
11	The Arab American University	2000		√			Jenin
	University Colleges						
1	Ramallah Community College	1992				√	Ramallah
2	Women's Community College	1992				√	Ramallah
3	Palestine Technical College	1930			√		Tulkarem
4	Aldawa College	2000			√		Qalqilya
5	Ibn Sina Nursing College	1997			√		Ramallah
	Colleges						
1	Ibrahimiéh Community College	1983		√			Jerusalem
2	Al Ummeh Community College	1983			√		Jerusalem
3	College of Nursing	1994		√			Hebron
4	Al Rawda Community College	1970		√			Nablus
5	Modern Community College	1982		√			Ramallah
6	College of Science & Technology	1990			√		Khan Ys.
7	Palestinian Technical College – Al Arroub	1995			√		Hebron
8	Palestinian Technical College – Deir Al-Balah	1996			√		Deir Bh.
9	Palestinian Technical College – Ramallah/G	1952			√		Ramallah
10	Palestinian Technical College – Tulkarem	1930			√		Tulkarem
11	Women's Community College	1962				√	Ramallah
12	Ramallah Community College	1960				√	Ramallah
13	An Najah National Community College	1982	√				Nablus
14	Palestine Polytechnic	1978	√				Hebron
15	Arab Community College	1999	√				Rafah
16	Community Health College	1983	√				Ramallah
17	Hisham Hijawi Technical College	2000		√			Nablus
18	Diploma Studies Al Azhar	1996			√		Gaza
19	Andaleeb El Amad Nursing College	2000	√				Nablus
20	Nursing College – Society Of Inash Al Usra	1990	√				Ramallah
21	Nursing College – Almaqased Hospital	2000	√				Jerusalem
22	Nursing College – Karetas Hospital	1970	√				Bethlehem
23	Taleeta Kumi College	2000		√			Bethlehem
24	Diploma Studies – Islamic University	2000	√				Gaza

P = Public, Pr = Private, G = Government, UN = United Nations Relief and Welfare Agency (UNRWA)

Appendix 4: Framework for Questionnaire to MOHE Specialized Staff

The questionnaire investigated the management and leadership, as well as the technical skills required by the specialized staff of the ministry. The technical skills include general, educational planning and economics, educational administration, and pedagogy sub-sections. The investigation consisted of administering questionnaires that were answered by all specialized staff anonymously. Specifically, it investigated:

	Area	Elements
Management Skills		
1	Organizing skills	Delegation, time management, conducting meetings, report writing
2	Directing skills	Decision-making, coaching, performance appraisal, counseling
3	Social skills	Relating to people, enthusing others, sharing values, storytelling
Leadership Skills		
4	Emergent skills	Motivating, negotiation, public speaking, entrepreneurship,
5	Learning skills	Rapid reading, thinking skills, information – processing skills, anticipation
6	Facilitating skills	Listening skills, recognizing potential, team-building, building alliances
7	Creative skills	Envisioning, inspiring, empowering, aligning

Management and leadership skills for specialized staff

Area	Elements
General	Networking and advocacy, community mobilization, proposal writing, project management, strategic planning, fundraising, participatory needs assessments, management information systems, report writing, information technology, and English language
Educational Planning & Economics	Fundamentals of educational economics, techniques and methods for educational planning, harmonizing the HE and employment systems, approaches and methods for HE location planning, planning non-formal and further education programs at HE institutions, technical development and change in qualifications systems, the financing of HE system, scenarios of HE systems, educational statistics & indicators, relevant computer software (SPSS, BTOM, ...etc.)
Educational Administration	Computer literacy for educational administrators, planning methods and decision tools, management functions in HE institutions, Organization and communication in HE institutions, Costs and financing of HE institutions, organizational climate and leadership behavior in HE institutions, Planning & furnishing & equipping HE institutions, Industrial development effects on HE institutions, Personnel evaluation and counseling
Pedagogy	Modern trends in pedagogy, curriculum development, selection & development & use of educational media, instructional planning, teaching techniques, student selection and evaluation

Technical skills for specialized staff

Appendix 5: OCAT Questioning Route

There are a variety of tools that have been developed and used internationally to measure the capacity building needs of organizations. AED decided to use (OCAT) as a base, and adapt it in several areas to fit the specific needs of this study due to the fact that OCAT possesses the following features:

- ◆ Can be used, with limitations, to compare across organizations
- ◆ Measures change in the same organization over time
- ◆ Possible to measure well-defined capacity areas against well-defined criteria
- ◆ Possible to balance perceptions with empirical observations
- ◆ Produces numeric score on capacity areas
- ◆ Produces qualitative description of an organizations capacity in terms of developmental stages
- ◆ Assessment can be done internally (with or without help of an outside facilitator) or by an external evaluator
- ◆ Data collected through group discussion, interviews, observations, documents, etc., by a diverse assessment team

The interview was based on a set of questions measuring the capacity of the organization in seven areas, with each area having several elements or sub-component

Governance

Board / Governing Body

- Who constitutes the governing body overseeing the ministry? (PA cabinet, legislative council, advisory council on HE?)
- If there is no board or independent body, who oversees the management of the ministry?
- Are there members of the board or independent body who represent the diverse interests of the stakeholders?
- How does the board or independent body play a role in policy setting, planning, fundraising, conducting public relations, lobbying, overseeing the management and in monitoring the performance of the ministry?
- How does the board or independent body gather information about the needs and aspirations of the stakeholders and integrate this information into planning?
- Are there particular examples of instances where the board or independent body members have had to account to the organization's stakeholders?
- Has the board undertaken advocacy activities on behalf of the stakeholders?

Mission/goals

- Which documents define the organization's mission or goals?
- Are goals of the organizations achievable, given the economic, social, and political environment?
- Who defines the mission and goals of the organization?
- To what extent do the implementation plans reflect the organization's mission and goals?
- To what extent do the people in the organization share the same understanding of the organization's mission or goals?
- To what extent do the people in the organization see it serving, in major ways, purposes that are different from those stated?

Legal status

- Does the ministry benefit from the best financial and legal status permissible under the law?

Stakeholders

- What evidence is there that the ministry reflects the needs of the community that it serves?
- Does the ministry undertake periodic surveys of its community to determine if they are satisfied with activities or services?
- When does the ministry call upon stakeholders for advice in implementing current or future activities?
- What is the relationship between the ministry and its stakeholders?

Leadership

- What person or group constitutes top management?
- What understanding does top management have of its role and responsibilities?
- Has management ever articulated the need for training in particular skills and knowledge necessary for the performance of its duties and responsibilities?
- How does top management involve staff in setting direction for the ministry and determining policies and procedures?

Management practices**Organizational structure**

- Does the ministry have an organizational chart or documentation that describes roles, functions and responsibilities of all individuals?
- When last were the ministry's management policies reviewed/ updated?

Planning

- Who in the ministry is responsible for writing short and long-term work and implementation plans?
- Who is involved in the planning of events and the making of decisions?
- Are activities planned and decisions made in alignment with the strategies that have been identified for achieving the mission of the organization?
- What are the procedures for recruiting and employing organization employees?

Personnel

- Are selection criteria for staff in place?
- Are recruitment processes clearly defined, transparent, and competitive?
- Are job descriptions clearly defined, and staff deployed according to these descriptions?
- Does management encourage mutual respect among staff

Program development

- Are the organization board or governing body and staff familiar with project documents?
- How often are needs assessments conducted?
- Who is responsible for program development?

Administrative procedures

- What are the procedures for recording, filing, purchasing and intra-office communications?
- Are there some obviously unhelpful systems, policies or procedures?
- How often are administrative manuals reviewed and updated?
- Are there systems and procedures that deal with staffing issues?

Risk management

- Do external audit reports include a review of management practices?
- Are recommendations on management practices implemented?
- Has the ministry taken any steps to protect itself against staff abuse of resources?

Information systems

- Who is responsible for the ministry's monitoring, evaluation and reporting activities and what is/are the responsibilities of the person/s?
- How is the collection, analysis and dissemination of information organized in the ministry?
- How does the organization use the information generated by the monitoring, evaluation and reporting system?

Program reporting

- How does the organization design, plan, and evaluate its program activities?
- How does the organization report on program activities?

Human resources**Human resources development**

- How long ago was the human resources development plan reviewed and updated?
- Have there been instances where staff members lacked sufficient skills to carry out program implementation?
- How often is a staff member appraised?
- Who has participated in in-country or foreign skills enhancement training over the past year?

Human resources management

- Who is responsible for documenting and reviewing job descriptions?
- Are the tasks allocated according to the skills of the staff in the organization?
- Have there been instances of conflict or grievances between or among staff over the past few years and, if so, how were they handled?
- What policies exist for determining recruitment, salaries and benefits?
- What incentives or rewards are offered by the organization?
- Are salaries and benefits comparable with other organizations?
- What is the role of staff in budget development?

Work organization

- How often are staff meetings held?
- Are agendas for meetings distributed to staff members in advance and are minutes for each meeting available?
- Over the past year, has the ministry organized teams of staff members for the purpose of addressing any special issues or problems?

Diversity issues

- In what ways is the diversity of the organization's community reflected in the composition of the staff?

Financial resources

Accounting

- Are there basic procedures in place for the recording and reporting of financial information?
- Is there a policy manual or documented guidelines that cover accounting procedures, a standard chart of accounts, approval authority for financial transactions, and guidelines for controlling expenditures?
- What mechanisms are in place to ensure separation of project funds?

Budgeting

- How often does the organization conduct a budgeting process and does it coincide with the preparation of the annual operating plan?
- What system is in place to ensure that the organization has the necessary cash to meet its needs in a timely manner?
- Does the fiscal committee of the board review the financial reports?
- Are there controls in place to prevent expenditure of funds in excess of approved, budgeted amounts?

Stock control audits

- Are there adequate requisitioning, purchasing, and stock control procedures in place?
- Are the pay, petty cash, transport, and procurement needs of the organization and of the members, if appropriate, met as required?
- How often are internal and external financial audits conducted?

Financial reporting

- What type of financial reports does the organization prepare for funders?
- How frequently are financial reports produced for funders?
- Have funders ever complained about either the insufficiency or tardiness of financial reports?
- When was the last independent audit or external financial review of the organization and what was the outcome?
- How well is the organization performing in terms of financial analysis/cost effectiveness?

Diversification of income base

- What is the organization's funding source?
- Does the organization have cost recovery/income generation plans?
- *What is the organization's future funding strategy?*

Service delivery**Sectoral expertise**

- For what areas of expertise is the ministry particularly well known?
- What requests have been submitted to the ministry for the expansion or extension of the programs to new target areas?
- Has the ministry changed areas of focus over the past years?

Stakeholder ownership

- How do participants in ministry projects contribute to the design, management and evaluation of their projects?
- To what extent do mutually developed plans exist for the community to assume management responsibility for service delivery?

Assessment

- Does the ministry have mechanisms for integrating results of program evaluations into its planning process and for adapting and changing program direction and approach in response to information received?
- What types of indicators are identified to measure achievements of results and how is base line data collected?
- How does the organization use information generated out of monitoring and evaluation activities?

Marketing and awareness building

- Does the ministry have a marketing strategy?
- How does the ministry raise awareness of its activities among its stakeholders?

External relations**Stakeholder relations**

- What is the state of the relationships between the ministry and its different stakeholders?
- Is the ministry situated in reasonably close proximity to the community it serves?

Inter-sectoral collaboration

- How does the ministry collaborate with other public and non-governmental organizations?
- Does the ministry establish national or international linkages with other organizations?
- Does the organization engage in advocacy activities?

Government collaboration

- How does the organization participate in government planning processes and structures?
- What is the state of its relationships with relevant sections of the government?

Funder collaboration

- What is the state of relationships between the ministry and its funders?
- Has the ministry participated in policy-making dialogues with funders over the past year?

Public relations

- To what extent is the ministry well known to the general public?
- Has the ministry undertaken specific public relations activities over the past year?
- What type of information does the ministry publish and disseminate to the general public?

Local resources

- What, if any, relationship does the ministry have with the private sector?
- How does the ministry promote collaborative efforts with other sectors of the community, both private and public?

Media

- What use does the ministry make of mass media resources to disseminate information about itself and its achievements?

Sustainability

Program/benefit sustainability

- How can the ministry demonstrate that the community it serves are active participants in programs and activities?
- Are there examples of ministry programs for which management responsibility was eventually assumed by communities?
- What are the ministry's program phase-out procedures?
- Do the phase-out procedures include skills transfer?

Organizational sustainability

- How is the ministry's vision similar or different from other organizations working in the same sector?
- Are any of the current programs conducted in partnership with international organizations, universities, research institutes or other groups?
- What organizational development needs does the organization have?

Financial sustainability

- What percentage of program costs is the ministry recovering from the community?
- Does the ministry have a fee-for-services cost structure?

Resource base sustainability

- What are the existing sources of the ministry's financial resources?
- Is there a longer-term business/funding/resource development plan for the needed financial resources?
- What awareness does top management show of the sources and mechanisms available for securing funding?
- Is there a realizable plan for long-term support of the programs?
- What strategies does the organization have to diversify its funding base?

Appendix 6: The Effect of the Israeli Occupation on Education From (28/9/2000 –26/3/2003

(Source: Ministry of Education & Higher Education)

Summary of human losses from 28/9/2000 – 26/3/2003

Case	Description	28/9/00-30/8/01	1/9/01-30/8/02	31/8/02-26/3/03	Total
Martyrs	Teachers	3	12	6	21
	School	96	151	95	342
	Students				159
	University students	-----	4	2	6
Detainees	Teachers	21	55	43	119
	School	71	101	109	281
	Students				630
	University Students	-----	13	4	17
Injuries	Teachers	-----	31	15	46
	School	2151	453	236	2840
	Students				1240
	University Students	-----	5	4	9
	Employees				

Summary of damage cost (US \$) in Palestinian Universities and colleges on the 15th of March 2003:

University/College	Building	Labs	Defect in Salaries	Student Allowances	Passed A way Animals
Al-Azhar/Gaza	40000	16800	887333		
Al-Islamiya/Gaza			1837500		
BirZeit	2000			5000	
Al-Quds	660000		1380000		
Al-Quds Open	34000				
An-Najah National		185000			40500
Vocational Colleges	280000				
Total	3536000	201800	4104833	5000	40500

The following institutions were broken into by Israeli soldiers:

- Bethlehem University on December 8, 2002, besieged it and threw poisonous gas bombs and disrupted study. They stayed there for five days, damaged furniture, doors, windows, computers, and 245 books.
- An-Najah National University campus on December 14, 2002, in Nablus, besieged it and obliged teachers and students to leave. Studying was disrupted for several days.
- Hebron University on January 14, 2003, damaged labs, computers and closed it for six months.
- Palestine Polytechnic University on January 14, 2003, and closed it for three months.
- Al-Quds Open University/Ramallah, Al-Azhar University/Gaza, Palestine Vocational Girls College/ Ramallah, Palestine Vocational College/ Tulkaram , Birzeit University campus.

Appendix 7. Arab and European Financial Contributions to Palestinian HE System

Arab Contributions to the Higher Education Sector

- The Islamic Development Bank (IDB) and some Arab Countries have put an overall amount of \$ 20 million at the disposal of MOHER in order to fund a large students loan scheme

European Contributions to the Higher Education Sector

(Source: Ministry of Higher Education)

“Throughout its years of development, the Palestinian higher education sector depended highly on external contributions particularly those donated by the European Union (EU) and the European member states. In the early 1990s the EU responded to the financial problem facing higher education institutions in Palestine by providing an operational support amounting to 53,330,000 EUROS. A further contribution of 3,670,000 EUROS by the EU was devoted to providing books and equipment for Palestinian universities. 4,300,000 EUROS were allocated by the EU for the establishment of a Multi-Purpose Center in Palestine. The valuable contribution and assistance of the EU member states towards this sector is also remarkable. In 1997, the Netherlands responded to an Emergency Appeal that was launched by the Ministry and contributed 1,000,000 US\$ to the Palestinian universities. Also in 1997, the government of Norway committed itself to 1,235,000 Krone for the elaboration of a strategy for rationalizing the development of higher education in the West Bank and Gaza. The strategy was developed through technical assistance of the ECTAO. Part of the money that was committed for the development of this strategy was reallocated for developing a quality assurance system for Palestinian higher education. In 1998, Belgium showed interest in investing 1,000,000 EURO for streamlining and strengthening the public health training and management in Palestine. Currently, the Belgian government has committed itself to fund an identification study through the Palestinian-Belgian Study Fund on the streamlining of public health in Palestine. Also in 1998, the Swiss government and through the Swiss Agency for Development and Cooperation (SDC) had committed itself to 377,400 US\$ to the Introduction of a Course on Human Rights, Democracy, and International Humanitarian Law into the Curricula of the Palestinian Universities and Colleges. The Swiss were also active in supporting and funding the development of a unified technical and vocational education (TVET) system. Italy had contributed an amount of 1.5 million US\$ for the development of technical colleges and has committed itself for an amount of 0.5 million US\$ for the implementation of phase II of this project. The British government and through the British Council assisted in conducting a field study on Human Resources of Libraries and Information Centers in Palestine. The British also contributed to the printing of a school-leavers' guide in 1997. The British were and are also active in supporting the (TVET) system. Furthermore, many Palestinian researchers benefited from the research

fellowships presented through the Royal Society. Germany was also active in supporting the TVET system. Additionally, the German government contributed towards maintaining an up-to date information system at Palestinian universities through launching a server in North-Rhine Westphalia which Palestinian universities can access through the internet. France and through the Palestinian- French Joint Committee is contributing towards supporting joint scientific research between Palestinian and French counterparts and thus is working towards upgrading the level of scientific research in this country.

Cultural relationships with European countries are also vital for the Palestinian higher education sector. Cultural relations are maintained through signing cooperation agreements; through these agreements the Ministry receives scholarships from nearly all European countries. The Agreements cover the exchange of scholarships, expertise and information in the field of higher education and research.”

The following table summarizes the European contributions to different projects in the sector of higher education.

Donor	Shortened Name	Start	E/ Finish	Total Budget (US\$)	Status
Belgium	Study Fund	1/4/2003	5/15/2003	35,226.00	Ongoing
EU	Recurrent costs			15,000,000.00	Completed
EU	Recurrent costs			15,000,000.00	Completed
EU	Running costs for HE institutions	7/5/1996	12/31/1996	11,330,000.00	Completed
EU	Recurrent costs for HE institutions.	7/18/1997	7/18/1999	8,000,000.00	Completed
EU	Recurrent costs for HE institutions.	7/27/1999	7/27/2001	4,000,000.00	Completed
EU	Labs & Libraries	12/20/1996	12/20/1999	3,670,000.00	Ongoing
EU	Multi-purpose center	9/28/1998	12/31/2004	4,300,000.00	Ongoing
Germany	Electronic Journals	12/15/1999	12/15/2000	50,000.00	Completed
Germany	Electronic Journals			50,000.00	Completed
Italy	Develop Technical Education	1/6/1997	12/31/1998	1,500,000.00	Completed
Italy	Develop Technical Education	1/1/2000	12/31/2000	587,178.00	Suspended
Netherlands	Emergency Fund	1/10/1997	9/30/1998	1,000,000.00	Completed
Norway	Rationalization Plan	11/2/1997	11/2/2002	190,000.00	Completed
Norway	Quality Assurance System	3/15/2002	3/15/2003	104,700.00	Ongoing
Switzerland	Human Rights, Democracy, & IHL	1/1/1999	3/1/2003	377,400.00	Ongoing
UK	School-leavers' guide			12,000.00	Completed
TOTAL				65,206,504.00	