Transition from High Education to the Labour Market: Unemployment within Graduates from the Gender Prospective In the Palestinian Territory

by

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by

Saleh Al-Kafri*

Abstract

Theories and studies indicate that education is an essential factor to reduce the probability and unemployment duration and increase chances for business continuity and stability in a decent job. Nonetheless, what happens to women in many countries of the Middle East and North Africa is just the opposite, specifically in the Palestinian Territories, where the participation of women in the labour market is very low and significantly high rates of unemployment are witnessed. Results indicate that the more the years of education among women the higher the unemployment rate, unlike men, causing a significant gap between both sexes. Then comes the question repeated in all seminars, workshops and conferences, of why women face low possibilities of getting a job when they decide to enter the labour market, especially those young and highly educated? This is the basic problem that this research study tries to tackle through highlighting and identifying the factors affecting the low potential of graduate women in entering the labour market unlike graduate males despite their achievements in education. We have used recent data of the results of Labour Force Quarterly Survey 1996-2008 (total Quarterly sample size for each year is 7600 households), using high technology in the methodology for rotating the sample and the personnel follow-up for the four quarters during a year and a half which provides a meticulous study of the situation. A survey of graduates in the labour market 2006 was also used, which in turn provides a rich base of indicators that support the search results. It should be noted that the methodology came in twofold, the first, a descriptive analysis of the available data, and the second by using the Transition Probability Matrix and analysis of the Probit Regression model. The results confirm the existence of the problem, and relate the reasons to the limitations that restrict the movement of women to get jobs. Moreover, it shows that the problem of unemployment among graduates is highlighted in specific areas and disciplines that do not match the requirements of the market, as well as the employers’ point of view of occupations and activities that women can exercise. Delays in obtaining work, often lead women out of the labour market which in turn causes their low participation in the workforce. The general trend in the future puts in front of the Palestinian decision-maker extraordinary challenges to provide opportunities for jobs that take into account the geographical distribution and the programming of scientific disciplines offered by universities.

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1. Introduction

The complex relationship between gender and work, and hence poverty, acquires widespread attention in the social and developmental policies and programs. The limited possibilities for women's access to material resources or control, whether these are wealth, education, jobs, skills or health services, make women more vulnerable to poverty. Under the difficult situations in the Palestinian Territories, there is a continuous rise in unemployment rate. Therefore, this issue is getting increasing attention from those in power and decision-makers in the Palestinian Territory because of its negative impact on poverty, low living standards and well-being. Recently, unemployment rates in the Palestinian Territories exceeded the expected compared with previous years, neighboring countries, or the least developed countries (LDC). The main cause of this deterioration is the Israeli’s actions aiming to starve the Palestinian people by all means, such as the siege imposed on most of the clusters, the difficulty of traveling between cities in the Palestinian communities, the imposition of curfews on some communities for long periods and preventing Palestinian workers of working in the labour market of Israel. On the other hand, there are other internal factors related to employment policies, education and other factors relevant to decision makers and incumbents.

Since the early nineties, the Palestinian economy faced a significant shift due to several economic crises. The impacts of these crises were declining living standards, widespread unemployment, and a widened cycle of poverty, especially among marginalized groups. These economic crises caused by the Gulf crisis and the Israeli actions against the Palestinian people during the first Intifada, which went on until the beginning of the second quarter of the nineties i.e., after the signing of the Israeli-Palestinian agreement on principles in September 1993 in Oslo. After 1993, aspects of growth and economic recovery began to emerge, especially after the flow of the international aids to the Palestinian Territories, and the start of intensive employment in public sector. These efforts and international assistance affected the Palestinian economy positively but once again this economy faced a crisis by the beginning of the second quarter of 1996 due to closures and strict actions of the Israeli occupation on the Palestinian Territories (this crisis was later on named Al Aqsa-Intifada). As a result, the unemployment rate sharply rose, especially in Gaza Strip, bringing this rate to 24% in the Palestinian Territory, 20% in the West Bank, and 33% in Gaza Strip (i.e., one third of the participants in the workforce). After that, in the third quarter of 2000 (i.e., in Al Aqsa-Intifada II) the Palestinian economic situation started to recover where the economic indicators showed gradual stabilization and unemployment rate gradually declined reaching its lowest level, if compared to the nineties, where the average unemployment rate reached 10% in the Palestinian Territories; 8% in West Bank and 16% in Gaza Strip. Later on, the political situation in the Palestinian Territories overturned again and the treaties between Palestinians and Israelis were suspended affecting negatively on all aspects of life. This situation further intensified with the Israeli aggression against Gaza Strip by the end of 2007.

In parallel with the problem of unemployment, other challenges have emerged, such as high rate of unemployment of graduate females compared with other groups of young women, unlike the case among young males. In other words, the difficulty to get jobs by young graduate women unlike women who did not receive an education higher than high school. It has been noticed clearly that the more the years of schooling for young women the higher unemployment rates, while the case is just the opposite among young males. This phenomenon has noticeably increased over time, especially whenever the number of graduates is high. The phenomenon seems contrary to what is known and what is customary in relevant theories. The prevailing view about education and unemployment shows that a high level of education protects people from unemployment (Lauer, 2005). Thus, the unemployment rate among Palestinian graduate males drops the more the years of education, while this rate rises significantly among Palestinian graduate females, the more their years of education.
If this situation persists, it may have a negative impact on the tendency of parents to educate their daughters. As an example is the tendency of Palestinian families during the period prior to Al-Aqsa Intifada (2000), where there was a pessimistic idea regarding the usefulness of education in comparison with the non-educated class who worked in Israel and settlements and got higher salaries than individuals with higher education who were working in the local market at that time. This situation had a negative impact on school dropout among young people. Later on, those workers, in Israel and settlements, lost their jobs in 2000 due to Israeli procedures causing higher rates of unemployment, especially among those with a lower level of education (ALKAFRI, 2003).

The basic problem that this study is trying to tackle and discuss is the phenomenon of unemployment and its rising rates among graduate women, if compared with graduate males. Efforts to increase women's participation in the labour market breaks down when faced with obstacles to provide employment opportunities for women. The higher the levels of education among women, the lower their participation in the labour market causing, in turn, higher unemployment rates. This situation reduces the revenues of education (the financial revenues of the workers, on one hand, and the probability of getting the work by its seekers on the other) among women unlike men. However, the literature, that shows the contrary, was found in Daoud (2005), where the author claims that the revenues of education for women were marginally higher than that of men. This leads us to assume that the answer to the question held in this research is not focused on gender mainly but on how large the gap / mismatch between the different disciplines of graduates and labour market needs is. It is well known that the majority of females specialize in humanities, while males are distributed in various disciplines.

The second problem in this research is the long period of unemployment among graduate women of higher education when compared to their counterparts. Behaviors and experiences of women and men are supposed to be similar, while their attitudes differ in terms of planning for the future. A case that must be carefully examined to have a clear notion about the basic problem of this research.

To identify the determinants of the phenomenon of rising unemployment significantly among young graduate women, we will try through this paper to review the relevant available literature, previous studies, and theoretical framework in Section II. While Section III, shows the reality of the Palestinian labour market and the most important changes that have taken place by using data from the Labour Force (workforce) Survey which has been implemented by the Palestinian Central Bureau of Statistics (PCBS) since 1995, as well as a descriptive analysis of some of the most important results of the survey of graduates’ conditions in the labour market, which was implemented in 2006 by the PCBS. The methodology and source data used in the analysis of the Transition Probability Matrix of participants in the workforce, the Probit Regression analysis and analysis of the results will appear in Section IV and V, respectively. Section VI highlights the challenges facing decision makers in the future through the development of future projections for the percentage of women with high education and their participation in the workforce, i.e., the future bulk of women’s participation in the labour market by using simple possible scenarios, away from the political solutions that affect the labour market. Finally, section VII will address the most important conclusions of this study.

2. Review of the literature, theoretical frameworks and previous studies:

The basic premise of the search for a theoretical framework is an incomplete knowledge of women and men of the labour market. Youth and staff with low and little relevant experience have limited information on facilities, wages, working conditions, employment policies and other important job specifications together with the skills and abilities possessed by the job seeker. Consequently, they face high costs to obtain information, in turn; employers have limited information about job seekers.
Original and basic contribution of the theory of job search has been concentrated in the analysis of the period of unemployment since the period to look for work in terms of scarcity of jobs, or availability could adversely affect the success in the labour market. There are at least two reasons for the direct impact of a period of unemployment that can also affect the individual’s opportunity to get a job. First, looking for work can drop down with the length of the period of unemployment. Secondly, the length of unemployment has a negative impact on achievement and performance in the labour market. But other studies exclude the impact of the length of the unemployment on the performance in the labour market in terms of whether this job unemployment comes within a general framework and a rise in unemployment in that framework or specialization (Lauer, 2005).

Many studies have examined the period of the transition from school to labour markets, where some specified the relationship between the period till getting the first job and acceptable wages for that job within the conceptual model for labour market requirements and job seekers availability. In (Ryan, 2001), the author concluded that the acceptable wages drop down (decrease) as the periods of unemployment increase. Also, they described the separation area/period between unemployment and lack of participation in the labour market as "fuzzy", especially in the presence of many difficulties in finding employment opportunities by youth, and who could become economically inactive rather than jobseekers. This applies to Palestinians living in the Palestinian Territories, who face high unemployment rates, especially young women graduates, which, in turn, make their rate of participation less while rising rates of reluctance among them to participate in the labour market under the difficult conditions in obtaining jobs.

The main criticisms regarding the movement of graduates from school to labour market can be identified as inadequate educational achievements, the scarcity of jobs, higher recycling of jobs and the weak linkages between education output and labour market requirements. Least controversial of these causes are unemployment and the scarcity of jobs, and the most controversial is the career recycling and occupation of specialized offered disciplines. The unemployment rate indicator is acceptable to explain the problems of youth employment (Ryan, 2001), thus, the scarcity of jobs for graduates living in the Palestinian Territories, classified as their main problem. Nonetheless, the high unemployment rate is the best proof of the magnitude of the problem faced by graduates in the Palestinian Territories and the region.

But education can be apart from classifying individuals according to their skills and abilities, as well as the means of knowledge held by job seekers. The studies also show that high levels of education affect the length of the search for work. Analyses revealed that the time of the search for work between the period of study and work is less for individuals who have higher educational degrees (Kettunen, 1997).

The relationship between education and unemployment has been discussed in many researches. In addition, the relationship between education, job rotation and the transition between jobs is very important in understanding the youth labour market. Where some studies have shown that the high level of education rises the probability of staying in a job, as well as reduces the possibility of facing unemployment. (Mahlwele, 2009) has confirmed that higher levels of education were accompanied increasing likelihood of employment. The study showed that women in South Africa who have higher education have better opportunities to work contrary to the uneducated ones.

Confirming the previously mentioned, a recently local research study was published about “Reality of graduates seeking employment: What do Palestinian women need from the labour market and how to get it” by the Palestinian Women's Research and Documentation Center PWRDC - UNESCO with results that a large part of the causes/reasons of unemployment in the community of Palestinian women is a weak economy and lack of jobs, as well as the large number of graduates in similar fields and the competition among graduates of females within certain professions such as education. Moreover, a large number of women are willing to return to the labour market if they were given their chance and
they are ready to consider alternatives such as change of specialization and research outside the geographical scope of the residential area. The study concluded that unemployment is often imposed on women, not being purely a choice.

Through auditing, research, and reviewing the output of the above-mentioned study, and in particular the qualitative analysis of the causes of unemployment as defined by the women who participated in the focus groups, researchers reported that the lack of offered jobs results in strong competition of graduates on these jobs, especially in specific disciplines, being one of the most important reasons for not being able to get a job. Therefore, the point is that both young men and women encounter the same problem in getting a job. Furthermore, graduates reported that discrimination against women has had a role in the lack of job opportunities, nevertheless, being less effective. The results show that more than 90% indicated that the scarcity of jobs and graduate congestion form a major cause of unemployment, compared with 29% who attributed the problem to discrimination while the indicators of the labour force survey show that there is a clear gap in the level of unemployment among males and females. A group of graduate women said that "the rate of high graduates has increased and graduates compete to posts. Tulkarem (one of the cities of the West Bank) has the highest rate of high education in the West Bank. In every family there are 4 or 5 graduates, mostly unemployed. With respect to discrimination between male and female, a woman in the focus groups stated that an executive in one of the companies described young males in the labour market by saying that "a man can manage and control time being not restricted to return home at specific times. Moreover, he would not seek leave for birth and breastfeeding and sit at home in the event of a child’s illness". Participants also said that the requisite of past experience by most institutions is another reason for unemployment, specially amongst fresh graduates, who were not given that privilege yet.

Another recent study for the Palestinian Women Research and Documentation Center PWRDC – UNESCO on the work of Palestinian women "Study on the Impression of Palestinians and their Attitudes towards Women's Work", showed that one of the main obstacles facing women is the night work which is not acceptable for women (such as the work until late hours of a day in software and telecommunication companies), because of the fear of the existence of sexual harassment in the workplace, and women's work away from the house and her family is unacceptable. These factors can limit the work of graduates, in addition to the fact that the majority of them seek for job security (a stable social security or protection). Furthermore, according to the results of the study mentioned earlier, higher unemployment rates, which generate a prolonged period of unemployment, have negative effects on the unemployed. It has been described by one of the graduates that the worst thing in this situation is the time wasted without doing something that counts leading to a decline in their potential level and tendency for life while reducing their ambition and slowing down their ability to continue looking for a job enjoyably, and eventually, leading to despair in finding a job, taking them out of the labour market. All of this will surely cause a decline in the participation rate of women in the workforce.

On the other hand, a report on women and work issued by the Palestinian Women Research and Documentation Center – UNESCO points out that discrimination against women by the labour market or the family through the restrictions imposed on their daughters, is a key role in the inability of graduate women to get a job. Moreover, the field of study is usually imposed on young girls by their families. Consequently, after graduation they cannot work in proper place or outside their close residence region and therefore cannot apply for all available jobs since most of jobs are based in the centre of the West Bank i.e., Ramallah City. Needless to say that most women (69%) prefer to work in the public sector (i.e., governmental jobs). The report noted that 80% of single women and 95% of married women do not agree to work in another city and be away from their families. Of course, such restrictions limit women’s search for work in all available opportunities, and limit their search to those
opportunities that seem acceptable to their families and society. It is also noted that the field studies that women choose or are imposed on them have an impact on their attainment of employment opportunities, since many girls do not choose fields of study appropriate to the needs of the labour market.

3. Statistical Review of Palestinian Labour Market:

This section highlights the reality of the labour market in the Palestinian Territories and the structural changes that have occurred over the past years to have an idea about the environment surrounding graduates. It also deals with the circumstances of graduates, their behaviour in the search for work, methodology and the obstacles they face. Through statistical presentation we can determine the map of reality that surrounds the graduates to facilitate the reading of the results of in-depth analysis of some factors and constraints that determine the low employment opportunities for graduates. It is worth noting here that in some parts we will introduce statistical reading and analysis for West Bank and Gaza Strip separately due to several differences in political and economic factors surrounding the labour market in order to be able to understand the constraints in isolation from other influences. Gaza Strip is closed completely and suffers from a severe economic crisis that affects all segments of society when compared to a relatively better situation in the West Bank.

It is well-known that unemployment is the surplus of manpower exceeding the needs of labour market. As a prelude to this, we find that the available female participation in labour force in the Palestinian Territories is very low to the extent that it is considered one of the lowest worldwide, where the annual rate in the Palestinian Territories did not exceed 16%, while the rate of male participation in workforce exceeded 70%. This difference is widely witnessed when considering the West Bank and Gaza Strip, particularly in Gaza Strip, where the participation of women in the workforce did not exceed 11.7% in 2008, while in the West Bank the rate was 17.1%. However, the supply of highly educated females in the labour force is relatively high when compared with other groups, and this is one of the reasons behind the high rate of unemployment among graduate women.

The general age structure of the levels of participation rates among men and women in the workforce is identical, but the difference is in the level. Men and women of medium ages are active in the labour market, but the dynamism of men remains much higher than that of women. This is because of several social, economic and cultural reasons (see Figure 1). Details of this issue in the Palestinian Territories can be found in "Daoud, 1999,"study which tries to identify the constraints of women's participation in the labour market. It was also noted that education plays a fundamental role in raising women's participation in the labour market. The percentage of participation rises from almost 10% for women (for ages 15 years and more) who did not complete more than 12 years of schooling to more than 40% of those who have completed more than 12 years of schooling (see Figure 2).

To increase the accuracy of the comparison in the rates of participation between women and men, levels of education and showing the changes over the past ten years, we will take the youth group (20-34 years old) that came out of the educational system, and compare between the data of years 1999 and 2008. It should be noted that 1999 is one of the most stable year compared to previous years since the Oslo agreement in 1993.

One the fundamental changes that occurred during the period 1999 to 2008 is the rise in the higher education rate among women aged 20-34 if compared to that of men. As a result, the number of graduate women became greater than the number of their counterparts, while the situation was the opposite in 1999. The number of graduate women, during that period, increased by 94% (78,800 graduate females), while the increase of this ratio among men was only by 46% (71,700 graduate males). On the other hand, the number of graduate males from community colleges decreased, since
most of them preferred the B.A. and higher degrees. It is also clear that community colleges provided a shorter and less expensive learning environment for young women, which led to an increase in the number of diploma graduates among women. It was also noted that the acceleration in women education compared with men in the West Bank is higher than that in Gaza Strip, whereas levels remain generally higher in Gaza Strip than in the West Bank.

Witnessing a growing number of graduates as well as an acceleration in graduates rates and graduates with a B.A. degree or higher, it is noted that the participation rate of graduate females in the labour market is increasing more than the percentage growth in education. As a result, the level of the supply in educated workforce in the labour market is rising, especially females. While the percentage of graduate and economically active females is 37% of the total graduates (economically active males and females aged 20-34 years old) in 1999, the proportion rose to nearly half (48%) in the year 2008. The indicators show an increase of graduate and economically active females that reached 113%, increasing the participation rate of females from 68% in 1999 to 75% in 2008 compared to a low participation rate increase among young graduate males from 95% to 90% during the same period.

Rise in levels of education and high level of participation of women in the workforce was accompanied by weakness in the demand for that category, increasing significantly rates of unemployment among women compared with the same group of young males. Rates of unemployment among graduate males are much less than among graduate women, compared with a counter situation for non-graduates. However, a convergence in the rate of unemployment among graduates and non-graduates males is noted, whereas these rates differ significantly among females, where the unemployment rate among graduate females is four times higher than the rate among non-graduate females (who left the pre-degree diploma). This situation (comparison) remained constant before and after Al-Aqsa Intifada (2000), except on the bulk of unemployment, where unemployment rates rose dramatically after the al-Aqsa Intifada (2000). It should be noted that this gap is much higher in Gaza Strip than in the west Bank. In general, this is an indicator that the gap between unemployment of graduate and non-graduate females in not the result of the last events in the Palestinian Territories but it is an ongoing situation (phenomenon). Therefore, this gap is not affected by the economic crises experienced by the Palestinian Territories since Al-Aqsa Intifada (see Figure 3 and 4).

One of the important observations to measure to which extent graduate females are incentive to search for jobs, is the emergence of the dependency factor; the higher the dependency ratios per worker of the family, the more persistent the females search for jobs, an indication that the culture of women’s work stems from economic necessity. Based on survey data on the working conditions of graduates (2006)\(^1\), the results show that graduate females who persistently lookfor jobs belong to families with dependency ratio 5.3 persons per worker, compared to ratio 4.6 per worker for females outside the labour force.

On the other hand, the results of the survey of the situation of graduates in 2006 show that the period of unemployment of graduates decreased since the Palestinian National Authority became in charge of the Palestinian Territories in 1993. Where the period of unemployment for females was higher than for males before the Oslo Agreement, it started to decline gradually for both males and females, but it did so more rapidly for females, where the period has become shorter for females than for males until 2005. This index could be a positive indicator on the improvement of the performance of women in the labour market. But sometimes the decline in the unemployment period is a negative indicator, since in difficult circumstances and after long periods of waiting or searching for jobs, people are lead out of the labour force and they stop searching for job instead of getting a job, what is termed “desperate job seeker”, and this applies much more to females.

\(^1\) The survey conducted by the Palestinian Central Bureau of Statistics PCBS, Ramallah, Palestine.
The above mentioned survey also shows that the average period of unemployment for both males and females who look for work since the graduation, according to the relationship with the work force was interesting, it was found that the period of unemployment of graduates who got a job was the longest, followed by the graduates who continue to look for work (unemployed), and go down to the male graduates who are not active in the labour market, while the exact opposite for graduate females. This shows that it is possible that the long period of unemployment correlated with higher rates of unemployment, in terms of continuing delays in obtaining a job gives better opportunities for recent graduates. But here the question poses itself about why graduate females take longer time in getting a job? It can be noticed that when a female remains unemployed for a long period, she stops searching for a job and leaves the labour force, resulting in lower participation rates of women in the workforce compared with males. It is clear that the average period of unemployment, which makes a women go out of the labour market is up to 29 months. Regarding this long period of unemployment, an important question rises about whether there are any specifications for the job that women are looking for other than that which young men are looking for. The results of the survey of conditions of graduates in 2006 showed that there are some differences between males and females in job descriptions that they seek, and the dominant characteristic is that the post would be commensurate with their qualifications, which is a right of graduates, with a total percentage to 62% and 53% for both males and females respectively. It was observed that females want to work in an environment suitable for women privacy which cannot be established in the labour market, especially in areas distant from the central region, a condition that restricts women from finding what they hope to, and this interest was found in 16% of women. 10% of female graduates were only interested in getting jobs as teachers knowing that the public schools employ a very limited number of graduates each year which does not meet the number of graduates, especially that young men can work in both girls and boys schools, while women prefer to work only in girls schools. On the other hand, private schools are concentrated mostly in the central region; graduate women who reside out of the central region find that it is not feasible to work in private schools located in the central region. Another interest for both males and females is the willing to get a job in the public sector, accounting for up to 8% and 7% for males and females, respectively. As for males, there is a high percentage of up to 15% who accept any work and only 5% of females. Moreover, 10% of males want to work with a high income. In addition to these requirements, other special requisites for female and their inflexible movement to job locations limit their gaining access to jobs that commensurate with their interests. It is therefore possible that this has a direct impact on the high rates of unemployment among graduate women.

At the level of specialization and its impact on attaining jobs, the previously mentioned source shows that the rate of unemployment among graduate women of the age group 20-34 years is the lower in medical and health care fields, where the rate is up to 36.5%, compared to 52% in technologies such as engineering. Whereas the unemployment rate among graduate males is the lowest among the professionals of Human Sciences, and the highest among professionals of Educational Sciences and Teacher preparations. These indicators show the impact of the different disciplines in the attainment of jobs, especially when compared with the bulk of graduates for each discipline. It also shows that the highest category among the graduate females is concentrated in the disciplines of humanities, business, and management sciences, while graduate males disciplines are concentrated in business, administrative and engineering sciences.

Regarding the economically active graduate female (i.e., workers), the distribution by type of their attainment of jobs (paid, unpaid, and self employed) did not change over the past ten years (1999-2008). The proportion of graduate females who have paid work is 95%, and the remaining percentage is distributed evenly between workers without pay and self-employed while the proportion of self-employed workers among graduate males decreases and the percentage of those who have paid or
unpaid work increases. On the other hand, the percentage of self-employed among non-graduate female increased from 10% to 17%, compared to the slight decline in the rate of women with or without pay reaching a percentage of 43% for self-employed (those who have paid work), and 40% for those working and unpaid. Therefore, we can note that the graduates of both genders (sexes) tend to move towards paid posts more than others, and most non-graduate females focus on family unpaid work, while non-graduate males prefer other activities and entrepreneurship. But the discrepancy between the rates of graduate males and those with low education in paid employment remains slight, compared with females, where there is a wide difference, since the proportion of non-graduate females who have paid work is less than half of the graduate females. This is a clear indication that graduate females mostly search for paid employment.

The results show that 20% of the women (20-34 years old) out of the total employees were working in the government (public sector) in year 2008, almost equal to 1999 (19%). It should be noted that the government employs almost half of the graduates, which implies the weakness of the private sector to employ/absorb sufficient proportion of the graduates, especially in such high rate of unemployment.

Regarding the wages, it is noted that the wages of young people with low level of education before Aqsa Intifada were higher than the wages of graduates at that time. This is because a big proportion of non graduate men worked in Israel and the settlements, which rose the overall level (average) of wages. But this had a negative impact on education, since that situation encouraged and attracted young people to drop out from schools and education to work in Israel at that time. This situation continued until Aqsa Intifada when Israeli occupation authorities prevented Palestinians from working in Israel and the settlements. This policy declined the percentage of workers in Israel and increased the level of unemployment, and thus a significant proportion of the unemployed became people with low education.

On the other hand, the result show that the wages of young males are much higher than females, this is mostly due to the occupation of young men to the jobs with higher financial returns. For example, salaries paid to employees either males or females in the government (public sector) depend on specific career scale, and a distinction between men or woman cannot be made in every step of the career scale. But the careers held by women in public sector are mostly careers with lower scales, while men occupy careers (jobs) mostly with higher scales. Where the rate of contribution of women in lower positions in public sector (government) (degree 1-12) is up to 65%, while the proportion of occupation of higher posts such as director C and higher does not exceed the rate of 24%.

By reading the preliminary statistical data, the nature of employment opportunities for both females and males and the nature of offered jobs, it is clear that Israel's job market is available for males, especially those with low educational level significantly, a condition that absorbs unemployment among those groups and reduce the unemployment rate. While the agricultural sector is the main sector for non-graduates female and thus appears from the results that unemployment is low among non-graduate females due to their small number and orientation to non-skilled works such as the agricultural sector. The results show that the graduate females tend to work in paid works (employment), where more than 90% of graduate females work in paid employment and, in particular, the public sector compared to 75% of graduate males.

With regard to the work in the informal sector and not protected jobs, a report of the International Labour Organization (Hilal, AL-Kafri, Kuttab, 2008) which discusses the "non-protected work" in the Palestinian Territories shows that the percentage of female working in non-protected and irregular jobs were 47% in 2006, compared to 53% among males. This is an indication that women are often trying to get formal and regular jobs at the beginning to ensure their rights, and when this is not possible, they either come out of the labour market or accept what is available, unlike men who accept any work instead of going out of the labour market, and this is what will be shown during the analysis in the
following section. It should be noted that the percentage of women working in the informal and irregular works is considered high compared to their small number.

4. Transition Probability Matrix (TPM):

In order to identify the movement of individuals (20-39 years old) from the state of education to the work situation or a full-time household work according to some characteristics, a Transition Probability Matrix (TPM) of the data from the Labour Force Survey was carried out quarterly by the Palestinian Central Bureau of Statistics PCBS since 1995 using the period between 1999 and 2008. The data for 1999 to 2000 has also been used to study the movement before Al-Aqsa Intifada and to link the data with the post period to identify the nature of the movement of individuals before, during, and after Al-Aqsa Intifada. The development of the labour market during those periods was firstly discussed. The Labour Force Survey provides quarterly database, which monitored the situation of the individual in the labour market for a year and a half. The families were visited for two consecutive quarters, and then ceased to be visited for two consecutive quarters and followed by a return visit for two consecutive quarters tracking the movement of family members within a year and a half. The manpower survey provides fundamental database for the characteristics of individuals in the labour market, their demographic characteristics and their social and educational levels. In this survey the international concepts of Labour Statistics adopted by the International Labour Organization were utilized.

In the normal situation, the individual moves from full-time student (non-participants in the workforce) to the labour market or to full-time housekeeping work. The later choice is especially applied for women. In the former choice (movement to the labour market), the individual has two alternatives (possibilities). The first possibility is to search for work (in this case is classified as unemployed) and continue the search until they have jobs, initiate (create) their own jobs (self-employment), or have unpaid family work. The second alternative is to go out of the labour market, especially females. There are several possibilities which their probabilities cannot be estimated separately. Therefore, the Transition Probability Matrix was used to determine the likelihood of transmission of both males and females from one state to another to read the reality that faces them, and consequently, form initial concept of some factor that affect levels of unemployment among young graduate women. In addition, it was continue to follow up (track) graduates for a period of time to identify the functional changes that happened after getting the first opportunity after graduation. Hence, graduate groups (20-39 years old) were studied.

On the other hand, to be able to see the impact of levels of education for both male and female on their movement in the labour market or their movement from outside the labour market to the labour market or vice versa, individuals have been divided into three categories according to the level of education they have achieved (i.e., not currently enrolled in education). The categories are:

- Level I: individuals who have completed 12 years of schooling or less,
- Level II: Medium diploma holders (13-15 years of schooling),
- Level III: higher education (16 years of schooling or more).

To be able to obtain accurate and optimized identification of individual transition (movement), individuals’ state has been divided into the following six groups (categories):
1. Self-employed persons (employers of at least one paid worker, and the self-employed)
2. Unpaid worker as family members.
3. Paid workers
4. Unemployed
5. Students not participating in the workforce
6. Non-participants in the labour force for other reasons (economically inactive)

Results of Transition Probability Matrix (TPM) Analysis

The following analysis summarize the most important results of the analysis of TPM, where the probability to move from one state to another for both males and females was studied on the basis of the three levels of education for comparison purposes. The following are the most important results and observations:

The first story reflects the extent of discrimination against women in terms of positions or types of employment females occupy compared with males. Whenever the level of education among females is lower, the market demand for them is higher, and if the level of education among them is higher, the market demand for them is lower. On the contrary, this situation is reversed among males. Females, who receive a community college diploma, are less likely to be unemployed, and the unemployment probability of males who have the same educational level is higher. This means that the demand for females who have the diploma degree is high under the low number of those who search for work and the high probability of leaving the labour market. The discrimination is apparent here through the employers’ demand for females who hold a diploma and males who hold bachelor's degree or higher, despite the convergence of the number of graduates of both sexes in both levels of qualifications. This trend reflects the culture of the community regarding professions and gender; where the general idea is that females are suitable and perform better at works and professions that require a diploma degree only such as secretary, administrative assistant, teachers in kinder garden, nurses), and occupations that require higher level of education are more suitable for males. Also, a study was carried out by the Palestinian Women's Research and Documentation Center (2009) showed the existence of prevalent idea on the sectors and occupations that can be occupied by women, which require extra effort and successful models to change and breakdown this trend and distribution of labour market by gender. The analysis of the results shows that the probability of unemployment among females who have diploma degree is 16%, while it is 40% among females who have a bachelor's degree or higher. While the unemployment among young males who have diploma is 35%, it is 23% for those who hold a bachelor's degree and higher. The high probability the graduate women with Bachelor's degree and above have to join the unemployed is resulting in despair and subsequent negative effects on women, thus, losing the enthusiasm to continue searching for work and therefore they become out of the labour market.

The second fact which can be observed in Figure 5 is the apparent strong correlation between the educational level of women and their participation in the labour market. This explains and confirms the basic role of the family in the participation or not participation of women in the labour market. The family decides whether to let a female join higher education or not and this in turn affects her future employment. The family decides for the female to quit her study before finishing the high school, regardless of the reasons (e.g., financial, cultural, or/and social) behind this decision. But if the family decided that the female can continue her studies after high school, this means that the family of a female is convinced in her participation and involvement in the labour market and the production process away from the reasons they have. There are rare instances where the family considers that the importance of education for a female is to secure her future with her husband and her future family (Palestinian Women's Research and Documentation Center, 2009). The results show one of the reasons of low participation of women, which is the difficulty to obtain a job that is suitable for them, thus
increasing the duration of the research for work and thereafter leading them to stop searching for work and being out of the labour market.

The higher educated a female is, the greater the probability of retention in the search for work is. This is due to the family belief that their investment in education must be rewarded by economic benefits, or that the work is a right for women and thus the education is the way to enable and empower them. The probability for a female to leave her education before ending high school and transition to the labour market is very low (11%), compared to the possibility of 44% that she finishes her diploma (13-15 years) and transfers to the labour market. Also, the probability that a female gets a bachelor's degree or higher is up to 62%. For males, the situation is different, where the probability to leave school early and go to the labour market has reached 71%, which is relatively a high probability. This was one of the prevailing phenomena in the years preceding the Aqsa Intifada II, where young people left academic education early for work in Israel due to their belief that the return from the work after finishing education is lower than the return from working in Israel and settlements (AL-Kafri, 2003). Also, the probability of transition to the labour market by graduate males of diploma was 77%, and for the young males holding bachelor degree or higher the probability is (52%), where there is a possibility of 33% to continue their education.

The young graduate males with a diploma or higher are more likely to get jobs than females. Whereas the probability for young males holding a diploma to get a job opportunity is up to 41% and for females is 28%. While the probability to obtain a job opportunity for the graduate with bachelor degree is 30% for males and 22% for females. This difference is primarily due to the variety of opportunities in the labour market for males, especially through the creation of opportunities for work or self-employment family projects. Otherwise, the probability to get a job is somewhat equivalent for males and females.

The continued search for work and the length of unemployment negatively affects the graduates, particularly girls. Figure 6 clearly shows that the continued search for work without success raises the level of despair. The probability of unemployed graduates continues their search for work is comparable between males and females, ranging from 53% to 62%. But for those who have changed their situation from the unemployed to another case, the matter seems to be substantially different. The probability for females to obtain a work, with continuous period of research is much less than for males, since the probability of finding jobs for both males and females holding diploma degrees is up to 38% and 13% respectively, and for the holders of bachelor degrees and above is 33% and 20% for both males and females, respectively. This is an indication that males are more likely than females to get a job after a period of job search. This is because of the existence of variety of options for males such as self-employment, while females almost do not have such an opportunity.

Concerning the probability of quitting searching in the labour market because of the despair of finding a job, we find that females are less tolerant than males to stay in the labour market and job search. The probability of quitting from the labour market among females compared to males regardless of the educational qualifications is higher.

The probability of quitting searching for a job in the labour market among graduate females (holding diploma degree) after a period of unemployment is up to 33% compared to only 5% among males. For the graduate females of Bachelor's degree or higher, the probability to leave the labour market is up to 17% against 7% of graduate males. Recalling that we referred to the quitting the labour market as the despair of finding job, because people are convinced to look for jobs at the beginning, and stopping search for job comes mainly due to desperation even if there were other reasons such as the full-time involvement in household or marriage.

On the other hand, it is clear from the mentioned ratios that females holding a diploma who leave the labour market after a period of time in the job search are higher than the rations of females who hold higher qualifications. This confirms that the more the investment in education is, the greater the
adherence to obtain a job will be. In a survey about the circumstances of graduates of higher education and vocational training, which was carried out by the Palestinian Central Bureau of Statistics PCBS in 2006, shows that the average period of unemployment for graduates of diploma during 1987-2005 was higher than graduates of bachelor degree or higher for both sexes. Whereas the period of unemployment for graduate males (holding diploma) is higher than for females, as the patience of females is less than males which make them quit the labour market when they find it difficult to get a job.

Comparing Figures 5 and 6, it seems that the probability of getting a job by the recently diploma graduate females and those who did not engage in search activities for work for a long period is higher than for graduates of bachelor's degree or higher, while it is vice versa in the case of longer period of job search (unemployment). The reason behind this can be the requirements and special conditions and the nature of the posts of the graduates of higher education (Bachelor and above) is higher than the requirements of diploma holders, which prolongs the period of job search for graduates of higher qualifications and thus results in higher rates of unemployment among them. This applies to males but is less severe. On the other hand, the comparison shows, the enthusiasm of females at the beginning of graduation to participate in the labour market, but the level of this enthusiasm declines gradually after a period of searching for work and not being able to get it. Here comes the role of society in responding to the youth needs to get a job and in particular immediately after graduation. A new study suggests that the most important reasons for inability of recently graduated young people to find jobs is to meet the requirements of the labour market for the availability of expertise, which of course is not fulfilled by the new graduates (Palestinian Women's Research and Documentation Center, 2009). This requires taking this into account by the employers, trying to recruit new graduates and replace the experience requirement by creating it through training them in the workplace, or by the decision makers by adopting policies that qualify graduates with minimum experiences in order to facilitate their mission to get a job.

This brings us to research on the impact of the vocational training in the workplace or training courses to help graduates in finding jobs or mitigating the lack of experience they have. A new study reports that those who have access to such courses are more able to get jobs, also raise the participation of females in the workforce (Edwan, 2010). But in return, after investigation in the training courses received by the graduates by gender, it was found that females are often less likely than males to receive training courses, while females who obtained the qualification of Master and Postgraduate Diploma are more lucky than males to access to vocational training. Thus, females in general are missing the empowerment by training, vocational and technical education compared to males.

Vocational training and short training could empower every person regardless of his educational level to obtain a skill in a profession to be able to get it. Thus, Graduates, who we focus on in this study, are those who get a diploma and above. Also, we include a category of young people who have not completed their education after the high school, but at the same time enrolled in vocational training courses for different periods up to one year. It is important here to refer to them. It is necessary to refer to people with low education not only those with certificate of academic school, but it is possible that they have certificates of vocational training. The results of the 2007 census show that individuals who received a high school certificate and received vocational training (like learning carpentry, blacksmithing, electricity, construction, etc.) have reached 13% for males and 8% for females. As well as 12% and 7% for both females and males who had a middle school and received training. We found that the vocational training had direct impact on reducing levels of unemployment among members of that group of young people. This is shown in Figure 5 and 6, it is clear that the probability of getting a job was high for this group of young people compared to graduates of diploma or higher, especially among males.
Regarding individuals outside the labour force for reasons other than a full-time study, do graduates move directly from the study out of the labour market, such as full-time work at home (housekeeping)\? In fact, the answer is yes, especially the females. Figure 7 clearly shows that female graduates with bachelor degree or higher move after graduation out of the labour market to take care of their own family members, whether they are married or single. But after a period of time and after stability they participate in the workforce (involve in the labour market). The probability that they return to the labour market reached 34\%, which is a quite high percentage when compared to the percentage of those who received a diploma or below, which is about 15\% and 5\% respectively. Here, it can be concluded that investment in education was mainly to take advantage of it and to support the family economically, and this is the conclusion of a study of the Palestinian Women's Research and Documentation (2009). Even though the girls move from the university to outside the labour market (economically inactive), there is a high probability of involving in the labour market later, especially under the difficult economical conditions in the Palestinian Territories. This state of being economically inactive, leads us to the following question.

Do these graduate women face a difficulty in getting jobs after being economically inactive? The answer is of course, yes. Figure 7 compared with Figure 5, shows that women who have had Bachelor degree qualification or higher, and approach the labour market after a period of being economically inactive (by international definition) face higher possibility to be unemployed than those who move directly to the labour market. The probability of being unemployed is 24\% compared with 16\% for women who entered the labour market after a period of being economically inactive and who entered the labour market directly after graduation, respectively. Hence it can be concluded definitely that one of the reasons for the high levels of unemployment among female graduates for looking after the family, or because they get married during or after graduation. Of course, this is an expected result, since the labour market is looking for workers with experiences, which can be obtained only from their previous work, or recent graduates with solid and fresh technical/professional information.

On the other hand, as a complement to the above, the higher the educational qualification is, the higher the possibility of a return to the labour market for women. This explains the feasibility of their return, especially under the difficult circumstances in the Palestinian Territories and the scarcity of jobs. Thus, higher education empowers women to obtain better income than other graduates with lower level of education. Therefore, their decision to return to the labour market is more feasible than the decision of other women. Unlike women, the probabilities to get a job opportunity or to be unemployed are almost similar for all categories of male graduates and all transitions (from university, institute, unemployment, economically inactive etc., ), and the differences are negligible.

Figure 8 outlines over all forms of transitions for all young people. It shows a significant difference in transitions among all categories of males and females and all educational levels. Where it shows a number of conclusions as follows:

- The probability of transition out of the labour market (inactive) among females who did not exceed high school (general secondary education) is the most probable (89\%), and thus reduces the probability of unemployment (being inactive). This in turn reduces unemployment rates among this category of females and the low participation rates as well. Unlike females, the probability of transition out of the labour market (unemployment, inactive state) among males of the same educational level is very low and does not exceed 9\%. This can be attributed to the desperation in searching for jobs under the difficult conditions in the Palestinian Territories, which can be considered as a temporary case among males.
- The higher the level of education among females is, the higher their participation in the workforce (labour force) will be. Therefore, the probability to quit the labour market is reduced. The
percentage is 89% for females who did not exceed high school, 51% for females with a diploma degree, and 19% for females with bachelor degree and higher, which makes significant gabs.

- Unlike males, the probability of unemployment among females increases as the level of education increases.
- The results show that the probabilities of unemployment are among females who did not exceed high school, 16% who have a diploma degree, and 27% who have abachelor degree and higher, while the percentage is 24% of males who did not exceed high school, 18% of those with a diploma degree, and 16% of those with bachelor degree and higher.
- The probability that the male diploma graduates create self-employment (their own business) is high compared to others, while the probability is higher, for males holding bachelor degree and higher to get paid jobs.
- The probability of working as unpaid family member is reduced as the level of education increases (is higher).
- The possibility of creating self-employment jobs among females decreases as their level of education decreases.
- The probability of getting a paid job among female BA holders is high compared with other females, despite the high probability of unemployment among them, which is due to the lower probability of leaving the labour market. Hence, we can come up with a definite conclusion that the high rate of unemployment among female graduates is due to an increase in their petition for jobs under scarcity. Furthermore, this situation can lead to a big problem in the future if it continues because of their low probability to be patient to continue searching for jobs which in turn causes them to quit the labour market early, unlike males. The above mentioned conclusion summarizes the causes that reduce the participation rates in the labour market and the high unemployment rates among female graduates in the Palestinian Territories.

All the presented results in this section confirm the existence of the problem that has been expressed in the beginning of this study, and we were able to identify some of the reasons which lead to higher rates of unemployment among female graduates disproportionately with non-graduate females who were not educated beyond high school. This helps focus on the importance of working and add more efforts to overcome some particular obstacles faced by female graduates unlike male graduates.

5. Determinants of graduates` unemployment

This part of the study, aims at identifying the most important factors that lead to unemployment of the graduates (males and females) in the West Bank and Gaza Strip regarding the following:
• The basic characteristics of the family
• Geographic location of the graduate (resident)
• Educational level and characteristics of the graduate
• Field of study

Methodology

To identify the determinants/factors of unemployment of graduates the **Probit Regression equation** was utilized:

\[ U = \beta + \alpha_iX_i + \varepsilon \]
In this equation, the dependent variable is identified by the unemployment indicator. Each individual was classified as either unemployed and takes the value 1 or employed and takes the value 0.
The community was identified just with the youth (20-34 years old) i.e., economically active and those who finished their education, either graduate or who quitted the formal education. The explanatory variables $X_i$ include the variables below that have been identified based on the results of the previous analysis. When choosing the set of indicators, we took into account the importance of the outputs that enable us to come out (draw) specific conclusion through the study of the main factors that cause the higher rate of unemployment among females compared to males, so these factors can be of the same type of the factors that may enable the decision makers to identify the policies in order to avoid the negative factors and to enhance the positive.
The data of the quarterly survey of the Palestinian workforce for the period 2007-2008 has been utilized. It should be noted that the Palestinian Central Bureau of Statistics survey is carried out periodically since 1995. The number of observations that we dealt with are 14,173, which is a reasonable sample to obtain estimations close to the reality.

**The Results**

At the beginning we divided the analysis of the results of the probit regression according to the groups of the factors used in the analysis (See Annex 1 and 2). The first, concerning the characteristics of households in terms of who is the head of the family and the dependency ratio, i.e., number of dependents per economically active family member. It was noted that gender of household head has an impact on the youth in the West Bank while it does not have an impact on the youth in the Gaza Strip. The results show that households headed by women raise the possibility of males` unemployment in the West Bank, while reduce the possibility of females` unemployment. But it has a positive impact on young people in the Gaza Strip, although the degree of the statistical indicators is not significant, and this could return to the presence of particular care and interest to those families. Moreover, the dependency ratio shows a negative impact on young people. In the case of females, it can be interpreted and relate the reason of such ratio to their need to apply for jobs, and therefore it is not easy to get out of the labour market even in the case of a prolonged job search.

The results show that there is a positive impact on young people in the Gaza Strip, although the degree of the statistical indicators is not significant, and this could return to the presence of particular care and interest to those families. Moreover, the dependency ratio shows a negative impact on young people. In the case of females, it can be interpreted and relate the reason of such ratio to their need to apply for jobs, and therefore it is not easy to get out of the labour market even in the case of a prolonged job search.

The geographical location of place of residence of young people has an impact on the possibility of getting a job, especially for women because of the restrictions imposed on them in terms of acceptance of the idea of working away from the place of residence of their families, especially when the location of work needs them to stay for overnight. Therefore, some geographical areas in the West bank have been identified on the basis of their distance from the center, which provides most employments in public sector (governmental) and international and non-governmental organizations (NGOs). The area of the northern parts of the West Bank except Nablus significantly raises the probability of unemployment for women, with statistical significance, while reducing the probability of unemployment for crashes males. Concerning the north areas (far from the center), they can be considered the less fortunate for graduates, which has high percentage of high level of education and graduates seeking jobs, compared with other regions. More specifically, the unemployment rate is 54% in the north, 41% in the southern West Bank, and 19% in the middle of the West Bank. In addition to the northern regions, the unemployment rate is higher in the refugee camps in the West Bank, regardless of the gender. The Center of the West Bank reduces the probability of unemployment for both sexes. On the other hand, the countryside has a role in reducing the unemployment for males and females in the West Bank. In addition to males in the Gaza Strip, while raising the possibility of unemployment of females in Gaza Strip. Consequently, we
can identify the map of the weakest regions in the provision of offering opportunities for graduates which must be focused on by decision-makers.

Now, regarding the characteristics of graduates and the impact of these properties on getting a job, there are many findings that are worthy to highlight. Model proved that the more years of education of young males decrease the probability of unemployment, while in the female case it increases unemployment, which was confirmed by the transition probability matrix. Also, as the youth grow the probability of obtaining employment increases, but for males it has greater positive impact. Moreover, the marriage reduces probability of unemployment for males in both the West Bank and for females in the Gaza Strip significantly. However, marriage raises the possibility of unemployment of females in the West Bank.

Finally, we discuss here the impact of the specializations and degrees. Through the results we, can map the best specializations for graduates compared with other careers. We start with young males in the West Bank and compare their bachelor degree specializations. The results of all majors of bachelor degree graduates are statistically significant, except the specializations of medical, health, human sciences. Specializations that increase the risk of unemployment are the social and behavioral sciences, Natural sciences, Business and administrative sciences, and engineering sciences. Also mathematics and computer science increase the risk, but in terms of low statistical indication. The results show that business and administration science specializations is the highest reason/impact that raises unemployment rate, while the science education and teachers preparing specialization is the better to reduce the likelihood of unemployment for males. For Bachelor degree female graduates in the West Bank, all of the specializations raise the possibility of unemployment except for medical and health sciences. The most likely raising of unemployment are the majors of education and teacher preparing and human sciences, followed by specialization of legal, legislative and natural sciences.

For the male BA holders in the Gaza Strip, the natural sciences specialization is the best which reduces the probability of unemployment. While the rest of the specializations raise the possibility of unemployment but unevenly. The results show that engineering sciences have the most negative impact on employment of young males in the Gaza Strip, followed by mathematics and computer science, followed by educational science and teacher preparing and training.

For the Bachelor degree female graduates in the Gaza Strip, health and medical education and teacher preparing sciences are the best majors which reduce the unemployment rates; while the rest of the specializations have a negative impact but unevenly. Business and administration sciences, followed by social and engineering sciences have the most negative impact that raise the unemployment rate among graduate females in the Gaza Strip.

As for the Diploma (two years), it has a negative effect for it may raise the probability of unemployment for both sexes in the Gaza Strip, while only for females in the West Bank. The Diploma degree reduces the unemployment probability for males in the West Bank. This specified factor has high statistical significance. Where, it is now obvious that the demand for that class is low. Note that the participation rate/percentage of Diploma graduate females is not more than the half, and this may be an indication to why the females holding a diploma quit the labour market, and consequently their low participation in the workforce.

6. Conclusions

We can deduce from the above, that education has two dimensions for (regarding) Palestinian women. The first dimension which is a positive one is through raising the level of education and knowledge and therefore has a positive impact on the development and accelerating economic growth and its
development indicators, in addition to the positive effects on enhancing the role of women in economic participation and thus women empowerment. The second is a negative dimension under the difficult economical conditions and political circumstances in the Palestinian Territories, where the Palestinian women face the problem of getting the opportunity to work under the social constraints that surround here and the scarcity of jobs, particularly in the remote areas from the center of the West Bank and in the Gaza Strip. The problem of unemployment, especially for graduate females under the inability of families to take advantage of investment in education, in the long-term can adversely affect family decision that leads to avoid investment in higher education, particularly higher than diploma. It is noted that the general trend of women's participation in the workforce in recent years declines below the level of growth associated with the growth education level. Which is reluctant to continue the search for work under difficult to obtain it and therefore results in reluctant to invest in education in the future if the situation continues as it is.

The reasons that hinder females get a chance to work even at the minimum can be the restrictions that surround the female that prevent her from moving freely to access to the region that is considered the center of job opportunities i.e., the central of the West Bank. This is particularly because of the political and military circumstances that hinder the movement of citizens and therefore the families worry about the movement of their daughters between the cities and communities where there are many barriers (check points) of the military forces of the Israeli occupation. Also, the distinction can be seen when the employers recruit graduate females holding diploma more than others for lower-level (lower class) jobs.

On the other hand, the specializations that the females head for are limited, which increases the probability of unemployment due to surplus in the availability (supply) of graduates of specific categories of specializations especially in the presence of the low demand for them. Moreover, the conditions of women in accepting jobs are more restricted than the conditions set by the young males. Accompanied by the lack of wide choices for women to work in, such as to create self-employment or to work in certain professions that are acceptable by young males. Also, some jobs/works that women look for are not available in all areas or self-sufficiency of those professions. In other words the reason of high unemployment among graduate females is due to an increase in their petition for jobs under scarcity.

Finally, we come with a conclusion that the future challenges are bigger than the Palestinian local economy, in addition, the acceleration of the increase in the demand for jobs in the Palestinian Territories under the decline in the investment and the creation of new job opportunities raises the level of challenges that await the Palestinian decision-maker.
Probit Regression Model

Annex 1: Probit Regression Model for persons 20-34 years old who are not attending school: West Bank 2007-2008 (Quarterly Base)

<table>
<thead>
<tr>
<th>Dependent Variable=Unemployment (1-Unemployment, 0=Employment)</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanatory Variables</strong></td>
<td>( \alpha )</td>
<td>( P&gt;z )</td>
</tr>
<tr>
<td>Head of household (1=Female, 0=Male)</td>
<td>0.072</td>
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<tr>
<td>Dependency Ratio (Household size divided by active members)</td>
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<td>0.004</td>
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<tr>
<td>Marital Status (1=Married, 0=Other)</td>
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</tr>
<tr>
<td>Age</td>
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<td>Years of Schooling</td>
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<tr>
<td>Locality type 1 (1=Camps in West Bank, 0=other)</td>
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<td>Locality type 2 (1=Urban in South West Bank, 0=other)</td>
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<td>Locality type 3 (1=Mid West Bank, 0=other)</td>
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<td>Locality type 4 (1=North West Bank excluding Nablus, 0=other)</td>
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<td>Locality type 5 (1=Rural, 0=other)</td>
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<td>( \beta )</td>
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<td><strong>Wald chi2(16)</strong></td>
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</tr>
<tr>
<td><strong>Prob &gt; chi2</strong></td>
<td>0</td>
<td></td>
</tr>
<tr>
<td><strong>Pseudo R2</strong></td>
<td>0.0555</td>
<td></td>
</tr>
<tr>
<td><strong>Log pseudo likelihood</strong></td>
<td>-3853.06</td>
<td></td>
</tr>
</tbody>
</table>
Annex 2: Probit Regression Model for persons 20-34 years old who are not attending school: Gaza Strip 2007-2008 (Quarterly Base)

<table>
<thead>
<tr>
<th>Dependent Variable=Unemployment (1-Unemployment, 0=Employment)</th>
<th>Males</th>
<th></th>
<th>Females</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanatory Variables</strong></td>
<td><strong>α</strong></td>
<td><strong>P&gt;z</strong></td>
<td><strong>α</strong></td>
<td><strong>P&gt;z</strong></td>
</tr>
<tr>
<td>Head of household (1=Female, 0=Male)</td>
<td>-0.038</td>
<td>0.718</td>
<td>-0.086</td>
<td>0.601</td>
</tr>
<tr>
<td>Dependency Ratio (Household size divided by active members)</td>
<td>0.034</td>
<td>0.043</td>
<td>0.008</td>
<td>0.813</td>
</tr>
<tr>
<td>Marital Status (1=Married, 0=Other)</td>
<td>-0.460</td>
<td>0.000</td>
<td>-0.065</td>
<td>0.582</td>
</tr>
<tr>
<td>Age</td>
<td>-0.031</td>
<td>0.000</td>
<td>-0.081</td>
<td>0.000</td>
</tr>
<tr>
<td>Years of Schooling</td>
<td>-0.071</td>
<td>0.000</td>
<td>0.095</td>
<td>0.003</td>
</tr>
<tr>
<td>Locality type (1=Rural, 0=other)</td>
<td>0.355</td>
<td>0.000</td>
<td>-0.237</td>
<td>0.148</td>
</tr>
<tr>
<td>1=BA in Educational Sciences and Teaches\ preparation, 0=other</td>
<td>0.234</td>
<td>0.382</td>
<td>-0.059</td>
<td>0.791</td>
</tr>
<tr>
<td>1=BA. In Humanities, 0=other</td>
<td>0.105</td>
<td>0.634</td>
<td>0.200</td>
<td>0.302</td>
</tr>
<tr>
<td>1=BA. In Social and Behavioral Sciences, 0=other</td>
<td>0.102</td>
<td>0.505</td>
<td>0.455</td>
<td>0.029</td>
</tr>
<tr>
<td>1=BA. In Commercial and Administrative Sciences, 0=other</td>
<td>0.139</td>
<td>0.368</td>
<td>0.551</td>
<td>0.051</td>
</tr>
<tr>
<td>1=BA. In Legal, and Legislative Sciences, 0=other</td>
<td>0.208</td>
<td>0.475</td>
<td>..</td>
<td>..</td>
</tr>
<tr>
<td>1=BA. In Natural Sciences, 0=other</td>
<td>-0.577</td>
<td>0.210</td>
<td>0.007</td>
<td>0.980</td>
</tr>
<tr>
<td>1=BA. In Mathematics and Computer Science, 0=other</td>
<td>0.430</td>
<td>0.051</td>
<td>0.103</td>
<td>0.661</td>
</tr>
<tr>
<td>1=BA. In Medical and Health Sciences, 0=other</td>
<td>0.096</td>
<td>0.658</td>
<td>-0.282</td>
<td>0.264</td>
</tr>
<tr>
<td>1=BA. In Engineering Science, 0=other</td>
<td>0.737</td>
<td>0.001</td>
<td>0.312</td>
<td>0.511</td>
</tr>
<tr>
<td>1=Diploma, 0=other</td>
<td>0.501</td>
<td>0.000</td>
<td>0.679</td>
<td>0.000</td>
</tr>
<tr>
<td><strong>β</strong></td>
<td>1.597</td>
<td>0.000</td>
<td>0.748</td>
<td>0.244</td>
</tr>
<tr>
<td>Number of observations</td>
<td>3310</td>
<td>791</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wald chi2(16)</td>
<td>275.32</td>
<td>86.11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prob &gt; chi2</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pseudo R2</td>
<td>0.0751</td>
<td>0.1105</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Log pseudo likelihood</td>
<td>-2102.19</td>
<td>-477.93</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Figure 1:** Percentage of Participation by age and gender

**Figure 2:** Percentage of participation by education level and gender


**Figure 3:** Unemployment rate among females by number of years of graduation by years (1999-2008)

**Figure 4:** Unemployment rate among males by number of years of graduation by years (1999-2008)

Figure 5: The probability of individuals’ (20-39 years old) transition from education state to one of the six categories by gender and educational level

First level: individuals who finished 12 years of education or less

Second level: individuals with diploma degree (13-15 years of education)

Third level: individuals with Bachelor degree and higher education (16 years and more)
**Figure 6:** Probability of individuals’ (20-39 years old) transition from unemployment to one of the six categories by gender and educational level

*First level:* individuals who finished 12 years of education or less

*Second level:* individuals with a diploma degree (13-15 years of education)

*Third level:* individuals with Bachelor degree or higher education (16 years and more)
Figure 7: Probability of individuals’ (20-39 years old) transition from non-participation in the workforce for reasons other than full-time engagement in educational process to one to one of the six categories by gender and educational level

**First level:** individuals who finished 12 years of education or less

**Second level:** individuals with a diploma degree (13-15 years of education)

**Third level:** individuals with Bachelor degree and higher education (16 years and more)
Figure 8: Probability of individuals’ (20-39 years old) transition to one of the six categories by gender and educational level

*First level:* individuals who finished 12 years of education or less

*Second level:* individuals with have diploma degree (13-15 years of education)

*Third level:* individuals with Bachelor degree and higher education (16 years and more)
References


Thompson, J. and Palmer, T. and Moreno, S. 2009. Bayesian Analysis in Stata using WinBUGS. University of Leicester. UK.

