# HIGHER EDUCATION IN PALESTINE



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*To My Daughter*

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# Content

# Introduction

The development and progress of societies throughout history has been linked to the efficient performance of their institutions, especially higher education institutions (universities, colleges, and academies) through their scientific, research, and societal functions. These are reflected by the graduation of qualified individuals, who possess diverse skills and expertise enabling them to work efficiently in the local and international labor markets. These individuals participate in the wellbeing of the society by conducting studies to improve the lives of members of society and humanity, and by preparing them to meet the requirements of today and tomorrow.

Inspired by this, this book came in its three chapters: The first chapter presents a detailed historical presentation of the emergence of Palestinian higher education institutions and their development from community to university colleges and eventually to universities, with an accurate diagnostic description of their reality from the seventies until the year 2020. In addition to explaining their rapid growth in terms of the number of students, programs, staff, infrastructure, administrative and governance systems, with displaying objective digital statistics that are able to reveal new information.

As for the second chapter, it focuses on the most important

challenges facing Palestinian higher education (such as: the financial challenge, the difficulty of maintaining quality, the lack of a scientific research environment, the level of higher education inputs, and others), explaining their negative impact and offering viable solutions to solve them.

The third chapter presents developmental prospects at the level of higher education governance, the level of quality, improving the quality of outputs, raising the internal and external efficiency indicators for higher education institutions, and other topics that constitute a base for discussion among those in charge of higher education from the Ministry of Higher Education and Scientific Research and related institutions.

Thus, this book presents a diagnostic picture of the reality of Palestinian universities and colleges since their inception, their growth and development, their flourishing and regression periods, with an explanation of the most important challenges and obstacles they faced in carrying out their mission. The book also presents models and policies to overcome challenges, especially the financial and quality challenges. In addition, it presents a vision for developmental prospects for the advancement of Palestinian higher education institutions, improving their inputs and outputs, maintaining high quality standards governing their performance, developing their curricula in accordance with the intended goals,

competencies, and skills required in each discipline. The book also suggests re-considering their governance, organizational, and administrative structures.

It is worth mentioning, that the material or content of this book was formulated over the three years: 2018, 2019, 2020. Accordingly, the statistics of higher education institutions for the years 2021 and 2022 are not recorded, as are some recent developments or changes that have occurred during the past two years on higher education institutions by either governmental or personal decisions, which were not addressed. Examples include; the establishment of the Nablus Technical University on the land of the Industrial School in Nablus, which hosts some governmental vocational colleges, such as Ibn Sina College. This decision was made by the current Council of Ministers. Similarly, some university colleges were converted into universities such as Dar Al-Kalema University. Other examples include activities by the Palestinian Accreditation and Quality Commission during the last and current year. It should also be noted that the diagnoses, opinions, and suggestions presented in this book express the opinions of the author only, without the influence of any higher education institution or any other party.

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# CHAPTER ONE

## Establishment and Development of Palestinian Higher Education

# Chapter 1

## Establishment and Development

### 1.1 The Development of Palestinian Higher Education:

#### 1.1.1 Establishment:

Since 1972, there were no Palestinian universities in the West Bank and the Gaza Strip. There were only a few community colleges, which later developed into universities. The first one was Birzeit College, which started as a primary school in 1924, then expanded into a community college, and later became a university in 1972. It then changed from a private institution to a non-profit public institution. A board of trustees, consisting of sixteen members, was formed to supervise it.

By a coordinated decision between the Christian brothers 'de la Salle' in Bethlehem, the Apostolic Nuncio in Jerusalem, the Papacy, and local officials, Bethlehem University was established in 1973 under the supervision of an administrative body of six members and a Board of Trustees of fourteen members. In 1977, An-Najah National College developed into a public university supervised by a Board of Trustees of twelve members, which started as a primary school in the city of Nablus in 1918. It then developed into a secondary school in 1941, and to a teacher-training institute in 1965. It developed thereafter to a college, and then finally to a university.

In 1978, the Islamic University in Gaza was inaugurated by Al-Azhar Institute in Palestine in 1977. It was supervised by a Board of Trustees of thirteen members. In 1980, the Council of Trustees of the Faculty of Shareea in Hebron, which was established in 1971 within the Islamic Studies Association, decided to convert this institution to a university after opening the Faculty of Arts in the same year. It was then supervised by a Board of Trustees of nine members (Katbeh,1983: Sharaf,2016).

In the same period, the Arab Colleges of Medical Sciences opened in 1979 in Al-Bireh under the name of the Arab College of Nursing and was supervised by a Board of Trustees of eleven members. In addition, the College of Science - Abu Dis (suburbs of Jerusalem) was established in 1981 under the supervision of a Board of Trustees of eighteen members. Moreover, two other institutions were founded even before: 1) The college of "Dawa and Osol Addin" was established in 1978 under the supervision of a seven-member body in Beit-Hanina/Jerusalem, and 2) the Polytechnic Institute in Hebron under the supervision of the Council of University Students' Association, which was composed of seven members.

The religious - jurisprudence institutes were not absent from the institutions of higher education in Palestine at that time. The Islamic Institute was established in Jerusalem in 1975. It was the first branch of the "Shareea Institute" in Amman and was supervised by a Board of Trustees of seven members. Three years later, in 1978, the second branch of the Jordanian Forensic Institute was opened under the name of the Forensic

Institute in Qalqiliya. It was supervised by a Board of Trustees of five members (Katbeh,1983).

In 1982, the College of Arts for Girls was established in Jerusalem. The decision, made by the Board of Trustees of the Arab Child's House, was to convert the college to a university college, which was later known as Hind Al Husseini College, granting bachelor's degrees in Arabic and English Literature as well as in Social Services. The existence of these colleges in Jerusalem and its environs revived the idea of forming a university in Jerusalem, and led to forming a coordinating committee of the various boards of Trustees of the four colleges in 1984, that worked to find a confederation among them, so that each college maintained its independence but unified their directions. This first merge reinforced the demand of the Union of Arab Universities as a condition for recognition. Subsequently, the Confederation melted, and the formal merge was achieved in 1995. It approved a basic law and a set of regulations and instructions. As a result, Al Quds University was officially established by two main campuses: the first in Abu Dis on the banks of Al-Quds (Jerusalem), which is the largest. The second campus was in the city of Jerusalem inside the Old City. It's worth mentioning that the calls for the establishment of a university in Jerusalem existed since the British Mandate. When the Islamic Conference was held in the city in 1931; one of its recommendations was to call for the establishment of a university called Al-Aqsa. The recommendation was not implemented for political obstacles. However, the official position supported the idea of its existence in Amman instead of Jerusalem and thus froze the invitation.

In Jerusalem and in its name, the Palestinian Liberation Organization (PLO) prepared a plan in 1975 to establish Al-Quds Open University and its headquarters in Jerusalem. PLO asked UNESCO to conduct an economic feasibility study for the project, which was completed in 1980 and was approved by the Palestinian National Council in 1981 and called for implementation. However, the Israeli invasion of Lebanon hindered the process. In 1985, a temporary headquarters was opened in Amman to begin the process of the actual preparation and adoption of programs, books, branches, and internal regulations. The process culminated in 1991 with the opening of the official headquarters in Jerusalem and the provision of educational services in Palestine.

In the technical field, the Association of University Graduates in Hebron developed the Technical Engineering Institute into a university college in 1991 that grants a bachelor's degree in some engineering disciplines. After that, in 1999, the Association decided to transfer it to a university under the name of Palestine Polytechnic University, which at that time, included four colleges. The Ministry of Higher Education agreed to this.

In the field of teaching education, the Egyptian administration established in 1955 a teachers' college in Gaza City. The institute was developed into a governmental college of education in 1991 and then transferred to a public university in 2001 by the Palestinian Ministry of Higher Education and was named Al-Aqsa University. In a similar move, the Jordanian administration turned Khadouri Agricultural School, which was founded in 1930 into an agricultural middle school in 1961, which was

called Al-Hussein Agricultural College. In 1965, a department was established in it for the preparation of teachers of science and mathematics, and thus changed its name to Hussein Agricultural Institute, then to The Agricultural Institute in 1968. With the addition of some disciplines, the name changed again to become Tulkarm Community College, then the Polytechnic College of Tulkarm in 1982 and 1993 respectively. In the following year, its supervision was transferred to the Palestinian Ministry of Higher Education and its name became the "Technical College of Palestine" - "Al-Khadouri" Tulkarm. It developed to grant a bachelor's degree in two majors in 1999. Thereafter, in 2007, the Ministry converted it to a university under the name of "Palestine Technical University" - Khadouri. In another context, Al-Azhar University was established in Gaza by a decision of President Yasser Arafat in 1991, which began with two colleges: Shareea and Education.

The security and policing programs have been absent in the aforementioned institutions. However, the Palestinian Academy for Security Sciences, which was first established in Jericho in 1998 by a governmental decision and was later opened in 2007, was the only entity offering these programs. It developed quickly to become a governmental university in 2011. It singled out a law of its own distinguishing itself from the rest of the governmental universities, mainly for its administrative installation and its focus on the security, military, and police sciences.

In 2000, the Palestinian Higher Education System was lucky to have the first private university, named the American Arab University. It was established in the city of Jenin, with academic cooperation with an

American State University and by Palestinian funding. Meanwhile, university education in the Gaza Strip has been strengthened through the establishment of two private universities: Firstly, the University of Palestine, which was established with the blessing of President Yasser Arafat in 2003, and started its educational services after obtaining the general and special accreditations in 2007. Secondly, the University of Gaza, which was first established in 2005 by Palestinian personnel and funding. It began the process of education after having the accreditation documents in 2008 from the Accreditation and Quality Assurance Commission.

Some of the above mentioned universities have established vocational and technical colleges that offer two-year diploma degrees, such as An-Najah University College of Technology, Hisham Hijjawi College of Technology (belongs to An-Najah University), College of Applied Professions (belongs to Palestine Polytechnic in Hebron), Al-Aqsa Community College (belongs to Al-Aqsa University in Gaza), College of Community Studies (belongs to Al-Azhar University in Gaza), and the Technical College (belongs to Khadouri University in Tulkarm). However, such colleges do not enjoy administrative autonomy: On the one hand, they are university colleges, and their deans are members of a university council. On the other hand, they are subject to the curriculum of the vocational and technical education department of the Ministry of Higher Education, because their students are subject to a standardized comprehensive examination by the end of the second year. There are community colleges that have been fully independent since their inception, including private,

governmental, and public ones and the ones under the supervision of UNRWA. They differ in their establishment date and their locations. Examples of these colleges are: The College of Nursing - Caritas Hospital (Public, Bethlehem, 2000), the Community College of Talita Qomi (Private, Bethlehem, 2000), the College of Family Reviving Association (Public, Ramallah, 1999), the "Haja Andaleeb College (Public, Nablus, 1970), the College of Community Health (Public - Medical Relief, Ramallah, 1992), Al-Rawda College (Private, Nablus, 1982), "Al Ibrahemeih Community College (Private, Al-Quds/Jerusalem", 1983), the Hebron Nursing College (Private, Hebron, 1970), Al-Ummah College (Governmental, Jerusalem Suburbs, 1983), the Gaza Community College for Tourism Studies (Private, Gaza, 2004), the Arab Community College (Private, Rafah, 1990), and the Gaza Community College (UNRWA, Gaza, 1989).

There are other community colleges that have been developed with the opening of one or more new majors with a bachelor's degree, thus they became university colleges. While other colleges that have been established as university colleges which offer both the two years diploma and bachelor's degrees. These are the following: The Palestinian Technical College-Alarroub (Governmental, Alarroub, 1995), the Palestinian Technical College for Girls (Governmental, Ramallah, 1996), the Palestinian Technical College - Deir El-Balah (Governmental, Deir El-Balah, 1996), the Palestinian Technical College - Khan Yunis (Governmental, Khan Yunis, 1996), the Ibn Sina Medical College (Governmental, Hawara, 1997), the Palestine College of Nursing (Governmental, Khan Yunis, 1997), the

College of Islamic Dawa (Governmental, Gaza, 1999), the College of Islamic Dawa Qalqilya (Governmental, Qalqilya, 1999), the Modern University College (Private, Ramallah, 1983), the Science Educational College for Girls (UNRWA, Ramallah, 1992), the Science Educational College for Boys (UNRWA, Ramallah, 1992), the College of Bethlehem Holly Book (Private, Bethlehem, 2000), the University College of Al-Maqased (Public, Al-Quds "Jerusalem", 2000), the Wajdi Nihad Abu Gharbiya Technological College (Private, Al-Quds "Jerusalem", 2004), the College of Capability Development (Private, Gaza, 2006), the University College of Applied Sciences (General - separated from the Islamic University, Gaza, 2007), the University College of Dar Al Kalimah for Arts and Culture (Private, Bethlehem, 2006), the Latin Patriarchal Institute (Private, Beit Jala, before the occupation), and the Palestine Al-Ahleyya University (Private, Bethlehem, 2007). Some of these colleges developed into universities as we will see later.

Summarizing and clarifying the above; **Tables 1** and **2** present a breakdown of Palestinian higher education institutions by geographical location, supervision, and type as they were in the later years of second decade of this century:

**Table 1** shows the following:

- The number of Palestinian higher education institutions is 52 including 15 universities, 19 university colleges granting the degrees of bachelor's degree and two years diploma, and 18 community colleges granting the

Table (1)

**Distribution of Higher Education Institutions According to Type and Supervision**

| Type of supervision | Comm. College | Univ. College | University | Total |
|---|---|---|---|---|
| **Governmental** | 2 | 7 | 3 | **12** |
| **Public** | 6 | 2 | 9 | **17** |
| **Private** | 8 | 7 | 3 | **18** |
| **UNRWA** | 2 | 3 | 0 | **5** |
| **Total** | 18 | 19 | 15 | **52** |

degree of two years diploma. It is worth mentioning here that five of the community colleges are administratively affiliated with universities and are part of them.

- University colleges are increasing almost every year at the expense of community colleges that are declining, because the community colleges aspire to adopt bachelor's programs. Once a community college has an accredited bachelor program, its name will change from a community college to a university college that grants both bachelor's and two-year diploma degrees.
- The number of public universities (non-profit, private) is three times the number of private universities or the number of governmental universities due to their establishment under the occupation and before the arrival of the Palestinian National Authority (PNA).

- The number of governmental universities is equal to the number of private universities, as well as the number of governmental colleges with private colleges. However, the number of private community colleges is four times higher than the number of governmental colleges (8: 2).
- UNRWA did not establish any Palestinian university but only five colleges (including community and university ones).

**Table 2** shows the distribution of high education institutions according to type and location:

**Table (2)**

**Distribution of Higher Education Institutions According to Type and Location**

| Type/ Location | University | University College | Community College | Total |
|---|---|---|---|---|
| **West Bank** | 9 | 12 | 9 | **30** |
| **AL-Quds (Jerusalem)** | 1 | 2 | 3 | **6** |
| **Gaza Strip** | 5 | 5 | 6 | **16** |
| **Total** | **15** | **19** | **18** | **52** |

- The number of universities in the West Bank, including Jerusalem, was twice the number of universities in the Gaza Strip (5:10).
- Jerusalem and its suburbs include one university and five university or community colleges. It is important to highlight this number and distinguish it from the number of universities in the West Bank because

of its unique situation in terms of control of inputs and recognition by the occupying authority.

- The Gaza Strip contain 16 + 1 institutions of higher education, while the West Bank without Jerusalem include 30 institutions. It is worth mentioning here that Al Quds Open University is spread throughout the Gaza Strip with five educational centers and 18 in the West Bank. It has been added to the institutions of the Gaza Strip.

### 1.1.2 Growth in Number of Higher Education Institutions

The Palestinian higher education is young. All universities were established after the early seventies. Before that, the higher education was limited to several colleges granting only two-year diploma degrees, and then it rapidly began growing until it reached the current number of 52 institutions. **Table 3** shows this growth over the last four decades. The following table shows:

- At the university level, the 1970s witnessed the emergence of four universities, followed by one university in the 1980s and four other universities in the 1990s, followed by five universities in the first two thousand decades and one in the current decade. The growth is continuing as two other universities are under establishment: Alzaytona University of Science and Technology (ZUST) and another Unnamed university.
- At the college level, the decade of the 1990s and the first decade of the millennium witnessed remarkable growth and new visibility for 29 colleges: 16 and 13, respectively in each decade. While the seventies witnessed the opening of one college and likewise in the second decade

of the second millennium. The rest of the colleges were born in the 1980s.

- It should be noted that the process of growth included a shift from colleges to universities at certain periods of time, and therefore not all institutions were established as they are. This has been previously noted in the text.

**Table (3)**
**Distribution of HEIs According to Year of Establishment**

| Time in Years | Universities | University & Community Colleges | Total |
|---|---|---|---|
| - 1970 | 0 | 4 out of 5 has been transformed to universities | |
| 1970-1974 | 2 | 0 | |
| 1975-1979 | 2 | 1 | |
| 1980-1984 | 1 | 4 | |
| 1985-1989 | 0 | 1 | |
| 1990-1994 | 2 | 8 | |
| 1995-1999 | 2 | 8 | |
| 2000-2004 | 2 | 8 | |
| 2005-2009 | 3 | 5 | |
| 2010-2014 | 1 | 1 | |
| 2015+ | Two Under establishment | 0 | |
| **Total** | **15** | **37** | **52** |

### 1.1.3 Background of the Rapid Growth of Higher Education Institutions (HEI):

In the early seventies, while the Israeli occupation practiced its policies of the displacement of Palestinian youth outside Palestine,

including but not limited to issuing permits to students to travel abroad for limited periods of time and not ensuring permits for their return! Such a policy deprived thousands of Palestinian students studying in Arab universities (Egyptian, Jordanian, Iraqi, Algerian, Yemeni, and other Arab countries and Eastern European countries) from continuing their studies or returning to Palestine after graduation. Similarly, the policy of extortion and investigation at entry and exit hindered the smooth exit of students on the border to follow up the study! especially with the emergence of the organizations of the Palestinian revolution abroad and the likelihood of these students studying abroad to get involved with them. These policies have resulted in many negative consequences, the most important of which are two: First, a semi-siege on high school students in the homeland and narrowing their chances of joining universities abroad. Second, increasing the probability of permanent migration of students who were able to break through the siege and who were forced to lose their return permits, especially after finding employment opportunities abroad after finishing their studies. These risks have raised the patriotic feelings in the hearts of the students and in those who run the national education institutions and led the latter to increase their academic bachelor's degree programs in local universities to match the increasing needs from high-school students. This feeling was reinforced by the support of the Palestinian Liberation Organization (PLO) abroad. As a result, the boards of the local community colleges developed individual action plans to grow into universities. Birzeit college was the first to offer its university services in 1972, followed in the following year by the University of Bethlehem, and then the universities of An-Najah National and Al-Islamieh in Gaza Strip in 1977 and 1978,

respectively. Universities were rapidly opening up as non-profit public institutions under a national liberation phase to cover the growing demand of high school graduates who can't travel freely internally and externally. Thus, universities were established in almost every governorate to facilitate students' access to them which was hindered by Israeli roadblocks, road closures, and multiple closures from time to time. As a result, community colleges grew in the 1990s at a faster pace, with traditional vocational but not technical disciplines, and there was a semi-individualized growth that lacked central planning. This growth's first objective was to enroll students who were not accepted in universities, and secondly, to provide financial benefits for private colleges. In addition, some colleges were established to serve refugee students from the "Nakba" of 1948 under the supervision and support of UNRWA. The governmental colleges were an extension to what was established in the Jordanian era. It should be mentioned here again that many of these colleges were converted into university colleges for special developmental purposes that serve their employees first.

### 1.1.4 The Establishment and Functions of the Palestinian Council of Higher Education (CHE):

Under the Israeli occupation, Palestinians were keen to form their national identity and protect it by forming national unions, federations, and institutions. These unions strengthened their contacts through finding a unified headquarters in the city of Beit Hanina near Jerusalem. This headquarter was used to conduct seminars and lectures on community issues that directly affect the lives of citizens. In 1977, in the second half of the year, professional associations and unions held a seminar on education

in the occupied territories as a vital matter for each family and a national work that preserves identity, existence, and dignity. As a result of the actual discussions and diagnoses of the status of higher education by these representative national bodies, it was decided to form a Higher Education Council and set up its basic system and elected its executive committee. A few years later, the Committee decided to establish a full-time technical administrative office to assist the Council in achieving the main tasks required of it, especially after gaining the trust of higher education institutions at home and abroad. It was then **recognized as an official entity responsible for higher education affairs in the occupied territories**. Accordingly, it has become an urgent duty of the Council and its Technical Administrative Office to work in several areas, the most important of which are (Katbeh,1983):

• **Coordination and Planning**: Higher education institutions have not been established according to a comprehensive long-term national plan that shows the areas of focus in each institution to functionally complement the other educational institutions. Instead, they have been established spontaneously, randomly, and individually. And of course, there was not a long-term central plan developed by a higher supervising entity to identify the challenges and areas of development, so that each educational institution knows its role and contribution to it. Consequently, the Higher Education Council, at that time, could not do better than recognizing and accepting the situation, and then to coordinate between institutions in a way that allows the excellence of each institution in a particular scientific field, and their expansion in the future to reach the best and highest possible level.

It is worth mentioning here that the main focus and objective of the institutions of higher education in that era was teaching and providing a post-secondary educational opportunity to reduce the emigration of young people abroad. Scientific research was not targeted, and technological education did not receive sufficient attention from institutions. Similarly, universities did not open master's or doctorate programs because their requirements were difficult and unavailable at the time.

• **Funding**: Each university and each college relied on its own resources to finance its operational and developmental expenses. It was not a regular funding, which caused deficits in some budgets. Thus, the Higher Education Council recognized the importance of providing funds to support higher education institutions, in order to protect them from financial shortages that threaten their future and sustainability. The Palestinian National Fund (PNF) abroad was a source of funding and other Arab and international sources. In this context, the Council was able to establish a Fund to support the universities of the occupied territories linked and supervised by the Union of Arab Universities, which is based in the city of Amman. The Fund had developed a basic system that clarifies its objectives, supervision, and funding sources. With the availability of support funds from this and other sources, the Council had to find a mechanism for allocating financial support for institutions of higher education, which did not depend on the number of students enrolled or the size of the annual budget of the institution, so that quality of education is not affected at the expense of expansive support.

• **Development**: The Council aspired in its plan of action to expand the libraries of higher education institutions and to establish a national library that meets the need of students and lecturers. Moreover, it aimed to develop some of the existing community colleges to the university level and to establish new institutions and cultural centers. In addition, it aimed to train the academic staff by providing opportunities for scholarships abroad. There was also a tendency to graduate qualified students to provide schools with qualified teachers.

• **Building External Relations and Communication**: The Council has worked actively to build a fabric of relations with external institutions concerned with higher education, including Palestinian (PLO's financial, economic, and scientific institutions), Arab (Union of Arab Universities, Ministries of Higher Education, and universities) and foreign institutions (UNESCO, The British Council, etc.).

• **Preparation of the Student Loan Fund and Support Project**: The project consists of setting up a student loan fund in each higher education institution to provide loans according to a specific mechanism, granting financial assistance according to well-studied criteria, and funding some scientific and social activities. Each fund in each institution shall have a body to supervise it. The Higher Education Council shall coordinate all funds.

• **Forming committees to follow up, study, and address higher education issues:**

1. **Higher Evaluation Committee**: Its objective was to assess:
   - The real situation of the institutions of higher education.

- The degree of duplication between them.
- The level of teaching in them.
- The salaries of their employees.
- The environment, climate, and suitability of institutions to achieve their goals.
- Their ability to incorporate new students of high school graduates, as well as to evaluate their regulations. For achieving these goals, nine specialized committees were formed to evaluate the programs of broad knowledge fields such as humanities, languages, natural sciences, economics, education, and administrative systems.

2. **Libraries' Committee**: Its purpose was to coordinate the libraries of higher education institutions and to conduct a study of the possibility of establishing an additional central library. Moreover, it aimed to establish a semi-unified library system, and to overcome the problems of the students related to the references of books and articles.

3. **The Registration and Admission Committee**: Its purpose was to coordinate between the institutions regarding the admission policies and the possibility of unifying them and standardizing registration forms and standards in each institution.

4. **Committees of laws and Regulations:** The Council considered the importance of establishing unified systems for universities and colleges. Four subcommittees were formed. The first was concerning the systems of faculty members, the board of trustees,

and the basic system; the second was for financial systems and budgets; the third was for staff salaries; and the fourth was for the instructions of scholarship.

### 1.1.5: Structures of Higher Education Institutions:

We will describe here the administrative organizational structures of Palestinian universities, with an explanation of the positions and the allocation of powers and decision-making. The description is based on texts contained in the literature and websites of universities, and on interviews conducted by the author with a number of officials to ascertain some changes in positions, the manner of development, and powers entrusted to it. Four main models of the organizational structures of Palestinian universities have been distinguished, based on the type of the Palestinian university (public, government, or private) and the type of supervision. These models are:

- The "Governmental" model which is adopted by: Al-Aqsa University in Gaza, Palestine Technical University-Khaduri in Tulkarem, and Al-Istiqlal University in Jericho with differences in some positions and powers.
- The "Private" model is adopted by the Arab American University in Jenin, the University of Palestine in Gaza, and Gaza University in Gaza.
- The "General" model is adopted by Birzeit University, An-Najah National University, Al-Quds University, Hebron University, Polytechnic University, Al-Azhar University in Gaza, Islamic University in Gaza, and Al-Quds Open University.

- The "Regent" model is adopted by the University of Bethlehem by virtue of the tutelage of a church council.

We will describe and explain the four models and compare them, and then show the positions and powers in each model and the differences from one university to another within the same model wherever they exist.

**First: The Governmental Model:** The basic structure of this model consists of ten main grades (see **Figure 1**): top-down: the Minister of Higher Education, the Advisory Council, the President of the University, Vice-Presidents and their assistants and consultants, the University Council, the Deans' Council, the Dean of Faculty, Faculty Council, Head of Department, Department Council. The following is an explanation of these positions and commissions and their powers as stated in the statutes of Palestinian public universities No. 11 of 2009:

*The Minister of Higher Education:* shall be appointed by the President of the Palestinian National Authority and shall supervise directly the President of the University in their administration for the affairs of the University, in a manner consistent with the laws and regulations of the Authority.

*Advisory Council*: The President of the Council and the rest of the members, at least thirteen members, shall be appointed by a decision of the President of the Palestinian Authority upon the recommendation of the Council of Ministers upon the recommendation of the Minister of Higher Education. They are exempted from their posts in the same manner by which they were appointed. The composition of the Advisory Council is as

follows: a chairman; two representatives from the ministry; one from the Ministry of Planning and another from the Ministry of Finance (with the highest category); two representatives from the private sector, who are appointed by the minister; one dean representative of governmental colleges; the President of the university; and the rest are scientific figures. Membership is for four years that are renewable once. The Council shall elect from among its members a Vice-President of the Council and a Secretary of the Chamber. The most important functions of the Advisory Council are: formulating the general policy of the University based on the recommendation of the President by a recommendation from the University Council; approval of the University's development plan; approval of the University budget and final accounts; providing and supporting the university's financial resources; approval of promotions and scientific ranks and vacancies required by the University President.

*The President of the University*: shall be appointed by the President of the Palestinian Authority upon the recommendation of the Council of Ministers upon the recommendation of the Minister. Must be a Palestinian and at the rank of a professor. The President shall be responsible for: the administration of the university and its affairs,; submitting an annual report to the Advisory Council on the academic, administrative, financial, and research performance of the university; inviting the University Council and the Deans' Council to meet and chair their meetings and follow up on the implementation of their resolutions; preparing the annual budget of the University and discussing it with the University Council as well as the annual work plan and submitting it to the Advisory Council; and

recommending to the Minister to approve the appointments of staff in accordance with the vacancies included in the budget.

*Vice-Presidents and their assistants and consultants*: The Vice-President, as well as the assistant or the advisor to the President shall be appointed by a decision of the Minister on the recommendation of the Advisory Council upon the recommendation of the University President (Rector). The appointment or assignment shall be for a period of three years that are renewable once. It is possible to have more than one vice president on the structure, and more than one consultant or assistant based on what is needed and the number of campus locations and branches.

*The University Council*: consists of: the President of the University as its leader; the Vice Presidents and assistants; the Deans; academic representatives of each faculty that are PhD holders; three department heads, two local community members, and one university graduate(alumni). The six members mentioned lastly should be assigned by the President of the University for one year that is not renewable. The University Council shall undertake the following tasks: Discuss the annual plan and the annual budget prepared by the President; then study the establishment of new faculties or programs provided by the Deans' Council and its placement to the Advisory Council; and consider any matters related to the University, whether academic, administrative or developmental.

*Council of Deans*: It consists of the President of the University who leads the Council, Vice-Presidents, and Deans of the faculties. It shall have the following powers and duties: to evaluate the work of the teaching staff

and methods of teaching and research and to take decisions there on; to recommend to the President of the University the appointment of faculty members, promotion, assignment, accreditation, academic leave and such; to recommend to the University Council the numbers of students intended to be admitted to the university annually; to recommend to the University Council the establishment of new colleges and programs and integrate them; and study projects submitted by the councils of faculties.

*Dean*: Each faculty shall have a Dean chosen from members of the teaching staff of the University or from another institute, who holds the rank of a professor, appointed or assigned by a decision of the Advisory Council upon the recommendation of the President of the University for a period of two years renewable for one time. Faculty Deans may be appointed or assigned to assume responsibility for a particular university activity. A Dean at the rank of assistant professor may also be appointed in special cases to be considered by the Advisory Board. It is also possible for the Dean to have a deputy appointed by the President of the University upon the recommendation of the Dean and for a period of two years, renewable for one year. The Dean shall have the following powers: Administration of the faculty's educational, research, administrative, and financial affairs; implementation of the decisions of the faculty council, the university

| Model Type | Adopted Universities | | |
|---|---|---|---|
| Governmental Model | Khadori University | Al Aqsa University | Al Istiqlal University |
| | | | President of the Government |
| Minister of Higher Education | Minister of Higher Education | Minister of Higher Education | |
| Advisory Council | | Advisory Council* | Advisory Council |
| President of University | President of University | President of University | President of University +President Council |
| Vice President & his assistants | Vice President & his assistants | Vice President & his assistants | Vice President & his assistants |
| University Council | University Council | University Council | University Council* |
| Deans Council | Deans Council | Deans Council | Deans Council* |
| Dean & Vice Dean | Dean & Vice Dean | Dean & Vice Dean | Dean & Vice Dean |
| Faculty Council | Faculty Council | Faculty Council | Faculty Council* |
| Department Head | Department Head | Department Head | Department Head |
| Department Council | Department Council | Department Council | Department Council |

**Figure 1: The structure of the government model and the differences with the structures of Palestinian governmental universities.**

Notes on Figure 1:

1 - An empty rectangle indicates that the position and authority does not exist on the current structure of the University.

2 - * means that the position is not functioning as it should and may need systems or instructions to activate it.

council and the deans' council; and submit a report at the end of each semester on the faculty's performance to the University President and the Vice President.

*Faculty Council*: The Faculty Council consists of the Dean (as head), the Dean Assistant, the heads of departments as well as three faculty members who are elected for one year. The Faculty Council shall: recommend to the Dean's Council new study plans or amendments to the existing, the adoption of curricula, books and references, training plans, scholarships, new appointments, and promotions. The meetings of the Faculty Council shall be convened by the Dean and its decisions shall be valid after the approval of the President of the University upon the recommendation of the Vice President for Academic Affairs.

*Head of department*: Each academic department shall have a head appointed by the University President based on the nomination of the Faculty Dean. The appointment is for two years that can be renewed once. The head of the department conducts the scientific, financial, and administrative affairs of the department and submits a quarterly report to the Dean about the affairs of the department.

*The Department Council*: consists of members of the teaching staff and is chaired by the head of the department. Its decisions are implemented after the approval of the Dean. Its main tasks are to propose study plans, books, references, faculty members and their promotions, as well as distribute the academic loads, and organize the work of the department.

Now, we turn to explain the structure of government universities that are supposed to adopt the previous model, to determine if they match the model (**Figure 1**). It is noted that there is harmony in the positions of the President of the university or below, but there are major differences in positions above the post of University President: at the University of Palestine Technical – Khadouri, the advisory council is absent. Instead, its powers are exercised by the Minister of Higher Education and the Council of Ministers. This entails several administrative irregularities related to running affairs referred to the Advisory Council. As a result, the President of the University shall, in coordination with the Minister, dispose of them. At Al-Aqsa University, there is an Advisory Council, sometimes with the name of an advisory board and other times named a board of trustees because its president was appointed by the former President of the Palestinian National Authority (Yaser Arafat) as Chairman of the Board of Trustees of Al-Aqsa University. Over the past decade, the Council's work has been stalled more than once as a result of the political and administrative situation in the Gaza Strip. As for the University of Al-Istiqlal, it has in its organizational structure a board of trustees, not an advisory council, as per Decree Law No. 10 of 2013 regarding the University of Al-Istiqlal. It has thus distinguished itself from the rest of the governmental universities by this legal authority and has liberated itself from the status law of Palestinian governmental universities No. 11 of 2009, which is adopted by the rest of the governmental universities. The reason for this may be due to its distinction and its uniqueness in the security and military sciences programs.

The Board of Trustees and its members are appointed by the head of the Palestinian Authority without the intervention of the Council of Ministers or the Minister of Higher Education, which is different from the case in the basic governmental model. The Board consists of 11-17 members, where **the Rector is not a member**. The Chairman, Vice-President and Secretary-General shall be elected at the first session of the Assembly. The President of the University in the structure of the University of Al-Istiqlal shall be appointed by the President of the Palestinian Authority and by a recommendation from the Board of Trustees for a period of four years that are renewable only once who reports to the Chairman of the Board of Trustees. This is different from the governmental model, in which the President of the University is appointed by the Head of State (Palestinian Authority) with the recommendation of the Council of Ministers upon the nomination of the Minister of Higher Education. Thus, the structure of Al-Istiqlal University does not include the Minister of Higher Education as its head. Instead, the role of the Minister of Higher Education is limited to academic supervision and assistance in the provision of financial resources in cooperation with the Board of Trustees, in accordance with Decree Law No. 10 of 2013. In the structure of the University of Al-Istiqlal as well, we find a ranking above the highest rank in the model as shown in **Figure 1**, which is the head of state of Palestine, where the university as a whole follows him as commander in chief of the Palestinian forces according to Article 2 of the above-mentioned law, which does not exist in any governmental university's structure. The Vice-Presidents' positions are present in the three universities. However, their appointment is different from the method of appointment in the model.

They are appointed by the Board of Trustees at the University of Al-Istiqlal, whereas they are appointed by the Minister at the Technical University of Palestine -Khadori and Al-Aqsa University. At the level of Vice-Presidents' Assistants, they are already on the structure of Al-Aqsa University and Khadouri while they are not on the structure of the University of Al-Istiqlal. As for the position of the university council as a body, it is present in all three universities, but its membership is limited to the university president, his/her deputies, and deans at the universities of Khaduri and Al-Aqsa without the rest of the members mentioned on the structure of the model. Al-Istiqlal university does not have that yet, although Law No. 10 Article 15 mentions its presence.

**Second: The General Model:** The basic structure of this model consists of eight main positions (**Figure 2**): Top-down: Board of Trustees, Rector (President), Vice-Presidents and Assistants, University Council, Academic Council, Dean, Faculty Council, Head of Department. The following is an explanation of these positions:

*Board of Trustees*: The top of the pyramid and the supreme authority in this model. Its members are usually more than ten members, who are highly regarded persons, educational intellectuals, distinguished businessmen, distinguished university graduates, primary donors, government retirees and such. The reason for this member diversity is to enhance the image and reputation of the university in the public opinion in the environment in which it is located. The nucleus of the Board is the founding body. In Palestine, this body is in most cases a specific family or a political or religious framework, and it has a representative on the Board

which determines the membership of the other members. The University President is a member of this Board due to his/her position. The main functions of the Board of Trustees are: to support the independence of the university, to formulate the general policy of the university, to appoint the president of the university and determine the length of their service, appoint the vice presidents and deans, to approve the basic organizational structure of the university and its amendments, to approve the annual financial plan and budget of the university, and to provide the funding sources for the plan.

*The President of the University*: The President of the University shall be appointed and exempted of his/her post by a decision of the Board of Trustees. The President of the University may have an assistant or an advisor. He/She reports to the Board of Trustees and exercises the following powers: Supervising the administration of financial, scientific, research, and media affairs; The implementation of the University's regulations and the instructions issued by the Board of Trustees; the implementation of the accredited budget of the university; the submission of an annual report to the Board of Trustees on the activities of the academic year and its budget; the submission of the plan for the academic year and its budget to the Board of Trustees for approval; chairing the university council and reporting to the Board of Trustees regarding its meetings; appointing all committees operating at the university level; and recommending to the Board of Trustees the appointment of Vice-Presidents and deans of the faculties.

*Vice-Presidents and their assistants*: The Vice-Presidents of the University shall be appointed and exempted of their post by a decision of

the Board of Trustees upon the recommendation of the Rector (President). Usually, universities should have two main Vice Presidents: The Vice President for Academic Affairs and Vice President for Administrative and Financial Affairs. However, most universities have in addition: Vice President for Planning and Development, and Vice President for Community Affairs. The number of Vice-Presidents may increase for external cooperation, running administrative affairs separately, or in case a new branch of the University is established.

*University Council*: The University Council shall be formed in this model by the President of the University as head, and by the Vice-Presidents and their assistants, and by the Deans. This is the main structure of the University Council, but it may expand in some universities as we shall see later. The University Council shall have the following powers: Assisting the President of the University in administering all the affairs of the University, preparing university projects and budget projects, Considering the draft study plans submitted by the faculties, discussing and coordinating the work of the faculties, establishing the annual academic calendar, granting academic degrees, honors and certificates, and evaluating the work of the university in the light of its policies and mission, thereafter report all updates to the Board of Trustees.

*Academic Council*: It consists mainly of the Vice President for Academic Affairs as its head, the Faculty Deans, the Dean or Officer of Student Affairs, the Dean or Officer of Registration and Admission. Its tasks are: Approval of granting certificates to students who have completed the requirements of admission according to the recommendation of the

deans of faculties; the approval of dismissal and other penalties for the deserving students; the discussion of the individual student cases presented by the head of the Council; and the approval and discussion of study plans and their amendments submitted to the Council by the Councils of the Faculties. Some universities call this council the Deans Council.

*Dean:* Any dean is appointed by a decision of the Board of Trustees upon the recommendation of the President of the University. The Dean administers the affairs of the Faculty and implements the regulations and instructions issued thereunder, chair the Faculty Council, submit the recommendations of its meetings to the Vice President for Academic Affairs, and submit a quarterly or annual report on the Faculty and its affairs. The Dean may have an assistant from the academic staff at the Faculty who is usually appointed by the President of the University with a nomination from the Vice President for Academic Affairs.

*Faculty Council*: The Faculty Council consists of the dean of the Faculty as its president, the heads of departments, in addition to representatives of the regular faculty members of that particular Faculty who are elected annually, and sometimes includes representatives of students of academic excellence. Its important tasks are to: prepare the draft plan of the Faculty and its annual budget and submit it to the University Council; discuss the academic plans and curricula prepared by the academic departments in the Faculty and submitting them to the academic council for consideration and approval; coordinate between departments in the Faculty; in addition to discussing and following up on any other issue presented by the Dean.

*Head of Department*: Appointed by a decision of the President of the University upon the recommendation of the Vice President for Academic Affairs. Usually, the appointment is for two years that are renewable. The Head of Department reports to the Dean. His/her main task

| Model Type | Adopted Universities | | | |
|---|---|---|---|---|
| **General Model** | **An-Najah University** | **Birzeit University** | **Al Quds University** | **Al Quds Open University** |
| | | | | |
| **Board of Trustees** | Board of Trustees | Board of Trustees | Board of Trustees | Board of Trustees |
| **University President** | University President | University President | University President | University President |
| **Vice-president & Assistants** | Vice-president & Assistants | Vice-president & Assistants | Vice-president | Vice-president |
| **University Council** | University Council | University Council | University Council | University Council |
| | Deans Council | | | |
| **Academic Council** | Academic Council | Academic Council | Academic Council | Academic Council |
| **Dean & Vices** | Dean & Vices | Dean & Vices | Dean & Vices | Dean & Vices |
| **College Council** | College Council | College Council | College Council | College Council |
| **Department Head** | Department Head | Department Head | Department Head | Department Head |
| | Department Council | Department Council | Department Council | Department Council |

**Figure 2: The structure of the General model and the differences with the structures of Palestinian Public Universities.**

Note: An empty rectangle indicates that the position and authority does not exist in the current structure of the University.

is to organize the affairs of the department, to distribute the academic loads on their faculty members, and to provide a quarterly report on the activities of the department and its meetings to the Dean.

Now, we discuss the main differences of this model in theory to what the universities are exhibiting in their structure in reality. There are nine universities that adopt this model. Please refer to **Figure 2**.

**Adopted Universities /Continued**

| **Bethlehem University** | **ALAzhar University** | **Islamic University Gaza** | **Hebron University** | **Polytechnic University of Palestine** |
|---|---|---|---|---|
| Board of International Church Regents | | | | |
| Board of Trustees | Board of Trustees | Board of Trustees | Board of Trustees | Board of Trustees |
| University President | University President | University President | University President | University President |
| Vice-president & Assistants | Vice-president & Assistants | Vice-president & Assistants | Vice-president & Assistants | Vice-president & Assistants |
| University Council | University Council | University Council | University Council | University Council |
| | | | | Deans Council |
| Academic Council | Academic Council | Academic Council | Academic Council | Academic Council |
| Dean & Vices | Dean & Vices | Dean & Vices | Dean & Vices | Dean & Vices |
| College Council | College Council | College Council | College Council | College Council |
| Department Head | Department Head | Department Head | Department Head | Department Head |
| Department Council | Department Council | Department Council | Department Council | Department Council |

**Cont. /Figure 2: The differences in the structures of Palestinian Public Universities from the structure of the General model.**

There is a new body in the structure of the University of Bethlehem ranking higher than the Board of Trustees called the "Board of International Regents", which includes twenty-five people, including a representative of the Vatican's Oriental Catholic Church, the President of the Brothers of the Christian Schools in Rome, the Apostolic Nuncio of Jerusalem (the nominal President of the University of Bethlehem), the deputy of the Apostolic Nuncio of Jerusalem (usually the actual President of the University of Bethlehem). The rest of the members are foreigners representing academic or non-academic institutions.

The Board of Trustees is present in all nine universities following this model with some differences in its powers. For example, the Board of International Regents at University of Bethlehem appoints the actual and nominal Presidents of the University, who are members of the Board of Trustees as well. The rest of the members of the Board of Trustees in this University are highly regarded members of the local society. At the Al-Quds Open University, the members of the Board of Trustees are appointed by a decision of the head of the executive committee of the PLO or the President of Palestinian Authority. The members are Palestinians and are experts and knowledgeable in different fields. For example, in 2014, the President of the Palestinian Authority issued a decree for the establishment of the Board of Trustees of Al-Quds Open University during the period of 2014-2018 which consisted of 14 members including its head and President of the University.

At the Palestinian Polytechnic University, the members of Board of Trustees are appointed by the Association of Universities' Alumni "Rabitah

-Al-Gamiieen", which is a non-profit voluntary association founded in 1953 in Hebron. It includes a group of well-known and educated figures in the Hebron governorate who are graduates of different universities, bringing together a unified vision on the importance of establishing and developing academic and technical institutions. The Polytechnic University was the most important of these institutions, and therefore its Board of Trustees is almost the same in the parent association.

At Hebron University, the Board of Trustees is headed by the son of the university's founder from the Jabari family, and the rest of the members are appointed without governmental intervention or civil institutions. This is the case at Birzeit University as well, where the head of the board of trustees is from the Nasser family and the Board members are appointed without governmental intervention. This reality also applies to An-Najah University where the President of the Board is from Al-Masry Family, the Founder, and the members of the Board are appointed without official intervention but with the blessing of the President of the Palestinian National Authority. At Al-Quds University, The Board of Trustees is the result of the merge of four trusteeships of four colleges that formed the university in 1995 according to its basic system. The founders appoint members of the Board. This context applies to Al-Azhar and Islamic universities in Gaza.

Regarding the position of University President, the main deviation from the model is seen in Bethlehem University and Al-Quds Open University. The president of Bethlehem University is part of the higher supervisory bodies, the ecclesiastical council and the board of trustees, and there is no possibility for the President to be a member of former faculty members. At

Al-Quds Open University, the President is appointed by the President of the Palestinian National Authority and not by the Board of Trustees.

The Council of the University, the Academic Council, the Faculty Council are bodies that follow the model in all nine public universities, with a slight difference in the composition of each body, such as the addition of heads of departments and representatives of Faculties to their Faculty Councils.

As for the Council of Deans as a body, it is present at An-Najah National University and the Polytechnic University of Palestine and is not present in the rest of the other public universities nor in the model. It consists of the President of the University, his/her deputies, and the deans or those who carry out their duties, with the possibility for extension. Its main task is to determine the academic policy of the University and to evaluate it, and to make decisions and recommendations related thereto.

The positions of the Dean and the Head of the Department are present in all public universities whereas the position of the Department Council is mentioned in the basic bylaws of some universities such as the Polytechnic University of Palestine and Birzeit University. The Department Council serves as a meeting of the head of department with faculty members in the Department itself, so it does not constitute a body as a position on the structure, but it is practiced in all universities. It raises its recommendation to the Faculty Council.

**Third: The Private Model**: This model consists of eight main ranks (**Figure 3**), top to bottom: the Administrative Council, the University

President, Vice Presidents and their assistants, University Council, Academic Council or Dean Council, Dean, Faculty Council, and Department Head. The following is an explanation of these positions:

*Administrative Council*: This designation came from the Law of Higher Education No. 11 of 1998, Article 11, which distinguished the private universities with an Administrative Council instead of a Board of Trustees. The members of the Administrative Council are elected by the university's contributing body members (General Constituent Commission), and there is no unified system that specifies the number of its members. However, it is common for the Council to include members representing the General Constituent Commission. The Administrative Council in most cases is supported by a Board of Trustees (BOT) whom are highly regarded persons with the experience in the administration of higher education. In addition, 2-5 members of the Administrative Council are usually part of BOT. The Rector or The President of the University is a member of the Board of Trustees by default. The Administrative Council with the support of the Board of Trustees have the following powers and responsibilities: securing the University's financial resources, organizing and maintaining its investments, approving the University's system and its amendments, drawing up the general policy of the University and supervising its implementation, approving the basic organizational structure of the University and its amendments, discussing the university's annual plan and its budget and approving it, approving the appointment of Vice-Presidents and Deans after the placement of the Rector, approving the appointment of the Legal Counsel of the University and the External

Auditor, in addition to determining the salary scale for all employees at the university as well as determining the tuition fees and the price per credit hour.

*The President of the University*: The President of the University shall be appointed and relieved of their post by a decision of the Administrative Council (AC). They may have an assistant or an advisor. He/She reports to the AC and exercises the following powers: Supervising the administration of financial, scientific, research, and media affairs; administering the University's affairs according to the general policy approved by the AC; implementation of the University's regulations and the instructions issued thereunder; implementation of the budget of the accredited university; submission of an annual report to the AC on the activities of the academic year and its budget; presenting the plan for the academic year and its budget to the AC for approval; appointing all committees operating at the university level; and recommending to the AC the appointment of Vice-Presidents and deans of the faculties.

*Vice-Presidents and their assistants*: Vice-Presidents of the University are appointed and relieved of their post by a decision of the AC upon the recommendation of the Rector, provided that none of them is a member of the Founding Body. Their powers are determined by the Rector in accordance with the applicable regulations.

*University Council*: The University Council shall be formed in this model by the President of the University as its head, the Vice-Presidents and their assistants, the Deans, and their Deputies. This is the main structure

of the University Council, but it may be expanded to include an elected faculty member from each faculty and one or two directors of administrative, academic and similar units. The University Council shall have the following principal powers: Assisting the President of the University in administering the affairs of the University; preparing the University's projects and budget projects; taking the necessary measures to raise the level of education and scientific research at the university; considering the draft study plans submitted by the faculties; discussing and coordinating the work of the faculties; establishing the annual academic calendar; granting scientific degrees, honors and certificates; and evaluating the work of the university in light of its policies and mission.

*Academic Council*: It consists mainly of the Vice President for Academic Affairs as its leader, the Faculty Deans, the Dean/Officer of Student Affairs, the Dean/Officer of Registration and Admission. The Academic Council shall undertake the following tasks: approval of granting certificates to students who have completed the requirements of graduation according to the recommendation of the deans of the faculties; approval of dismissal and other penalties for the deserving students; discussing individual student cases presented by the President of the Council; approval of the study plans and draft amendments submitted by the Faculty Councils to the Academic Council.

*Dean:* The Dean of each Faculty shall be appointed by a decision of the AC upon the recommendation of the President of the University. The Dean will administer the affairs of the faculty and implement the

regulations and instructions issued thereunder, chair the Faculty Council, submit the recommendations of its meetings to the Vice President

| Model Type | Adopted Universities | | | |
|---|---|---|---|---|
| **Private Model** | **Arab American University** | **Palestine University in Gaza** | **University of Gaza** | **Alzaytona Univ. of Science & Technology** |
| **Administrative Council** | Administrative Council | Administrative Council | Administrative Council | Administrative Council |
| | Council of Trustees | Council of Trustees | Council of Trustees | Council of Trustees & International Advisory Board |
| **University President** | University President | University President | University President | University President |
| **Vice-president & Assistants** | Vice-president & Assistants | Vice-president & Assistants | Vice-president & Assistants | Vice-president & Assistants |
| **University Council** | University Council | University Council | University Council | University Council |
| | Dean Council | | | |
| **Academic Council** | Academic Council | Academic Council | Academic Council | Academic Council |
| **Dean & Vices** | Dean & Vices | Dean & Vices | Dean & Vices | Dean & Vices |
| **College Council** | College Council | College Council | College Council | College Council |
| **Department Head** | Department Head | Department Head | Department Head | Department Head |
| **Department Council** | Department Council | Department Council | Department Council | Department Council |

**Figure 3: The structure of the Private model and the differences with the structures of Palestinian Private Universities.**

Note: An empty rectangle means that the position and authority does not exist on the current structure of the University.

for Academic Affairs, and submit a quarterly or annual report on the Faculty and its work. The Dean may have an assistant appointed by the President of the University upon the recommendation from the Vice President for Academic Affairs.

*Faculty or College Council*: The Faculty Council consists of the Dean of the Faculty as its head, the Heads of Departments of the Faculty, in addition to two-three representatives of the faculty who are elected annually, and sometimes includes representatives of students of the faculty of academic excellence. The main tasks of the Faculty Council are: discussing the academic plans and curricula prepared by the academic departments in the faculty and submitting them to the academic council for consideration and approval; coordination between departments and academic departments in the faculty; in addition to discussing any other issue presented by the Dean of the Faculty.

*Head of department*: It shall be appointed by a decision of the President of the University upon the recommendation of the Vice President for Academic Affairs upon the recommendation of the concerned Dean. The appointment shall normally be for two years that are renewable and shall report to the Dean. His/Her main tasks are to organize the affairs of the department, distribute the academic loads of its faculty members, and to provide a quarterly report on the activities of the department and the meetings of the department with their faculty members.

Now, we discuss the main differences of this model in theory to what the universities are exhibiting in their structure in reality. There are four universities that adopt this model as shown in **Figure 3**.

We find a new position named Board or Council of Trustees below the rank of the position of Administrative Council in the three universities (the Arab American University, the University of Palestine in Gaza and the University of Gaza). In the Arab American University, it consists of 14 members of educational intellectual individuals with good experience and credentials, and only two of them are members of the administrative council that consists of nine members. The Council of Trustees and the Administrative Council shall establish the necessary policies to guide the work of the University in general, and the Councils shall develop the general financial plan of the University and enhance the academic atmosphere in it, and maintain a highly competitive academic level. At the University of Gaza, the Council of Trustees consists of thirteen members, five of whom are members of the Administrative Council and constitute a Supervisory Board or a Mini Council of Administration. Its duties are similar to the functions of the Board of Trustees of the Arab American University. In the same context, the Board of Trustees of Palestine University in Gaza has similar duties in addition to shaping a policy of admission for students of the university based on the recommendation of the University Council, and discussing the draft laws and regulations and amendments made by the University Council and take appropriate decisions thereon, and discuss the annual report of the University and achievements as well as its constraints. While at Al-Zaytouna University of Science and

Technology, we find an International Advisory Board in addition to its original Board of Trustees, but different from it in composition and powers. Most of its members are foreign academics with long experience in higher education whose role is advisory, so that they are invited twice a year to the university to give their opinions and advise on what has been achieved and what is aspired to be achieved in the near future.

Regarding the position of the President of the university, the Presidents of the four universities have been appointed by the Administrative Council in each of them and not by the Board of Trustees provided that the President is not a member of the constituent body. The University Council, the Academic Council, the Faculty Council as bodies follow the theoretical model that these four universities adopt, with a slight difference in the composition, such as the addition of heads of departments and representatives of Faculties to the University Council, which is mostly limited to the University President and their deputies and deans.

The position of the Deans' Council as a body is present at the Arab American University and does not exist in other private universities or in the model. It consists of the President of the University, their deputies, their functionaries, and the deans or those who carry out their duties. The Council implements the academic programs of the University within the established standards and policies, and issues the necessary decisions to implement the regulations related to the academic work at the University.

It is worth mentioning that the posts of Dean and Head of Department are present in all private universities, whereas the position of

the Department Council is mentioned in some systems such as the Arab American University. The latter position serves as a meeting point of the head of department with its faculty members and thus is not required to be listed on the structure of the University. However, it is present in private universities and typically raises its recommendation to the Faculty Council.

### 1.1.6 The Growth and Development of Programs and The Numbers of Students and Workers in Palestinian Higher Education Institutions:

Here, we are discussing four time-frames: from inception to 1982/1983, 2005/2006, 2015/2016 and 2019/2020.

**First: Specializations available in institutions of higher education and numbers of students up to the academic year of 1982/1983:**

The institutions of higher education that existed until the academic year 1982/1983 and were supervised by the Higher Education Council can be re-listed as follows: Birzeit University, An-Najah National University, Bethlehem University, Hebron University, Islamic University in Gaza, Al-Quds University (Its three colleges; The college of Dawa and Osoul Addin, the Arab Colleges of Health Sciences, and the College of Science at Abu-Dis), The Engineering Technical Institute in Hebron, Al-Quds Institute of Shareea, and the Islamic Institute in Qalqiliya. With regard to the programs offered at these institutions, most of them were at the bachelor level, some with a two years' diploma level, and few with high diploma level. **Table 4** presents undergraduate programs (Katbeh, 1983), which shows the following:

1. There are 49 programs or specializations with a bachelor level, some of which are replicated in more than one higher education institution (25 without repetitions). The most frequent programs are the Arabic language program (6 times), followed by the English language program (4 times). The programs that followed were sociology, mathematics, and chemistry which were repeated three times.

2. Bachelor's programs were concentrated in six faculties:
   - Literature which included: Arabic, English, History, Geography, Sociology, Education, And Middle East Studies. Natural Sciences which included: Mathematics, Physics, Chemistry, Biology, and Biology with Biochemistry.
   - Business which included: Business Administration, Economics, Accounting, and Political Science.
   - Engineering which included: Architectural, Civil, Electrical, and Mechanical Engineering.
   - Medical professions which included Nursing and Laboratory Medicine.
   - Shareea which included Islamic Studies, Shareea (Islamic legislation), and the Fundamentals of Religion.

3. The total number of students enrolled in these programs was 10084 students in 1982/1983. The Arabic language program in the various institutions was the most recorded program (1513 students) followed by the education program (935 students) and the Shareea program (848 students). Figures are derived from the table.

Table (4)

**Academic Programs at Bachelor Level and Its Number of Students in HEIs 1982/1983**

| Program | Freq. | Birzeit University | An-Najah University | Bethlehem University | Hebron University | Islamic University-Gaza | Al-Quds University Colleges | Total |
|---|---|---|---|---|---|---|---|---|
| Arab. Lang | 6 | 60 | 140 | 111 | 744 | 418 | 40 | 1513 |
| Engl. Lang | 4 | 121 | 206 | 243 | 235 | - | - | 805 |
| History | 1 | - | 44 | - | - | - | - | 44 |
| Geography | 1 | - | 80 | - | - | - | - | 80 |
| Soc. Science | 3 | 76 | 105 | 161 | - | - | - | 342 |
| Education | 2 | - | 172 | - | - | 763 | - | 935 |
| Middle East | 1 | 71 | - | - | - | - | - | 71 |
| General | | 457 | 246 | - | - | - | - | 703 |
| **Total 1** | | **785** | **993** | **515** | **979** | **1181** | **40** | **4493** |
| Mathematics | 3 | 51 | 63 | 97 | - | - | - | 211 |
| Physics | 2 | 20 | 66 | - | - | - | - | 86 |
| Chemistry | 3 | 28 | 114 | 103 | - | - | - | 245 |
| Biology | 2 | - | 88 | 72 | - | - | - | 160 |
| Biochemistry | 1 | 54 | - | - | - | - | - | 54 |
| General | | 355 | 154 | - | - | 212 | 253 | 974 |
| **Total 2** | | **508** | **485** | **272** | **-** | **212** | **253** | **1730** |
| Business | 2 | - | 199 | 207 | - | - | - | 406 |
| Economics | 2 | - | 15 | - | - | 3 | - | 18 |
| Account | 2 | - | 218 | - | - | 23 | - | 251 |
| Poli-Science | 1 | - | 26 | - | - | - | - | 26 |
| General | | 502 | 181 | - | - | 369 | - | 1052 |
| **Total 3** | | **502** | **639** | **207** | **-** | **405** | **-** | **1753** |
| Artch. Eng | 1 | - | 61 | - | - | - | - | 61 |
| Civil Eng. | 2 | 72 | 115 | - | - | - | - | 187 |
| Elect. Eng. | 1 | 86 | - | - | - | - | - | 86 |
| Mech.Eng. | 1 | 79 | - | - | - | - | - | 79 |
| General | | 2 | - | - | - | - | - | 2 |
| **Total 4** | | **239** | **176** | **-** | **-** | **-** | **-** | **415** |
| Nursing | 2 | - | - | 69 | - | - | 120 | 189 |
| Med. Labs | 1 | - | - | - | - | - | 62 | 62 |
| **Total 5** | | **-** | **-** | **69** | **-** | **-** | **182** | **251** |
| Islam. Stud. | 1 | - | 42 | - | - | - | - | 42 |
| Shareea | 2 | - | - | - | 581 | 267 | - | 848 |
| Reli. Found | 2 | - | - | - | - | 323 | 219 | 551 |
| **Total 6** | | **-** | **43** | **-** | **581** | **599** | **219** | **1442** |
| **G. Total** | | **2034** | **2336** | **1063** | **1560** | **2397** | **694** | **M 5798**<br>**F 4286**<br>**10084** |

4. Student body size in scientific programs (engineering, science, and medical professions) was about 23% of the total student body. This reflects the percentage of successful secondary school examinations (Tawjeehi) in the scientific and literary sections.
5. The total number of registered males was 5798, while females were 4286, i.e., 57% males and 43% females.

The two years' diploma and the higher diploma programs are presented in **Table 5.** It is clear from the table that the two years' diploma programs in the Technical Engineering Institute were concentrated in the programs of assistant engineer: civil, architectural, mechanical, and electrical, with a total of 421 students. An-Najah University had only two programs; Education for educators and Sports education with a total of 319 students collectively. At Bethlehem University, there were five diploma programs: Education for educators' program, an education program, a hotel management program, a health guidance program, and the last was childcare education with a total of 138 students. The Jerusalem Shareea Institute and Qalqilya Shareea Institute had a single Shareea (Islamic legislation) program of 60 and 160 students respectively. Thus, it can be said that the total number of students enrolled in two years' diploma programs in 1983 was 1058. It should be mentioned here that there were diploma programs in the colleges and institutes of the Agency for the employment of refugees UNRWA, such as: the female teacher training center in Ramallah and the male teachers' house in which about one thousand students were registered in both. In addition to governmental programs such as the Governmental female teacher's training center in

Ramallah and the Khuduri Institute in Tulkarem, where about 500 students were registered in both. (Katbeh, 1983).

**Table (5)**

**Academic Programs at Diploma Level and Its Number of Students in HEIs 1982/1983**

| Program | An-Najah University | Bethlehem University | Engineering Institute Hebron | Al-Quds Shareea Institute | Qalqeelia Shareea Institue | Total |
|---|---|---|---|---|---|---|
| Teachers Prep. | + | + | | | | |
| Phys.Education | + | | | | | |
| Education | | + | | | | |
| Hotels Adm. | | + | | | | |
| Health Adv. | | + | | | | |
| Kindergartens | | + | | | | |
| Civil Eng. Ass. | | | + | | | |
| Arche. Eng. Assistant | | | + | | | |
| Mech. Eng. Ass | | | + | | | |
| Elec. Eng. Ass | | | + | | | |
| Shareea | | | | + | + | |
| **Total** | **319** | **138** | **421** | **60** | **160** | **1058** |
| High Diploma | **55** | **15** | | | | **70** |

Regarding the Higher Diploma and Certificate of Education programs, it was focused at the Universities of An-Najah and Bethlehem with a total of 70 students.

In terms of employees in institutions of higher education during this period, Katbeh (1983) showed the number of full-time faculty members with the level of certificate or degree carried by the member, without addressing the non-teaching staff, as shown in **Table 6.** The total number of full-time faculty members in the universities was 752 members, about 40% of whom were master's degree holders, while the PhD holders constituted 30%, and 30% were bachelor degree holders. If we take the number of students enrolled (10,295 students), then the ratio of teachers to students can be calculated to be 1: 14, this means that for each teaching member there are about 14 students.

**Table (6)**
**Number of Faculty Members in Universities According to their Degrees**

| HEI | Scientific Degree | | | Total |
|---|---|---|---|---|
| | PhD | Master | Bachelor | |
| Birzeit University | 85 | 87 | 52 | 224 |
| An-Najah University | 59 | 73 | 62 | 194 |
| Bethlehem University | 26 | 50 | 26 | 102 |
| Islamic University Gaza | 27 | 31 | 52 | 110 |
| Hebron University | 14 | 14 | 5 | 33 |
| Al-Quds Univ. Colleges | 17 | 41 | 31 | 89 |
| **Total** | **228** | **296** | **228** | **752** |

**Second: Programs and numbers of students in Higher Education Institutions (HEIs) until 2005/2006:**

The number of higher education institutions increased to 43 in the West Bank, Gaza Strip, and Jerusalem. **Table 7** gives a breakdown of these institutions by type and location.

**Table (7)**
**Distribution of HEIs by Type & Location**

| Type | West Bank | Gaza | Total |
|---|---|---|---|
| Traditional Universities | 7 | 3 | **10** |
| Al-Quds Open University | (17)* | (5)* | **1** |
| University Colleges | 9 | 4 | **13** |
| Community Colleges | 14 | 5 | **19** |
| **Total** | **30** | **12** | **43** |

* Number of branches or centers.

The table shows the existence of ten traditional universities, distinct from the University of Open Education, which is spread throughout the West Bank and Gaza Strip through several educational centers. The reader may find that the number of universities is large compared to a small country and population, but this is due to the conditions in which these universities were established. The aim of these universities was to provide the Palestinian youth with higher education opportunities, and to reduce their emigration in the absence of a national governmental authority under the existence of occupation. These universities varied in size and student capacity as we shall see later, and were awarding diplomas at different levels, starting with specialized technical education and ending with a

master's degree (with the exception of a single doctoral program in chemistry).

There is also an increase in the number of university colleges (13 colleges). This number has almost doubled in the last three years by virtue of the adoption of new bachelor's programs in colleges that were awarding two-year diplomas only. The latter type of institutions is the community colleges, which give a diploma of intermediate programs that are supposed to be in professional and technical disciplines.

It should be noted that at that time there was a single private university, the Arab American University in Jenin and a single traditional governmental university, Al-Aqsa University in Gaza and the rest were non-profit public universities. At the level of Al-Quds Open University, it is a state-run in its governance and presidency, but it is considered general in employment and finance, and therefore it is classified as general. Three of university colleges and community colleges were under the supervision of the United Nations of Relief and Works Agency for Palestine Refugees in the Near East (UNRWA) and the rest were either governmental, public, or private.

The total number of students enrolled in institutions of higher education for the year 2005/2006 was 149,624, as indicated in **Table 7**. There were 4,363 students (about 3%) in postgraduate studies (high diploma programs and master's degrees), 15,567 students (about 10%) in intermediate or technical diploma, and 129,694 students (87%) were in bachelor programs, which is the largest percentage.

This distribution of students according to the level of required certificate indicates several facts; including that the vast majority of the students were bachelor students, while the students of the two-year diploma or technical specialist programs constituted a small percentage, and this reflects that the first interest of students is to obtain a bachelor's degree even if the field of specialization is undesirable in the local economic market.

In addition, the absence of PhD programs (except for a PhD program in chemistry with 3 students) reflects that the primary function of Palestinian higher education institutions is teaching. Research is marginal. Therefore, research is often limited to faculty members and administrative academics without students.

**Table 8** also shows that open education students make up about 35% of the student body. These percentages indicate a high turnout of Al-Quds Open University, especially as it gives an opportunity for working groups of society holding old high school certificates with varying success rates to join the university to obtain a bachelor's degrees. In addition, it accepts new students from high school graduates for the same year. Furthermore, Al Quds Open University has more than 22 centers, which makes it easier for students to reach their locations at the lowest cost and time. It is worth mentioning here that the students of Al-Quds Open University can combine study and work, and this is an attraction for students from families of low economic status.

The table also indicates a slight variation in the number of males and females among the students at the level of the required certificate,

except for the postgraduate level, where the male students in the graduate studies are about two thirds of the students (62%), which in our estimation is due to the factor of age and marriage. At the university and college level, the percentage of females in the 10 traditional (public) universities was (54%), and at Al-Quds Open University (52%), and at university colleges (57%), while it was decreased to 43% in community colleges. The first disparity can be attributed to the disparity in the secondary school rates between males and females, where females outnumbered males by about 10 points in the general secondary examination (Tawjeehi), which increases their chances of enrolling in universities more than males. In addition, the numbers of female students traveling to study abroad is less than male students due to social standards. The second disparity represented by lower female numbers in community colleges may be attributed to a lower interest in females to enroll in technical and vocational programs.

It is important to know the size of the change in the number of students registered between certain times, and then note the speed of this change. **Table 9** summarizes the number of students enrolled in institutions of higher education as in 2004/2005. The comparison of the data of this table with Table 8 indicates that: The total increase in one year represents about 11,500 students, an annual increase of 8.3%, which is a significant increase.

The question now is: Where is the size of the biggest increase? Is it in traditional universities or in open education or in community colleges? Moreover, at which certificate level? **Table 10** summarizes the answer.

Table (8)

Distribution of Students in HEI According to Certificate Type & Sex in 2005/2006

| HEI | Certificate | | | | | | | | | Grand Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Below Bachelor | | | Bachelor | | | Post Graduate Studies | | | | | |
| | M | F | T | M | F | T | M | F | T | M | F | T |
| Traditional Universities | 177 | 406 | 583 | 34233 | 40698 | 74932 | 2690 | 1673 | 4363 | 37100 | 42777 | 79878 |
| Al-Quds Open University | 108 | 121 | 229 | 24777 | 27908 | 52685 | | | | 24885 | 28029 | 52914 |
| University Colleges | 1737 | 1971 | 3708 | 731 | 1346 | 2077 | | | | 2468 | 3317 | 5785 |
| Community Colleges | 6294 | 4753 | 11047 | | | | | | | 6294 | 4753 | 11047 |
| **Total** | **8316** | **7251** | **15567** | **59741** | **69952** | **129694** | **2690** | **1673** | **4363** | **70747** | **78876** | **149624** |

Table (9)

Distribution of Students in HEI According to Certificate Type & Sex in 2004/2005

| HEI | Certificate | | | | | | | | | Grand Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Below Bachelor | | | Bachelor | | | Post Graduate Studies | | | | | |
| | M | F | T | M | F | T | M | F | T | M | F | T |
| Traditional Universities | 291 | 327 | 618 | 33573 | 38439 | 72012 | 2536 | 1484 | 4020 | 36400 | 40250 | 76650 |
| Al-Quds Open University | 110 | 143 | 253 | 22288 | 23912 | 46200 | | | | 22398 | 24055 | 46453 |
| University Colleges | 1793 | 2173 | 3966 | 888 | 1180 | 2068 | | | | 2681 | 3353 | 6034 |
| Community Colleges | 5070 | 3932 | 9002 | | | | | | | 5070 | 3932 | 9002 |
| Total | 7264 | 6575 | 13839 | 56749 | 63531 | 120280 | 2536 | 1484 | 4020 | 66549 | 71590 | 138139 |

**Table (10)**
**Increase in Number of Students in HEIs in One Year**
**(From Year 2004/2005 to Year 2005/2006)**

| Type | Increased size | Increased % |
|---|---|---|
| Traditional Universities | 3228 | 28% |
| Al-Quds Open University | 6461 | 56% |
| University & community Colleges | 1796 | 16% |
| **Total** | **11485** | **100%** |

It is clear that more than half of the increase was in Al-Quds Open University, which is three times more than the increase in community colleges. Traditional universities contributed to 28% of the increase, divided by 3% at the postgraduate level and 25% at the bachelor's level. In order to be more objective and realistic, this increase may decrease in some years in response to political and economic conditions, such as freezing thousands of student's registrations in cases of war, curfews, and closures. In addition to a decrease in the number of students at Tawjeehi level in some years as we will see later.

At the level of programs and specializations, we are satisfied with the distribution of students enrolled in broad disciplines at the first level of ISCED. These disciplines are: Education, Literature and Human Sciences, Social and Management Sciences, Pure Sciences, Engineering, Agricultural Science, Health and Medical Sciences, and Services. **Table 11** provides a breakdown of students according to these disciplines and by the type of institution. The table shows that specialization of education constitutes 35% of the student's body (24% female, 11% male), followed by social sciences

(31%; 12% females, 19% males), science (10%), humanities (10%), whereas students in engineering fields constituted about 6% similar to students in medical and health fields. Students in agricultural sciences accounted for less than 1%. This means that less than a quarter of students are enrolled in Applied Sciences. In terms of gender distribution, it is clear from the table that the proportion of females exceeded the proportion of males in each of the specialization of education (about two thirds), literature and social sciences (about two thirds), and in medical and health sciences (more than half). The opposite is found in the specialization of social and administrative sciences, engineering sciences, agriculture and natural sciences, where the ratio of male to female has increased.

When comparing these numbers to the numbers of 1982/1983 academic year, we notice that the total number of students enrolled in institutions of higher education in 2005/2006 has increased by about 12 times, and female enrollment in higher education has increased significantly.

As for the employees of Palestinian higher education institutions for the academic year 2005/2006, **Table 12** shows a distribution according to a functional classification of nine categories or ranks (Shalabi, 2003), which are:

**First: "Educational Academic":**

Defined as an employee with a master's degree or higher and holds an academic rank of (teacher, lecturer, assistant professor, associate professor, professor) and works within a department / unit / academic department, and

Table (11)

Distribution of Students in HEIs According to Specialization, Sex, and Type, 2005 / 2006

| Specality | Sex | Education | Humanities | Social & Administrative Sciences | Natural Sciences | Engineering | Agriccalture | Medical Sciences | Services | Other | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Traditional Universities | M | 7609 | 4494 | 11102 | 4732 | 5554 | 451 | 3017 | 107 | 34 | 37100 |
| | F | 14709 | 9107 | 7951 | 4801 | 2744 | 188 | 3140 | 52 | 85 | 42777 |
| | Total | 22318 | 13601 | 19053 | 9533 | 8298 | 639 | 6157 | 159 | 119 | 79877 |
| Al-Quds Open University | M | 8190 | | 14480 | 1997 | | 214 | | | 4 | 24885 |
| | F | 19634 | | 7226 | 1132 | | 34 | | | 3 | 28029 |
| | Total | 27824 | | 21706 | 3129 | | 248 | | | 7 | 52914 |
| University Colleges | M | 443 | 179 | 784 | 277 | 381 | | 377 | 27 | | 2468 |
| | F | 617 | 392 | 871 | 239 | 55 | | 1116 | 27 | | 3317 |
| | Total | 1060 | 571 | 1655 | 516 | 436 | | 1493 | 54 | | 5785 |
| Community Colleges | M | 8 | 222 | 2766 | 1233 | 738 | | 1187 | 140 | | 6294 |
| | F | 1210 | 290 | 1543 | 588 | 147 | | 939 | 36 | | 4753 |
| | Total | 1218 | 512 | 4309 | 1821 | 885 | | 2126 | 176 | | 11047 |
| Grand Total | M | 16250 | 4895 | 29132 | 8239 | 6673 | 665 | 4581 | 274 | 38 | 70747 |
| | F | 36170 | 9789 | 17591 | 6760 | 2946 | 222 | 5195 | 115 | 88 | 78876 |
| | Total | 52420 | 14684 | 46723 | 14999 | 9619 | 887 | 9776 | 389 | 126 | 149623 |

most of their work is in teaching. This rank/category includes heads of academic departments regardless of their teaching loads.

**Second: "Administrative Academic":**

Defined as an employee who has a master's degree or higher and holds an academic rank of (teacher, lecturer, assistant professor, associate professor, professor). Most of their administrative work includes making decisions, plans, and regulations, then supervising their implementation. This category includes job titles such as: university president, vice presidents, deans and their assistants, and heads of academic institutes.

**Third: "Research Academic":**

Defined as a staff member with an academic rank whose more than half of their annual workload is in scientific research, regardless of their job location.

**Fourth: "Administrative":**

Defined as an employee who does not hold an academic rank and most of the nature of their work is administrative. They mostly deal with the management of personnel and the development of plans, systems and supervision. This category includes the following titles (but is not limited to): Director of the Office of the President (without rank), Finance Manager, Director of Personnel, Director of General Services, Library Manager, Computer Center Manager, Engineering Office Manager, Supplies Manager, etc.

**Fifth: "Officer":**

An employee whose nature of work is related to the organization and preservation of information in paper or electronic files, re-extracting and tabulating, and may be computed, and often uses the computer with printing programs and accounting programs in their work. Some examples are: secretary, a loan officer in a main library, assistant director, assistant administrator and such.

**Sixth: "Teaching Assistant or Research Assistant":**

This category includes: Teaching Assistant, Research Assistant, and those who hold a Bachelor's degree or a high diploma and have no rank. They typically teach in programs that do not give a bachelor's degree (or may give) such as: music, sport, etc.

**Seventh: "Professional Specialist":**

Defined as an employee whose job nature requires professional knowledge and expertise to solve scientific problems. These experiences are often based on a study of programs that give a minimum bachelor's degree and include names such as: pharmacist, doctor, agricultural engineer, computer engineer, programmer, mechanical engineer, civil or electrical engineer, legal adviser, social counselor and such.

**Eighth: "Technician and Craftsman":**

This is an employee whose nature of work requires less knowledge and learning experience than the specialist and is often related to applying skills.

This category includes names (but not limited to): laboratory technician, electrical technician, lathe technician, blacksmith and carpenter, maintenance technician, and such.

**Ninth: "Unskilled worker":**

An employee whose nature of work does not require educational experience, and includes jobs such as: a guard, a telephone officer, a cleaning worker, a garden worker, a driver and such.

This classification, as described above, represents a real alternative to the broad classification that distinguishes between academic, administrative, and services in an inaccurate manner. It provides a realistic opportunity to properly and comprehensively compare the situation of university staff and facilitates the construction of meaningful indicators when evaluating higher education institutions, programs, and costs.

Returning to **Table 12**, we find that the number of employees in institutions of higher education for the academic year 2005/2006 was 11187 (8705 males and 2482 females). This number includes full-time and part-time employees. More than half of them (6501) were concentrated in the traditional universities, about one fifth (2481) at Al-Quds Open University, whereas the 10 university colleges and the community colleges contained 1089 and 1116 students, respectively.

Regarding employees in the traditional (public) universities only, we note that the class of "educational academic" accounted for 39% of them, and "administrative academic" of 5%, and "research academic" of almost

zero%. In other words, faculty members in traditional universities make up less than 44% of the working body. This is a negative indicator when compared with the ideal (60% or more academic), especially since 62% of the "educational academic" category is part-time (see **Table 13**).

Administrative Academics usually spend less than a quarter of their time in teaching, and therefore if we consider the concept of equivalent faculty member, the proportion of Academics will decrease. The rest of the categories rarely have part timers because they do not include teaching. If we follow the rest of the categories, we find that the largest category is for officers (18%) followed by the category of unskilled workers (16%), then Technician and Craftsman (7%), professional specialist (4%), and administrative (3%). In terms of the relative distribution of males and females in traditional universities, we find that the percentage of females is small and did not exceed 22%. At the level of job classification categories, only about 14% academics (faculty members) were females, which is low, because the chances of a female obtaining a doctorate degree was small in our society. The percentage of female workers in all categories is less than males except for the category of officers, where the percentage of females in this category is about 51%. This category includes secretaries, archivists, and library staff.

Among the employees of Al-Quds Open University, the category of teaching academic consists of 66% of them, but 86% of them are part-timers, (as **Table 14** shows), and about 13% are females. In general, the

Table (12)

Distribution of Employees in HEIs According to Sex & Functional Classification (2005/2006).

| Functional Classification | Educational Academic | | Admin. Academic | | Research Academic | | Administrative | | Officer | | Teaching Assistant | | Professional Specialist | | Technician & Craftsman | | Unskilled Worker | | Grand Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sex/ HEIs | M | Total | M | Total | M | Total | M | Total | M | Total | M | Total | M | Total | M | Total | M | Total | M | Total |
| Traditional Universities | 2172 | 2519 | 288 | 308 | 6 | 11 | 167 | 197 | 564 | 114 | 375 | 579 | 192 | 246 | 387 | 459 | 919 | 1034 | 5070 | 6501 |
| Al-Quds Open University | 1419 | 1641 | 51 | 52 | | | 68 | 81 | 302 | 455 | | | 24 | 25 | 51 | 52 | 168 | 175 | 2083 | 2481 |
| University Colleges | 330 | 450 | 22 | 32 | | | 51 | 72 | 67 | 152 | 26 | 45 | 11 | 23 | 77 | 108 | 151 | 207 | 735 | 1089 |
| Community Colleges | 512 | 667 | 28 | 36 | | | 24 | 40 | 64 | 115 | 47 | 59 | 7 | 13 | 48 | 76 | 87 | 110 | 817 | 1116 |
| Total | 4433 | 5277 | 389 | 428 | 6 | 11 | 310 | 390 | 997 | 1870 | 448 | 683 | 234 | 307 | 563 | 695 | 1325 | 1526 | 8705 | 11187 |

Table 13

Distribution of Employees According to Sex and Degree Level in Year 2005 /2006

| Functional Classification | PhD | | Master | | Medical Doctors | | High Diploma | | Bachelor | | Two year's Diploma | | Tawjeehi | | Less than Tawjeehi | | Unspecified | | Grand Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sex/ HEIs | M | Total | M | Total | M | Total | M | Total | M | Total | M | Total | M | Total | M | Total | M | Total | M | Total |
| Traditional Universities | 1364 | 1477 | 1053 | 1344 | 5 | 5 | 10 | 16 | 1136 | 1680 | 331 | 577 | 145 | 204 | 628 | 701 | 398 | 427 | 5070 | 6501 |
| Al-Quds Open University | 390 | 408 | 1074 | 1279 | | | 3 | 4 | 265 | 326 | 93 | 165 | 92 | 106 | 85 | 88 | 81 | 105 | 2083 | 2481 |
| University Colleges | 64 | 67 | 197 | 260 | | | 4 | 12 | 227 | 348 | 84 | 181 | 36 | 52 | 88 | 108 | 35 | 61 | 735 | 1089 |
| Community Colleges | 53 | 61 | 226 | 273 | | | 24 | 29 | 340 | 484 | 40 | 73 | 33 | 38 | 54 | 71 | 47 | 87 | 817 | 1116 |
| Total | 1871 | 2013 | 2550 | 3156 | 5 | 5 | 41 | 61 | 1968 | 2838 | 548 | 996 | 306 | 400 | 855 | 968 | 561 | 750 | 8705 | 11187 |

proportion of females is much lower than the proportion of males in all categories of employment, as the total percentage of female employees at Al-Quds Open University is 16%.

In university colleges, the category of "teaching academic or educational academic" accounted for 41% of its employees and the "administrative academic" accounted for 3%. Thus, more than 56% of the employees are non-academic, and these rates cause an increase in costs.

The situation is different in community colleges, where the teaching academics (educational academics) category constitutes 60% and administrative academic 3%. Thus, about one-third of the employees are non-academic staff. But about 60% of this group is part-timers and 40% are full-timers.

It is clear from **Table 14** that for every five full-time teaching academics in the traditional universities, there are approximately two part-time academics (1: 2.6). This proportion increases for the PhD holders (1: 4.5) and decreases for the masters (1: 2).

At Al-Quds Open University, we find a completely different picture. The ratio between full- time and part -time academics is (1: 6). This is reflected in the Masters (1: 8.5) while at the PhD level is (1: 2.6). This proportionality, which shows a rise in the number of part-timers in the category of "educational academics", may reflect negatively on the quality of education, unless luckily the part-timer is of high experience in the field and thus enlightened students with realistic examples and experimentation in educational subjects. From the point of view of educational institutions,

part-time employees are less expensive than full-time employees and thus are a good option under difficult financial conditions. The rest of the percentages can be traced in university colleges, community colleges, and according to their male female ratios from the tables listed.

**Table (14)**

**Distribution of Employees "Educational Academic" According to Sex, Degree Level, and Contract Type, 2005 /2006**

| HEIs | Degree | PhD | | Master | | Other | | Grand Total | |
|---|---|---|---|---|---|---|---|---|---|
| | Sex/Type | M | Total | M | Total | M | Total | M | Total |
| Traditional Universities | Full Time | 793 | 850 | 539 | 672 | 31 | 40 | **1363** | **1562** |
| | Part Time | 171 | 190 | 288 | 360 | 35 | 45 | **494** | **595** |
| | Unknown* | 135 | 149 | 106 | 132 | 74 | 81 | **315** | **362** |
| Al-Quds Open University | Full Time | 94 | 103 | 108 | 130 | 0 | 0 | **202** | **233** |
| | Part Time | 259 | 268 | 934 | 1111 | 24 | 29 | **1217** | **1408** |
| Universirty Colleges | Full Time | 46 | 47 | 122 | 161 | 113 | 184 | **281** | **392** |
| | Part Time | 14 | 14 | 29 | 32 | 7 | 12 | **50** | **58** |
| Community Colleges | Full Time | 13 | 13 | 56 | 73 | 119 | 180 | **188** | **266** |
| | Part Time | 33 | 40 | 139 | 161 | 152 | 200 | **324** | **401** |
| Total | Full Time | 946 | 1013 | 825 | 1036 | **52** | **905** | **2034** | **2453** |
| | Part Time | 477 | 512 | 1390 | 1664 | 218 | 286 | **2085** | **2462** |
| | Unknown* | 135 | 149 | 106 | 132 | 74 | 81 | **315** | **362** |

*One of the universities did not provide information about full/part time positions.

**Third: Programs and numbers of students in Palestinian higher education institutions in 2014/2015:**

The number of institutions of higher education increased to 52 institutions in the West Bank, Gaza Strip, and Jerusalem as shown in **Table (15)**, which gives a breakdown of these institutions by type, location, and supervision.

**Table (15)**
**Distribution of HEIs According to Type, Location, and Supervision**

| Location | West Bank | | | | | Gaza Strip | | | | | Grand Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Supervision | Government | Public | Private | UNRWA | Total | Government | Public | Private | UNRWA | Total | |
| Traditional Universities | 2 | 6 | 1 | - | 9 | 1 | 2 | 2 | - | 5 | 14 |
| Open Education | | 17* | | | | | 5* | | | | 1 |
| University Colleges | 4 | 2 | 6 | 1 | 13 | 4 | 1 | 1 | - | 6 | 19 |
| Community Colleges | 1 | 6 | 3 | 1 | 11 | 1 | 3 | 2 | 1 | 7 | 18 |
| Total | 7 | 14 | 10 | 2 | 33* | 6 | 6 | 5 | 1 | 18 | 52 |

*Represents the number of branches of Al-Quds Open University.

The table shows the existence of fourteen traditional universities, an increase of four new universities from the previous period. These universities vary in size and student capacity as we shall see later, and

award diplomas at different levels, starting with specialized vocational education and ending with a master's and doctorate degrees. There is also a rise in the number of universities and community colleges, from 32 to 37 colleges, by virtue of the accreditation of new bachelor's programs in colleges that were awarding a two years' diploma only, in addition to the accreditation of new colleges.

It should be noted that the total number of institutions of higher education in the West Bank reached 33 institutions in addition to Al-Quds Open University, while the number in the Gaza Strip reached 18 institutions in addition to Al-Quds Open University branches. In terms of supervision, there are 3 governmental universities (2 in the West Bank and 1 in Gaza), 3 private universities (1 in the West Bank and 2 in Gaza), and the rest (8 universities) are public, non-profit (6 in the West Bank and 2 in Gaza), and supervised by Board of Trustees. College level supervision can be tracked from the table.

The total number of students enrolled in institutions of higher education for the year 2014/2015 was 221,395, as indicated in **Table 16**. 8010 students (about 3.6%) were enrolled in postgraduate studies (high diploma, master and doctorate programs). There were 26917 students (about 12%) enrolled in the two years diploma or specialized diploma programs, whereas 186,468 students (about 84%) were enrolled in programs that give a bachelor's degree. The table also shows that Al-Quds Open University includes about half of the students enrolled in the traditional universities at the level of bachelor's degree (59539 versus 120983) students.

By comparing these numbers with the numbers in the academic year 2005/2006, there is a total increase of 71772 students in nine years and an annual growth rate of about 5.5%. On the distribution according to the level of the degree acquired, there is a slight increase in the percentage of students enrolled in postgraduate studies, and 2% in the proportion of students enrolled in the programs of two years diploma, which is at the expense of the proportion of students enrolled in bachelor programs. Therefore, it was decreased by about 3% than it was nine years ago.

At the level of geographical distribution (West Bank and Gaza Strip), and with an analytical look at **Table 16**, we find the following:

1. Approximately 60.4% of Palestinian higher education students study in higher education institutions located in the West Bank, while the remaining (39.6%) study in institutions located in the Gaza Strip (133555: 87840).
2. The increase of students was mainly found at the level of universities, whether traditional or open, whereas the decrease was marked at the level of university colleges and community colleges. The number of students in university and community colleges in the West Bank was less than the number of students in university and community colleges in the Gaza Strip, and vice versa at the university level.
3. The proportion of female students in Palestinian higher education as a whole was 60%, while males were 40%.

However, these percentages differ on the level of geographical distribution. The percentage of females in higher education institutions in the Gaza Strip

was 56.4%, compared to 62.3% in the West Bank and Jerusalem. The percentages of males were 43.6% and 37.6%, respectively. It is clear that the male to female ratio converge in Gaza Strip and diverge in the West Bank and Jerusalem.

As for the distribution of students according to the broad specialties (ISCED classification), **Table 17** shows that the social and administrative sciences allocated the largest percentage of the student body in Palestinian higher education institutions (38%; 20% female, 18% male), Education 27% (21% females and 6% males), and medical and health sciences 9% (6% females, 3% males). 8% of students were in humanities, 8% in engineering disciplines, and 7% in natural sciences. The percentage decreased to less than 1% in agricultural sciences.

The same ranking, with a slight difference, was found in the specialized student body composition in traditional universities alone. The specialization of the administrative and social sciences ranked first with 31%, followed by the specialization of education by 24%. Medical health sciences, humanities, and engineering were in the third rank by about 12% each. The second to last in ranking was for natural sciences with about 8% whereas the last was for agricultural sciences with 1%.

In open education, students in administrative and social sciences constituted 50% of the student body, whereas it constituted 41% in educational sciences, and less than 0.5% in agricultural sciences. The rest

Table (16)

Distribution of HEIs Students According to Degree, Sex, Type and Location of Institution, 2014 / 2015

| Degree | Less than Bachelor | | | Bachelor | | | Graduate studies | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sex | M | F | Total | M | F | Total | M | F | Total | M | F | Total |
| **Traditional University** | 1958 | 1498 | 3456 | 47714 | 73269 | 120983 | 3903 | 4107 | 8010 | **53575** | **78874** | **132449** |
| *West Bank* | 969 | 955 | 1924 | 27041 | 39935 | 66976 | 2428 | 3125 | 5553 | **30438** | **44015** | **74453** |
| *Gaza Strip* | 989 | 543 | 1532 | 20673 | 33334 | 54007 | 1475 | 982 | 2457 | **23137** | **34859** | **57996** |
| **Al-Quds Open University** | 613 | 78 | 691 | 20184 | 39355 | 59539 | - | - | - | **20797** | **39433** | **60230** |
| *West Bank* | 482 | 62 | 544 | 14105 | 32741 | 46846 | | | | **14587** | **32803** | **47390** |
| *Gaza Strip* | 131 | 16 | 147 | 6079 | 6614 | 12693 | | | | **6210** | **6630** | **12840** |
| **University Colleges** | 5178 | 4572 | 9750 | 2494 | 3452 | 5946 | - | - | - | **7672** | **8024** | **15696** |
| *West Bank* | 1438 | 1458 | 2896 | 1353 | 1983 | 3336 | - | - | - | **2791** | **3441** | **6232** |
| *Gaza Strip* | 3740 | 3114 | 6854 | 1141 | 1469 | 2610 | - | - | - | **4881** | **4583** | **9464** |
| **Community Colleges** | 6524 | 6496 | 13020 | - | - | - | - | - | - | **6524** | **6496** | **13020** |
| *West bank* | 2484 | 2996 | 5480 | | | - | | | - | **2484** | **2996** | **5480** |
| *Gaza Strip* | 4040 | 3500 | 7540 | - | - | - | - | - | - | **4040** | **3500** | **7540** |
| **Total** | **14273** | **12644** | **26917** | **70392** | **116076** | **186468** | **3903** | **4107** | **8010** | **88568** | **132827** | **221395** |
| *West Bank* | **5373** | **5471** | **10844** | **42499** | **74659** | **117158** | **2428** | **3125** | **5553** | **50300** | **83255** | **133555** |
| *Gaza Strip* | **8900** | **7173** | **16073** | **27893** | **41417** | **69310** | **1475** | **982** | **2457** | **38268** | **49572** | **87840** |

of the student body was in a preparatory year (under an unspecified heading in the table) and are distributed in the above-mentioned majors with the same proportions.

At the level of university colleges, the specialization of the administrative and social sciences ranked first by 40%, followed by the medical and health sciences by 21%, followed by the field of Education by 12%. In the community colleges, administrative and social sciences also ranked first with 53%, followed by medical and health sciences by 15%, then engineering sciences by 11%, and educational sciences by 8%.

As for the relative distribution of students by gender in the broad specialties mentioned above, it can be said that the proportion of females exceeded the proportion of males in all disciplines except for the disciplines of engineering sciences and agricultural sciences by a few differences. The biggest difference between genders was in the fields of Education (21% female vs. 6% male). This can be explained by the nature of the profession expected after graduation in this specialization, which is often teaching in schools; a profession desired by female students and not appealing to male students in the Palestinian society.

In comparison with the wide range of disciplines and the percentages of student bodies in the academic year of 2005/2006, the field of education sciences ranked in the first rank (35%) and became (27%) in 2014/2015, while the administrative and social sciences were 31% and became 38%. This may be due to the preference of students in general to peruse administrative, commercial, and financial sciences over educational

Table (17)

Distribution of HEIs Students According to Specialization, Sex, and Type of Institution, 2014 / 2015

| Institution. Type | Sex | Education | Arts & Humanities | Social &Admin. Sciences | Natural Sciences | Engineering | Agriculture | Health Sciences | Services | Unspecified | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Traditional University | M | 7611 | 4494 | 21198 | 4204 | 9685 | 855 | 4885 | 581 | 64 | **53575** |
| | F | 24138 | 10957 | 19348 | 7057 | 6246 | 697 | 10189 | 178 | 62 | **78874** |
| | Total | 31749 | 15451 | 40546 | 11261 | 15931 | 1552 | 15074 | 759 | 126 | **132449** |
| Alquds Open University | M | 5235 | | 12512 | 1255 | | 149 | | | 1111 | **20262** |
| | F | 19628 | | 17885 | 1343 | | 89 | | | 1023 | **39968** |
| | Total | 24863 | | 30397 | 2598 | | 238 | | | 2134 | **60230** |
| University College | M | 404 | 909 | 3497 | 607 | 890 | 10 | 1300 | 55 | | **7672** |
| | F | 1475 | 1444 | 2862 | 211 | 63 | 13 | 1936 | 20 | | **8024** |
| | Total | 1879 | 2353 | 6359 | 818 | 953 | 23 | 3236 | 75 | | **15696** |
| Community College | M | 115 | 267 | 3682 | 602 | 1099 | | 653 | 106 | | **6524** |
| | F | 931 | 446 | 3211 | 334 | 295 | | 1250 | 29 | | **6496** |
| | Total | 1046 | 713 | 6893 | 936 | 1394 | | 1903 | 135 | | **13020** |
| Grand Total | M | **13365** | **5670** | **40889** | **6668** | **11674** | **1014** | **6838** | **742** | **1175** | **88033** |
| | F | **46172** | **12847** | **43306** | **8945** | **6604** | **799** | **13375** | **227** | **1085** | **133362** |
| | Total | **59537** | **18517** | **84195** | **15613** | **18278** | **1813** | **20213** | **969** | **2260** | **221395** |

sciences, especially after the economic changes represented by the increase of banking institutions and others of commercial service that did not exist at previous times. This increased the employment opportunities for graduates of these disciplines compared to the graduates of educational sciences. In addition, the disciplines of administrative and social sciences are open to students from the scientific and art branches of the secondary school as well, which distinguishes them from other disciplines which are available only to the students of the scientific branch.

Employees in higher education institutions for the academic year 2014/2015 are shown in **Table 18**. It shows that the total number of employees in the Palestinian higher education institutions reached 15584 employees (4071 females and 11513 males), an increase of 4397 employees compared to 2005/2006, with a growth rate of 4.4% annually, over nine years. Growth rates in higher education institutions were: 6.4% in traditional universities, 8.1% in university colleges, 0.4% in Al-Quds Open University, and -2.6% (negative) in community colleges.

The decline in numbers of community colleges was in favor of university colleges, some of which turned into university colleges, and others expanded significantly.

Regarding workers in traditional universities only, we note that the "Educational Academic" class accounted for 42% of them, and the "Academic Administrators" for 4.4%, and the "Academic Researchers" for almost zero%. In other words, faculty members in traditional universities make up less than 47% of the working body, which is not much different

from that in the year 2005/2006. Looking for other categories, we found that class "Officer" constituted 11% followed equally by the "Administrative" class and the class of "Teaching Assistants "(10.5% for each), then the "Non-skilled Worker" category by 10%. In terms of the relative distribution of males and females in the traditional universities, the percentage of females was small (did not exceed 27%). At the level of job classification categories, only about 20% of the "Educational Academics" or teaching faculty members were females, which is a small percentage, and considering the rest of the categories, the proportion of female employees in all categories is much lower than males.

The ratio of the total number of employees from the three classes "educational academic", "administrative academic" and "research academic" (4773) to the total number of students, including postgraduates (132449 students) in traditional universities, is 1: 27.75 (1: 28). This proportionality is almost the same as that of 2005/2006, where the total number of academicians in the traditional universities was 2,838 and the total number of students was 79,878. Thus, the ratio was 1: 28.1, which is equivalent to 1: 28 as the previous ratio.

For the employees of Al-Quds Open University, the class "educational academic" constituted 55% of them, but more than 80% of this class were part-timers, and about 19% were females. In general, the percentage of females was much lower than the proportion of males in all categories of jobs, as the total percentage of female employees in Al-Quds Open University was 21%.

Table (18)

Distribution of Employees in HEIs According to Sex & Functional Classification (2014/2015).

| Functional Classification | Educational Academic | | Admin. Academic | | Research Academic | | Admin | | Officer | | Teaching Assistant | | Professional Specialist | | Technician & Craftsman | | Unskilled Worker | | Grand Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sex/ HEIs | F | Total | F | Total | F | Total | F | Total | F | Total | F | Total | F | Total | F | Total | F | Total | F | Total |
| Traditional Universities | 889 | 4303 | 46 | 454 | 5 | 16 | 378 | 1089 | 546 | 1154 | 518 | 1080 | 222 | 670 | 43 | 462 | 119 | 1045 | 2766 | 10273 |
| Al-Quds Open University | 277 | 1431 | 5 | 99 | 0 | 0 | 186 | 722 | 63 | 166 | 1 | 1 | 0 | 4 | 2 | 23 | 11 | 134 | 545 | 2580 |
| University Colleges | 248 | 949 | 9 | 58 | 0 | 4 | 113 | 319 | 70 | 108 | 47 | 141 | 4 | 23 | 3 | 25 | 52 | 255 | 546 | 1882 |
| Community Colleges | 109 | 447 | 9 | 35 | 0 | 3 | 35 | 103 | 11 | 19 | 29 | 80 | 7 | 53 | 8 | 42 | 6 | 67 | 214 | 849 |
| Total | 1523 | 7130 | 69 | 646 | 5 | 23 | 712 | 2233 | 690 | 1447 | 595 | 1302 | 233 | 750 | 56 | 552 | 188 | 1501 | 4071 | 15584 |

In university colleges, the class "educational academic" constituted 50% of its employees and the class "administrative academic" constituted 3%. Thus, more than 47% of the employees were non-academic. The situation was different in community colleges, where an "educational academic" class constituted 53% and an "administrative academic" constituted 4%. Thus, about 43% were non-academic.

Regarding the distribution of staff members in traditional universities according to their earned scientific degrees or rank, we notice according to **Table 19** that the highest percentage (27%) were holders of the bachelor's degree and 42% of them were females, followed by holders of a Master's degree (24.8%), in which women constituted 32%. The percentage of PhD holders was 24.7% in which women constituted only 10%. The remaining were for holders of a two-year diploma or below. In Al-Quds Open University, the major percentage was of the master's degree holders (42%), followed by PhD holders with a large difference (18%). In university colleges, the majority were for bachelor's degree holders (34%), then Masters (27%), two-year Diploma (13%), and PhD (9%). The situation was similar in community colleges, where the bachelor's degree holders accounted for 41%, followed by master's degree holders by 32%, then holders of two-year diplomas (11%), and lastly the holders of doctorate degree who formed only 5%.

In comparison to the distribution according to the scientific degree held by university staff in the academic year 2005/2006 (Table 13), we notice that the bachelor's degree holders had the lead in traditional universities with a percentage of about 26%, 32% of whom were females.

PhD holders were about 33%, of whom 8% were females, then the master's degree holders were about 21%, 22% of whom were females. At Al- Quds Open University, Master's degree holders made up the biggest proportion of 51%, 16% of them were females; followed by PhD holders of 16% (4.5% females); Bachelor's degree holders who constituted 13%, 19% of whom were females. In university colleges, the bachelor's degree holders had the lead with 32%, followed by the master's degree holders (24%), and two-year diploma holders (17%). In community colleges, Bachelor degree holders were the highest (40%), then the master's degree holders (24.5%), then holders of two-year' diploma (6.5%), and lastly PhD holders (5.5%).

**Fourth: Academic Programs and numbers of students in Palestinian higher education institutions in 2019/2020:**

At the first glance, the reader might think that the number of higher education institutions remained the same (52 institutions) till this time period, without an increase or a decrease in the number of universities or colleges. Yes, the total remained the same, but there was a new licensing and accreditation for institutions of higher education and this was offset by a shift in some institutions from colleges to branches of a university, which increased the number of universities and reduced the number of colleges, and so on. **Table 20** shows that there are 16 traditional universities, that is, two universities more than the previous period of time, and it is also clear that there is a new branch of the Arab Open University in Palestine, and thus the number of open university education institutions has become two. On the other hand, there is a decrease in the number of university colleges from 19 to 17 colleges, as well as community colleges, which decreased

from 18 to 17 colleges, bringing the number of higher education institutions in the West Bank to 35, including the Al-Quds Open and the Arab Open Universities. In the Gaza Strip, there are 17 institutions, to bring the total in the country to 52 institutions of higher education (see **Table 20** and **Table 20A** that contains a list of all accredited higher education institutions till 2019/2020.

The total number of students registered in all these institutions for that academic year (2019/2020) was 217,645 students, as shown in **Table 21**, of whom 10024 students (4,392 males and 5,632 females) were in graduate studies (higher diplomas, masters, and doctoral degrees), constituting 4.6%. However, the bachelor's degree programs had 177,858 students (81.7%). The rest were in two-year diploma programs and educational qualification programs (29,736 male and female students, constituting 13.7% of the total).

It is worth mentioning that there is a decrease in the total number of students registered in Palestinian higher education institutions in the West Bank and Gaza, which is represented by about 3750 male and female students. This may be due to the lack of demand for open education currently by public sector employees compared to the past, as most of the two-year diploma or high school degree holders employed in the governmental sector successfully obtained Bachelor's degrees through the open education in the previous periods. In addition, the increased competition in terms of lower fees in public universities encouraged students to divert from open education. These public universities include the University of Al-Khadoori with its new branches in Ramallah and

Table 19

Distribution of Employees According to Sex and Degree Level in Year 2014 /2015

| Functional Classification | PhD | | Master | | High Diploma | | Bachelor | | Two year's Diploma | | Tawjeehi | | Less than Tawjeehi | | Unspecified | | Grand Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sex/ HEIs | F | Total | F | Total | F | Total | F | Total | F | Total | F | Total | F | Total | F | Total | F | Total |
| Traditional Universities | 256 | 2546 | 815 | 2550 | 31 | 55 | 1176 | 2783 | 296 | 757 | 72 | 490 | 113 | 1019 | 7 | 73 | 2766 | 10273 |
| Al-Quds Open University | 37 | 470 | 244 | 1093 | - | - | 140 | 455 | 93 | 200 | 12 | 141 | 16 | 217 | 3 | 4 | 545 | 2580 |
| University Colleges | 18 | 178 | 140 | 502 | 10 | 25 | 216 | 649 | 103 | 238 | 14 | 89 | 44 | 196 | 1 | 5 | 546 | 1882 |
| Community Colleges | 4 | 45 | 49 | 274 | 1 | 5 | 118 | 346 | 35 | 95 | 2 | 32 | 5 | 52 | - | - | 214 | 849 |
| Grand Total | 315 | 3239 | 1248 | 4419 | 42 | 85 | 1650 | 4233 | 527 | 1290 | 100 | 752 | 178 | 1484 | 10 | 81 | 4071 | 15584 |

**Table 20**
**Distribution of HEIs According to Type, Geographic Location and Supervision, 2019/2020**

| Location | West Bank | | | | | Gaza Strip | | | | | Grand Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Supervision | Government | Public | Private | UNRWA | Total | Government | Public | Private | UNRWA | Total | |
| **Traditional Universities** | 2 | 6 | 2 | - | 10 | 1 | 2 | 3 | - | 6 | **16** |
| **Open Education** | | 17* | 1 | | 2 | | 5* | | | | **2** |
| **University Colleges** | 6 | 1 | 4 | 1 | 12 | 3 | 1 | 1 | - | 5 | **17** |
| **Community Colleges** | 0 | 6 | 4 | 1 | 11 | 1 | 1 | 2 | 2 | 6 | **17** |
| **Total** | **8** | **14** | **11** | **2** | **35*** | **5** | **4** | **6** | **2** | **17** | **52** |

*Represents number of branches of Al-Quds Open University

Al-Aroub, Al-Istiqlal, and Al-Aqsa Universities. Al-Istiqlal University for instance has zero fees, and it covers the student with daily food and sleep, and graduates are granted a job after graduation. With the decrease in the number of students enrolled in undergraduate programs, the number increased in graduate programs (from 8010 to 10024 students during the five years, and similarly in community diploma programs from 26,917 to 29,736 students).

## Table (20 A)
## Accredited Higher Education Institution till 2019 – 2020, and Total Number of Students

| No | Name of Institution | Location | Total Students |
|---|---|---|---|
| 1. | Hebron University | West Bank | 8484 |
| 2. | Palestine Polytechnic University / PPU | West Bank | 4035 |
| 3. | Bethlehem University | West Bank | 3241 |
| 4. | Birzeit University | West Bank | 14747 |
| 5. | An-Najah National University | West Bank | 22987 |
| 6. | Al Quds University | West Bank | 11103 |
| 7. | Palestine Technical University - Khadoori | West Bank | 6485 |
| 8. | Arab American University | West Bank | 10583 |
| 9. | Al-Quds Open University | West Bank | 47726 |
| 10. | Arab Open University | West Bank | 79 |
| 11. | Al Istiqlal University | West Bank | 1516 |
| 12. | Palestine Ahliya University | West Bank | 2115 |
| 13. | Islamic University of Gaza | Gaza Strip | 18450 |
| 14. | Al-Azhar University | Gaza Strip | 14053 |
| 15. | Al-Aqsa University | Gaza Strip | 14977 |
| 16. | Al-Isra University | Gaza Strip | 2400 |
| 17. | Gaza University | Gaza Strip | 2243 |
| 18. | University of Palestine | Gaza Strip | 7093 |
| | Total | | 144512 |
| 19. | University College for Educational Sciences | West Bank | 607 |
| 20. | University college of Applied Sciences | Gaza Strip | 4048 |
| 21. | University College of Science & Technology | Gaza Strip | 2207 |
| 22. | Modern University College | West Bank | 2211 |
| 23. | Seminary of the Latin Patriarchate of Jerusalem | West Bank | 10 |
| 24. | Palestine Technical University Khadoori / Ramallah | West Bank | 1177 |
| 25 | Palestine Technical University Khadoori / Al Arroub | West Bank | 876 |
| 26. | Palestine Technical College (Deir Al-Balah) | Gaza Strip | 1747 |
| 27. | Ibn Sina College of Health Professions | West Bank | 329 |
| 28. | Al-Ummah University College | West Bank | 281 |

| | | | |
|---|---|---|---|
| 29. | Islamic Sciences College / Al Thaheria | West Bank | 255 |
| 30. | College of sciences and Islamic Studies | West Bank | 299 |
| 31. | Makassed University College | West Bank | 169 |
| 32 | Bethlehem Bible College | West Bank | 78 |
| 33. | University College of Ability Development | West Bank | 120 |
| 34. | Dar Al Kalemah College | West Bank | 300 |
| 35. | Palestine College of Nursing - Gaza | Gaza Strip | 351 |
| | **Total University Colleges** | | **15065** |
| 36. | University College of Applied Sciences | Gaza Strip | 854 |
| 37. | Nightingale – Al Amad College of Nursing | West Bank | 234 |
| 38. | Hebron College of Nursing | West Bank | 125 |
| 39. | Intermediate College of Studies-Al-Azhar | Gaza Strip | 997 |
| 40. | Al-Rawda College | West Bank | 635 |
| 41. | Ibrahimieh College | West Bank | 69 |
| 42. | College of Applied Professions / PPU | West Bank | 2706 |
| 43. | College of Family Resuscitation | West Bank | 169 |
| 44. | Khan Younis Training College | Gaza Strip | 209 |
| 45. | College of Community Health | West Bank | 24 |
| 46. | Al-Aqsa Community College for Intermediate Studies | Gaza Strip | 1845 |
| 47. | Ramallah Women's Training Center | West Bank | 693 |
| 48. | An-Najah Community College | West Bank | 253 |
| 49. | Talitha Kumi community College | West Bank | 71 |
| 50. | Gaza Community College- UNRWA | Gaza Strip | 641 |
| 51. | Gaza Community College for Tourism & Applied Studies | Gaza Strip | 296 |
| 52. | Technological Hisham Hijjaw College | West Bank | 442 |
| | **Total Community Colleges** | | **10263** |
| | **Grand Total** | | **217645** |

At the level of geographical distribution (West Bank and Gaza Strip), with an analytical look at **Table 21**, we find the following:

1. About 62% of Palestinian higher education students studied in institutions of higher education located in the West Bank, while the rest (about 38%) studied in institutions located in the Gaza Strip; (135,706: 81,939) students.

2. The percentage of females in Palestinian higher education as a whole was 61%, while males were 39%. However, these percentages differ on the level of geographical distribution. The percentage of females in higher education in the Gaza Strip was 57%, while it was 64% in the West Bank and Jerusalem.

The distribution of students according to broad specializations (ISCED international classification), is included in **Table 22**, which shows that the social and administrative sciences embraced the largest proportion of the student body in Palestinian higher education institutions (33%), followed by the medical and health sciences (19 %), then education (15%), whereas students in humanities accounted for 10%, and almost the same in engineering and natural sciences, the percentage was less than 1% in agricultural sciences.

In comparison with the distribution of students according to broad specializations in 2014/2015, we find a current trend towards supportive medical and health sciences, which ranked second after social and administrative sciences, while it was in the third place in 2005.

Table (21)

Distribution of HEIs students According to Degree, Sex, Type and Location of Institution, 2019 / 2020

| Degree | Less than Bachelor | | | Bachelor | | | Graduate studies | | | Grand Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sex | M | F | Total | M | F | Total | M | F | Total | M | F | Total |
| **Traditional University** | 3758 | 3402 | 7160 | 47860 | 79695 | 127555 | 4312 | 5485 | 9797 | **55930** | **88582** | **144512** |
| *West Bank* | 1677 | 1435 | 3112 | 27788 | 47748 | 75536 | 2444 | 4037 | 6481 | **31909** | **53220** | **85129** |
| *Gaza Strip* | 2081 | 1967 | 4048 | 20072 | 31947 | 52019 | 1868 | 1448 | 3316 | **24021** | **35362** | **59383** |
| **Al-Quds Open University** | 1097 | 1928 | 3025 | 14637 | 29916 | 44553 | 80 | 147 | 227 | **15814** | **31991** | **47805** |
| *West Bank* | 698 | 1630 | 2328 | 10482 | 25229 | 35711 | 50 | 118 | 168 | **11230** | **26977** | **38207** |
| *Gaza Strip* | 399 | 298 | 697 | 4155 | 4687 | 8842 | 30 | 29 | 59 | **4584** | **5014** | **9598** |
| **University Colleges** | 5008 | 4280 | 9288 | 2000 | 3777 | 5777 | - | - | - | **7008** | **8057** | **15065** |
| *West Bank* | 1571 | 1810 | 3381 | 1005 | 2563 | 3568 | - | - | - | **2576** | **4373** | **6949** |
| *Gaza Strip* | 3437 | 2470 | 5907 | 995 | 1214 | 2209 | - | - | - | **4432** | **3684** | **8116** |
| **Community Colleges** | 5128 | 5135 | 10263 | - | - | - | - | - | - | **5128** | **5135** | **10263** |
| *West bank* | 2531 | 2890 | 5421 | | | | | | - | **2531** | **2890** | **5421** |
| *Gaza Strip* | 2597 | 2245 | 4842 | - | - | - | - | - | - | **2597** | **2245** | **4842** |
| **Total** | **14991** | **14745** | **29736** | **64497** | **113388** | **177885** | **8784** | **5629** | **10024** | **83880** | **133765** | **217645** |
| *West Bank* | **6477** | **7765** | **14242** | **39275** | **75540** | **114815** | **4988** | **4155** | **6649** | **48246** | **87460** | **135706** |
| *Gaza Strip* | **8514** | **6980** | **15494** | **25222** | **37848** | **63070** | **3796** | **1474** | **3375** | **35634** | **46305** | **81939** |

## Table (22)

### Distribution of HEIs Students According to Specialization, Sex, and Type of Institution, 2019 / 2020

| Institution. Type | Sex | Education | Arts & Humanities | Social &Admin. Sciences | Natural Sciences | Engineering | Agriculture | Health Sciences | Services | Unspecified | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Traditional University | M | 4167 | 3972 | 19469 | 6488 | 10347 | 673 | 9646 | 1121 | 47 | 55930 |
| | F | 14392 | 11526 | 23794 | 8288 | 7094 | 406 | 22628 | 373 | 81 | 88582 |
| | Total | 18559 | 15498 | 43263 | 14776 | 17441 | 1079 | 32274 | 1494 | 128 | 144512 |
| Al-Quds Open University | M | 2247 | 891 | 8544 | 1747 | - | 125 | 1237 | | 1023 | 15814 |
| | F | 9280 | 4146 | 12390 | 2633 | 16 | 99 | 2222 | | 1205 | 31991 |
| | Total | 11527 | 5037 | 20934 | 4380 | 16 | 224 | 3459 | | 2228 | 47805 |
| University Colleges | M | 213 | 656 | 2376 | 1002 | 1240 | 22 | 1380 | 119 | | 7008 |
| | F | 1037 | 1223 | 2348 | 473 | 266 | 13 | 2533 | 164 | | 8057 |
| | Total | 1250 | 1879 | 4724 | 1475 | 1506 | 35 | 3913 | 283 | | 15065 |
| Community Colleges | M | 148 | 279 | 1665 | 713 | 1652 | | 591 | 80 | | 5128 |
| | F | 559 | 409 | 2056 | 430 | 211 | | 1448 | 22 | | 5135 |
| | Total | 707 | 688 | 3721 | 1143 | 1863 | | 2039 | 102 | | 10263 |
| Grand Total | M | 6775 | 5798 | 32054 | 9950 | 13239 | 820 | 12854 | 1320 | 1070 | 83880 |
| | F | 25268 | 17304 | 40588 | 11824 | 7587 | 518 | 28831 | 559 | 1286 | 133765 |
| | Total | 32043 | 23102 | 72642 | 21774 | 20826 | 1338 | 41685 | 1879 | 2356 | 217645 |

Regarding the workers in higher education institutions for the academic year 2019/2020, their numbers and classifications are shown in **Table 23**. It shows that the total number of employees in all Palestinian higher education institutions reached 16,765 (4068 females, 12 697 males), i.e., an increase of 1181 more employees than it was in 2014/2015, which is a small and negligible increase, especially in the number of academics, s their number in open education decreased by about 600, in line with the decrease in the number of students at Al-Quds Open University, while it slightly increased in traditional universities. This indicates an increase in the number of those who work with a greater academic load than the usual load, especially since the number of students, as we said earlier, is increasing.

Regarding the workers in traditional universities only, we note that the "educational academic" category constituted 43% of them, the "administrative academic" constituted 4.5%, and the "researcher academic" almost zero%. That is, faculty members in traditional universities make up less than 48% of the working body in them, and this is not much different from what was in 2005/2006 and 2014/2015. These percentages are not consistent with the optimal percentage (two thirds are academics and the rest are administrators and non-skilled workers). In terms of the relative distribution of males and females working in traditional universities, we find that the percentage of females is small and did not exceed 27%. At the level of job classifying categories, only about 23% of females were distributed in educational academic, educational administrative, and academic research categories (teaching faculty members), which is a small

Table (23)

Distribution of Employees in HEIs According to Sex & Functional Classification (2019/2020).

| Functional Classification | Educational Academic | | Admin. Academic | | Research Academic | | Admin | | Officer | | Teaching Assistant | | Professional Specialist | | Technician & Craftsman | | Unskilled Worker | | Grand Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sex/ HEIs | F | Total | F | Total | F | Total | F | Total | F | Total | F | Total | F | Total | F | Total | F | Total | F | Total |
| Traditional Universities | 1215 | 5019 | 87 | 532 | 7 | 19 | 228 | 768 | 774 | 1694 | 562 | 1031 | 286 | 860 | 23 | 352 | 155 | 1430 | 3337 | 11705 |
| Al-Quds Open University | 200 | 843 | 5 | 95 | 0 | 0 | 42 | 212 | 187 | 443 | 15 | 18 | 22 | 97 | 1 | 19 | 18 | 263 | 490 | 1990 |
| University Colleges | 180 | 826 | 13 | 56 | 0 | 2 | 84 | 225 | 88 | 201 | 111 | 428 | 21 | 68 | 11 | 79 | 46 | 383 | 554 | 2168 |
| Community Colleges | 134 | 377 | 15 | 43 | 0 | 0 | 36 | 94 | 22 | 42 | 52 | 130 | 17 | 84 | 2 | 23 | 21 | 109 | 299 | 902 |
| Total | 1729 | 7065 | 120 | 726 | 7 | 21 | 390 | 1299 | 1071 | 2380 | 740 | 1607 | 346 | 1109 | 37 | 473 | 240 | 2085 | 4680 | 16765 |

percentage. Looking at the rest of the categories, we find that the percentage of female workers in all categories is much lower than males.

As for the data shown in **Table 24**, which relates to the level of the scientific degree held by workers in higher education institutions, we find that holders of a doctorate degree constituted about 27% of the total number of workers in traditional universities, and that the percentage of women among them, that is, those who hold a doctorate degree was 3.6% of the total employees in traditional universities. As for master's degree holders, they constituted about 22% of the total workforce in traditional universities, of whom about 9% were women.

### 1.1.7: Evolution of the Legal - Organizational Status of Palestinian Higher Education:

In light of the legal situation characterized by unclarity under occupation, institutions of higher education registered themselves as **companies** if they were considered as private institutions which are profitable. The alternative was registering as **non-profit, non-governmental charitable organizations** if they were considered public non-governmental organizations and not for profit.

These institutions grew under the umbrella of the Higher Education Council, which was established in 1977 as a supervising, organizing, monitoring, and a funding assistant entity. The Council, in cooperation with unions of workers in higher education institutions, was able in 1991 to adopt the unified cadre system for university staff, where it unified the

Table 24
Distribution of Employees According to Sex and Degree Level in Year 2019 /2020

| Functional Classification | PhD | | Master | | High Diploma | | Bachelor | | Two year's Diploma | | Tawjeehi | | Less than Tawjeehi | | Unspecified | | Grand Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sex/ HEIs | F | Total | F | Total | F | Total | F | Total | F | Total | F | Total | F | Total | F | Total | F | Total |
| Traditional Universities | 424 | 3127 | 1074 | 2550 | 7 | 17 | 1269 | 2933 | 301 | 815 | 86 | 656 | 145 | 1250 | 27 | 40 | 3333 | 11705 |
| Al-Quds Open University | 39 | 372 | 183 | 1093 | - | - | 148 | 467 | 66 | 153 | 36 | 168 | 16 | 202 | - | - | 488 | 1990 |
| University Colleges | 30 | 235 | 168 | 502 | | 9 | 215 | 736 | 82 | 234 | 7 | 56 | 40 | 225 | - | - | 542 | 2168 |
| Community Colleges | 7 | 31 | 74 | 274 | 3 | 14 | 134 | 357 | 57 | 132 | 8 | 50 | 11 | 66 | - | - | 294 | 902 |
| **Grand Total** | **500** | **3765** | **1499** | **4419** | **10** | **40** | **1766** | **4493** | **506** | **1334** | **137** | **930** | **212** | **1743** | **27** | **40** | **4657** | **16765** |

salaries, which are the major expenses for universities, and thus reduced opportunities to compete in attracting faculty members between universities, and increased the possibility of universities to retain its staff, whether academic or administrative. With the economic changes that have emerged during the 1990s from rising living costs and changes in currency exchange rate, amendments were made to the unified cadre system in 1997/98 with the approval of the Higher Education Council, which, as mentioned earlier, has maintained its structure in the Ministry of Higher Education. The unified cadre is maintained and applied in public universities to this day.

In the framework of the legal development of higher education under the Palestinian Authority, it is worth mentioning that the Palestinian legislator issued in 1998 the Higher Education Law Number 11, which defined the role of the Ministry of Higher Education as the following:

- General planning for higher education and scientific research, and supervision of higher education institutions in accordance with the provisions of the law and its regulations.
- Licensing and accreditation of higher education institutions, and recognition of Arab and foreign higher education institutions.
- Providing sources of additional funds necessary to cover the expenses of higher education institutions and determining their basis of distribution.
- Determining the number of students allowed to be admitted to each higher education institution.
- Equivalence and accreditation of higher and secondary education certificates or their equivalents.

In 2002, the Accreditation and Quality Assurance Commission (AQAC) was established in the Ministry, whose first task was to accredit all existing higher education institutions with all its programs, considered them legal and recognized them, and issued a manual clarifying the provisions and mechanisms of initial licensing of new higher education institutions, in addition to establishing the accreditation process for new institutions, colleges, and programs.

# CHAPTER TWO

## Challenges of Palestinian Higher Education

# Chapter 2

## Challenges of Palestinian Higher Education

## First: Financial Challenges:

### 2.1.1: A Brief History of Funding of Palestinian Higher Education:

The Palestinian Higher Education System, especially the universities, faced since the beginning of its establishment in the mid-1970s and early 1980s, many obstacles, challenges, and restrictions imposed by the occupation and reflected negatively on its development. The most important of these challenges was how to secure, and cover the current capital expenditure of the institutions of higher education, which were established to provide the opportunity for Palestinian students, males and females, to enroll in national higher education at the level of two years diploma and bachelor's degrees to reduce emigration abroad. The occupation-authority imposed restrictions on building permits of university campus buildings and on the amount of money allowed to enter from abroad for the construction of these buildings and others. Most of these sources were from Palestinian communities abroad, and from the PLO's national fund and from Arab and European countries. The expenses and operating expenses were covered by a small percentage of the fees paid by the students. The fees were modest and in line with the level of the average income of the Palestinian family, and the rest of the expenses were covered by the PLO, Palestinian National Fund through the council of higher education. In the late 1980s, the popular "Intifada" (uprising) broke out in

the West Bank and the Gaza Strip, resulting in almost complete closure of higher education institutions, therefore teaching was partially transferred to homes and halls in towns and villages outside the campus. Moreover, a collapse of the economic life of workers took place. In addition, higher education institutions suspended its collection of fees during the period of the Intifada, but the management of institutions of higher education remained committed to pay the salaries of employees, and thus the contribution of fees and premiums in the coverage of operational expenses was reduced consequently. Thus, it became more difficult to cover operational expenses. As a result, the institutions froze many construction projects, and the hope remained on the support from the Palestine Liberation Organization (PLO) fund, which had increased its responsibilities. The situation worsened after the Gulf War in 1990 (Iraq-Kuwait), which resulted in a significant reduction in support from the PLO Fund. This was a serious warning bell of drought of the major source of funding.

However, the institutions of higher education continued to operate under this stifling financial crisis. They opened their doors regularly in 1992 after the end of the popular uprising. They did not increase the academic credit-hour fees and continued their march with difficulty until the establishment of the Palestinian National Authority (PNA) in 1993, which took the role of the Council of Higher Education, and became part of its administrative structure but without activation, and initiated the work of coordination with the higher education institutions but with no funding functions. The financial situation remained unchanged until the arrival of

temporary relief in 1995, when the EU provided financial assistance to Palestinian public universities, sufficient to cover a large part of the salaries of its employees. The European support continued annually till 1999.

After the end of European financial assistance, the Palestinian Authority allocated 15 million dollars in its budget for the year of 1999 to support public universities in case of emergency. Thus, the birth of a local funding source was shown annually in the budget, even if it was for emergencies or if it was an external support for the authority budget. In addition, the institutions of higher education began serious attempts to raise the credit hour fees in some specialties, and was strongly opposed by the student councils, which called for strikes as a result and were suspended for hours and days, and usually ended with negotiations with the student councils to accept raising the credit hour fee for some programs and so on. This prompted the universities' administration to consider accrediting new programs where they can set new prices at higher rates for credit hour fees as they wish without facing confrontations with student councils. This was successful, especially for master's degree programs. Especially with the emergence of new master's programs in humanities, administrative and social sciences and many more. Most of these programs were covered by the students' premiums and fees that included operating expenses and ongoing expenses, and probably made profit as well.

In 2002, the Ministry of Education and Higher Education, with the support of the World Bank, succeeded in issuing a strategy for financing Palestinian higher education, which focused on the establishment of a university support mechanism through vouchers for students with high

achievement, low socioeconomic status (from poor families), and who are enrolled in a program of priority that fits market needs. In addition to establishing a lending fund for the rest of the students and establishing a fund for the development of quality, and teaching methods in institutions of higher education. The Ministry also succeeded in establishing the Accreditation and Quality Assurance Commission (AQAC).

In 2003, the Ministry reactivated the Council of Higher Education, which was able to formulate a formula for the distribution of financial support in budget to public universities. The total support ranged from an average of $ 8 million to $ 20 million a year, which was always less than the actual deficit in universities and the planned amount needed as described in the budget.

And since then, until 2018, the Palestinian Authority allocated an amount of its budget on paper to support institutions of higher education in covering its operating expenses. It distributed only part of it - depending on its capacity and the availability of external support to the budget - in accordance with a formula previously approved by the Higher Education Council. This governmental support did not cover the deficit in university budgets. As a result, some universities could not pay full salaries (only 80%) of the salaries. Sometimes, certain universities borrowed from banks to cover all salaries of their employees. Others, resorted policies that increase the financial return, but at the expense of quality. In other words, the financial crisis was still in place. In addition, some universities have managed to build new luxury buildings and equip laboratories with modern equipment and technology. However, such capital expenditures were

donated by Palestinian or non-Palestinian donors, who were usually honored by the establishment of the building, laboratory, or theater after their names. Whether from a person, a charity, or an institution, such support was restricted and implemented in the construction area and within the time specified, and there was no opportunity to use it or part of it for operational purposes or salaries.

### 2.1.2: Sources of Income of Institutions of Higher Education and their Operating Expenses:

There are four main sources of income for Palestinian higher education institutions, which varied in size and importance over time:

1. Student tuitions and fees: This is a self-income source, classified as the major source, and its contribution varies in covering operating expenses from one institution to another. In some, it has a contribution of 40-50%, and in others up to 60%, but not more than 80% at its best. These ratios changed over the years in institutions depending on the availability of other sources of income and in opposite relationships: the more reduction in other resources, the more the contribution of this source. The increase in the amount of this source is not as a result of the increase in the price of the approved credit hour significantly (and in line with the size of the annual increase in operational cost), but due to the acceptance policy of accepting more students than the listed capacity in certain disciplines, which results in low quality of teaching and outputs.

2. The return of research, advisory, commercial, and investment activities. This is a second source of income and is often referred to as self-generated income. The contribution of this source in covering the operating expenses varies from one institution to another according to its research and consultancy services to the surrounding community and beyond. This source includes rental of facilities and service units such as bank branches, cafeterias, in addition to joint projects with different production sectors. The return on such activities contributes to 4-10% of the operating expenses at a higher education institution according to the literature of the Higher Education Council.
3. Grants, donations and assistance: This is often an external source, such as the European Union grant in the second half of the 1990s, Saudi Arabia's grant to students as assistance in covering their tuition fees, and other Gulf countries, as well as aid from charities, ecclesiastical institutions, and educational institutions. This source is not reliable in terms of its sustainability as it fluctuates from year to year. Sometimes it is represented by capital support for infrastructure or facility construction and is not allowed to cover running expenses. Therefore, its contribution to the coverage of operating expenses is small and negligible.
4. Governmental support from the Palestinian Authority budget: Here we must distinguish between two forms of governmental support: the first is allocated in the annual budget of the Authority to spend on **governmental** institutions of higher education (governmental universities, university and community governmental colleges), salaries and others, where a governmental university employee takes

their salary directly from the Ministry of Finance, like the teacher of a public school, and who is subject to the civil service law applicable to most Palestinian National Authority (PNA) employees. This expenditure constitutes 1.4% of the total expenditure allocated to public and higher education, which is between 16-18% of the annual budget expenditure. (PNA Budget, 2014). The second form is what is allocated in the annual budget to support **public** universities, which is estimated to be twenty million dollars, and distributed according to the formula approved by the Council of Higher Education and was modified slightly more than once by the different ministers. This support is an emergency support and is not spent as a whole, and is not considered owed to public universities, therefore, what is not given to public universities in a given year from the total, is not considered to be saved for this university in the following year.

Operating expenses include salaries and their dependents such as the end of service indemnity and savings fund, which usually accounts for more than two-thirds of the total expenses, and then the expenses of stationery, telephone, electricity, water, maintenance, cleaning materials, in addition to travel expenses, conference attendance, research work, the hosting of researchers and academics, rental of facilities and headquarters as liaison offices and relations. Such expenses are usually shown in the annual budget book of the Public University **distributed in units and sections so that educational and non-educational costs easily calculated**. For example, the expenses of the following operational units can be considered as **central expenses**: the Office of the Rector, the Liaison Office, the Office of the

Vice President for Academic Affairs, the Office of the Vice President for Administrative and Financial Affairs, the Office of the Vice President for Planning and Development, the Department of Public Services , Computer Department, Public Relations Office, Engineering Office (Maintenance), Employees Compensation at End of Service, Employee Health Insurance, Asset Insurance, Asset Depreciation, Office of External Relations, and Bank Interest on Loans.

The expenses of the following units may be considered as **supporting educational expenses:** library expenses, registration or admission fees, and students' affairs expenses. **Educational expenses** are the expenses of each academic program or department such as Faculty of Arts, Faculty of Engineering, and so on. In addition, there are **expenses of community units**. These include units of: Continuing education, community health, private sector unit and such. The expenses of cafeteria units, clinics and student housing are classified as **service expenses**. It should be noted that the expenses of community and service units should not be included in educational cost accounts because these are units that are supposed to be profitable or at least able to cover their expenses, whereas central and support expenses are included in educational expenses.

There are operating expenses of another type that Palestinian universities and some other higher education institutions have. These are the salaries of employees who are detained in occupation prisons, exemptions for students who are children of martyrs, and exemptions for students who are wounded or sick or coming from a very low socio-economic status.

### 2.1.3: Scenario of an Annual Financial Crisis:

Here we present a real financial analysis conducted by Kamal (2008), in a study to develop the "unified cadre" of Palestinian university employees and commissioned by the Palestinian Higher Education Council. The study covered many topics, including a summary of the 2007 budget for eight general Palestinian universities: Islamic University of Gaza, Birzeit University, Palestine Polytechnic University, Al Quds University, Bethlehem University, Al-Azhar University, Hebron University, and An-Najah University. **Table 25** shows the value of expenditures, revenues, and then the deficit, based on this study.

**Table 25** shows that salaries accounted for 71% of the total operating expenses in eight universities, which amounted to about 80.5 million Jordanian dinars (JD), while the remaining expenses accounted for 29% (electricity, water, stationery, maintenance, travel and such). It is also clear that the salaries of academics are almost double the salaries of administrators and service workers in universities (37 million JD compared to 20 million JD). In terms of revenues, premiums and fees as a self-income source contributed to 79% of total revenues and covered about 71% of operating expenses, whereas the contribution of research return as another self-income source covered only 2% of operating expenses. This confirms that the main source of income is the students' fees and tuitions. The return of research, continuous education activities, and community units is very small. Thus, these institutions were teaching universities and nothing else. It is also noted that donations and grants covered about 7% of the expenses. These donations are not permanent and thus are not reliable. Government

support from the Palestinian National Authority, amounting to about seven and a half million JD (about $ 11 million) for that year, covered about 9% of the expenses. This support is distributed according to an equation set by the Higher Education Council in the form of a percentage of each of the available support values and is given as semi-monthly payments.

**Table (25)**
**Financial Analysis for Eight Palestinian Public Universities, 2007**

| Operational Expenses | | | Income | | | |
|---|---|---|---|---|---|---|
| Item | Amount (JD) | % | Item | Amount (JD) | % | % covering expenses |
| Academic Salaries | 36864797 | 46 | Semester Fees | 54787067 | 75 | 68% |
| Administrati. Salaries | 13528752 | 17 | Applicati. Fees | 2845377 | 4 | 3% |
| Services Salaries | 6916497 | 8 | Total Fees | 57632444 | 79 | 71% |
| Total Salaries | 57310047 | 71 | Self Generated Income | 1751604 | 2.4 | 2% |
| Others | 23256915 | 29 | Grants | 5999067 | 8.4 | 7% |
| Total Operational expenses | 80566962 | | Governmental Support | 7407992 | 10.2 | 9% |
| | | 100 | Total Income | 72791107 | 100 | 90% |
| | | | Deficit | 7775855 | | 10% |

Total revenues from all sources amounting to about 73 million JD covered 90% of total operating expenses, leaving 10% uncovered as a real deficit of 7.8 million JD. This deficit varies in value from one university to

another. Its value in each university without mentioning the universities' names is as follows: 1,600,000; 185,807; 720,953; 3,488,148; 58,908; 983,176; 125,231; 2,306,000; and a total of 7,775,855 JD.

This scene does not reflect a severe financial crisis compared to other scenes in several years. In 1999, public university employees did not receive full or partial salaries for many months (three months at Al-Azhar University from April to June, Al-Quds University for six months, Hebron University for four months, Birzeit University for two months). In 1998, students' fees and tuitions covered only 54 percent of total operating expenses. Despite European aid of $ 8.7 million to public universities, they suffered a fiscal deficit of more than $14 million.

For more explanation of the causes of the financial crisis, here is a set of relevant financial indicators. In the 1990s, the fees for a credit hour at the Faculty of Arts and Commerce - which had the largest proportion of the student body - averaged about $28. The basic salary of a faculty member as assistant professor in their first appointment year was about $650. The price of a kilowatt of electricity is 0.15 Israeli shekels (NIS), and a credit hour in the faculties of arts and commerce costs the university around $40. Therefore, there will be a financial deficit realized unless there is support or assistance.

In the years of the second decade 2010+, the credit-hour fees in the two faculties increased to an average of $60, an increase exceeding 100%. The increase was followed by several negotiations with student councils during which several strikes took place during the years. The basic salary of the

assistant professor at their first appointment year was $2,300, (increased 400%) and the price of a kilowatt of electricity increased to 0.65 NIS (increased 400%). Similarly, one credit hour in the two Faculties started to cost the university $150 dollars (increased to about 400%).

This comparison clearly shows that university operating expenses increased by 400% in two decades, whereas premiums and fees as a major source of income increased by only 100%. To make matters worse, governmental aid from the Palestinian Authority has not increased and fluctuated between 40 - 70% of the annual budget allocation of $20-40 million. In other words, the financial crisis is permanent, and public universities are like a sick man; his treatment depends first on raising premiums and this is not possible, because the reality is that about 73% of students find it difficult to pay their fees (Human rights center, 2005), and second to raise the value of governmental support from the Authority, which is not possible, because the budget suffers an annual deficit of about one billion dollars, increasing or decreasing by hundreds of millions according to external support policies.

### 2.1.4: Public Universities' Policy to Face the Permanent Financial Crisis:

The observer of the process of higher education finds that the Palestinian public universities maintained their survival to fulfill their first mission, which they were established to achieve. They managed to coexist with the financial crisis through various methods and policies, including:

- Credit from local banks that is sufficient to cover shortfalls in employees' salaries for several months. Such an appeal has been repeated at some universities more than once, and it has solved problems but accumulated interest, and increased the volume of indebtedness in others.
- Borrowing from university's employees (Not paying full salaries). Some universities have been unable to pay full salaries for more than ten years, and thus became in debt for its employees as a sum of millions.
- Credit from the savings fund and the end of service fund. The evidence is clear on that and at more than one university. For example, if three faculty members retired in one month at a given university, the University might be unable to pay the value of their dues at one time. The situation is even worse at other universities where they cannot pay one full pension, but in installments and for many years.
- Seeking financial assistance and donations from foreign sources. The Board of Trustees of certain universities have been able to obtain aid and donations from institutions in foreign and Arab countries and sometimes from Palestinian businessmen, helping to exit a temporary crisis.
- The policy of postponement and delay in the payment of certain dues, such as the allowance of living expenses and other financial claims until the students pay their tuition fees or government support and such are available.

- The reluctance to appoint new employees on a full-time basis, and the inability to retain the academics with high scientific qualifications who sought other places to work in such as neighboring or foreign countries with vital scientific research, and economic environment.
- Changing admission policies, such as increasing the level of "Muwazi" acceptance in medical and engineering disciplines, in which the accepted "Muwazi" student pays a higher tuition rate for not meeting the standard requirements of acceptance. Moreover, increasing the volume of admissions in art disciplines such as education, law, sociology, and languages exceeding their capacities in order to collect more fees and tuitions without considering the increase in the number of students in one division or class. Some universities started to give some courses in large halls instead of regular classrooms to decrease costs.
- This increase in the number of newly admitted students was not accompanied by the appointment of new teaching staff. Instead, the load of teaching of a faculty member increased from 12 hours per week to 15 or 18 hours. Thus, one teacher could teach an additional quarter-load or half-load, but the salary to cover this overload is less than the salary needed to appoint a new faculty member. Sometimes, if this option is found, faculty members are appointed on a part-time basis, which is also becoming more frequent than permanent employment because it is cheaper. It is not surprising that the total number of extra work hours for faculty members in public universities exceeds one thousand hours in one of the semesters according to the database of higher education in the ministry, which equals to employing about an additional eighty

faculty members. This policy has succeeded in increasing the contribution of fees and premiums to cover the operating expenses of universities. The fees covered 54% of operating expenses in 1998 but was able to cover 71% of them in 2007, as has been said previously. In some universities, students' fees now cover 100% of operating expenses after making changes in admission policies, disregarding quality standards.

- Increase in opening master's programs in fields that do not require experimental labs and applications, such as administration, business, education, teaching methods, political science and community studies, as well as some disciplines in natural sciences. These programs provide an opportunity for universities to raise fees and premiums to cover all operating expenses and may generate profits. This was relatively acceptable because the target group of students are mostly working employees, and full-time students in the master's programs are very few and negligible, therefore, are taught after their regular working hours and weekends. Most of these programs do not require the writing of a master's thesis, but rather the work of a Seminar. There are other motives that have increased the interest of universities to open master's programs. For instance, master's programs provide opportunities for collaboration and establishing joint programs with European and American universities, which are supported financially. They are also supported with academic staff in whole or in part, which facilitates their adoption by official authorities and facilitates their rapid establishment.
- Focusing and continuing interest in obtaining joint projects with local, Arab, and foreign universities through European programs such as the

Tempus program, and the World Bank program in the Ministry of Higher Education, in which the university may benefit with some laboratory equipment and computers, in addition to benefiting from the temporary retention of several hundred thousand dollars before spending them as per the project plan.

- The universities tried to raise the price of credit hours in some programs slightly, this provoked student-strikes, and succeeded in achieving a small increase in income after negotiations with students unions, which ended with positive understandings on a small proportion of increase, but universities could not collect all fees in full with the beginning of each semester. Instead, the amount was paid in installments that could be delayed till graduation for a considerable proportion of students.
- In parallel with the above, the boards of university trustees were working to find Palestinian or Arab businessmen or an Arab charity organization and convince them to the full funding of a new educational building, and encouraging them by naming the new building after them. Most of them have succeeded in this, which gives a great developmental impression to visitors, parents, new students, and officials in different sectors. Unfortunately, there were no buildings established for technical education or ones equipped with unique equipment of high-quality, not even a library building that provides all scientific journals and reference books in different fields.

All the policies mentioned above disregard quality measures and standards. For instance, the ratio of students per faculty member increased to 1:36 (internal report, 2011). The level of performance decreased, and the levels

of teaching and evaluation methods declined; how forty to fifty students could be taught and allow for discussions and experimentation in one class room? And how the achievement of students could be evaluated without traditional exams in this case? The opportunities for presentations or discussions are not possible, and therefore many of these skills are not acquired by students who graduate. They will also miss many of the applied knowledge in their field of specialization. Therefore, it can be said that the universities maintained their continuity but did not maintain the level of quality required. Thus, their performance declined which impacted the quality of graduates pumped into the job market. One may say: While this is the case, then how some Palestinian universities were mentioned among the top 50 universities in the classification of the global QS of universities? The answer is that the classification criteria do not focus on the graduate, their level and skills, but on other issues.

### 2.1.5: The Model Needed to Get Rid of the Financial Crisis While Maintaining a High-Quality Level:

To maintain a high-quality level, it is essential to ensure that there are standards to achieve quality and to apply them fully and effectively. These standards may be set by the supervising Ministry, the Accreditation and Quality Authority, or the University Councils. These standards must be in line with international standards, in order to guarantee that the graduates could compete globally either to work or to have higher education abroad. Such criteria include, but are not limited to, the number of students per full-time faculty members at the bachelor's, master's, and doctorate levels; the ratio of full-time faculty members who hold master's degrees to the ones

who hold doctorate degrees; the proportion of part-time faculty members to total number of full-time faculty members; the teaching load for staff members according to their rank; work load of lab technicians; number of students in a classroom; number of classrooms. The question now is: What is the size of the university's operational expenses? And / or what will the university spend as annual teaching cost per student per year?

This cost is called in higher education "the annual **standard cost**" of the student, and must be calculated here. Thus, a financial model could be proposed to get out of the crisis while maintaining a high-quality level. To facilitate the process, the focus will be only on one main criterion: the proportion of students per full-time faculty members with the average size of students in a class. We will distinguish between disciplines but at the bachelor level. The average number of students per class in humanitarian and social programs is 27(*as a norm*), so that the number of students per faculty member is 22:1. In the medical, engineering, and natural sciences programs, the average number of students in the class is 22, which leads to a ratio of 18:1 student per faculty member. The relationship can be clarified in that the student registers 30 credit hours per year while the full-time faculty member teaches 24 credit hours as the academic load per year. Therefore, the average of students in a class is equal to ((the number of students per faculty member) * 30) ÷ 24. The process of calculating the student's standard cost per year is as follows:

1. The start point is the average of actual monthly salary paid by the university to faculty members according to the unified scale or cadre system. This salary is realistic and is currently accepted by the unions

of university workers and university departments, but **it does not prevent from migration of competencies and does not compete with the salaries of private educational institutions or regional institutions**. The salary estimation here was based on information provided by the salaries' department at three public universities, considering the salary value according to the unified cadre system for a faculty member in the third degree (rank of an assistant professor and an experience of 8 years (step 8) of teaching). Then, the final average was calculated to be 1900 dinars not including compensation for the end of service (one-month salary for each working year) nor the savings fund (6% of the salary paid by the University to the Savings Fund). Thus, the dues of a faculty member per year are as follows: (1900 * 1.06 * 12) + 1900 = 26,068 JD per year.

2. The administrative employees and the unskilled workers are paid less. Their salary was estimated in the same manner as previously explained to be 960 dinars, so the non-academic salary per year is as follows: (960 * 1.06 * 12) + 960 = 13,171 JD per year.
3. Now, the calculation of the ratio of administrators to academics: In most universities, the ratio is almost 1: 1, and in some of them, each academic corresponds to 1.2 administrators, and the opposite may be true (1: 0.8). But according to the standards and what is needed for a successful educational process, the ratio should be 60% academics: 40% administrators (1: 0.66). Therefore, each faculty member should correspond to 0.66 administrator and unskilled worker. Thus, the non-academic cost associated with each faculty member is 13171 * 0.66 = 8693 JD.

4. It remains to calculate the share of the salaries of both the teaching faculty members and the administrative employees from the rest of the university's operating expenses. According to the data, both salaries accounted for 71% of operating expenses, and therefore 29% of the operating expenses are non-salaries, which is accepted according to international standards. In other words, the academic and non-academic staff's share of the standard non-operating expenses is 14,198 JD per year.
5. From the above, it can be concluded that the standard annual cost of a faculty members and the associated non-academic costs and other non-salary operating expenses are as follows (26,068 + 8,693 + 14,198 = 48,959 (JD)) .
6. Thus, the cost of a credit hour taught by a faculty member is (48,959 ÷ 24 = 2,040) dinars.
7. The cost of a credit hour taken by students in scientific disciplines with average number of students in a classroom is 22 equals to 2040 ÷ 22 = 93 JD, and in literary disciplines where the average number of students in the classroom is 27 equals to (2040 / 27) = 76 JD. Assuming that a quarter of the students are in the scientific fields, the average cost of the student hour at the university is about 81 JD, which is equivalent to 114 dollars.
8. The annual student cost of the university can be calculated at the scientific and literary faculties. Since the ratio of students to faculty members in scientific faculties is 18: 1 and in the literary faculties is 22: 1, then the annual student cost is as follows: (48,959 ÷ 18 = 2720 JD in scientific faculties, (about 3,808 dollars) and (48959/ 22) = 2225 JD in

literary faculties (about 3,115 dollars). Assuming that a quarter of the students are in the scientific fields, **then the average cost of a student at the university is about 2,621dinars (3,670 dollars) per year**. We can get the same result by multiplying the cost of the credit hour at the level of the student by the number of hours studied.

In comparison to what the student currently pays for the hourly fees in literary fields, the student pays about 35 – 65% in Palestinian public universities. For further explanation, we show the sources of income and expenditure in **Figure 4**.

Figure 4 shows the following:

1. To compare the calculated cost of a student's credit hour with what the student pays for a credit hour in public universities, we calculate the price of a credit hour in more than one faculty, and then calculate the average of these, and repeat the process in more than one public university. We found the average to be 60 dollars as calculated in internal reports. This is half the cost of the university-approved credit hour, as well as half of the annual student cost (1800 compared to 3670 dollars). In addition, it should be taken in consideration that not every student pays tuitions, because there are exemptions and grants that include: exemption for the sons/daughters of university staff, sons / daughters of martyrs, sons/daughters of prisoners, and families whose income is very limited and their children are of an outstanding academic achievement. There is also the possibility for tuition and fees to be paid as installments or deferred debts, which leads at the end of the year to "non-obtained" fees that are estimated to be 15 – 20%.

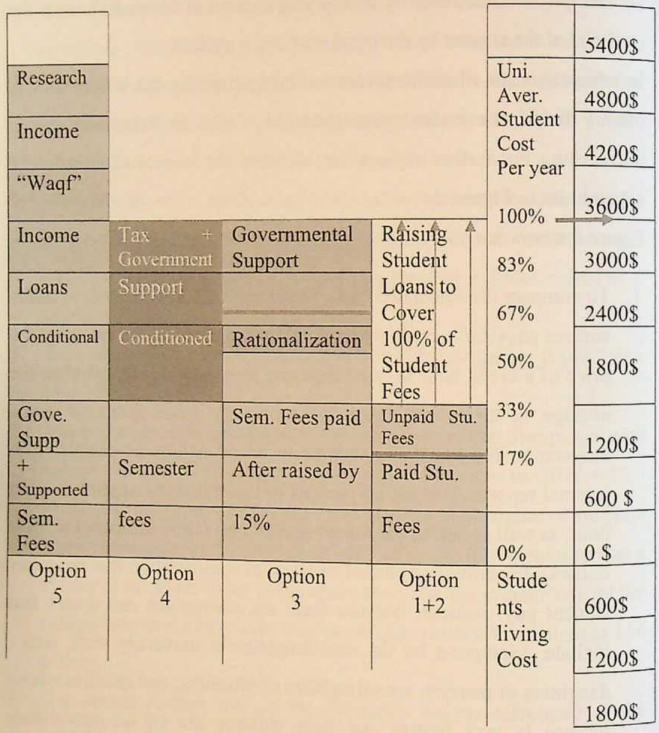


**Figure (4): Annual Standard Cost of Student in a Public University**

2. In analyzing the other annual income sources such as: self-income and temporary non-permanent donations which are of small value, it could be ignored. So, the main support remains to be from the Palestinian Authority, which covers about 10% of operating expenses (about $370 per student annual cost).
3. The fiscal deficit or the financial crisis is still an existing problem that needs to be solved. We propose here the following models or options to solve the financial crisis. These options could be a reasonable solution, especially that they maintain a quality level:
    - **The first option**: is to raise the value of premiums and fees to cover the student annual standard cost, this means to raise the price of one credit hour to one hundred dollars. This option is unrealistic and inapplicable because the student standard cost is twice that of the Palestinian individual's average income. A student who relies on his/her family to pay for their education knows that this is a heavy burden and the family will not be able to pay it. In a sample of 1370 students, 72.8% said their families have difficulty paying their tuition and fees, whereas 23.5% have no difficulty, and 4% have no opinion. (Center for Human Rights, 2001). In addition to the tuitions, the student's family also pays the student's living expenses (transport, accommodation, eating, books, and personal expenses), which are more than half of their annual standard cost, as shown in **Figure 4**.
    - **The second option:** is to exempt the student's family from paying tuitions and fees and to provide the university with the opportunity to collect the fees in full without installments or debts by providing

a centralized loan fund able to loan each student in need an amount that covers the annual cost of tuition and fees and the cost of living of about 4500 dollars annually, i.e., about 18 thousand dollars during a four-year study. Such a loan fund will find appropriate support from external and internal donors if it proves to have an efficient management and a reasonable repayment and recovery method. During the years 2002-2007, the following entities summarized in **Table 26** provided funding for the Loan Fund, which was set up in 2002 at the Ministry of Higher Education for about $124 million as follows (BECDAR study, 2009):

**Table (26)**
**Financial Sources of the Student Loan Fund, period 2002 – 2007**

| Supporting bodies | Amount $ | Number of students benefiting (with repetition) |
|---|---|---|
| Arab Funds (sanadeeq) | 73000000 | 347228 |
| Islamic Development Bank | 20929705 | 106755 |
| Saudi Committee | 29602681 | 57233 |
| UNESCO | 50000 | 250 |
| Holy Land Fund | 110000 | 222 |
| Red Crescent in Qatar | 99600 | 150 |
| **Total** | **123791986** | **511836** |

Unfortunately, this money went to needy and un-needy students as assistants or grants and not as loans during this period, and the Loan Fund was unable to recover these millions. In 2008, the new Loan Fund was reinstated with the administrative support of UNESCO and the World Bank, and a strict system was set up on criteria of beneficiary, value,

repayment mechanism, and guarantor. But the number of applying students for this fund has declined considerably. This subject needs a study to find out why. There are many factors that need re-evaluation and activation. And if the Palestinian Authority supports this fund directly rather than university accounts, the Fund's resources will be revived, and trust will be restored. This will create a new desire for students and their families to apply for loans from the fund, especially if the student can delay the start of repaying the fund a year or two after their graduation.

- **The third option:** This option is to raise the university credit hour price according to the rate of increase in the costs of living and the price of electricity and water, which is estimated to be 4 – 9%, and is less than fifty to one hundred dollars increase in the annual cost of the student. This should be discussed and arranged with student councils, so they do not consider it a new event that requires strikes and closures. Simultaneously, the university administration works on adopting a policy to reduce costs. For example, replace paper messages and telephone calls by e-mail and electronic paper archiving, and to reduce the number of administrators and service workers to the standard percentage of full time academic (60-65% academic: 35-40% administrative), in addition to not replacing retiring or resigning faculty members at once but gradually and for certain positions only. For examples, one secretary can work in two academic departments on one floor, each employee can be responsible for his/her tea and coffee without needing to hire a person to handle that, and so on. In terms of grants and exemptions offered by the university to students, the universities should work on agreements with the Palestinian Authority

that the exemptions for the sons/daughters of martyrs, prisoners, and severe social cases are covered by the relevant authority institutions such as the Ministry of Social Affairs and the Prisoners and Martyrs Authority. Regarding installment payments that are paid beyond graduation, the universities should direct these students to the existing lending fund. Thus, the university can collect all the premiums or the larger percentage of them, as the exemptions are only left for the children of university workers only, that is, the value of the collected premiums rises to about 67 – 75% of the average costs, which should decrease using the policy of decreased consumption and raising the premiums by the cost of living. These measures may cover the operational costs if not calculated as a standard cost and if the size of students in each class is between 35 to 60 students. As for the rest of the costs, it can be covered by the support of the Palestinian Authority as needed, with a review of the percentages on which the authority determines the share for each university.

- **The fourth option** is to maintain the rationalization policy or the reduction in consumption policy, and not to raise the premiums except only once every 4 – 6 years gradually without exceeding the increase in costs of living. The rest of the annual operating costs are covered by a funding policy adopted by the Palestinian Authority and the private sector, which is summarized by the following: The decision is to take about 0.5 – 1% (or any ratio experts of finance and economy from the Palestinian Authority suggest) of the total value of revenues of certain companies and factories, specifically cigarette and fuel companies, then deduct that value from their income tax. This amount will be donated to

universities. If these are not enough, then its value can be raised by imposing a value of 0.5 – 1 JD (or such) on some types of government transactions such as registration of a new car or licensing a car of a certain type and of a certain year and so on. These funds shall be collected in a special fund or financial account in support of higher education. A committee shall then be assigned by a group of experts in the management of institutions of higher education and outside the Higher Education Council to distribute these funds according to a new mechanism (not the old one) that ensures the quality, and future development of each university. Thus, support will be a tool to achieve quality and evolution and not to fill the deficit and stay at the same level of performance!! A special section of this book will be devoted to this topic in the third chapter that discusses developmental methods. This option leads to reassuring the university that the operating expenses are covered for a long time. So, it can think seriously about the development of scientific research centers or research teams, which compete in providing research projects funded by a special fund for that purpose from surplus taxes and fees after distributing them to universities ensuring quality and development together.

- **The fifth Option**: This option may be implemented after several years and in later stages that is, after the implementation of the fourth or third option, the University starts an investment through a developmental budget or through an endowment it succeeded in establishing. Beyond that, the University can begin to reap the benefits of scientific research that it has been able to produce in favor of local or external community institutions. Thus, the university becomes a producing institution, that

has specialized full-time researchers and has its own projects and investments that make profits. With this, the standard annual cost of the student increases because the academic load of the faculty member has decreased, the number of academics and researchers has increased, new programs have been developed at the level of PhD, and laboratories, equipment and expensive machine have been available. But everything is covered by a high-rewarding self-funding sources.

These options or models may be able to get universities out of the financial crisis and raise the level of performance and quality, and the conversion of some universities to universities of scientific research.

## Second: The Challenge of Higher Education Inputs:

Developing countries and societies, including Palestine, seek to increase their investment in higher education in order to achieve rapid developmental steps and to create educated individuals as an avenue of pride. The second objective is the priority of every Palestinian family. As a result, students from secondary education aspire to enroll in institutions of higher education in general, and universities in particular, so that the volume of demand for higher education is large and the number of students wishing to join universities exceeds the number of university seats available most often.

Despite the attempts to change the school curriculum in the last two decades, a gap has emerged between the level of education required to enter the university and the level of education provided by public education programs. Therefore, the correlation between public secondary education

(especially the last three years in public education) and higher education remains a complex issue facing those responsible for the development of higher education in Palestine. This difficulty lies in the fact that development in these sectors is not harmonized. In Palestine, higher education usually develops in establishing new institutions and new programs, in accordance with the vision of the boards of trustees and the administration of higher education institutions inharmony with global trends, development measures, and internal and external labor markets. However, the development of schools, whether governmental, private, or affiliated with UNRWA depends on decisions from the central government (the Ministry of Education), which requires a unified curriculum in all, and in accordance with objectives that may differ with the objectives of institutions of higher education.

**In developed countries**, general education in the ninth, tenth, eleventh and twelfth grades includes a system called "units" which allows the students to choose subjects in school in accordance with his/her orientation in institutions of higher education and with the nature of the profession he/she wants in the labor market. A committee was formed by the Prime Minister of the Palestinian Authority in late 2013 under the chairmanship of the Minister of Education and Higher Education and a membership of a group of professional and legal personalities representing 14 different educational sectors to review the education process in Palestine as a whole and propose a qualitative model for promoting public and higher education as an engine for comprehensive development.

The committee **proposed to adopt the system of units** to be applied in Palestinian schools, and substitute for the secondary school general exam (Tawjeehi) as a developmental step to bridge the gap between public and higher education, but the proposal was theoretical and was not realistic because its application needs restructuring and expansion of schools with an increase in the number of teachers and changing/expanding the curriculum, which is very expensive. To illustrate the picture further, let us reflect deeply on the characteristics of a US governmental school in Texas - not to mention its name here - which applies the unit system and have grades 9 – 12. This school offers its students (about 1700 students) more than 220 subjects for the four grades (ninth, tenth, eleventh and twelfth). Some of these courses are compulsory and the rest are optional in which students can choose according to their interest of specialization they want in university. The courses are divided into groups. Each group has a theme name such as science, math, social studies, English, reading, conversation, journalism, languages other than English, Art, technology, architecture, construction, communications, business administration, finance, health sciences, tourism and hospitality, social service, information technology, law, craft industry, marketing, engineering, transportation, private education and others. Each course under these groups has its own name, the timing of its annual calendar, and the number of credit hours per unit. The course given for one semester is equivalent to half a unit, whereas that given throughout the year and at class hours exceeding 120 hours is equivalent to one unit.

From here, you find students in the twelfth grade taking courses different from their classmates in the same grade as well as in the 11th, 10th and 9th grades. The different courses and the different choices of students require the provision of a sufficient number of teachers specialized in each subject in addition to a sufficient number of teaching rooms. Therefore, there are 120 teachers in this school and more than 60 classrooms. The daily teaching rate for a teacher is 8 hours, and the student's is about 7 hours. The teacher assessment of students depends on paper tests and on projects within a group and on homework and presentations within the classroom. The passing grade in a course is 70% or higher. To graduate from the school, it is required to pass more than 24 units (dozens of courses equivalent to a unit or half a unit).

The universities in countries whose schools apply the unit system require the following as its admission criteria:

- The school certificate showing that the student had at least 16 educational units in the desired field of specialization at the university, of which 20 or 25 units are required in grades 9 + 10 + 11 + 12, documenting the final score of each course and the cumulative average.
- The result of the student's examination in one of the standardized exams such as SAT or ACT.
- A student's profile of their educational and practical stations, community services, and their achievements in the various fields, in addition to a letter written by the student in the form of a topic that shows their ambitions and expectations while in the university.

Now, let's try to drop these characteristics on an ordinary Palestinian secondary school. We find it very difficult to prolong the school day because the school may offer classes in two periods (morning and evening) to different groups of students as is the case in the Gaza Strip. It is also difficult to provide teaching rooms that meet the needs of students. Similarly, it is difficult to provide or recruit qualified teachers in many different and unusual specialties, in addition to the lack of government educational funds under the economic and political conditions we live in! From here, it can be concluded that the optional school unit system, which is associated with most university majors, is not applicable in our schools. And when it is oddly available in one or more private schools, it is at the level of choice between **two or three courses** (two or three courses equivalent to two units) and the school applies international standardized examinations and not regular national exams.

This gap cannot be bridged by the exchange of blame between the two parties; university faculty members complain about the low quality of secondary education, and its outputs. At the same time, those in general education complain about the poor qualifications of graduates of higher education institutions and claim they are the reason for the low level of graduates of public education.

In fact, there are many other factors contributing to this, such as the size of students in classrooms, the big load on the teacher, the low salaries, lack of educational qualification, climate, and environment of the school, lack of motivation, lack of attention and follow-up from people and such. At the other side, you may find little development in the accepted students of low

qualifications of graduates of public education, and they face great difficulties of success in universities with minimum grades, where they struggle with the English language and the large size of material of the courses, and eventually graduate possessing a minimum of skills and knowledge. The acceptance policy plays an important role in this, but some Palestinian higher education institutions are forced to accept low-achieving students for more than one reason, including financial ones, and weak turnout in certain disciplines, and so on.

The gap between general (public) and higher education is reinforced by the low level of skills and the quality of information and competencies that students have in their transition from public education to higher education, which was unanimously agreed upon by dozens of faculty members in Palestinian universities compared with the level of students in general education two decades ago of time. When it comes to the opinion of the public education providers regarding the low level and quality of the graduates of schools, some - a small percentage - attribute this to the weakness of the competencies of teachers who are graduates of higher education institutions in Palestine.

The gap becomes a major challenge in the tracks allowed for the student in the eleventh grade, which defines the disciplines allowed in higher education. The "Academic Literary" track allows a student to enroll in art university majors only. Who choose this track are not permitted to enroll in a program of natural, medical, engineering or computer science or in the field of applied disciplines. The track of the "Academic Scientific" allows the student to enroll in all university disciplines, but less than a quarter of

students in the eleventh grade choose this track, so three quarters of the students of the outputs of public education have the opportunity to only enroll in the humanitarian, social, and educational disciplines, - which have no demand in the Palestinian labor market compared to the demand for graduates of medical, engineering and electronic specialties. These are developmental and challenging educational forms that require confrontation and treatment. In addition, there is a "secondary vocational" track in the branches of "commercial", "industrial", "hotel sciences", "agricultural" and "legal" fields, which allows the student to enroll in vocational colleges or university colleges in general. The proportion of students choosing this track does not exceed 3 – 5% of the student body in the eleventh grade.

All Palestinian universities base their policy of accepting new students on a major criterion: the grade of the student in the general secondary exam called "Tawjeehi" and recently named by the ministry as "Injaz" after minor modifications in the way it is presented and in its content. This exam should be defined by the various sections mentioned previously in the form of tracks and levels of success of students, which classifies the path of the student in the university and what disciplines they will study.

**The High School General Exam "Tawjeehi" That Was Recently Named "INJAZ":**

Students in the twelfth grade (the last grade in secondary school) from all branches (scientific, literary, agricultural, industrial, commercial, legal and hotel sciences) at the end of the school year, usually in June, take a general

national exam called Tawjeehi. The exam is of the establishment of the Jordanian Ministry of Education during the period of supervision of the Jordanian government administration on the West Bank from 1948 to 1967. In Gaza Strip, a similar exam under the supervision of the Egyptian Ministry of Education was established and remained valid during the period of Israeli military rule, but the implementation was by the Palestinian public examinations. In 1994, the Palestinian Education Ministry began to provide this test, which measures the student's basic skills in all the subjects he/she has studied. This explains why there are several branches of the exam. This exam is very important from the perspective of the student, as it determines acceptance or non-acceptance in the institutions of higher education with its various programs. The success rate as usually expected ranges from 51% to 62% of the total number of applicants, which lies between eighty and ninety thousand students in the middle of the current decade. The result of this exam is considered the main criterion that the Ministry of Education and Higher Education bases the selection of students for higher education upon. For example, the Ministry of Higher Education (the Council of Higher Education) does not allow students with scores less than 65% to enroll in bachelor programs at Palestinian universities. With limited capacity of Palestinian universities compared to the size of demand, the conditions for accepting some of them will be raised. For example, the 85% mark is the minimum for admission in administrative sciences and 97% in medicine. All this raises the level of psychological anxiety for the student and their family, especially that the period of submission of all exam papers in all materials is long and takes more than two weeks. This encourages students to demonstrate in front of the Ministry of Education after the

examination session when they feel that the questions were difficult. This situation has given the Palestinian High School exam in the last five years a great interest in many official governmental bodies at the level of the Council of Ministers, schools, and non-governmental bodies represented by universities, private educational institutions, students, and parents. This was for the purpose of improvement and development of this exam. Behind this growing and interactive interest is a major motivation to alleviate the anxiety and stress of Palestinian students and their families before and during the examination period, in which cases of neurological collapse and suicide attempts took place, as well as grief and depression, occurred in thousands of families whose children got a low score that does not qualify them to enter universities.

In 2010, the Prime Minister sent a letter to the Minister of Education and Higher Education requesting a review of the mechanism and how to present the Tawjeehi exam to alleviate the anxiety and tension of students and their families. In response, the ministry praised the internal mobility at the level of directorates, schools, partners, educational experts, and doctoral researchers to develop an integrated project that will guide new content, format, and timing. The ministry succeeded in one or two years to present the project as a proposal to the Ministers' Cabinet despite the lack of consensus on the proposal. The main components of the proposal were:

- To provide the exam in two periods and two years: the first at the end of the school year for the eleventh grade and the second at the end of the school year for the same students who were promoted to the twelfth grade.

- Restructuring of the courses and their timing in grades 11 and 12.
- Re-evaluation of the instructions for failing and the weights of the courses and their grading system, and then taking the average for the two years.

This proposal has not been approved by the Council of Ministers for one reason or another, and therefore the Ministry has failed to adopt it and has not implemented it, especially since it has not won a consensus and has been criticized by some groups as doubling costs and concerns. However, interest and discussion remained. The new prime minister initiated in 2013 the formation of the aforementioned committee, which recommended the follow-up of the unit system and the cancellation of the Tawjeehi exam. In light of the difficulty and unrealistic nature of this recommendation, the Minister of Education and Higher Education gave up the recommendation, and proposed a new designation for the exam to become "INJAZ" rather than "Tawjeehi". The following is a literal quotation of the instructions for "INJAZ" exam as it is on the Ministry's website in 2017:

**Exam times and format**:

***First: First session: to be held in June***

*1. All students participating in general secondary education must be enrolled in this session.*

*2. The participant in this session must apply to all courses.*

*3. The participant in this section who did not succeed in at least five courses in any of the branches is considered a failing student, and he/she must apply the following year in all the courses as a new participant.*

*4. The participant who did not show up in any part of the required courses in the branch of his/her studies is considered absent in that subject, and this result in a "fail" grade for that course.*

*5. Successful participant will be given a "pass" certificate if he/she does not wish to improve their average score during the second session, three days after the announcement of the results.*

***Second: Second session: to be held in August***

*1. The participant in this session has the right to complete the courses in which he/she did not succeed in the first session, or to improve the scores of the courses, which he/she wishes to improve or to complete, and improve the grades of four courses at the maximum. In all these cases, the marks obtained by the participant in this session shall be adopted as the final mark of the course.*

*2. The participant who completed the requirements for success in this session is given a successful certificate and is not entitled to progress in the session to improve the grade or score. Those who have not completed the requirements for success are considered as candidates and will progress as new participants in the following year.*

***Third: The registration for all courses in the second session (August) for "special cases":***

*The participant submits all the courses at the second session (August) or completes some of the courses which are more than four courses that were not completed in the first session (June) for the following cases:*

*1. In the case of acute illness requiring urgent treatment or surgical intervention or in the case of delivery, if he/she submits a medical report approved by the Regional Medical Committee of the Ministry of Health.*

*2. In case of death of a relative of the first degree (father, mother, son, daughter, brother, sister, husband, wife), presenting the death certificate certified by the Ministry of Health.*

*3. In the case of arrest before or during the first session, provided that a document is obtained from the Red Cross.*

*4. The other cases shall be submitted to the examination committee for decision.*

***Fourth: Third Session: Complementary: to be held in December***

*1. The participant in the second session for all the courses and who has two courses listed as incomplete at the maximum is entitled to take the exams for these two courses in this session in one day.*

*2. The participant who passes the exams for the incomplete courses successfully receives a passing score. Those who have not completed the requirements for success get a "fail" score and can apply as a new participant the following year.*

***Article 4:***

*1. categorization of the courses in all branches (scientific, literary, entrepreneurship, technology, legal, agricultural, industrial, hotel sciences, and home economics) to compulsory courses and basic courses.*

*2. Compulsory courses: All scores for these courses are included in the calculation of the general average of the student in the general secondary examination "INJAZ".*

*3. Basic courses: Students are required to succeed in all of these courses, and the marks are calculated for the top two of them in the general average. The mark of the two remaining items in the list of marks shall be monitored, under the condition that the marks of one course from each branch of the following should be calculated in the general average:*

*a. Scientific Branch: "Chemistry" or "Biology".*

*B. Literary Branch: "Geography" or "Religious Education".*

*C. Branch of Entrepreneurship and Business: "Accounting" or "Small Projects".*

*D. Technology Branch (2018): "Digital Electronics" or "Leadership and Management".*

*e. Shareea Branch: Subjects: "Islamic Jurisprudence- Transactions" or "English Language".*

*f. Agricultural Branch: "Biology" or "Mathematics".*

*G. Industrial Branch: Subjects: "Industrial drawing" or "Physics".*

*H. The hotel sciences Branch and the branch of the home economy: any two of the basic courses.*

*4. The student's total number shall be calculated by collecting the marks of all compulsory courses and the top two marks of the basic courses according to item (3) above.*

*5. The average percentage score of the participant in any branch of the exam is calculated by dividing the total scores achieved by the student by the total of the maximum scores of each course used in the average of those branches and multiplying the output by 100.*

***Article 5:"INJAZ" file:***

*The completion of the student achievement file or the "INJAZ" exam in the 11th and 12th grades, which contains all what the student had done in terms of behavior and activities starting from this year (2016/2017) for 11th grade students. The achievement file shall specify a set of skills and tasks that characterize the student, as well as trends that indicate the student's improvement, cognitive development, behavior and personality according to a model specially prepared for this purpose. The responsibility for preparing the file for the student belongs to one of the teachers in the school. The responsibility for checking and unloading the assessment form is the responsibility of a committee composed of three members chosen by the Directorate of Education in each city/town. It appears in the high school certificate (general rating): (Excellent / Very Good / Good / Acceptable) and the model will be attached to this disclosure. The general and final assessment of the achievement file is issued by the General Directorate for Measurement, Evaluation and Examinations according to the resulting*

*classification for the natural distribution of the points obtained by the student in the model according to the program prepared for that.*

***Article 6: The results of the participants in the General Secondary School Certificate Examination**, in which the participants are either:*

*1. Successful: In any of the branches if he/she gets 50% of the great end in each section of the courses that he/she examined.*

*2. Incomplete: If one or more subjects do not receive 50% of the grade at the end.*

*3. Fail: If he/she does not receive the requirements for success as described in Article 3.*

*4. Deprived because of absence: If he/she does not take all the exams.*

*5. Deprived because of fraud: If the student does not comply with one of the regulations of Articles 4 and 5 of the exam control.*

*The courses of the scientific branch are: Arabic language, English language, physics, and mathematics which are considered obligatory or compulsory courses, religious education, biology, chemistry, and information technology as basic courses. While the courses of the literary branch are: Arabic language, English language, science, history which are compulsory courses, religious education, geography, general culture, and information technology as basic courses. At the level of the other branches, Arabic, English, mathematics, and information technology are all available in addition to related topics.*

If we compare the subjects and materials of the Tawjeehi exam with the "INJAZ", we find no major differences. The burden on the students and their families remained the same, psychological anxiety did not end, and the gap between the public and higher education did not disappear. Moreover, such change from Tawjeehi to Injaz led to inconfidence in the efficiency of the exam by certain foreign authorities. Therefore, "INJAZ" has been changed to the previous Tawjeehi by the new minister of the ministry of education in 2018, but nobody knows if the forthcoming minister will adopt it again!

However, the author believes that the Tawjeehi exam or Injaz as well as part of school systems needs to be improved and developed. The process of improvement may be based on the following principles and orientations that needs to be discussed in a **council with a wide membership at the national level and its main job is to formulate public education policies:**

- It is not necessary for the exam to cover all the courses and studies taught to the student in the twelfth grade, meaning: Not every subject studied has to be included in the examination session or be a part of an examination session.
- It is not necessary for the exam to cover all subjects of a course. Memory questions are supposed to be limited.
- Courses and topics not covered in the exam should not be neglected but need to be focused on during the school period and their grades are taken into consideration for the admission process to the university.

- It is important to reevaluate the marks of success or passing grade for any course! Are the foundations on which 50% have been established still valid? What are these foundations? Why not be 65% or 70% in some or all the courses?
- It is useful for the concerned ministry to adopt a program that can be called "success for all in school", and the measure of success is to achieve an average not less than 60%. This program will be implemented by hundreds of specialized and additional teachers, and is supportive of the general education, so that students with low achievement, for example in mathematics in the fifth grade, are screened and nominated for the program whose teachers work to provide them with the mathematical cognitive skills that they lack or need improvement, and then bring them back to their regular classes as they catch up, and so on for weak students in the rest of the classes and areas!
- The standardized exam should focus on the basic skills in the courses that construct the following subjects: Arabic, English, mathematics, natural sciences, and social sciences including religion. The exam should also focus on the higher levels of learning according to Bloom's classification and, on the knowledge and skills of a high school graduate on a global level.
- A standardized exam is offered during the last quarter of the school year to students in the twelfth grade (or other or more than one time) and is corrected electronically except for a few assay questions.
- The place of taking the exam is the same as the student's school with the condition of switching the monitoring of the exam from teachers of

the same school to external teachers, to avoid the opportunity for supervising teachers to help their students.

- **Cancellation of the current categorization of tracks in the 11th and 12th grade that are; the "Academic Literary" track and the "Academic Scientific" track.** There is a need for reconsideration of the courses offered in each track and work to merge them together. Here there will be many examples and many problems, and the classification is no longer justified and is easy to cancel.
- The format and the content of the school certificate for the graduate of the secondary school should be restructured, so that includes: the final marks for each subject in grades 11 and 12, the average of the groups, and the student's final average for the two years, and then the rank of the student accordingly.
- At the end of the last school year, the student shall submit the following documents to the university or college in which he/she wants to complete his/her studies:
  - The average of his/her marks in all courses during the last two years.
  - His/her ranking among their colleagues.
  - His/her final mark in each subject during the two years.
  - Record of all marks in the standardized exam (Tawjeehi).
- Each Palestinian university has the right to choose its acceptance criteria, with the minimum level mentioned previously.

These principles and directions may constitute a starting point for improving the form and content of the Tawjeehi exam. If they receive the attention of the public education officials, the probability of solving the problem of the exam is very high, especially since the political leadership is supportive by the Council of Ministers. Thus, we can get rid of the classification of the literary and scientific tracks and as a result, the composition of the student body at universities that has more than 73% of students enrolled in disciplines of social sciences, humanities, and education would change. In the education programs and their teaching methods, there are about 60,000 students enrolled, whose main job opportunities are in schools as teachers. The Ministry's annual need for new teachers is less than 2,000, and it receives application for teaching jobs annually from more than 45,000 applicants (Ministry of Education, 2017).

## Third: The Challenge of the lack of Scientific Research Environment.

### 3-1 Historical Introduction:

Scientific research in Palestine began late. It did not appear in research institutions or projects until the sixties of the last century, and it was represented in the existence of 11 stations for agricultural research experiments in the city of Jericho. Before that, during the British Mandate, research appeared on an individual level by few who were lucky to be involved in graduate studies abroad and published a book or a scientific study. In the diaspora, after the emergence of the Palestine Liberation

Organization (PLO), the organization formed a scientific committee for scientific research, which institutionalized the subject. The scientific research teams began to work hard, and issued many studies in the political, economic, social, and legal aspects. In parallel, it was not long before Palestinian universities and institutions of higher education emerged in the late 1970s and early 1980s, but focused on teaching and providing a real opportunity for young Palestinian men and women to enroll in higher education in their home country to reduce the need of immigration for education. Therefore, the programs of bachelor's degrees were opened in several fields, whereas the master's programs were not opened until the mid-nineties, and the doctoral programs were not authorized by the Higher Education Council to be opened in Palestinian universities until a few years ago. The reason was simply the lack of scientific research environment in Palestinian universities in terms of research labs, research journals, full time researchers, research equipment, and research budgets. This does not mean that scientific research is not practiced in the Palestinian higher education institutions. The interest of the faculty members in carrying out scientific research, mostly of a theoretical and non-applied manner in their fields of specialization, was for the purpose of promotion within the university. The establishment of scientific research centers and the allocation of budgets with teams for research occurred later and in an incomplete manner.

Following the establishment of the Palestinian Authority in 1993, international donors began to support the institutions of the Authority, including non-governmental organizations (NGOs) and the private sector. The period 1995-2000 witnessed the emergence of dozens or even hundreds

of non-governmental organizations that provided research projects and training services abroad, in order to obtain funding and financial coverage. Thus, research centers emerged; including some specialized in specific fields such as democracy and human rights, and others that were not specialized in order to conduct research as a donor's interest.

In this period, the Palestinian Ministry of Higher Education was established, and the Higher Education Law No. 11 of 1998 was passed, which stipulated in one of its articles the establishment of a Scientific Research Council in the Ministry to activate scientific research in higher education institutions. But a supreme council for scientific research has not yet been set up at a national level, to set priorities and allocate budgets. It is worth mentioning here that the Palestinian Academy for Science and Technology was established by a governmental decision in 1990, but lacked the financial support and the ability to employ additional scientific staff. It focused its activities on joint projects funded by the Europeans and Arabs.

### 3-2: Where and Who Practices Scientific Research in Palestine:

There are four main bodies that carry out scientific research in Palestine: first, higher education institutions, specifically the universities. Second, some governmental institutions affiliated to the Palestinian Authority. Third, non-governmental organizations, and the fourth is the private sector. In universities, which are now 16 universities in the West Bank and Gaza Strip, there are dozens of centers and laboratories that were established for the purposes of scientific research, especially the old and large universities

have at least 20 centers or research units in each. Most of them were created with the support of donors and joint development projects, but they are unsustainable. They run during the funding period and then freeze for a year or more until funding for a new research project comes in, and so on.

This means that the university does not allocate budgets to these centers, but it pays the salaries of researchers and their assistants, who are usually full-time teaching staff. The research area of the center or the unit is in the same field as the academic program in which the researcher is teaching in, and it is rare to find a laboratory or a center where a research team is specialized and working full-time, with a budget supported by the university or from a supreme research council or from a governmental body with large budgets. In other words, the existence of a job title "full-time researcher" in universities is rare, and this leads us to conclude that those who practice scientific research in universities are faculty members and practiced individually for promotion purposes, especially that the doctoral programs are few and are counted on fingers at Palestinian universities. Moreover, most of the master programs give the students the opportunity to choose between working on a research project or just presenting a seminar before graduating. Students in general at the bachelor's and master's level graduate mostly without research work that is qualified for publication.

It is worth mentioning here that the laboratories in the universities are equipped with equipment that is necessary for teaching and to carry out the scientific experiments in the courses, but they lack the heavy, high-quality, and newly developed equipment for research purposes. As evidence of this, many members of the research faculty, especially chemists, biologists, and

engineers, send certain samples for analysis in European laboratories or Laboratories of universities that they graduated from in order to obtain new scientific data that can be published. Some of them are taking advantage of EU research programs such as Horizon2020 or the French-Palestinian Maqdisi program, German-Palestinian cooperation for German graduates, and othe academic research exchange programs for joint research, and technology utilization. However, the rate of research output for faculty members in Palestinian universities is still less than one research project per year and is of a basic non-applied nature. This can be understood by looking at the size of the faculty members' teaching loads, which sometimes reach 15 or 18 credit hours per semester. The universities do so in order to decrease the financial distress, as it is better for the university to give its existing faculty members an extra teaching load instead of appointing new members.

Non-educational governmental institutions, for example, the National Agricultural Research Center (NARC) of the Ministry of Agriculture has a full-time research and administrative staff, who operates under the supervision of the Minister of Agriculture and implements projects funded by external support such as the Food Security Project, the Animal Production Improvement Project, the Field Extension Project, Qabatia Experiments station, as well as issuing educational leaflets for farmers. In the Ministry of Education and Higher Education, the Scientific Research Council was established as a body for drawing up scientific research policies, setting priorities, and encouraging scientific research activities in higher education institutions based on the Higher Education Law No. 11/98 in 1998. The council was set on the structure of the Ministry since then

without functioning until 2003, due to the lack of stable funding sources to support its plans. In that year, it was reactivated, and a draft of its internal system was drawn up to clarify its functions and to name its members. Its members are all deans of scientific research and postgraduate studies in universities and were supported financially by allocating 2% of the governmental support to universities. It began to hold meetings and started its work by an open research call to activate scientific research in universities in 2005. As a result, 20 projects were supported out of 32 projects submitted at the time (with a total financial ceiling of 400 thousand dollars donated from USAID). Then its work was halted due to the lack of financial resources. It was reactivated in 2012 by a presidential decree to reform it with a new system, and to clarify the functions of the Council and its new form. Its main aims are to promote and enhance the quality of scientific research in institutions of higher education, and to formulate the policy of science and technology in Palestine in order to contribute to an economy based on knowledge and innovation. The allocated annual budget -on paper- was $ 5 million, to perform the following tasks:

1. Drawing up general policies for scientific research and setting priorities at the level of institutions of higher education.
2. Enforcing ethics in scientific research.
3. Supporting efforts aimed at building capacities in the various fields of scientific research.
4. Encouraging the establishment, support, and coordination of centers of excellence in higher education institutions.

5. Contribute to the provision of financial support and the search for sustainable financial sources of scientific research projects in institutions of higher education and scientific research centers.
6. Motivate researchers to excel in their research and move from individual activities to group activities.
7. Contribute to supporting scientific conferences held by the institutions of higher education.
8. Supporting and issuing specialized Palestinian scientific journals.
9. Promote the integration of scientific research into the curricula of higher education institutions because scientific research is an integral part of learning and education.
10. Encourage institutions of higher education and scientific research centers to interact and coordinate with Palestinian institutions and companies, and help them to solve the problems they face in developing their industry, products, and services and enable them to improve their competitiveness.
11. Encourage Palestinian researchers and scholars in diaspora to communicate, interact, and share with institutions of higher education and scientific research centers.
12. Cooperation with local and Arab bodies and international organizations in supporting scientific research.
13. Contribute to the provision of financial support for scientific research programs and projects carried out under scientific cooperation agreements with countries and international organizations and foreign institutions.

The council membership consists of:

1. Chairman of the Council (Minister of Education and Higher Education).
2. Vice President (to be appointed by the Minister of Education and Higher Education).
3. Secretary of the Council (from the employees of the Ministry of Education and Higher Education).
4. Four members of the deans of scientific research in Palestinian universities.
5. Five members representing civil society and the private sector.
6. A member representing scientific research centers registered with the Ministry.

The Council launched the first research call in 2013 to submit research proposals from institutions of higher education and registered research centers. One hundred fifty-three research proposals were received, 26 projects received financial support from the Council according to the evaluation (each research was granted $ 10,000 to $ 50,000 based on the conditions of submission). The implementation period extends until 2015-2016. The Council launched its second call for the establishment of centers of excellence in Palestinian universities. The deadline for receipt of proposals was 1/6/2014. The Council received 20 projects, each university submitted one or two projects, its total financial ceiling was $ 17.4 million. It was first evaluated by a local committee to determine their conformity with the criteria and conditions of the appeal, and was then sorted into fields such as water, energy, medicine, agriculture, marine science, etc. Moreover, each university was classified to have one main field according

to its advantages and capabilities in such field. For example, Islamic University in Gaza was classified to have marine as main field while Birzeit University to have water and so on. Subsequently, experts in these subjects were invited from outside Palestine to evaluate each project separately. The evaluation process was done successfully, but the appeal was not implemented due to the financial distress and the various ministerial amendments. Therefore, the Council of Scientific Research may be found active in one year and frozen or almost dead for several years and then comes back to revive the allocation of a new financial payment and so on. The same is true mostly to other research units operating under the umbrella of the PNA institutions.

At the level of non-governmental organizations that carry out scientific research, some of them are sustainable and stable such as the "Mowaten" Foundation in Ramallah, which focuses on the topics of democracy, and was able to issue dozens of literatures and studies in the field. It was recently transformed into an institute at Birzeit University after the establishment of a postgraduate program on democracy and human rights. As well as the "Areej" Center in Bethlehem, which focuses on research and studies in the field of land, agricultural produce, salinity and such. The Center has numerous publications and has joint projects with several external bodies such as the European Union. As well as "Masarat" research center with two branches in Ramallah and Gaza, specializing in political studies of the Palestinian situation and its impact on the Arab and non-Arab situation. Similarly, the Palestinian Economic Policy Research Institute (MAS), which was established in 1994 as an independent, non-

profit institution specialized in economic and social policy research with a developmental priority. Such institutions have annual budgets and administrative structures ranging from a board of trustees to a regular employee. More examples include, Ma'an Development Center, Bisan Center and others. In contrast, small-scale centers rely on external support and do not specialize in one area.

In the private sector, specifically the pharmaceutical industries, institutions are engaged in scientific research in their field, and have scientific research units as part of their structure and composition, and sometimes use researchers from Palestinian universities on a temporary basis. The rest of the other production sectors, do not have units or sections of scientific research, and rely on short courses abroad for their development, and on external experts for machine maintenance such as consulting the manufacturers of machinery used in production for very short periods. All of this indicate the weakness of the relationship between the various Palestinian production sector, universities, and scientific research centers mainly **due to feeling independent and not in need for other parties**. Some donors are required to fund a partnership between a university and a private sector institution. This is done on paper and on reciprocal visits during the project period, but the results are not promising, and the relationship is not sustainable.

In conclusion, we need to acknowledge many individual successes in producing valuable research or converting some theoretical studies into practical applications, new products and patents, but they are still within

the framework of individual excellence and need transformation into institutional work.

### 3.3: Management of Scientific Research in the West Bank and Gaza Strip:

Each of the four main bodies that conduct scientific research in the West Bank and the Gaza Strip operates independently and is not subject to guidance or supervision from a higher administrative body. This even includes scientific research institutions within the same sector, whether private sector, non-governmental institution or university; all of which operate independently and without guidance. At the individual level, especially the researcher or the faculty member of an educational institution, he/she works on research and publish in his/her field of specialization, aiming to get promoted.

Academic and research autonomy is required, but this does not contradict with the existence of a formal administrative body that is active for scientific research, such as a **higher scientific research council**, with an internal system that allows the formation of permanent and non-permanent committees. So that, research calls in the fields of priorities and within specific time periods are announced, applying the principle of competition according to criteria for selecting the best research projects with promising results that reflect positively on the quality of life for the population. It may be appropriate to establish a general national research center, which provides an efficient research environment for researchers, including equipment, laboratories, and databases in priority fields, and may

include permanent research staff with salaries to work on vital fields, such as medical fields as an example.

Knowing the priorities of scientific research at the level of a nation is very important, especially when it is published clearly and with a time schedule. This gives incentives to all research centers and units related to the priority field by further institutionalization and recruitment to prepare for competitive financial support for such cases which covers several years. Such a nation-wide research and management policy has been successful in many countries: in Malaysia, the Ministry of Planning or a "relevant body" call for competitive research appeals open to universities and all institutions to provide projects addressing problems of priority for the society with financial ceiling of several millions. In other developed countries, you may find governmental and private financial institutions that support scientific research with large budgets in specific fields, such as: genetics and cancers, chest surgery, and space or astronomy, etc. The research projects come from multiple research centers and teams, then evaluated, and good ones are supported.

In the late 1990s and early 2000s, the Ministry of Higher Education attempted to formulate a policy for science, engineering, technology, and creativity in Palestine, with external support and funding. A team of 15 members (including administrators, researchers and economists) led by an African expert took a scientific training visit to South Africa to learn about the experience of South Africa in the development of science and technology policy in South Africa. The team returned with a draft called "the Green Paper", which needed improvements to become "the White

Paper". However, the development process unfortunately failed due to several factors. After many years, a trial was conducted to convert it to 'white" by employing a researcher to communicate with all parties who were involved but the trial failed and the product was not adopted. The document was forgotten until 2010, where another attempt came with the support of UNESCO and ended with a document not approved neither by the Higher Education Council nor by the Scientific Research Council.

### 3.4: Funding Scientific Research:

There are three sources of funding for scientific research in the West Bank and Gaza Strip. These are:

- Governmental source: The Palestinian Authority allocated 2% of the amount assigned to support public universities (about half a million dollars in average) for funding scientific research. As mentioned earlier, this support is not implemented annually, but from time to time, as the case with the Scientific Research Council of the Ministry of Higher Education. Governmental universities allocate a very small proportion of its developmental budget to scientific research, while public and private universities allocate a small percentage (less than 2% of the average budget) to encourage faculty members to participate in scientific conferences and submit their papers, or for the purchase of materials used in laboratories for some experiments, or to cover the expenses of field research and such.
- External source: This takes several forms:
  - Bilateral support agreements between a governmental institution in a foreign country and a Palestinian governmental institution such as

the French-Palestinian agreement signed between the French Ministry of Foreign Affairs represented by the French Consulate in Jerusalem and the Palestinian Ministry of Higher Education. This agreement supports 4 to 5 research projects submitted jointly by Palestinian- and another French institution in accordance with a call announced every two years in France and Palestine with a ceiling of 100,000 euros, or about twenty thousand euros for each project. This research agreement has been well implemented and evaluated for more than ten years. Similar to this agreement, there was another agreement between the Ministry of Higher Education and the German Ministry of Higher Education signed in 2014. There may be other agreements with the Ministry of Agriculture and the Water Authority with government agencies in European countries.

- The European Union's HORIZON2020 (FP8) program: the main instrument for funding scientific research in the European Union, from 2014 to 2020, with a budget of about € 73 billion for the whole period. It is an extension of a series of programs that began in 1984 in FP1 until FP7 for the period 2008-2013. Now its name has been changed to Horizon 2020 instead of FP8. This program considers Palestine as a Mediterranean country, and researchers are entitled to participate with researchers from European and Arab countries around the Mediterranean in presenting joint projects under the umbrella of "Community Challenges", which is allocated about 38% of the budget. It covers areas including health, agriculture, water, transportation, climate, environment, and energy. The Palestinian universities were introduced to this program through visits by

specialists in the Ministry of Higher Education to universities and making presentations of the program. There were cases of success. The Palestinian researchers participated in more than 80 research projects in the FP7 program. After the evaluation process, 18 projects passed, with a total budget of 44 million euros, and the share of Palestinian researchers was about 3 million euros.

- Funding programs of scientific research from European, American, and Arab non-governmental organizations represented by universities, research centers, Arab Union Universities, etc., and opportunities to submit research projects to compete or host researchers for a time period that does not exceed one year.

### 3 .5: Summary of the Challenges of Scientific Research:

From all the above, it is clear that there is no scientific research environment in Palestinian higher education institutions or in non-governmental scientific research centers. Moreover, there is a shortage in sources of fixed and renewable funding to support scientific research. There is no policy of scientific research at the national level. Furthermore, there are no Ph.D. programs in applied scientific fields. The prospects for improvement will be discussed in Chapter 3 of this book.

### Fourth: The Challenge of Neglecting Technical Education in the Institutions of Higher Education:

To diagnose this challenge, we begin by giving a picture of the reality of the technical education in the West Bank and Gaza Strip, its inputs and

outputs, content and programs, its size compared to non-technical education, and its suitability with the needs of the local market.

**4 .1: The Situation of Technical Education:**

The structure of technical and vocational education in Palestine is summarized in **Figure 5**. The students begin their formal education in the first grade of the basic stage, which ends in grade 10, and then choose in the eleventh grade to be in the scientific or literary track if they wish to pursue the academic track. The other option is the vocational track which includes the industrial, agricultural, commercial, or hotel science branches. This is offered in a vocational or semi-professional school (especially for the Commercial branch) with an academic section in a single building. At the end of Grade 12, the student is subject to a general examination in all branches, called the General Secondary School Examination, and is named "Tawjeehi" or "INJAZ". The number of Tawjeehi students in 2016 in the West Bank and the Gaza Strip indicates that the number of students in the vocational branches were few compared to the number of students in academic branches, 3364 students in the commercial branch (4.3%), and 1270 students (1.6%) in other vocational branches, compared to the number of applicants in the scientific and literary branches which was 70393 (91%). The rest were in the Islamic Sciences branch-Sharee'a (3%), (Ministry of Education and Higher Education, 2016). This is summarized in **Table 27.**

The Tawjeehi exam plays a major role in determining the path for high-school students in enrolling in higher education institutions or not. Only students with 50% score and above in Tawjeehi are qualified to join

community colleges or the 2-year diploma programs. Thus, about 60% of applicants in vocational branches (the percent who passes vocational Tawjeehi) are entitled to join the two years diploma programs, and the number of candidates at the best rate of enrollment in the 2-year diploma programs in the Palestinian higher education institutions is 2053 students from the commercial branch and 764 students from the other vocational branches, because some prefer to join the labor market directly as skilled men/women or craftsmen/women, (see **Table 27**).

**Table (27)**

**Number of Students Who Have Applied & Passed the 2016 Tawjeehi Exam in the West Bank and Gaza Strip**

| Branch Type | Number of Applicants | % | Number of Success | % |
|---|---|---|---|---|
| Art | 53199 | 62% | 31327 | 58.8% |
| Science | 17194 | 29% | 14676 | 85.4% |
| Commercial | 3364 | 4.3% | 2053 | 61% |
| Rest of vocational branches | 1270 | 1.6% | 764 | 60% |
| Religious studies | 1745 | 3% | 1464 | 53.3% |
| Total | 77772 | 100% | 50284 | 64.7% |

In addition, some of the successful students in the scientific and literary sections may enroll in the diploma programs, which are usually few. It should be noted that the proportion of students in the vocational branches in the Gaza Strip is only about 14% of the number in the West Bank, and this is something that needs a reflection from the officials: it is worth mentioning that the number of successful students in the industrial branch was less than fifty students in the Gaza Strip! Where are the industrial schools?

As for the failing students, (about 40% in all branches), some of them repeat the exam next year for all the subjects or retake the exam in the case of failure in one or two subjects (incomplete status), and these are usually few. Most failing students cut off from the formal education and enter the labor market. Some of them attend courses and vocational training programs in their work centers, with an annual average of 1,400 to 1,500 trainees per year in the West Bank (Ministry of Labor, 2016), so they graduate with complete knowledge of one of the available vocational jobs and enter the labor market as craftsman or skilled workers (see **Figure 5**).

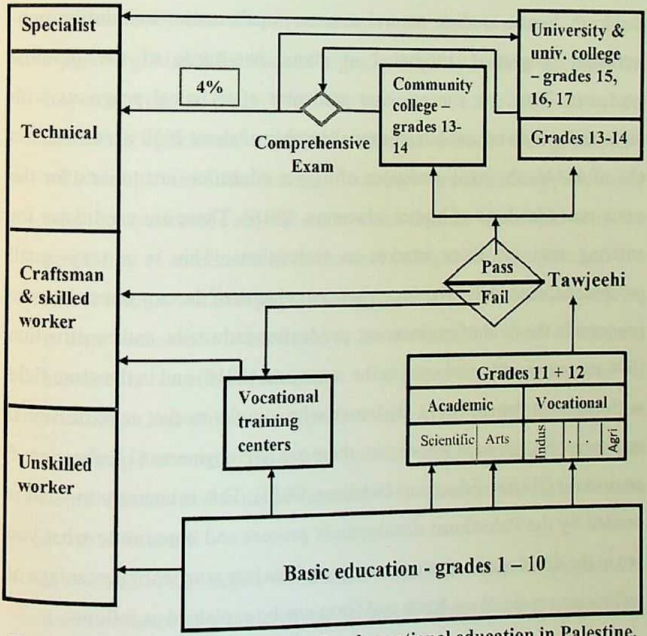


**Figure (5): The structure of technical and vocational education in Palestine.**

Regarding students enrolled in diploma programs, whether in community colleges or university colleges, there were 3674 students who graduated from community colleges in 2016 after passing the comprehensive exam at the end of the second year, and there were 1594 students who graduated from university colleges, so the total number of graduates with a diploma degree is 5268 which is about 12% of the total number of graduates of higher education institutions in the West Bank and Gaza Strip. However, few of them did bridging towards bachelor's degrees, including those who were enrolled in educational diploma programs (e.g., childcare, human studies, natural sciences, mathematics and similar non-technical programs), estimated at about two-thirds of the diploma graduates. Thus, we can say that graduates of technical programs with diploma level do not exceed an annual number of about 2650 which is about 6% of 44446, the total graduates of higher education institutions for the same year (database of higher education, 2016). These are candidates for entering into the labor market as technicians. This is a very small percentage, especially when comparing graduates of the two years' diploma program in the field of engineering, production industries, and construction (594 students) with graduates in the same year (2016) and in the same field with bachelor degree (3071 students), who join the market as professional engineers. So, for each technician, there are five engineers (1 technician: 5 engineers) (Higher Education Database, 2016). This is contrary to what is needed by the Palestinian development process and opposite to what you see in the developed industrial countries. This low number or percentage of technicians in the West Bank and Gaza can be explained as follows:

- The social stigma and inferiority of vocational and technical education in the West Bank and Gaza Strip. Most students and their parents do not wish to enroll in vocational and technical education, nor in the two years diploma programs in general, regardless of the field of study. The trend is towards bachelor programs under the name of a university, which gives parents a chance to show off or feel proud of their children, even if the specialization is not desirable in the local and regional market. Their focus of interest is that their child is a university graduate and may become an employee in the government sector with an important position or figure in the private sector.
- Negative guidance for students in grades 9 and 10 by their teachers. The low-achieving students with low performance are directed to the industrial, agricultural or islamic vocational schools. Doing this, they will "escape" the difficult scientific or literary examination, and easily pass the vocational Tawjeehi exam which is much easier, and more, the possibility of enrollment in community colleges with medium and low scores is high, and then possible bridging to a related bachelor program is also available. All this leads to the fact that the level of students enrolled in vocational schools is low, and this affects the level of vocational and professional performance after graduation. It is not surprising that most of those who build a house, for example, complain of problems related to the performance of professionals' work when the house is finished!
- In contrast to this negative guidance, there is no opposite guidance to the importance of vocational and technical education, with explaining that the country needs technical graduates. This encouraging counseling

failed and has not proven effective, despite the existence of several official governmental and non-governmental institutions supporting it. Examples include the Lutheran Union, charities, and the UNRWA, which oversees vocational and technical education and training.

- Lack of financial resources in schools and colleges. Technical and vocational programs require equipment, machinery, raw materials and such, as well as qualified and specialized teachers. With little money in the budgets to support technical vocational schools and colleges, much of the equipment is not up to-date with rapid advances in technology. Therefore, the enrolled student does not encourage his/her friends to enroll, because everyone is interested in learning and training using modern technological equipment.
- Formal neglect of technical education. Governmental colleges have not maintained their technical character and flavor. It allowed the existence of non-technical programs, such as humanitarian, educational, and teaching programs, and turned to university colleges to adopt bachelor's programs to teach education and similar administrative programs. Non-technical programs have become the norm. No programs are established in line with the needs of the market, rather for the purposes of individuals and stakeholders (supply-driven and not market-driven). Question: For how long should governmental community colleges keep education programs while Palestinian universities graduate more than 10,000 students annually from faculties of education? In addition, **there are no qualification or requirements for anyone who opens a shop for a specific carpentry, aluminum workshop, or car mechanic shop. Moreover, there are no salary bonuses for technicians or**

**technicians working in the public sector. These measures, if done by the Palestinian Authority, would enhance the mentoring process and increase the demand for technical vocational education**. In another area, the capacity of the current colleges to accept students is limited; they are confined by the place and classrooms, workshops and programs.

- The private sector and other non-governmental sectors cannot and do not favor being a substitute for the official bodies, because of the high cost of technical and vocational education and the high value of investment in it, as the profits will be small especially with the small number of enrolled students. Not surprisingly, the average annual student cost at Al-Arroub Agricultural School (which costs the school, not the student) is more than 18,000 NIS (about $5,000), whereas the cost of a university student is less than the half (Ministry of Higher Education, 2014).

Vocational training and technical education in Palestine may be fortunate to be supported by European donors such as the German GIZ Foundation, Belgian BTC, and ETF from the European Union. These institutions, especially the first and second, have representative offices operating in the West Bank to follow up their activities and implement their projects for the benefit of vocational training and technical education. It supported the formulation of a vocational training and technical education strategy in 1999 and updated it in 2010. Its themes were related to the management and effectiveness of the technical and vocational education training (TVET) system, and the quality of its outputs, but it did not develop

an implementation plan with a time schedule. It also did not include the cost per action of the set of actions for each derivative objective. Moreover, there was no indication of which part will be implemented, its source of funding, and its availability, consequences of implementation and such. The plan accompanying the strategy was very broad and not practical. For example, one of the sub-objectives is the concept of human resources development. One of the proposed tasks of the procedure is to establish a national unit for human resources development in the period 2011-2012. The Ministry of Labor and the Ministry of Education and Higher Education are jointly responsible for these tasks, while funding is a pooled from GIZ and other donors. The same applies for most sub-goals!!! This makes things floating and unclear, but funders, based on their experience in similar third world countries, support what they think fits their governments best of how the money should be spent. GIZ has funded, for example, all the engineering professions programs at Hisham Hijjawi College and the necessary equipment, technicalities and books. This is remarkable, and unfortunate, the annual enrolment of students is small and does not cover the capacity of the programs. It also funded the construction of a specialized center in Halhul/Hebron to serve specialized technical and general technical education. But now it is used by the Ministry of Labor as a training center like the rest of the other centers and did not graduate specialists as was planned.

Such examples promote funders to adopt a unified framework - to facilitate their work - that combines vocational and technical education and training, and has a unified administration, in the form of a body or at least a

coordinating council that brings together entities involved (the Ministry of Education and Higher Education, the Ministry of Labor, the Ministry of Social Affairs, and the Federation of Commercial Chambers, UNRWA, non-governmental organizations, and the private sector), in addition to the establishment of a central developmental center for technical and vocational education and training and such. A Supreme Council has been formed for several years and there has been little improvement or development. **In my estimation, the process of consolidation by establishing a commission or development center is not a solution.** Some stakeholders, consultants and those who wish to work as employees with foreign organizations may be comfortable with such a consolidation, but the expected outcome is the payment of additional expenses such as salaries and rent for offices only.

What can be done (as an example), with the focus here on technical education in governmental colleges, is to set the goal of doubling the number of students enrolled in the two years diploma programs in three years period. The colleges should open and adopt new technical programs such as: maintenance of mobile devices, dentist technicians, technicians for paints and colors in buildings and such. In parallel, the official governmental agencies should declare that it is not possible to open a shop or a mobile maintenance workshop except with a diploma in the specialization. Also, the official authorities legislate a salary bonus of a certain amount for those who will work in the public sector and are graduates of such diploma specializations, and should request all opened workshops to rectify their legal status through enrollment and training in

the field. In addition, the Accreditation and Quality Commission will reinforce the previous items by formulating a policy of not accrediting any two-year diploma program unless it has a professional technical identity.

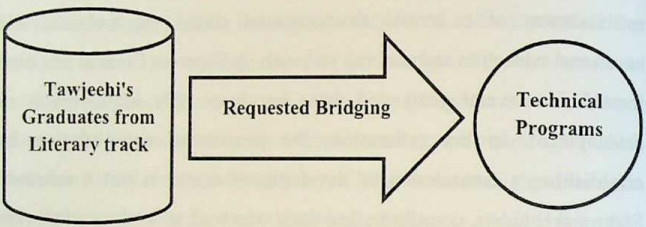


**Figure (6): Bridging Between the Literary Track of Tawjeehi with Technical Education.**

After that, a real bridge should be opened among the graduates of the Tawjeehi branch of literary (Art) and technical education in order to reduce the unemployment rate among graduates of humanities and social studies, (see **Figure 6**). These practical steps will have a positive effect on increasing the number of technical graduates and help to gradually reduce the ratio of engineers to technicians in the market (the current ratio of engineers to technicians is 5:1, where ideally it should be the other way around).

**Fifth: The Challenge of not Having A "Specialty Name" Specific for Every University**

In many countries of the world, when the name of a university is mentioned, its name is associated with a prevalent specialization it offers.

For examples, an agricultural university, an oil university, an engineering university, a university best in information technology, a humanities university, and so on!! However, specialization does not mean that all or most of the university's programs revolve around one major specialization. Rather, besides the main specialization with its many branches, there are other specializations that lack the research, scientific, and teaching capabilities of those belonging to that specific specialty. In other words, if an X university is known for its programming specialty, it accepts high-achieving students with high grades in the Tawjeehi exams or entrance exams (>90% grade). In addition, it hires faculty members with high academic ranks. It also provides high-quality teaching and research environments likes specific labs and equipment. Thus, its research output is distinguished and published in high-impact journals. In summary, university X is known for all of the above concerning the field of programming.

Our Palestinian universities could not establish such distinguished specialties because their efforts are focused on solving their financial deficits and thus recruiting more students even with low academic achievement. As a result, the universities compete for more students and thus establish redundant specialty programs. The universities justify their redundancy in specialties in the need of each geographical district of such "essential" programs, especially that we live under occupation and there are multiple checkpoints that limit easy travel between districts. Therefore, most student attending a specific Palestinian university are usually residents of that specific district.

In light of this, many programs were redundant in local universities. For example, some programs are listed in all universities, others are listed in 5-7 universities, some others are listed in 2-4 universities. Very few programs are unique to certain universities. The total number of university programs in the West Bank are 930 categorized based on level as follows: 34 doctoral programs; 279 Master's programs; 501 Bachelor programs; and 116 programs of 2-year diploma.

In addition, there are tens of Bachelor and 2-year diploma programs offered by community colleges. It is worth mentioning that the doctoral programs are relatively new in Palestinian Universities because its accreditation was halted by the Ministry of Higher Education for many years due to the lack of faculty members with high academic ranks such as full professors and associate professors. In addition to the lack of a scientific research environment. But after 10 years, some doctoral programs were accredited particularly in programs that do not require laboratories and technology equipment.

# CHAPTER THREE

## Development Prospects

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Considering the challenges mentioned in Chapter 2 of this book, Palestinian universities - all or some of them - will face the risk of stunting and shrinkage if they do not take remedial steps. They should not continue to raise the slogan "painful reality" to justify their backing off and acceptance of lower quality standards in order to prolong their period of survival and existence.

This chapter will discuss several remedial developmental steps, which I propose to be one of the following two approaches: "Reengineering" or "Continuous Improvement". The "reengineering" process leads to quick results, makes a significant added value boom, which makes leaps to the desired goals, but requires high costs and deep expertise to manage its high-risk operations. The path to "continuous improvement" is based on a series of steps, usually relatively small in size, but progressive and has a significant cumulative effect. Its operations are not characterized by a high level of risk, and their funding is gradual and phased and does not require a single financial payment, but in installments according to the nature and size of the operation or the step implemented, and the time period for its implementation (Mahgoub, 2003).

Given the nature of the challenges faced by Palestinian universities, the characteristics of universities, the degree of disparity between them in

size, pressures and problems they face, and then the form of governance in each, and the mechanisms by which they run their operations, we can say that the two tracks are available options for each university and each governing body, whether a ministry or council to implement them where they think is effective. The tracks may be applied together, but in different areas of development for the university, for example, The process of developing curricula and refining them with new skills, methods of teaching, and assessment is appropriate for the path of continuous improvement and not re-engineering, because the knowledge and training structure of students cannot be exposed to any degree of risk, as there is no opportunity for correction after the graduation of students from the university. Updating the university's operating systems, such as the system of registration, human and financial resources, and the library can be improved with the re-engineering process. In these areas, it is required to keep pace with the rapid technological developments to benefit from them to increase the internal efficiency of the university. In general, the path of continuous improvement may be more relevant to the reality of Palestinian higher education institutions. Here are some of the mechanisms and steps of development and the areas of their implementation:

**First: Governance of Palestinian Higher Education**

**A. Governance at the General Level (National Governance):**

Despite the difficult circumstances in which the Palestinian higher education institutions were established, they had the existence at the national level to carry out supervision, coordination, and financial support

since the early years of its establishment, such as the Higher Education Council, which was established in 1977, the National Fund of the PLO abroad, then the Ministry of Education and Higher Education, which was established in 1996, and its legislation (Higher Education Law No. 11 of 1998), commissions, councils, and funds (Accreditation and Quality Assurance Commission in 2002, Scientific Research Council 2000, and Student Lending Fund 2001). Such entities are seen as signs of good governance for higher education at the national level, and elements of strength to the extent that they have created a debate among many academics concerning that they may be a substitute for the Ministry of Higher Education. So far, the question remains: **Does higher education need a ministry with the existence of such entities?** Are these entities seen as signs of good governance for higher education? Looking deeply at the performance of these entities, one may find that unfortunately they did not work with high efficiency, and the legislation has not been applied properly. Moreover, they are not entirely independent and work under the umbrella of the Ministry. Permanent employees of these bodies are employees of the ministry or the government cadre. Therefore, they do not serve as a substitute for the Ministry. The Council of Higher Education is chaired by the Minister, and the presidents of the Palestinian universities constitute most of its members, and the areas of focus or agenda of its meetings did not often deviate from: Determining and approving the annual allowance of living expenses which should be added to the salaries; Dealing with the demands of the Union of university employees in Palestinian Universities related to the "unified cadre"; Identify and approve the minimum mark (score) in the high school exam (Tawjeehi) for admission

to universities; the financial crisis in universities and the distribution of governmental support available. The topics of planning, strategies and policies, evaluation and coordination between universities, determining the minimum and maximum tuition fees, reviewing the annual budgets of universities, and determining program priorities, did not have a share in the discussions, although these tasks were assigned to the council by the Higher Education Law. Consequently, it did not fulfill its duties as a council to make a final policy decision.

The Accreditation and Quality Assurance Commission (AQAC) was established in 2002 and was not mentioned in the Higher Education Law No. 11, which defined the general accreditation of Higher Education Institutions and the special accreditation of academic programs and made them tasks for the Ministry. The Ministry referred these tasks to AQAC after its establishment in 2002, including receiving applications for the establishment of Palestinian Higher Education institutions for Initial License. After that, applications for general accreditation, as well as special accreditation for new programs in Palestinian higher education institutions and take the needed steps to grant the accreditations. AQAC has implemented the accreditation procedures in accordance with drafts of a system that has not been officially confirmed. In terms of the administrative structure of the Commission, the Minister appoints the Chairman/Director of the Commission, often from one of the Palestinian universities holding the rank of a professor, who in turn nominates twelve persons as members of the Board of the commission, approved by the Minister. The composition of the Board of the Council is usually as follows: 4 members from

Palestinian universities in the West Bank and Gaza Strip, 3 members from the Ministry and Governmental Colleges, 2 members from the Ministries of Planning and Labor, 1 member from Vocational and Technical Education, and 2 members from the Private Sector. The functions of the Board of the Commission are to make final decisions related to granting accreditation and licensing of new programs, after the staff of the Commission has done the accreditation procedures through communication with local or external evaluators. The number of employees in the Commission does not exceed seven and they are on the staff of the ministry and governed by the Civil Service Law. From the above, it is clear that the Commission with its Council do not make policies and does not receive policies and plans from the Higher Education Council, as well as they are not independent as long as the Minister is the actual head of the Commission, and may be affected by political matters when it comes to unemployment, for example, or when there is external financial support for the establishment of new programs!

At the level of the Scientific Research Council, at first glance, one feels it is very important to have it in the ministry, especially as it is a legislator and mentioned in the law of higher education, and headed by the minister, in addition to the fact that most of the research is done on the campus of universities, but unfortunately, the research council was not able to hire qualified people able to propose competitive scientific research projects in vital socio-economic fields and then evaluate them and provide financial coverage for their implementation. Once in the early 2000s, the research council tried to take advantage of the support of external funders,

but the attempt ended with the support of about twenty descriptive research projects for faculty members in Palestinian universities at the rate of 8-20 thousand dollars per research project. This happened again after 10 years and resulted in the support of about 15 competitive research projects with similar amounts, under the goal of encouraging academics in universities to conduct studies in their disciplines. This created criticism that the minister aimed at gaining a good reputation among universities by encouraging scientific research in them, without serving the interests and objectives of community development. Shortly thereafter, under the chairmanship of a new Minister of Higher Education for the Council, and with the support of the Council of Ministers with a sum about three million shekels, and after the formation of an Advisory Council for the Council of Scientific Research from members of local universities and the private sector, and scientific committees in a variety of fields, the Council announced the submission of a competitive call for research projects with an open financial ceiling for Palestinian universities. The aim was to create a nucleus for centers of excellence for scientific research. These centers are supposed to generate a scientific research environment, in which research teams work in a specific field, and that each university will enjoy a distinguished field of research. For example, University X, in the field of water, University Y, in the field of energy, and University Z, in Gaza in marine science, and so on. The research centers that exist under many names in the Palestinian universities are only "cosmetic" centers, most of which were born through a project funded externally for a limited period of time, and did not maintain its durability and effectiveness after the completion of the project. Indeed, universities responded to the call,

submitted their projects, and the Council evaluated them by experts from abroad, in order to make field visits and practically evaluate the capabilities of each university to implement what they proposed, and to judge its eligibility to establish a center of excellence. After all these efforts, the activity was frozen with the change of minister, and part of the money allocated was used for other purposes, and **the attempt failed.**

In another area, I would like to mention that the Council of Scientific Research organized activities for explaining the European Union's scientific research programs (FP6 + FP7 + Horizon2020) to academics and researchers in Palestinian universities in terms how to participate, compete, and apply to get funding for their research projects. Through the FP7 program, about $ 43 million were awarded to fund approved joint research proposals, $ 3 million of which was the share of researchers from Palestinian universities over a six-year program period. Moreover, the Council of Scientific Research had an activity with the Palestinian French Committee to fund research projects. Through this activity, 3 – 4 research proposals joining Palestinian and French scientists were funded for two years with about 15 – 25 thousand Euros for each approved proposal.

In an attempt to determine the priorities of scientific research, a questionnaire designed for this purpose was distributed to the deans of faculties and heads of departments in Palestinian universities. The results of its analysis showed that the priorities chosen reflected the field of study of the researchers filling the questionnaire. Therefore, researchers and academics in the Faculty of Science, Department of Physics, came out with priorities in the field of physics, and those in the Faculty of Education

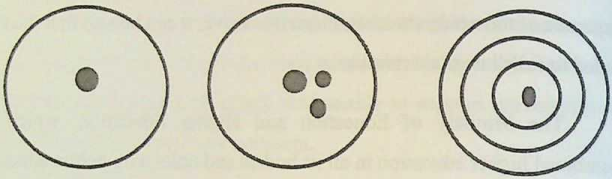
recommended priorities in the field of education, and so on. This is expected, because the academic wants a financially supported opportunity to do research in his/her field, and for the purpose of scientific promotion and not for the sake of development of the community. To summarize the above, it can be said that there is no scientific research environment in Palestinian universities, especially since the doctoral programs are rare, and the Council of Scientific Research was unable to support universities to create a scientific research environment.

Going back to the University Student Lending Fund (SLF), which was established in 2001, and has been financially supported by more than $ 120 million within a few years of its establishment. The major contributor was Saudi Arabia, and also support from other international organizations which contributed with financial and administrative support such as UNESCO and the World Bank. Experts came from several countries to help in establishing a mechanism for running the Fund (lending mechanism, repayment mechanism, and timing), reformulate the Fund's administrative composition, and form a Board of Directors headed by the Minister. Unfortunately, the SLF did not succeed in recovering loans, even small amounts. The students who took loans considered these funds as aids - although they signed documents that stated repayment- and therefore did not initiate repayment after graduation and work. The Minister - or more than one - who headed the Fund did not oblige them to do so. It worth mentioning that the support provided by the Fund, if used properly, and by proper repayment mechanisms, as in developed countries, would have contributed significantly to achieving equal opportunities for poor and rich

students to enroll in the desired disciplines, and to provide universities in installments at the beginning of each semester, which would reduce their financial crises. Furthermore, the semester loan could have been high, covering the entire semester installment with the living and housing expenses of the needy students. From the above, it can be said that the Fund failed to fulfill its main mission.

The Ministry of Education and Higher Education, which has combined higher education in all its bodies and units with public education since 2002, is headed by the Minister, who heads the higher education sector including all the above-mentioned bodies (Higher Education Council, Scientific Research Council, Accreditation and Quality Assurance Commission, and the Students' Lending Fund). The structure of the ministry of education and higher education includes a deputy and assistant deputies (one of them for higher education), then general directors for several departments, four of them in higher education (a general department of grants, a general department for development, a general department for certificates and university education, and a general department for technical education), and then departments for student affairs, and the: Diwan of employees, financial and administrative departments. Moreover, the ministry directly supervises two governmental universities and five governmental university colleges in the West Bank and Gaza Strip. The ministers of the Ministry of Education and Higher Education differed from each other in respect of the administrative hierarchy and issuing of powers/authorities in more than one way. The following are the three main forms of administrative hierarchy and issuing of powers in the ministry that

were practiced during the last ten or fifteen years from now (during these periods, the ministry of higher education was combined with the ministry of general education for some years):



Model 1 Model 2 Model 3

**Model 1**: It can be called the circle center and its surroundings, where the Office of the Minister is the center of the circle and the rest of the offices of the ministry, including the Office of the Deputy, Office of the Assistant Deputy, Director-General and then the Directors, especially the Director of finance and the Director of administration are entities located on the perimeter of the circle. Therefore, the door of the minister's office is open to all of them. The office initiates and encourages the reception of employees, according to the mood of the office manager. Everybody takes central instructions from the minister, discusses achievements, and proposes what needs to be done, with no regard to the administrative hierarchy at all. For example, a General Director of a certain department would be surprised that a manager in his/her department is assigned to a task by the minister without his/her knowledge as well as without the knowledge of the Assistant Deputy and the Deputy. Thus, matters and tasks will be confused, and factors of accountability and follow-up will be absent.

Another characteristic of this model is that all external and internal hard copy mail and correspondence first arrives at the minister's office to be read and signed by the Minister, then transferred to the concerned department, then to the corresponding employee concerned. And thus, more than one employee reads the content of a certain document before it reaches the employee concerned. The mailing process requires an average of two to three working hours per day by the minister. This administrative pattern takes all the time of the minister in the follow-up and routine work, and the share of higher education actual work is less than 10% of the Minister's time because of the large size of the structure of public education, which takes 90%. This form is not productive to development and explains why many vital issues have not been addressed and rolled over from year to year. For example, a special system of open education, as provided by law, has not been developed throughout this time period. Another example, a system for accreditation and equating international bachelor's degrees from open universities has not been developed for Palestinian graduates, although we grant the same degrees from Al-Quds Open University, which includes about a third of students of higher education! And there are many examples of this sort

**Model 2**: It is similar to the first model (the center of the circle and perimeter), but the minister has assistants appointed on projects that are funded by a third party out of the ministry, and are required to monitor the progress of work in the ministry and detect its weaknesses for correction. This eases the work of the minister who believes that all employees, whether assistant deputy or general managers in the ministry are not

qualified and difficult to deal with and must find qualified people outside the ministry to develop the work. This administrative pattern did not produce positive developmental results, but poisoned the business climate in general, and created a state of frustration for most of the employees who did not cooperate with the appointed assistants and continued routine work as it is. As a result, the work on boards, accreditation, governmental universities, and the lending fund progressed only "on paper". There were changes in memberships here and there, but the results in general are not tangible.

**Model 3**: The minister follows the sequence, or the administrative hierarchy and authorities are issued as they are in the structure, and the door of the minister is not open to all. The General Director or the Director who requests a meeting with the Minister's office, will be transferred to the office of the assistant deputy. However, some assistant deputies and general directors enjoyed more powers than their regular powers for some reason or another: they took the opportunity to interfere with the work of others with a green light from the minister. This type of management is better than the previous two forms, and if it lasted longer, it would have created a healthy work environment despite lacking scientific assessments of the work of each department. These assessments are needed so that appropriate changes are made, and transfers of employees are made by swap within or outside the ministry; who is not fit in a certain location, may fit in another location in another ministry with the same job title. Moreover, the evaluations help in making each official a "minister" of development in his/her own field and within his/her powers.

From the above, the ministry - the higher education sector -, was not characterized by a brilliant performance, and all attempts of development were frozen in the first or half way, even donor-backed ones had some deviations from the original trail, and achieved less than the expected results. No one dared to do a realistic study on the positive and negative impact of projects with external funding, and to assess the degree by which achievements deviated from their original goals.

**B. Governance at the Level of Universities and Their Administrations:**

In the first chapter of this book, a detailed explanation of the organizational structures of Palestinian universities in their three categories (government, public, and private) was presented, with an explanation of the administrative positions, the mechanisms of appointing staff, and the powers of each position, and then the most important differences between them. Therefore, the talk here is not about these administrative forms in detail, but a short summary of each of them is given:

**1. Governmental Universities:**

There are three universities: Palestine Technical University - Khadouri in Tulkarm, Al-Aqsa University in Gaza, and Al-Istiqlal University in Jericho. All of them refer to their legislative reference (the Higher Education Law and the Law by the President of PNA regarding Governmental Universities No. 9 in 2009). Al-Istiqlal University is unique in its own law. All employees are governed by the civil service law, i.e., government cadre, with some exceptions for those who have special employment contracts, such as the rector, some advisors, and so on. The

salaries of all employees are from the Ministry of Finance, which is lower in value than the salaries of private and public universities. Therefore, the president and administrators of the university do not have to secure salaries and major operating expenses. This task - which occupies the management of public and private universities every month - is not on the agenda of the university's president. It is not important for the Finance Department at the university to make calculations related to the cost of the teaching hour or the cost of the student's annual education cost as long as the salary bill is paid by the government and outside the university accounts. At the level of the President of the University, his/her appointment is made by a decision of the President of PNA that depends on the recommendation of the Council of Ministers and the recommendation of the Minister of Higher Education. He/She directly reports to the Minister. The Minister supervises the full functions of the university, employment, admission policies, and disbursement of amounts exceeding a certain ceiling. All these decisions need to be only signed by the Minister. The Governmental University charges fees and tuitions from students for each semester, but it is much lower in value compared to public and private universities. Governmental universities suffer from the ability to attract teaching staff and researchers due to the lower level of salaries compared to other universities, which is often solved by making special contracts for each semester, and this is often impractical.

2. **Public Universities:**

They are the largest in number compared to governmental and private universities, and is subject in its work to the Higher Education Law, which

has a legislative reference, and each has its own regulations and internal system governing it, and enjoys financial independence, where it bears full operating expenses, including salaries for all employees. The main sources of income are students' fees in addition to governmental support, research output, and services as secondary sources of income. The President of the University is appointed by a decision of the Board of Trustees, which is the highest administrative body that appoints the members of the University Council by a recommendation of the President of the University.

There is no interference by the Minister in the conduct of the work of the university, but there is supervision of the ministry over its programs, accreditation, and evaluation through AQAC in the ministry. The Higher Education Council may decide on the percentage of governmental support to be determined annually for each. There is a unified salary scale for its employees, approved by the Higher Education Council and the Unions of the Professors and Employees of public universities. For example, a faculty member with level 3 and step 7 has the same salary in any of the public universities, and so on.

**3. Private universities:**

The number of these universities is increasing. They govern their affairs according to the law of higher education, and each has its own internal legislation and regulations, and enjoys administrative and financial autonomy as public universities. Each private university has its own financial cadre, and rely on sources of income, which are represented by tuition and students' fees in addition to generating income from research. It

does not receive governmental support as public universities but may be indirectly supported through external joint ventures and such. The President of the University shall be appointed by the Administrative Council in each. The Minister of Higher Education or the Ministry shall not interfere in its affairs except through the evaluation, approval, and licensing of their programs by AQAC.

Universities differ in their internal management style, whether governmental, public or private. Some of them are central or semi-central in powers and decision making, and therefore the President of the University usually has the final decision. Some consider the administrative hierarchy, from head of department, to the Dean of the Faculty, then to Academic Council or Council of Deans or University Council. The degree of application of transparency, accountability, and integrity differs from one university to another in Palestinian universities. Similarly, the degree to which each of them applies their mission: some divide the main objectives derived from the mission into a number of objectives and distribute them to the deans of faculties and units, and each deanship derives several goals from its main goal and distribute it to its departments and so on for the rest of the main units. Some of them are unable or face difficulties in achieving the main objectives, due to obvious obstacles that are not easy to overcome such as financial impediment. Therefore, the university shifts interest and focuses on informal activities and directs the media to write about it as big achievements. For example, senior managers are interested in coordinating with some external or internal donors to conduct a scientific conference or a workshop on a certain topic. They

conduct the conference and bring the media to talk about it, and they invite important people to participate in the opening of the conference, and the conference ultimately does not yield tangible results, but recommendations that nobody cares about. Similar to the previous point, the universities' participation in many projects with foreign universities and external funding brings usually limited financial and knowledge gains, but the media inflates these activities as academic developmental achievements. The administration or one of its executive bodies may succeed in opening a new academic program or a new research center with external funding, but after a few years, this program or center becomes dependent on the university because it has lost the sustainability of funding and thus the ability to attract students to enroll in it or attract researchers to participate in it. All this happens due to the absence of real self-evaluation, the absence of accountability, and the lack of sustainable funding sources.

The above-mentioned diagnosis of the reality of higher education governance at both the public and institutional levels indicate the importance of developing remedial steps, using two tracks: re-engineering and continuous improvement. The following developmental proposal represents the following steps:

1. **Higher Education Council (HEC):**

   The following procedure is proposed:

   a. Restructuring the composition of the Higher Education Council, so its members serve as a team of experts in the field of higher education, appointed by the President of the Palestinian National Authority, and endorsed by the Prime Minister, and appointed by

name and not by title, so "a representative of ministry x or a representative of the industrial sector and such" should not be accepted. The term of appointment should be for three or four years, that are renewable once. As for the Chairman of the Council, he/she shall be elected or appointed by the members, provided that he/she is not a minister. The members of the Council in terms of function are divided into two parts: the first includes full-time members with contracts, and the second includes part-time members who are semi-consultants with contracts, and the number is determined according to the size of the tasks required. The Council has the right to employ the appropriate number of qualified persons to perform various tasks.

b. The proposed Higher Education Council has a special law that guarantees the financial and administrative independence of the Council. It has an annual budget that is disbursed from the treasury of the National Authority and renewed annually after submitting a financial report to the Council of Ministers containing the real budget. Members have a special financial cadre. Part of the budget will be allocated to support higher education institutions, according to a mechanism determined by the council.

c. The Council is considered the main reference for higher education and makes the final decisions regarding higher education issues at the national level. The council shall submit its recommendations to the Minister of Education and Higher Education (if present) and shall be obligatory. Moreover, it prepares general plans and policies for higher education that serve as a guide for policies of all

Palestinian higher education institutions, in addition to determining the amount of annual financial support and its distribution to higher education institutions according to criteria that enhance quality. In addition to that, tasks related to assessing the performance of higher education institutions and evaluating programs. Moreover, it should set the standards for quality assurance in universities by means of special units of the Council that are specialized in each axis of the Council's activities.

d. Each Palestinian higher education institution should have a special file in the Council, which documents all its results of the evaluation, support, and development. The file should include reports submitted on various issues and should form the basis for dialogue sessions with the University's representatives (e.g., the President of the University, his/her deputies, members of the Board of Trustees and such). Each institution is given the opportunity to talk about its status, trends, and problems in a documented manner, so that it is not said that the institutions are absent from the membership of the Council. It would also prevent making decisions concerning University X without dialogue with its officials.

2. **The Accreditation and Quality Assurance Commission (AQAC):**

It (AQAC) will be part of the administrative structure of the Higher Education Council. It will be the unit of the Council responsible for licensing, accreditation, and evaluation of institutions and academic programs, and performs all of its current tasks of establishing quality standards and ensuring their existence. Its Chairman or Director shall be appointed using the same mechanism as the Chairman of the Higher

Education Council is. The Board of the Commission shall have the same members of the Higher Education Council, whereas the rest of the staff are employed in the same manner used for recruitment and employment in the Council, and according to the same cadres that considers their scientific qualifications and experiences. In this way, the Commission shall be subject to the policies and regulations of the Higher Education Council which guarantees its financial and administrative independence.

3. **The Scientific Research Council:**

It shall be replaced by a body at the national level and its name shall be changed to "the **Supreme Council for Scientific Research**", so that it will operate under its own new legislation. It is allocated large governmental funding by allocating a percentage of tax revenue, for example, or other sources. Its main aim is to support scientific research in vital and societal areas according to organized scientific mechanisms, such as launching calls for scientific research projects in the fields of medicine, agriculture, technology, ... etc. This should be according to a National Strategic Plan, to advance the different production sectors, if any and according to priorities of the community. It should have significant financial coverage for each appeal and each research project presented by a research team working at Center X, Laboratory Y, or program B at a Z university. The research projects should be submitted competitively and transparently evaluated by specialized committees appointed by the board's management on a permanent or part-time basis. Some of its members may be from abroad. Such research will make scientific progress and result in new discoveries in each field. Its

results will be published in the best scientific journals in that field. The Supreme Council may publish a **scientific journal** with various fields and give opportunities to publish research papers produced from the projects supported by it and serve as the main scientific journal in Palestine. Research published in it will enjoy a scientific weight and high reputation. These research activities will create scientific research teams specialized in specific fields and full-time researchers. The salaries of the team members will be covered by the funding given to the winning research projects; whose implementation period will take several years. I propose to cancel the current activity of the Scientific Research Council and to distribute its budget to universities as a governmental support to purchase new lab equipment, to provide a scientific research environment, and to encourage holding conferences or participating in them. These activities are essential to the work of the university and must be activated on campus.

4. **Student Lending Fund (SLF):**

I propose that it should remain governmental but as an independent body and not affiliated with any ministry, because the PNA is more capable of implementing repayment mechanisms and obligating stakeholders to pay their dues in a timely manner. What the SLF needs is to review the mechanism of its work in terms of the value of loans given, who is eligible to apply, at what time it is offered, and the mechanism used to assess the socio-economic level of the student, and finally work to achieve equality and fairness in granting loans to students who deserve to enroll in higher education. A student who is scientifically qualified but economically semi-destitute, deserves a loan

that covers all tuitions and fees, installments, and living expenses, so that this student is given the opportunity to study as the financially capable students. In addition, the SLF should play a role in alleviating the financial crisis in Palestinian universities, by fully providing premiums at the beginning of the semester, and allowing universities to raise the cost of hours in line with the increase in salaries and the increase in operating expenses that occur every period if not annual.

5. **Governmental Universities:**

In particular, Al-Aqsa University and Palestine Technical University-Khadouri should remain governmental, but work on their financial and administrative independence in a manner like the status of public universities with the following:

a. The improved Higher Education Council shall determine the annual budget value of each university, including salaries, and request it from the treasury of PNA, and place it in a bank account of the administration of each university. This step should be repeated every year after reviewing the real annual budget and its disbursement items, and after discussions with the administration of the university regarding the value of each item for the coming year.
b. The employees at the two universities should be payed based on the unified cadre, quite similar to public university cadre with retirement benefits and compensation at the end of service.
c. The members of the Board of Trustees, Advisory Board of the University, and the President of the University shall be appointed by a decision of the President of the Palestinian National Authority (PNA) after a recommendation of the Council of Ministers.

6. **Public and Private Universities:**

These should remain under the same structure and under the supervision of the developed Higher Education Council, while working to mitigate the negative impact of the tribe (family) dimension and the political-party dimension in conducting and managing their work. There is a hidden classification now for each or to some of them according to the two dimensions mentioned: one may say: University X is the University of the Y family and of a certain political affiliation, whereas University Z is for the family L and its political character is M. The classification is linked to the family and political dimension of the founding members, who are on the boards of trustees or the presidency of the university. Such a situation hits academic freedom and democratic space within the university, and many examples of which need not be mentioned in this book.

7. **University and Community Colleges: Governmental, Public and Private**

Governmental community colleges as well as university colleges should be run and governed by the new Nablus Technical University (NTU a governmental university) which is under the umbrella of the developed Higher Education Council, and NTU should be treated as the other governmental universities mentioned previously. In addition, NTU should administer the Technical Comprehensive Exam for the graduates of all other community colleges. Whereas, public and private colleges are run independently under the supervision of the developed HEC, but their graduates must pass the comprehensive exam mentioned above.

8. **At the Ministry's Level (Higher Education Sector):**

After the proposed development of the previously mentioned objects and their disintegration from the Ministry's framework, only the following general departments should remain: development (database), vocational and technical education, scholarships, university education, and students' affairs department. The database must be transferred to the developed Higher Education Council in order to provide the necessary information for decision-making. The vocational education should be governed by the ministry of general education and not higher education, while technical education, community and university colleges, should be run and governed by the new Nablus Technical University as explained before. Scholarship department, students' affairs department, and university education department shall be run by the Council of Higher Education. With these changes, there is no justification for the existence of the Ministry of Higher Education in its current form, but to restructure it, without the need to dismiss any of its employees. Some of these employees can be transferred to other ministries with the same job titles.

**Second: Higher Education Outcomes and the Needed Improvement**

**A. Higher Education Outcomes Are Diverse, But Can be Limited to the Following:**

- The graduates and their knowledge, ability, competencies, the skills they can perform, and their behavior.
- Research publications for faculty members and its reputation.

- Funded scientific research projects that contribute to the production of knowledge worldwide.
- The positive impact of the educational institution on the community in which it exists.
- Development in the economic field and its impact on improving the lives of individuals.

Our focus will be on the first outcome (graduate student), and what he/she has learned and gained during his/her studies at a Palestinian higher education institution. To shed light on the subject, a recent study (Al-Shalabi, 2019) was recently conducted and tackled the problem by addressing the following questions:

1. Is there a mismatch between the competencies and skills of graduates of Palestinian universities in the fields of business studies and information technology and the competencies and skills required by the Palestinian private sector?
2. What are the most important competencies and skills possessed by graduates of Palestinian universities and the degree to which they excel in them?
3. What competencies and skills do the Palestinian labor market need in the private sector?
4. Do competencies differ by gender?

To answer the study questions, the following methodology was used: A sample was drawn from the statistical population represented by graduates from Palestinian universities in the two fields: the first is administrative and financial sciences, and the second is engineering

sciences, information systems, and computer, who work in the following private and civil institutions operating in the city of Ramallah in Palestine, namely banks, insurance companies, information technology institutions, and telecommunications companies. The total number of graduates in the two fields mentioned above and working in the above four categories of institutions (which reached 37 institutions) is 493 graduates as shown in **Table 28**. These graduates meet the requirement of being specialized in the field **and have worked in their institutions for one year at minimum**. The final requirement is to ensure that the employee knows the nature of the work and the needs of the experience according to the requirements of the study. The study was conducted on a sample from the statistical population using Stratified-Cluster Sampling. Each field of specialty as considered a layer or segment by virtue of the nature of its work. A random sample was drawn from each segment according to its relative size (Proportional to Size), and then all employees in each withdrawn institution who met the criteria were surveyed using a questionnaire that was designed for this purpose. In this way, the total number of working graduates who responded and cooperated with the researcher in filling the questionnaire for the study was 103 persons, constituting 21% of the members of the statistical population as shown in **Table 28**.

The above-mentioned study came up with several recommendations, the most important of which is related to the subject of developing and improving the outcomes of Palestinian higher education. It is that "The Palestinian universities should adopt and introduce **a qualification-based learning approach** in preparing the intended learning outcomes for each

academic program and each course". This will be the most distinctive and effective aspect of reforming higher education, because it will guide the faculty member to choose the teaching material (course content) that is appropriate to the intended outputs, in addition to a change in the current teaching and assessment methods, and replacing them with teaching and

**Table (28)**

**Statistical Population and Sample to Assess Competencies and Skills of Graduates of Palestinian Universities**

| Population | Banks | Insurance companies | IT & Computer Companies | Telecomm. Companies | Total |
|---|---|---|---|---|---|
| Number of Institutions | 8 | 3 | 24 | 2 | 37 |
| Number of Employees | 200 | 45 | 168 | 80 | 493 |
| The Sample | | | | | |
| Number of Institutions | 3 | 1 | 8 | 1 | 13 |
| Number of employees | 24 | 10 | 35 | 32 | 103* |

*Ten questionnaires were neglected for not getting complete data, although they were returned to fill in the shortcomings.

assessments methods that will ensure that the learner (student) is getting the targeted skills.

## B. Intended Learning Outcomes: Importance, Levels and Formulation:

Learning outcomes are defined as predictive descriptive statements about what the students may have as: theoretical knowledge, ability, understanding, intellectual, professional, practical and general competencies, skills that can be performed, or exhibited behaviors and attitudes after successful completion of the learning process (graduation). Learning outcomes - while predictive - are critical as they provide a strong foundation for the design and/or development of an academic program. Thereafter, designing and selecting the courses and their content, then teaching, and evaluation methods. Thus, it provides the opportunity to apply constructive cooperation between the faculty members working in the program and the work environment. This will create a cooperative conducive atmosphere to joint planning, follow-up, evaluation and correction, which ensures quality. In addition to all the above, it gives a special flavor to the academic program in the community and among the students' families. The students and their parents will know what the program will achieve in the future. It also provides employers with information on the competencies and skills expected to be earned by the graduates and thus enables them to make hiring decisions based on what is needed of them. If all programs are developed in this way, the university will gain a good reputation in its community and among academics at home and abroad. This enhances the University's ranking among the top 100 in the world rankings process.

Learning outcomes have levels that start with broad generalization, such as the opening of a funnel, and end with a specific level at its end. Thus, they are similar to the levels of university courses. One of these is a general level related to university courses classified as "**university required courses**" and this level is defined as the outcomes of learning the general culture, the fundamentals of citizenship, and the societal values that all university students should achieve, regardless of their specialization, such as: Acquiring the values of citizenship, and being able to use information technology, effective communication skills, etc. This is followed by lower-level outputs related to courses categorized as "**faculty requirement**". Each faculty, as a specialized educational institution, is interested in developing common learning outcomes for students enrolled in their respective disciplines. For example, administrative science disciplines share learning outcomes that differ from those of applied engineering disciplines. Then comes a third level of specialization related to the courses classified as "**specialization requirement**", So that students of this specialization have competencies, intellectual, and practical abilities that distinguish them from others in other disciplines. Then the level of the "**course**" which has precise learning outcomes limited to the content of the course but derived from the outputs of learning that the previous levels contained in an **academic program** that includes the course/s. An eight-semester undergraduate academic program is usually comprised of four sets of courses: The first is the group of courses of the university requirement, and its relative weight is not more than 5%. The second is the group of courses of the faculty requirements and its weight is not more than 20%. The third is the group of specialization courses which is not less than 65%,

and the fourth is the group of elective courses which constitute about 5-10%. The learning outcomes formulated for such a program are **predictive expressions** of what students know in theory and can perform different skills and gain certain competencies upon successful graduation from the program. Targeted learning outcomes at the program level are formulated as a collaborative, rather than an individual, process, with all faculty members of the academic department involved in specialization courses being developed and formulated. In addition to the participation of other beneficiaries such as employers in the local community who aspire to employ graduates, and representatives of the alumni of a program who work in distinguished professional positions, and other consultants. The drafting of these learning outcomes considers several points, the most important of which are:

1. Review the context (university vision and mission, general university learning outcomes, required professional competencies, standards of trade unions and professional organizations related to licensing to practice the profession in professional disciplines), accreditation standards from official accredited bodies, as well as learning outcomes of selected programs from similar colleges and universities.
2. Raise brainstorming questions: What knowledge and concepts should a graduate of this program have? Does this knowledge qualify him/her to pursue graduate studies? What are the local job opportunities available for graduates? What competencies should a graduate possess from the employers' point of view? How can it be owned by the graduate? What are the relevant values and ethics? Is the university

environment conducive to teaching and learning? Are practical training venues available inside or outside the university? Are all faculty members able to apply the required teaching methods?

3. Start formulating output statements: Should consider the following:
   - Levels of learning as defined by Bloom and others (1956), which begin with remembering, understanding, application, analysis, evaluation, and creativity.
   - Choosing active verbs that relate to each level of learning: for example, verbs (retrieves, identifies, calls, ...) relate to remembering. Verbs (explains, elaborates, summarizes, ...) are related to understanding and comprehension. Verbs (use, apply, ...) are related to the application, while verbs (analyzes, differentiates, distinguishes ...) are related to analysis, and so on.
   - Determine the abilities, competencies, skills, and work to be earned by the student, but broadly consistent with the overall objectives of the program, and leaving details when formulating learning outcomes for each course of the program.
   - Initial wording of the output statements, preferably: The graduate from this program will successfully possess such and such ability or good knowledge and knowledge of such and such. For more clarity, we show some examples: A successful graduate of this program will have the ability to apply concepts, standards and skills acquired in multiple practical contexts. Or the ability to compete in commercial tenders and art projects, or the ability to self-learn and act independently.

4. Verify the integrity and accuracy of drafting: The process is through the following:
    - Raise the following questions: Are the words of each outcome clear and understandable? Is it measurable? Are they doable? Does it fit into the overall context of the university's vision, mission, and strategic direction? Do they consider the time limit of the program? Is it appropriate for the degree awarded by the program? Is it inclusive of all the diverse levels of learning: knowledge, understanding, mental skills, practical skills, applied and general cultural skills and others to achieve the intended goals?
    - Examine the degree of consistency and coverage of the formulated outcomes as a whole with the main objectives of the program and ensure the purpose of each formulated outcome. It is advisable to carry out this process with members of the university administration or program management.

5. Have a final list of learning outcomes for the program:
    - Ensure that the number of statements or outcomes drafted are not many, not exceeding 20 or 25 outcomes at most.
    - Ensure that each outcome has several sub-outcomes to determine the courses and the units in each course.

**At this stage, the learning outcomes are expected or hoped to be achieved, because they are statements on paper. It should be ambitious and reflect all the skills and competencies - that from the standpoint of**

**those in charge of the program - will give a distinctive reputation of the program that will impress the employers, parents, and community institutions. In other words, as if the program carries an acceptable professional profile among employers that they can trust. However, this trust and good reputation are strengthened and stabilized when the intended and expected learning outcomes become actual learning outcomes that have already been achieved, and successfully acquired by students graduating from the program.**

To ensure that the expected learning outcomes at the program level are converted into actual outcomes, **a process of placement and inclusion is required in the courses,** and then in **the classes or modules of each course**, a process that requires the preparation of a **multi-axis matrix**, showing the alignment between teaching and learning activities with tiered learning levels, target outcomes and their respective sub-outcomes, and hence the appropriate teaching method and assessment method for each sub-outcome (Biggs, J. & Tang, C, 2007). To facilitate this process, the following should be done:

1. Determine and identify the comprehensive educational content of the program through its objectives and the targeted learning outcomes formulated in broad terms.
2. Derive several sub-learning outputs from each broad output statement at the program level.
3. From each derivative output, an outline of the course objectives is defined, and then the targeted learning outcomes of the course are outlined, thus the course content will be outlined.

4. Determine the content of each chapter or unit of study in each course from each targeted learning outcome at the level of the course.
5. Here, it is easy to determine the teaching method and the way the student learns for each learning outcome with the learning resources and learning activities for each outcome.
6. Select appropriate assessment tools and methods for each learning outcome. Accordingly, it will be written and oral examinations, presentations, explanation in front of students, project work, writing essays, etc.

Thus, each learning outcome is associated with at least one course to be achieved, and each module in the course is linked to a targeted educational outcome of the same course, and therefore all learning outcomes of the program must be linked to the courses covered by the program. If a learning outcome is not associated with a course, a new course must be named to achieve this, or the outcome should be incorporated into a prepared course and named for another outcome after expanding its content. This means that each course in the program must contribute to the achievement of learning outcomes of the program. Similarly, each module should contribute to a learning outcome from the outcomes of the course.

The method of writing learning outcomes for the course is similar to the method of writing learning outcomes for the program, but the first focuses on learning and what the student can do from a variety of skills, and is formulated more accurately and specifically. The writing process of the targeted learning outcomes of the course begins with:" After the successful completion of the course, the student will be able to analyze,

criticize, compare, relate" ... For example: after successful completion of the course, the student will be able to: Evaluate the effectiveness of marketing methods using a cluster network, applying an R program to analyze laboratory data, designing an interactive website for students of the division on the network, or working with a group as a team to complete a project.

**C. Using Intended Learning Outcomes as a Tool for Development:**

From the data mentioned earlier in the first item, it is possible to achieve a process of qualitative development using the "re-engineering" approach on the outcomes of Palestinian universities through the use of expressions of the intended learning outcomes at the level of programs and courses. All the weaknesses of Palestinian university graduates in intellectual skills, practical professional skills, general skills and other characteristics are related to the nature of the expected work after graduation, whether at home or abroad. These weaknesses can be reflected in the program objectives, and then formulated as intended learning outcomes. Thereafter, they are placed in courses with learning outcomes that determine the content of the units of the courses. To ensure their achievement, the teaching and learning strategies should be determined with their different methods that suit each outcome, with different learning sources even if training places are needed outside the university, as well as multiple assessment methods, to cover the content of the course's material. To illustrate with an example, we assume that one of the members of the team authorized to formulate the intended learning outcomes of an architecture program, who is a representative of a Palestinian private

contracting company, proposed the following learning outcome: "A graduate of the University's Architecture Program will be able to apply all means of insulation from winter water and moisture to a new building". This learning outcome will be divided into several learning sub-outcome, such as: "will be able to choose from alternatives to various insulation means to suit the characteristics of a particular building". "He/She will be able to identify problems, habitat and causes of leakage and moisture and come up with solutions in an existing building". Thus, these outcomes determine the general context of two courses: First, its general content will discuss all means of insulation in terms of components, properties, method of use and such. The second delineates the effects that are related to humidity and the causes of winter water leakage and the necessary insulation areas starting from the building's foundations to the ceilings and walls. Consequently, learning outcomes will be formulated at the level of the two courses, each defining a unit or a chapter in each course, such as: "At the end of the course, the student will be able to successfully apply the XX isolation method in a building under construction, therefore, the unit will be concerned with the means of isolation mentioned in terms of characteristics, advantages, and method of use. The same can be applied for the rest of the course units. Then, to ensure that these learning outcomes are achieved, i.e., to convert them from predictive to actual outcomes, the following should be done: First, teaching and learning strategies and all learning activities are defined at the level of each unit. For example, it may be a method of learning that the student watches a video of buildings where they present problems of moisture and leakage, and then watches the use of the means of isolation XX as a treatment. Or actually go to a site where a

large building is being built and the students see how the supervising engineering office applies the isolation method mentioned earlier. Second, the method of assessment can be: The student prepares a presentation to colleagues on how to use the method of isolation mentioned and indicate their chemical properties. It should be noted here that the academic programs of architecture in most Palestinian universities do not include a single course on the means of insulation to prevent moisture and leakage of winter water, as informed by architecture students to the author.

**Third: Raising the Level of Quality in Palestinian Higher Education Institutions:**

Before discussing some possible solutions to raise the level of quality in Palestinian higher education, it is necessary to diagnose the current reality of quality based on indicators and standards that measure quality in higher education institutions. The researcher has come to these indicators based on his own experience during the administrative positions he took in the institutions and the Palestinian Ministry of Higher Education. The following are the most important indicators with a focus on universities:

1. **The Rate of What the Universities Spend on the Student** (the cost of the student on the institution): In the second chapter of this book, the average rate spent by Palestinian non-governmental universities per student per year (i.e., the average annual student cost per university) was estimated at $ 2,950 (equivalent to 2,100 JD). This rate is slightly lower than the average student cost in Arab, European, and American universities. The salaries of teachers and administrators in Palestinian

universities may be lower than their foreign counterparts. This budget item constitutes most of money expenditure in Palestinian universities. As a result, the cost rate declines, but this is also a problem, because the items of expenditure on the provision of laboratory equipment and raw materials, electronic and non-electronic office, scientific journals, and other student services should be significant. However, it is not permissible to measure the quality of education at the rate of spending only on the student; money may be wasted on items not related to the educational process. The quality of management of operation and guidance has a role in the size of the expenses. But it remains an indicator with other indicators and criteria.

2. **Student Teacher Ratio and the Average Number of Students in a Class**: These ratios must be acceptable and appropriate to the nature of university disciplines. In medicine, health, and engineering professions it should be less than in humanitarian and literary disciplines. Practical applications in education are not preferred to be implemented by a group of students on one device or studio, because teaching and learning will be ineffective compared to an individual student using one equipment and one studio table. In practice, these ratios vary from one Palestinian university to another, but on average the ratios are high or large, ranging from 1:27 to 1:40 (each faculty member has about 27 to 40 students), which disrupts the use of modern teaching methods and methods that has great effectiveness such as discovery-based learning, active learning, and reversed learning. Accordingly, indoctrination and narrative informing will be the most used teaching methods, and the written exam would be the mostly used method for evaluation. With

high number of students in a class, there would be no room for projects or student presentations and such as other methods of evaluation. What is worth mentioning here is the importance of calculating the ratio correctly, as it is not calculated by taking the ratio of the number of faculty members to the number of students in a faculty, but by taking the number of **the equivalent** faculty members, because the teaching load of faculty members may include teaching courses outside the faculty/program and so on. Moreover, some faculty members teach on a part-time basis or an over-time basis, and thus the number of faculty members should be adjusted to the load given to each faculty member working in that faculty. In addition, the importance of calculating these ratios and averages should be taken into consideration at the level of programs and faculties and not at the university level, because some disciplines and faculties does not currently have high demand in Palestinian universities such as physics, chemistry, mathematics and other natural sciences, whose study plans contain labs for long hours, and their graduates do not find jobs, while their faculty members are have permanent contracts and universities cannot end these contracts, so the ratio is about 1: 5 to 1: 8 in some, affecting the overall drop in the ratio at the level of the university. On the other hand, we find the average number of students in disciplines such as medical professions or education to be around 92 students or so.

3. **Internal Efficiency of the University**: Palestinian universities resort to accepting the largest possible number of high school graduates annually with numbers exceeding their capacities. They do so, to have extra income to cover the financial deficit and to reduce the cost of students.

The traditional (public) universities accept about 30 thousand students annually, in addition to about 15 thousand in Al-Quds Open University. These numbers reflect the number of successful secondary school students that exceeds this number, taking into account the successful and qualified numbers of students from previous years. Acceptance of these numbers, despite limited capacity, will have a significant negative impact on the performance of the faculty member and the performance of the student, and then on the effectiveness of the program and educational process as a whole, which leads to **high failing and dropout rates and a higher number of years needed for graduation,** and thus a decrease in the internal efficiency index of the university.

4. **External Efficiency of the University**: It is represented by the annual number of graduates and their ratio to the number of inputs and the number of students as a whole, and the quality of their specializations and areas of their work. The current reality in Palestinian universities indicates that the number of admissions exceeds the number of graduates, and the proportion of graduates in humanities and literary disciplines is about two-thirds (Higher Education Database 2017), and that the unemployment rate is high among them and exceeds 54% (Central Bureau of Statistics: 2018). In addition to the mismatch between graduates' qualifications and what the Palestinian labor market needs, as mentioned in the study of Shalabi (2019). Therefore, the university is unable to serve its society properly, not with the skills and competencies of the graduate or the type of applied scientific research that meets the need of people and could potentially improve their lives.

5. **Admission Policy and Selection of New Students at the University**: Admission policy has a significant impact on the quality of university education. There is a positive correlation between selecting students well and the degree of achieving quality. Universities base their acceptance on more than one criterion of choice (high school average or Tawjeehi exam scores, school scores, personal interviews, entrance level tests, etc.). The use of multiple measures ensures good input of students that are capable of learning with high efficiency, adaptability, collaboration, application, and while maintaining an interactive scientific environment. The reality in Palestinian universities; however, is that the selection is based on one major criterion of choice: the Tawjeehi average score at the end of secondary school. They set a minimum score corresponding to each college or faculty, and Tawjeehi averages above the minimum score will be accepted. The priority is given to those who pay the fees first. However, a personal interview is conducted as another criterion for admission in some disciplines such as medicine in some universities. Many universities are administering examinations to assess the level of English and Arabic language of the admitted students to determine their need of extra language classes. The prevailing trend at universities is to accept as many new students as possible by lowering the minimum score needed in the secondary school or its equivalent, in hopes of additional student tuitions. What encourages universities to continue this policy is the desire and acceptance among students to enter bachelor's programs and obtain a university degree rather than a two-year diploma or a vocational diploma program.

6. **Services Provided by the University to its Students**: There is a direct correlation between quality in university education and the size and type of services provided to students by the university. The presence of a library open for late hours at night, gives the opportunity for working students or enrollers in intensive programs to visit it in their spare time and benefit from its services, such as scientific journals and references that are used in writing their scientific projects and completing the required duties of various types. Also, the abundance of apartments or residential sections for students on campus saves time for students and provides more comfort and solves the problem of transportation. Similarly, the existence of banking services, hair salons, washing machines, health care centers and restaurants will make student life more comfortable; add to that the academic services such as guidance, registration systems and electricity that are easily accessed. Such services are mostly available in Palestinian universities, but in varying proportions: libraries are closed at the end of daily working hours and do not open during evening hours. Internal housing is available to female students and not to male students in many universities, although it does not meet the demand for it. Public transportation is not always available at the end of the working day. Libraries do not order scientific articles that are requested by researchers, which are typically available in external libraries, and so on.
7. **Faculty Members: Degree, Experience, Full Time, Research Outcome**: The characteristics of faculty members at the university have a significant impact on the quality of education in the university. The higher the ratio of PhD's to master's degree holders, the better the

quality. Moreover, the higher the average years of faculty teaching experience, the higher the quality of education will be. Likewise, if the research output of a university is within a few years, then the quality is high and significant. The most important of all factors in impacting quality is for faculty members to work on a full-time basis at the university and not to work partly in other institutions. Also, not to increase the teaching load beyond the prescribed. Such indicators vary in value among Palestinian universities, some of which are negative according to the data of the Higher Education Database (2014). In public universities, the number of over-time load in the first semester was about 1000 hours, which is equivalent to 83 extra faculty members with a load of 12 credit hours per semester. Universities now tend to hire a master's degree holder as an alternate or in replacement of a retired faculty member with a doctorate degree. They also prefer to hire a part-time appointment to fill their need at the beginning of each semester. The research output of a faculty member is less than one research project or a paper per year (Shalabi, 2011), and this is expected considering the additional teaching loads. What we find on the ground is that 37% of faculty members in Palestinian universities hold a doctorate degree, more than 50% hold a master's degree, and the percentage of part-time faculty members is about 45% (Higher Education Database, 2006). The higher the academic degree, the lower the percentage of female representation in it.

8. **Quality of Curriculum**:

It is important that the curriculum and its content relate to the objectives of the intended programs and learning outcomes, which are usually

tailored to the needs of the labor market and consider modern technological developments. These measures enhance training in the productive sectors during the study, thus increasing the student's abilities and competencies of professional, practical, academic and personal skills. All this increases the quality of the university and keeps it up to date with the latest scientific developments. It is noticed in some Palestinian universities that the curriculum still contains traditional courses that are weakly linked to the requirements of development and the needs of the Palestinian society. In addition, many of them are imported from the Western model and contain examples, applications, and questions related to the Western reality and its means of life and is irrelevant to the Palestinian reality.

9. **The Degree of Spread of Quality Culture in the University**:
   Quality is a culture and a behavior, and this culture and its applications are reinforced by the commitment of the university's administration to it and its consideration as an approach to all academic and administrative units in the university. This is achieved through the adoption of many quality standards, that are explained and distributed to unit officials, and then monitored for their achievement and implementation. The reality in many Palestinian universities is that the administration is forced to breach certain quality criteria due to financial hardship.
10. **The Encouraging Atmosphere of Work of the University**:
    The working environment of a university has a significant impact on quality enhancement or its hindrance. The atmosphere of not moving forward, individualism, extreme centralization, combating renewal,

lack of democracy, lack of strategic planning, scarcity of self-assessment, and financial deficits cannot lead to high quality in education and performance, even if a quality unit is established in the institution with external support. This is emphasized especially when the quality unit is hosted in a negative and frustrating atmosphere. The vice versa of course is true.

11. **The Scientific Level and Skills of the University Graduates**:

The graduate's possession of academic, intellectual, applied, and personal skills is a clear indicator of the quality of university's education. Possessing these qualities raises the reputation of the university among the private and public sector in the community, in addition to wherever qualified graduates work abroad.

Now, in order to ensure a high level of quality at the Palestinian universities, we propose to universities the following:

i. **The quality indicators must be implemented, at high rates**. The administration of the university should consider these indicators mentioned above as norms, key performance indicators (KPIs) and work standards that cannot be overlooked and ignored. These standards should be circulated to the departments of all academic and administrative units of the institutions to become a working guide.

ii. **Self-assessment of the performance of the university every five years**: Here are several forms of evaluation that may be used by the universities, but any university **must provide answers to the following questions:**

**Question 1: How well does the University develop over a certain period of time?** This question leads to a process of self-comparison of the various components of the university: what it was in period 1 and what it has become in period 2? For example, did the program X evolve or remain the same during the time period between 1 – 2? Did the student grow personally during that period? Did the faculty members develop research projects or grew in rank during the same period? Are management models developed better during that period? Answers to these questions can therefore be grouped to judge the evolution of the university as a whole during that time period.

**Question 2: To what extent has the university achieved its objectives or goals?** This leads to reviewing the mission of the university, its main objectives, derivative goals, and policies that are set out in the plan of the university and at the level of each faculty, program, and center or unit, and then the degree of achievement of each goal. In other words: Is the strategic plan, if exists, seriously pursued? which goals have been achieved, which ones are difficult to achieve and why?

**Question 3: To what extent are the quality assurance standards achieved?** These standards are usually set by accreditation bodies, ministries of higher education or related bodies. This is the starting point of Benchmarks criteria that are set by a third party for the purpose of quality assurance such as (capacity of classrooms, the proportion of students per faculty members, the proportion of part-time to full-time faculty members, the number of books in the library per the number of students, the student cost rate, the load of a faculty member, and many others). It requires

measuring and designing models to judge the degree of achievement of each standard. Each criterion or indicator is a description of the ideal state of each situation assessed. It is then left to the evaluating team after discussions with senior bodies (University Council or Council of Deans) to give the final picture of the situation and its effectiveness.

**Question 4: Are the main activities of the university implemented in an economic way?** (Is it cost effective?). This question leads to a comparison of the outcomes and its related benefits with the cost of its production! It is important that each academic process or research activity is carried out in harmony with the available financial resources. This requires good administrative control and judgment before starting any activity.

**Question 5: What is the added value that students acquire from their university education in terms of personal growth and skills?** In other words: What change has the university brought to the students while studying? This requires a long-term study, such as taking a sample of students in their first semester at the university, studying in various programs, and measuring their knowledge gained from general education, their skills, behavior, and values. Then, re-assess the same sample using the same measures when students are in their last semester before graduation. The comparison of both measures shows the impact of the university on the students. If this is not possible, a representative sample of last-year students at the university can be drawn and compared with a representative sample of first year students in their first semester. These two samples should have common characteristics. This option is less valid than the first option, but it still has some indications. A third option is to withdraw a representative

sample of last-year students at the university, and assess the academic achievement of each student, and statistically link it to all the variables related to the student's academic program and university life as well as with the variables of the student before entering the university. Then separate the variance related to variables related to the university from the variance related to variables related to the student before enrollment using multivariate statistical models.

**Question 6: What did the graduate learn and what skills did he/she acquire?** What are the outcomes of teaching and the learning process at the student level? Several outcomes can be distinguished at two main levels. The first is at graduation, and the second is after graduation and work. Each outcome requires its own measurement method. At the first level, the following outputs can be assessed:

- Degree of students' knowledge of their field of specialization.
- Degree of student's knowledge of the academic program area and his /her overall academic performance.
- Basic skills in languages, literature, science, and critical thinking.
- Duration of study until graduation.
- Satisfaction with the university (program, teachers, services, library, adaptation, etc.)
- Personal skills.
- Entrepreneurship.
- Tolerance and resilience.

At the second level, the following outcomes can be monitored:

- Nature of work
- Consistency of work with the field of specialization.
- Degree of job satisfaction.
- Income from work.
- The opinion of the employer regarding the performance of the graduate.

**Question 7: What is the impact of the university on the community and the surrounding environment?** Here, the focus is on the policies and procedures offered by the university towards the community. For example, evaluating the continuing education programs available to the community, the degree of effective contributions of faculty and students to the community, and the extent of the university's participation with local and civil industrial sectors in joint economic and social activities, in addition to scientific research on sustainable development and conservation of the environment.

**Question 8: Does the university have a good reputation and a high status?** Here, the focus is on the size of annual applications and their geographical distribution from different districts, in addition to polling new students and finding out why they prefer this university over other universities. As well as reviewing the University's ranking compared to the ranks of local and regional universities in accordance with certain known standards and ranks.

**Question 9: What is the University's productivity regarding credit hours in each program?** The calculation of this productivity measure at the level of each program gives an opportunity to identify classes with a

small number of students, investigate the reasons for this low turnout, its impact on the productivity of the faculty members in terms of credit hours. The opposite is true; high demand on certain classes and certain programs indicates high productivity rates for some faculty members. In both cases, the opinion of the councils at the university is required to evaluate both scenarios.

**Question 10: What is the student's educational cost in each program/faculty?** Answering this question requires counting the number of faculty members in the program or faculty not by head account, but rather according to their load in each program or faculty. One faculty member may be counted as ONE in terms of number and salary in the mathematics program if they work on a full-time basis in that program. But if during a particular semester, his/her load was divided between three programs as follows: 3 hours (one course) for an engineering program, 3 hours (one course mathematics) for an accounting program, and 6 hours (two courses) in favor of his/her original program, so the total load of 12 credit hours is achieved. Accordingly, it must be calculated in terms of cost: a quarter of his/her salary should be paid by the engineering program, another quarter by the accounting program, and half a salary by the mathematics program. As a result, the number of faculty members in the Faculty of Arts can be up to 63 instead of 90 as calculated by the appointment of the Faculty of Arts using a head account. Similarly, the Faculty of Arts should calculate the credit hours that it gives to other faculties by making a matrix. The format of a double table shows what each faculty gives and what each takes from

other faculties. Without it, the cost in each program or college remains misleading!

iii. **Develop a medium-term strategy for every five years:** Here, too, several models can be used, but the author suggests the following model. It consists of several steps, that was implemented in many areas in higher education:

**Step 1: Determine who is going to perform the planning process and who are the participants:** The answer is directed to a special unit in the administrative structure of the university and preferably affiliated directly to the president of the university or to his/her deputy for planning affairs. This unit may be called the "unit of planning, evaluation, and quality assurance" to perform tasks of planning, evaluation, and quality assurance. This unit should be centralized, and communicate with department and programs heads, and deans directly and with full authority. Therefore, it must be managed by a qualified person who has great expertise in running higher education institutions, and methods of developing their plans, strategies, evaluation, and follow-up. Centralization of the unit will reduce the possibility of bias in favor of a program or department and will be keen to identify defects for treatment or disposal. Its members are the staff of the unit with their supervisor and form **the active group**. A **reference group** for the unit should be formed constituting policy makers at the university, for example, members of the university council. The unit should have an **advisory group** of members experienced in higher education affairs and beyond.

**Step 2: Identify Needs**: Provide the necessary financial and administrative support to cover meetings and workshops.

**Step 3: Design the following strategy building model** that identifies the main steps (components) and the partial steps as in **Figure 7**:

- **The first component: conducting a survey and review**: It is important to know the latest developments in academic programs and specializations in universities with a good reputation, to review its strategic plans and future goals, to discover the secrets of its successes and therefore, consider these as a field of comparison and a role model. In addition, it is necessary to review the legislations and laws issued by

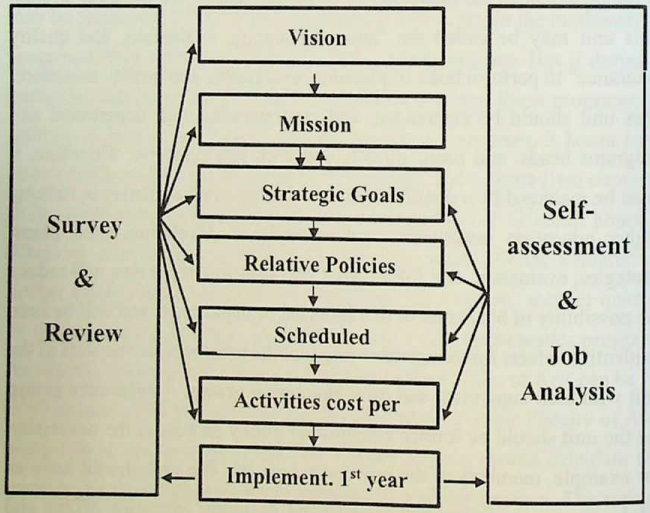



**Figure 7: Strategy and Plan Building Model**

the national Ministry of Higher Education and other relevant bodies, as well as reviewing previous and new studies related to higher education, universities, graduates, and unemployment rates among graduates by specialization. Also, it is important to review the plans, programs, strengths, and weaknesses of local universities to mitigate the frequency of programs and move towards integration and diversity.

- **The second component: conducting a self-assessment process**: As mentioned previously, this is needed in order to identify the weaknesses in a plan in order to strengthen them, and to identify the strengths in it to emphasize and reinforce them. Hence, to identify opportunities for improvement and, in turn, risk points.
- **The third component: conducting a functional analysis of employees, especially administrators:** where the analysis shows if there is convincing unemployment or weak capabilities in certain units, and reveals the need for conducting training or courses and such. This analysis is reinforced by a review of faculty assessments by students or by the deans.

**It is important to discuss the results of the procedures mentioned in the previous three components**: Here the active group conducts discussion sessions with the reference and advisory groups to extract and approve the final results in identifying the **"problem tree"** (trunk, main branches, twigs), and convert the tree to a mission (trunk), main objectives (branches), and derivative goals (twigs) but this is to be written as a draft that could be adjusted.

- **The fourth component: a reformulation of the university's mission and vision**: as a result of the survey and the review, and the result of the self-assessment, and after discussions with the reference and advisory groups, the active group will re-draft the university mission if necessary, as well as the vision of the university's future, and discuss them with the President and Vice-Presidents, who in turn discuss it with the Board of Trustees or the University's Administrative Council to reach the final wording of them. It is worth mentioning, identifying the problem tree and then turning it into strategic objectives also contributes to the reformulation of the mission (this is reflected by the two opposing arrows between the strategic objectives rectangle and the mission rectangle). But the decision remains with the university's administrative council or the first administrative circle in the university to formulate the mission and vision.
- **The fifth component: Preliminary development of strategic objectives**: Here, the active group formulates the strategic objectives based on the main problems and challenges reflected by the main branches in the "tree". It should consider the criteria for writing objectives to do this mission.
- **The sixth component: Developing policies for each strategic objective and roadmaps to achieve the goals**: Here, several policies related to each strategic objective are developed and prioritized.
- **The seventh component**: **Formulate a set of actions or activities related to each policy** (inspired by objectives derived from each strategic objective), with a time period to achieve each action/activity, identify who will carry out the activity (the body responsible for

implementation), and then determine the cost of implementing the activity or the procedure. After this, a standard is determined to assess the degree of achievement of the procedure.

- **The eighth component:** gathering and listing all activities to be implemented in the first year period, and these should constitute the first-year plan as part of the medium-term strategy.
- **The ninth component: Actual Commencement**: Implementation implies a continuous planning process that may result in modification of some derivative objectives, partial actions, and reordering of priorities, as well as specific actions such as field visits, meetings with partners, documentation, and reports. The annual plan is distributed to all parties responsible for implementation with clarifications and instructions and including follow-up mechanisms. During the year and at the end of the year, the plan is evaluated and reviewed, to eliminate unrealistic or difficult policies to achieve, and renew them with other policies through continuous surveys and audits. In addition, the follow-up mechanism requires a monitoring process to maintain the adherence to the plan and requires a periodic evaluation of the work done and the degree of its suitability to the indicators of achievement and expected outcomes. The follow-up body is the same as the coordinator of the strategic planning process (the active group) and will be based on reports submitted by the departments and units officially responsible for the implementation of activities within their respective mandates.

The quality processes mentioned above, require the university's administration to serve as "***a quality management unit***", to ensure that the

aimed quality is achieved and maintained at the highest levels, comparable to what is found in the world's most reputable universities that have a distinct scientific and research outputs.

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# HIGHER EDUCATION IN PALESTINE

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