

**The Palestinian Labor Force Dynamic Under the Israeli
Occupation:
An Impact Study and Lessons to be Learned for
Restructuring the Labor Market**

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Abstract

The paper aims at studying the labor force dynamic before and during the economic crisis that the Palestinian Territory is passing through since the end of September 2000. The study depends mainly on the data of labor force survey (data of the fourth quarter 1999 till the second quarter 2003). Dynamic probit model was used to achieve the aims of the study, three models was used to study the dynamics of labor force through time, these models allow for time variant coefficient. The main results of the study reveal that person background characteristics have a strong impact on employment probability at the beginning of the intifada, while the impact during intifada was of no statistical significance. Higher education has a great importance in rising the employment probability in WB, while in GS the highest employment probability was for holders of intermediate college education (Diploma). The results showed that the negative attractiveness power of the Israeli Labor Market towards losing individuals jobs against the humble positive attractiveness power of the public sector and unparticipation the private sector in the equilibrium equation, led to increase unemployment rates. It was noticed that the small projects played a major role in providing job opportunities during Intifada.

Key words: Labor market Dynamics, Dynamic Probit Model, Labor force Behavior Under Occupation, Palestinian Labor Market, Restructuring Labor Market, Unemployment.

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1. Introduction:

The issue of unemployment is taking the greatest concern at current conditions among government officials and decision makers in the Palestinian Territory (PT), due to its negative impact on poverty, lowering living standards and the welfare.

At present times, unemployment rate is exceeding the rates in previous years, the neighboring countries or less developed countries (LDC). The main reason behind the accelerating in unemployment rate is referred to the strict Israeli measures which are aiming at starving the Palestinian people with all means as paralyzing the traffic movement between residential communities and imposing curfew for long times on some communities. More over, preventing Palestinian workers from working in the Israeli labor market.

Many studies and researches tried to draw scenarios to solve the issue of unemployment; especially those presented during the international conference on employment in Palestine, which was organized in 1998. More than 15 studies were presented and discussed during the conference, as well as, an intermediate – term employment strategy in Palestine (2000-2004) was drafted in 1999 as an attempt to sum up the strategies derived from those studies and researches, but these studies were unable to draw a mechanism to help in disconnecting the Palestinian economic dependency from the Israeli economic.

Therefore, this failure of disconnecting the economy was a direct reason for the failure of these studies to draw scenarios to eliminate unemployment, especially the employment issue before the beginning of Al-Aqsa Intifada (September, 2000), and which did not draw scenarios to what happened after this date. The obvious evidence was the rise of unemployment rate to more than two doubles during few days at the beginning of Al-Aqsa Intifada.

Due to closure policy imposed on the Palestinian Territory, and preventing Palestinian from working in the Israeli labor market only few studies indicated, in its analysis, to these factors, and the great impact of such factors on the rise of unemployment rate, but these studies didn't mention any mechanisms or plans to coping with such situation and avoiding such catastrophe.

Since the end of 2000 (The Commencing of Al-Aqsa Intifida), the Palestinian Territory (PT) experienced a serious economic crisis, and we had an urgent need to have emergency plans, especially emergency employment schemes to provide job opportunities for unemployed as possible as we could. But such schemes had not strategic solutions to issues as unemployment and poverty. Upon such fast volatile developments, it became more important to study the Palestinian Labor Market deeply and analyze to reform a better understanding, in order to draw scheme-rooted –solutions to eliminate unemployment and poverty issues. Several researchers began studying the Palestinian economy on such bases, especially the institute of economical policy studies (MAS).

These studies were descriptive ones on the Palestinian Labor Market the impact of Israeli measures on it and the volume of financial losses incurred by such measures on Palestinian economy, or studies on certain sectors of the economy, which we have no control over it due to Israeli military control on it's natural, financial resources and services.

These studies are lacking to explore an important issue about the form and the dynamics of Palestinian Labor Force under the Israeli re-occupation of PT and to be acquainted with these

sectors and Labor characteristics which are more strong, steady fastening and resisting under such military occupation.

There are several international studies regarding economic development, unemployment and poverty geared basically towards restructuring the economic sectors as a path to development while most of such studies were directed towards modern technology sectors, and dealing with the effect of such sectors, and dealing with the effect of such sectors in developing the economy through studying the dynamic of Labor Force (Albaek and Hansen, 1999) and (Voica, 2002).

This paper will contribute basically in helping to understand the dynamic of Palestinian labor force before and during the current economic crisis in PT and to be acquainted with the characteristics of laborers who are more resisting and steady fastening in the face of Israeli actions and measures as well as to be acquainted with sectors which are more resisting and steady fastening to encounter these measures and not being influenced by economic dependency. This analysis will help in learning lessons from the current experience to draft certain defined strategies.

Which are applicable during the current situation through re-structuring of the labor market and gearing towards pioneering sectors to be adapted under all political conditions such as, agriculture sector (as a primary hypothesis) which is considered as a main step in absorbing unemployment and Palestinian economic growth rate, and combating poverty.

This paper is considered as a preliminary effort in defining the basic characteristics of the Labor force movement under Israeli occupation as well as defining the pioneering economic sector which steady fastening against the Israeli aggressive measures, for establishing an accurate data base to move towards achieving Palestinian economic development that will lead to overcome the high unemployment rate as well as poverty prevalence.

To achieve economic development, we should have specialized researches to be followed by the proposed research aiming at rehabilitating the labor force and with special focus on pioneering sector. We expect that the agriculture sector and the sector with intensified technology are capable to combat Israeli measures.

If this hypothesis is approved, some field studies are to be conducted to draw applicable scenarios within defined period.

Such field studies will lead to better understanding for these sectors and their development needs, human and material resources, and absorption capabilities to the agricultural products in comparison with the local market requirements. Moreover, operational cost and its ability to absorb the biggest ratio of the unemployed. In parallel to that, an analytical study is to be conducted to draw scenario on other sectors, policies are to be made and drafted in an integrated way based up on researches findings. This is a primary scenario to the role of this paper in tackling the basic dilemma in the PT.

In the second section, will be discussing the situation of labor market in Palestine and the changes during 1999 to 2003. The methodology of analysis process, includes data, models and variables, will be discussed in the third section, followed by the results of analysis in section four. Finally, the results and conclusions will be in section five.

2. Trends and Statistics:

The Palestinian Labor market passed through three main periods, the first period was after the signing of Oslo Accords in 1993, the second period was during the erupting the 1st Al-Aqsa Intifada in 1996, and the third was at the end of 2000 when Israel imposed a siege and closure on PT and preventing Palestinian laborers to work in Israel as well as imposing curfews, from time to time, and incursions into major cities and towns under the Palestinian control according to Oslo Accords.

The Palestinian Labor Market was suffering from a serious crisis in 1987 due to Israeli hostile measures against Palestinian people (during the 1st Palestinian Intifada), which ended up by signing Oslo accord in 1993. Since then the Palestinian economy became better off and recovering from its crisis up to 1996 where the 1st Aqsa Intifada erupted in PT and Israel imposed complete closure and siege on PT and prevent Palestinian Laborers form working in Israel, but it did not last long, and the political situation became calm and settled which Led to improvement in the economic situations in 1997 up to 2000. The current Al-Aqsa Intifada erupted, and the Palestinian Labor Market was negatively affected, unemployment rate¹ increased dramatically and reached 40² percent by the end of 2000, where it was only 10 percent in the third quarter of the same year.

The situation of the Palestinian Labor Market on the eve of Al-Aqsa Intifada:

The situation of the Palestinian Labor Market was better off and had the better lower rations on the eve Al-Aqsa Intifada among other neighboring countries. Where the rate of Participation in the Labor Force among individuals over 15 years old reach to 44 percent in the third quarter of 2000 (45 percent in the West Bank (WB) and 40 percent in Gaza Strip (GS)).

Unemployment ratios continued to decrease after the signing of Oslo peace accords in 1993 until it reached its lowest rate of 10 percent in the third quarter of 2000 (Except the period of the crisis of opening the Tunnel under Al-Aqsa Yards in 1996), and it record 8 percent in WB and 16 percent in GS. This was economic development in PT despite of being not achieving full political independence. Moreover, worthy to mention that the Israeli control over traffic on roads and imposing closures and sieges from time to time affected negatively the Labor Market in Palestine and had the direct impact on the changes in the unemployment rate. (See Figure (1)).

For the 1st time, the rate of Palestinian workers in Israel reached 22 percent in the third quarter of 2000 and due to the separation fence around GS, Israel controlled thoroughly the entries of laborers to Israel form GS, where their rate was 15 percent at that time. While in WB the situation was different due to long borders, easy passage at border crossing points to Israel in contrary with the case of GS.

The number of Palestinian workers in Israel reached 118,000 on the eve of Al-Aqsa Intifada (excluding Palestinian workers holding Israeli ID cards or the Palestinian Jerusalemites where

¹ According to the relaxed unemployment definition, individuals who are unemployed and not seeking a job due to being discouraged were included.

² Palestinian Central Bureau of Statistics (PCBS), 2001. Labor force survey (LFS) rounds of November–December, 2000. The press release on results of LFS. Ramallah- Palestine.

they have easy access to enter Israel). The high rate of wages to Palestinian Laborers in Israel in comparison to the wage rate at the local Labor market played a significant role in the increase of the rate of Palestinian workers in Israel despite the risks encountered those working in Israel of being shoot by Israeli extremists.

Regarding the distribution of workers according their working conditions of the eve of Al-Aqsa Intifada as follows; 68 percent are working as wage employees and 18 percent are self-employed. Services sector had the highest rate in the employment opportunities and reached to 29 percent, followed by construction sector (22 percent) and then the industrial sector at 15 percent.

The Crisis of Palestinian Labor Market during Al-Aqsa Intifada:

The Palestinian Labor Market was negatively affected since the beginning of October 2000 (AL-Aqsa Intifada) in unexpected way. Unemployment increased dramatically to 28 percent at the end of 2000 (40 percent according to the relaxed definition of unemployment). Moreover, preventing the Palestinian worker's from reaching their work places in Israel causes a big financial loss amounted to 38\$ U.S million per a month.

The basic issue emerged during Al-Aqsa Intifada was about the increase of unemployment to a level never been experienced before in Palestinian Territory, where the number of unemployed amounted to 250,000 worker's (during the third quarter of 2002). While it did not exceed 100,000 worker's before Al-Aqsa Intifada (since the signing of Oslo peace Accord till the beginning of Al-Aqsa Intifada). Besides, we do have anew category to the unemployment which is called "discouraged people" and amounted to 119,000 due to deterioration of economic conditions which do affect their hopes in finding any job. Unemployment rate reached 45 percent (during the third quarter of 2002). As 40 percent in WB and 56 percent in GS.

In addition to the above-mentioned losses in the labor market of the workers, a change over the structure of the Palestinian Labor Force was witnessed. The rate of Participation in the labor force decreased due to increase in the number and rate of the discouraged people. As well as, we had a decrease in the rate of underemployment added to the unemployed or the discouraged people.

Regarding the structure and the distribution of the worker's, a considerable changes occurred in their distribution according to the economic activity. A decrease in the rate of workers in the construction sector meanwhile an increase in the rate of workers in the agricultural and services sectors were noticed, one should bear in mind that the total number of working worker's decreased. Needles to mention that a considerable change occurred where an increase is noticed in the number of unpaid family members, or self employed. These increased occurred due to the decrease in the number of wage employee.

Regarding work place, the percentage of employees in Israel and Israeli settlements decreased, and Israel tried to replace them by worker's from Eastern European and Asian Countries.

33,000 of Palestinians working in Israel on the eve of Al-Aqsa Intifada were in the age category (15-24) years, 72,000 were in the age category (25-44) years; about 6,000 of them are holding intermediate college certificate and 17000 holders of secondary certificate(Tawjihi) and the rest are holding degrees less than Tawjihi (i.e. Among 10

Palestinian worker's in Israel, 8 worker's of them hold a degree less than the Tawjihi). This could lead to draw training and rehabilitation schemes to more than 70,000 worker's with a focus on the needs of Palestinian Labor Market and abroad.

The majority of Palestinians working in Israel were concentrated in the construction sector with 81,000 workers, while a 21,000 worker's were working in the industrial sector and 2,000 of them were Joining the Plastering tilling, and Aluminum works, 8,000 workers were working in operating, assembling machines and other equipment's, and 60,000 workers were working as unskilled workers.

The high wages for worker's in Israel, and the hardships of the Palestinian economy were one of the important reasons behind the drop outs of schools in the PT to join the Israeli Labor Market which affect badly their school enrolment, and academic achievement's, and leaving them with no qualifications or degrees in their working life. Their acquired skills form the Israeli labor market, did not rehabilitate them to fine jobs in the Palestinian labor market for it low capacity if a job creation scheme is adopted.

About 74.6\$ U.S million is the loss of the Palestinian economy as wage employee in Israel due to preventing them from joining their work places in Israel. This amount did not include the losses of tax, bus drivers used by those worker's to reach to their work places as well as the losses of shop keepers at boarder crossing passages due to the closure of their shops after preventing workers from crossing to Israel. and other losses connected directly to this crisis.

Labor Force Dynamics:

The Palestinian Labor Market witnessed a negative dynamics as shown in previously mentioned results. Table (2) shows the dynamics of individuals aged (15-64) years in the Labor market on individual basis and the change of their labor status. The percentage of employed of the total population decreased from 38 percent before the Intifada to 28 percent during the Intifada, while the rate of unemployed individuals rose from 4 percent before the Intifada to 10 percent during it. The rate of economically inactive individuals increased from 58 percent to 63 percent in the period, the number of individuals whom lost their jobs at the beginning of the Intifada exceeds five times the number of the unemployed individuals before the Intifada and got a job opportunity which affected the balance of the Palestinian. Labor Market and increase the rate of unemployment, while the percentage of individuals whom relation with the labor force did not change reached 79 percent, and 53 percent of them are economically inactive.

While the changes occurred at the beginning of the Intifada showed the same rate of individuals whom their relation with the labor force did not change as of (79 percent), the rate of unemployed increased from 2 percent to 5 percent. Those kept their jobs decreased form 25 percent to 21 percent. This shows the constant rate of the economically inactive individuals at (53 percent) while the rates of those got jobs with those lost their job are almost equal (about 4 percent) while it was in the past uneven at (7 percent and 1 percent respectively) worthy to say that labor dynamic before and during the Intifada for the economically inactive individuals is basically due to the seasonality, where individuals (especially women) are dynamic and move from a full time household to a working individual during agricultural crop's season, as well as full time students move to work in the labor force market during study holidays, but we have a category of individuals who became economically inactive due to seeking job without getting any due to scarcity of new job opportunities, the closure of Israeli labor market which absorbed about one quarter of the

Palestinian labor force before the Intifada, their rate decreased from 6 percent to 3 percent in between the first and second case.

3. Data, Models and Variables:

Data:

The used data in the analysis is derived from the Palestinian Labor force survey that is being conducted since 1995 in Palestinian Territory by the Palestinian Central Bureau of Statistics (PCBS), the survey methodology depends sample rotation, which make available of panel data. This rotation technique in the sample gave a chance to interview the household (as a sample unit) four times a year. The first and second visits (interview) to the household are done consequently, while the third and fourth visits are done after two rounds of the survey, Each round of the survey covers a quarter of a year (4 rounds per year), and the period between the second interview (visit) and the fourth one to the same household is one year³.

The used data covered the period between the fourth quarter of 1999 till the second quarter of 2003 which consists of 15 rounds. The data was divided into two basic parts. The first part of the data was mainly devoted to study the changes occurred at the individual level of the age category between (15-64) years old from the beginning of the Intifada in comparison with the data of the period before the Intifada.

The second part was devoted to study the changes occurred during the Intifada on the individual level and covers the period between the first quarter of 2001 till the second quarter of 2003. This tool will help for studying the probability marginal effect on the characteristics of the individual to continue working during the period before the Intifada and it's beginning and between the beginning of the Intifada and it's first anniversary. This will help explaining the changes to be in cured at the first shock of the crisis, and the other change that may occur during the Intifada or later.

Figure (2) shows the mechanism of collecting data of every part, the first part comprises from partial group of the households the second round for data of the fourth quarter of 1999 till the third quarter of 2000 (the eve of the Intifada). This group was amalgamated horizontally (i.e. on single individual level) with the partial group of households of the fourth round of the fourth quarter of 2000 till the fourth quarter of 2001, thus we had assembled the data of single individual in the second and fourth round in one data folder to be able to study the changes in cured on the individual whit in one year, especially those changes emerged during the Intifada in comparison with this working condition before the Intifada. In the first part of the data, we selected the individuals who were working in the second round.

In addition, a vertical assembling of the data of all individuals who match with the conditions of all rounds as mentioned above with total number of "9" rounds, and one round was excluded which is the third quarter of 2000. The selection of individuals in the first round and the second one in order to get a maximum number of observations in order to facilitate data interpolation, interpretation and analysis for the periods before and during the Intifada.

The second part has its data assembled in the same way but far different periods with in the Intifada. 10 rounds were assembled, and the selection of individuals in the second frequency of the rounds first quarter of 2001 till the round of the second quarter of 2003. The same

³ For mote information, please visit www.pcbs.org

individuals were selected in the second frequency of the first quarter rounds of 2002 till the round of the second quarter of 2003.

The data was amalgamated horizontally for the same individuals for the second and fourth frequency, while the vertical amalgamation for all rounds comprised from all the groups to get bigger number of demonstrations.

The Research Questions:

1. From the previous presentation, we have explained the general goal of this paper.
2. To achieving this goal, it is necessary to answer the following primary question:
3. What are the characteristics of the worker's whom been able to keep at their work in the beginning of the Al-Aqsa Intifada?
4. What are the characteristics of the most steady fasted under the occupation and during the Al-Aqsa Intifada?
5. Do land lords of the crafts whom working in the primary jobs steadfast at the beginning of Al-Aqsa Intifada and during it?
6. Do small projects have a role in absorbing unemployed people?
7. Which economic sectors were capable for longer steadfastness in the beginning of the Intifada, and which of them had more capability to continue under the occupation?
8. Which sectors are the most subordinated to the Israeli economy and which the Israeli directly affects imposed closure?
9. Which economic sectors were capable to absorb unemployed people during the beginning of the Intifada and after some time?
10. What lessons are to be learnt during the current crisis?

The proposed study will try to answer all these questions by following the dynamic of worker's before and during the Intifada and describing the affects of the characteristics level ad follows:

The possibility of the worker to continue working during the Intifada.

The possibility for the working laborer before the Intifada to continue working during the Intifada.

The possibility for the unemployed to get a job during the Intifada.

The Models:

The strategy used in analyzing the dynamics of labor force before and during the Intifada depended on three basic parts in composing the chain of data. The first part was devoted to study the limitations of keeping the working laborer before the Intifada to continue working during the Intifada. We had selected the working category between 15-64 years old before the Intifada whom became either working laborers of unemployed people, and excluding the individuals who were working before the Intifada and became out of labor force "economically inactive" due to their disability or senior ship only, but those who became economically inactive due to home works, study or other reasons as discouraged people were not excluded where those re-joined the house works after being workers and especially women, because job opportunities did not basically available and so for the discouraged people and students.

The second and third part, were devoted to study the changes on economically active individuals during the Intifada to measure causes behind their steadfastness in their jobs or finding new jobs for those who were unemployed and get their jobs after the beginning of the

Intifada. The selection of workers in the period of Intifada was based on changes of their condition as workers and or became unemployed, after one year of the Intifada.

Figure (3) shows the categories of Palestinian people who were studied. In the survey this way will help in understanding the changes in their conditions after the beginning of the Intifada and the strict imposed Israel closure on the Palestinian Territory as well as those changes developed after the beginning of the Intifada,

To study these three parts, we had developed three independent variables. The first variable was studied from the first part of the data, while the second and third data were studied from the second variables part of the data, the contents of these variable are as the following:

$$P1 = \begin{cases} 1 & \text{if the employed persons before the Intifada still employed through Intifada} \\ 0 & \text{if the employed persons before the Intifada change their status} \end{cases}$$

$$P2 = \begin{cases} 1 & \text{if the employed persons through Intifada still employed} \\ 0 & \text{if the employed persons through Intifada change their status} \end{cases}$$

$$P3 = \begin{cases} 1 & \text{if the unemployed persons through Intifada get a job} \\ 0 & \text{if the unemployed persons through Intifada still unemployed or change to outside labor force} \end{cases}$$

The selection of the first Independent variable as Shown above was due to the basic aim of the study. The negative variables in cured in the Palestinian labor market in the beginning of Al-Aqsa Intifada impose to study the category of individuals who were working before the Intifada and excluded those were unemployed before it due to that only 30 percent of them were concentrated in seasonal jobs or worked as unpaid family member, while 51 percent of them continued as unemployed. While the targeted group was determined to study reasons that enables them to continue working or to be unemployed (loosing his job). It can be noticed that the selected reference period for the first group or the first part of data lack time overlapping, the diverting point was the first week of October 2000, the onset of Alaqsa intifada and start of strict Israeli measures against Palestinians; closures policy, incursions, and curfew that forbid employee to reach their job at Israel, that was the philosophy beyond choosing the independent variable P_1 , while the other two variables P_2 , P_3 , are different in it's nature and objective where the reference period is overlapped. Analysis was restricted to the recent available data and during intifada period to study reason and causes of occurring changes in labor market, where the change happened at the beginning of intifada was limited for Palestinian workers at Israel and Israeli settlements, in addition to certain sector directly depends on Israeli market, but as intifada continues the labor market changes expands to affect the Palestinian labour marker (loosing the capacity of employing) due to the financial crises that it passes through as a result of deliberately Israeli measures against all Palestinian life aspects. As mentioned before changes occurred in different directions; 38 percent of unemployed were able to work at several sectors, not only work as unpaid employees, seasonal work, in addition to created jobs (small income generating projects) was available by the assist of the government and national private sector. For the aforementioned reasons focus on unemployed who got new job opportunity, to know the sectors that make available job opportunity, employees who got these opportunities and employees could maintain their jobs during the intifada.

For studying the changes in determinants of each of the three mentioned cases, *Dynamic Probit Model* was used for each case separately, several studies support using such model (Beron and Vijverberg, 2002), (Voicu, 2002), (Maddala, 1983), Grootaet,1998) and many other studies discussed similar topics. Independent variables were used for different reference periods. It was noticed that the dependent variable depends on the previous and next labour status for each person, the applied theoretical methodology is annexed.

Variables:

The used explanatory variables was divided into two groups; the first describes the personal background characteristics, the second group describes the labour status, each group has its own reference period in both first and second part of data, while the third part of data has the same reference period for both groups, figure 3 shows the reference period for each group.

The reference period for the variables sex, age, educational attainment and residence was the last reference (the fourth quarter data for individuals), while data of the second quarter was used for variables of labour status, economic activity and occupation.

The first part of analysis (studying the determinants that enable a person to keep his job or being employee, that requires studying his labour status, economic activity and occupation pre- intifada. Determinants that enable a person to keep his job during the intifada also require studying the same previously mentioned variables.

Identifying the labour characteristics of individuals that could keep his job during intifada despite the economical crises that the Palestinian territory is passing through. Determinants of unemployed who was able to get a job opportunity require studying (the economic activity that provides him the job opportunity, occupation and place of work).

Type of changes occurred in the Palestinian Territory due to sever imposed Israeli measures against the Palestinians; gives analysis uniqueness, that does not distinguish analysis of other studies covering labour force and its restructuring. This uniqueness is resulted from imposed external policies against Palestinians and all aspects of life. Curfew policy prevents population to move within the same locality, closure policy prevent population to move between different localities (disrupting normal life), these measures resulted economic crises and destroyed infrastructure and deteriorated socio-economic life. Negative activity changes of the different economic sectors are reflected negatively mainly on income which of course will affect the activity of other services sectors (trade, industry, constructions and so on), uniqueness of the Palestinian case is work at Israel that constitute place of work for one fourth of the Palestinians labour force pre-intifada, also certain crafts and related works in the Palestinian Territory reaches its maximum peak in the beginning of 2000 (Bethlehem 2000 project).

Uniqueness of the case enforces thinking of other variables and characteristics to be taken into account in analysis of labour market and its components. One of the main independent variable was work at Israel, following the imposed closure on the Palestinian Territory; Palestinians are not able to work in Israel as before intifada, which leads to high increase in unemployment rate compared to the rates before intifada. Based on occurring situation, employed was divided into three groups according to place of work; the first group those employed in Israel, the second is those employed in the public sector (are not affected by Israeli measures and closure) continue keeping their jobs and they are paid even when they are not able to reach place of work, according to the international definition of unemployment “ anyone absent from his job, and for sure will be back to his job once possible is considered

employed” that is contrary to what is happening to workers in Israel “their return to job is not guaranteed and not sure” for that they are considered unemployed. The third group is those employed in the private sector. Both the first and the second group was dealt as it is as independent dummy variables, while the third group was divided into several criterion depending certain characteristics of interest of decision makers and local studies (Makhool 2000),(Jaafari,2001), (Makhool,1999), (Blmer E., 2001). Wage employee in construction, industry, trade and agriculture was the scope of study, where these sectors are the main major work sectors for Palestinians, studying the role of these sectors enables to understand the main steadiness sector continue to employ the maximum number of employee despite the strict Israeli measures; where many industrial enterprises closed, others could not sell or export it’s products, investment in construction sector declined, Palestinians priorities have changed, many other investments projects have freeze it’s activities and no any new investments. Agriculture sector was too much negatively affected. The other part of the private sector is the role of small income generating projects in employment was represented in a study conducted by a national institution (Muhanna, 2003) supported by ILO, where this study recommended supporting these small income generating projects due to it’s important role in providing job opportunities, but this study lacks the prove of the positive role of these small projects in employment and providing job opportunities, for that this part will be also covered in this study. Three independent variables was considered, the first is those self employed in agriculture sector, the second is those self employed in sectors other than agriculture and the third is self employed in manual crafts, distinguishing these variable was to make it possible of comparing results with ILO study and to support or reject it’s results. For instance small projects in agriculture are neglected by decision makers and financial support, results of this study may recommend to focus efforts on this kind of projects.

In addition to previous mentioned variable, focus will be directed also to the unpaid family members, studying this variable will support understanding that small project assist in creating job opportunity for family members, do these projects have a role in employment? Answering such question will support or not idea of supporting small projects, if results of the study reveals that employed family members continued to be on job or the small projects provides job opportunities for many unemployed.

Educational attainment and the role of education in getting job opportunities during this economic crisis the Palestinian territory is passing through was considered in this study. Educational attainment was divided into basic, secondary, intermediate college and higher education, pre-intifada education does not have any mentioned role in employment, where work in Israel and settlements do not require any academic education which force many Palestinians to drop out school to enroll Israeli labour market where wages is double than wages in the Palestinian labour market. By the beginning of the intifada number of employees in Israel decreased too much, so Palestinian start thinking of not dropping out school to join the Israeli labour market (become very limited job opportunities).

Analysis by region was considered because, geographically the Palestinian Territory is divided into two regions (WB and GS) these two region are totally of a different characteristics(area, population density, agriculture land,...etc).

4. Empirical results:

Tables (3-5) shows the marginal effect, standard error and *P-value* for previous mentioned independent variables by region (WB and GS) and the Palestinian Territory. Table (3) represents the determinants of persons who could continue being employee by the beginning of the intifada, table (4) represents determinants of persons continue keeping their job during intifada, table (5) represents the determinants of persons who could get job opportunity during intifada. Table (2) shows the variables and it's definitions.

Results showed that all independent variables related to demographic and educational characteristics have impact of a statistical significance at a confidence interval of 5 percent on persons keeping their job by the beginning of the intifada in both WB and GS, table (3). Education has a positive impact on persons to keep their jobs, this was more clear in GS than in WB, mainly for holders of intermediate collage, where their probability of getting a job at the beginning of the intifada was 25 percent compared with 24 percent for bachelor holders and above, while the probability for lower education levels (tawjihi and lower) ranges 7-8 percent, in WB probability starts at 11 percent for those completed basic education and increased as the educational level increased to reach 22 percent for bachelor holders and above. This regional variation for both WB and GS can be referred to strict closure imposed on Gaza compared with WB; where the percentage of employee in Israel dropped from 15 percent on the eve of the intifada to 3 percent at the beginning of the intifada, the majority of those employees are of lower educational levels. The supply of employee of intermediate college holders in GS decreased by 20 percent of that in WB (percentage of intermediate college holders 5 percent and 6 percent respectively). These results may assist in understanding the issue of low wages in GS, where the daily median wage decreased by 14 percent compared with wages in WB. Figure (5) shows the relation of the first two educational groups (low level) in WB with age, which seems to be of a linear line of a positive slope, while the other two groups shows a relation of a linear horizontal line. The case in GS is different; probability of young and intermediate ages holders of basic education only to get a job decreased compared with older ages where the latest depend on their experience rather than their education, no variation in the probability of getting a job among higher educational levels by age and education in GS.

The probability to continue working during the intifada as time passes is shown in figure (6), the probability of keeping labor status was the highest for intermediate college holders in GS and was for Bachelor holder and higher in WB. The trend among different educational levels in GS has changed (the gap declined clearly), where the probability increased for those education level (completed 1-9 years of schooling) from 7 percent at the beginning of intifada to 10 percent after one year of the intifada, while it decreased for intermediate college from 25 percent at the beginning of intifada to 18 percent after one year, while the case in WB is become worse for those completed 1-9 years of schooling where it decreased from 11 percent at the beginning of the intifada to 7 percent after one of the intifada. Policy attitudes was toward employing low education levels employment, where employment programs was concentrated to create temporary job opportunities in the fields on construction and maintaining infrastructure projects, public services, keeping a clean environment projects. Education has no significant statistical impact on changing the unemployment status from unemployed to employed (variable P_3) in WB. but there was a statistical significant at a confidence interval more than 15 percent, this indicate that educational level is still important in getting job opportunity in GS, as years of schooling increased probability of getting a job increased (figure 7).

Results showed the negative impact of Israeli measures on probability of women in getting job opportunity decreased by 23 percent and 36 percent in WB and GS respectively compared with men. The resulted situation forced women to stay at home due to lack of job opportunities and also not to compete men in getting the offered opportunities, of course this attitude will increase the already existing gap in labor force status among men and women. Probability of working by age for both men and women at the beginning of intifada is shown in figure(5), results shows that men probability of working increased as age increased, this may be referred to experience of older ages(Voicu,2002), the relation is close to a linear line of a positive slope, while the relation of women work and age is strongly concave function. This trend was clear in both WB and GS. Men experience plays a major role in getting job opportunity, and who works try to continue keeping it, while women participation in labor market was lower before 10 compared with nowadays, the peak of their participation was among those at the middle age groups.

After one year of intifada, the gap among men and women related to the probability of being employed decreased. Men probability of keeping labor status decreased compared with women at the beginning of intifada in WB from 23 percent to 16 percent, and from 36 percent to 27 percent in GS. Women employment probability continued the same as it was at the beginning of intifada, employment probabilities are strongly concave, while the relation has changed for men from linear line function of age to concave function of age, this shows the increase of employment probability for men of middle ages, Figure (6). Both gender and Age have no significant statistical impact on the probability of employing unemployed during the intifada.

Studying the determinants of place of work, main economic activity of a high capacity of employment, and occupation of employed. Results show that the public sector plays the major role in employment, the Israeli market deprive employees from getting their jobs, this equation of employment explains the high rates of unemployment in the Palestinian Territory. Employment in the public sector and underemployment for Palestinians in Israeli labor market where the probability of losing jobs for those worked in Israel and Israeli settlements before intifada reached 34 percent in WB and 59 percent in GS, while employment probability in the public sector was 17 percent and 14 percent in WB and GS respectively, these results explain the high unemployment rate in GS compared with that of WB, table (1). The case of employment and unemployment in public sector and Israel continues the same trend, but what has changed is push and pull of employment, where the limited number of workers in Israel and settlements that do not exceed 7000 during the intifad compared to 50000 before the intifada, reduce the probability losing jobs; where the number of employee continued to be limited during the intifada in GS. Underemployment of Gaza people in Israel and settlements depends on complete closure from time to time and political situation in the region, the probability of underemployment of employee from Gaza to work in Israel reaches 18 percent compared with 59 percent at the beginning of the intifada, while this probability in WB decreased to a lower extent compared with situation in GS from 34 percent at the beginning of the intifada to 23 percent, this may be due to length of borders between WB and Israel, results show that quite equal attention from government in employment probability in both Gaza and WB at 9 percent and 10 percent respectively, this explains the limited change of unemployment rates in GS compared to fluctuated changes in WB also explains close unemployment rates for both WB and GS, where a wide gap exists on the eve of the intifada at 8 percent and 16 percent respectively. Data shows the major role of public sector in employment during the intifada, where employment probability reaches 61 percent in WB

and 71 percent in GS, that's reveal that employment programs have it's positive role in decreasing unemployment rates after two years of intifada and mainly in GS.

Studying the case of private sector through targeting the broad groups of the great concern. By the beginning of the intifada, there were no significance statistical relation with regard to economic activity and occupation of employee in WB except the wage employee group in construction sector, self employed in craft works, both groups have it's negative impact on employment probability as it was expected due to Israeli measures all private sector groups are negatively affected. The need to know the lowest affected groups of the private sector, table (3) shows wage employee in construction and self-employed in craft works have close losing job probability at the beginning of the intifada at 20 percent and 18 percent respectively. In GS the targeted groups affect negatively the employees before the intifada, the lowest affected group was wage employee in elementary occupation at -10 percent, followed by self employed in non agriculture sector and craft work at -20 percent for each, this is a positive impact of small job creating projects. The most affected group by Israeli measures was wage employee in construction (-46 percent), followed by wage employee at agriculture sector at -31 percent. These results reveals the negative role of private sector in the contribution in decreasing unemployment, it plays the push role as the Israeli labor market, and that's increased the burden on the public sector of trying to overcome unemployment. Changes among different groups in employment was of no statistical significance, this means that no differences between the different economic sectors and occupations, except elementary occupations in WB, it's probability of employment is of negative statistical significance at -18 percent, also self employed in non agriculture sector at -19 percent.

Results show that private sector has played a major role parallel to the role of the public sector in the late of 2002-2003. Table (5) show that all sector under study have it's positive impact in employing unemployed during the intifada. Small job creating projects in agriculture non agriculture sector has the most positive impact in both WB and GS at 62 percent and 72 percent respectively, and 64 percent, 78 percent for non agriculture, followed by trade sector at 59 percent, 58 percent respectively. Employment probability for wage employee in WB was the highest in Industrial sector at 47 percent followed by construction and agriculture at 38 percent and 35 percent respectively, while in GS the highest employing sector was agriculture at 41 percent followed by construction and industry at 40 percent and 33 percent respectively.

Employment probability for self employed in craft work in WB and GS was negative at -10 percent and -15 percent respectively, that can be referred to that this sector depends on the tourism activities in the Palestinian Territory, where this sector was declined totally. Unpaid family members who represent seasonal labor or availability of small projects were affected negatively at the beginning of the intifada, their employment probability decreased by 24 percent compared to employment probability of other sectors. Employment probability for unpaid family members was very high during the intifada in WB and GS at 59 percent and 71 percent respectively, that's ensure the positive role of small projects in employment during the intifada.

Employment probability by region was of statistical significance by place of residence WB and GS, where it was higher in WB by 23 percent of the probability of GS, this gap deceased to 5 percent after one year of the intifad, the probability of getting a job for unemployed was higher in WB by 6 percent of the probability of GS. Employment probability within WB areas

(North, South and Middle), the probability was the highest in the south by 7 percent compared with other areas and the probability in the North was lower by 7 percent of the probability of the other areas., this indicates that the north of the Best Bank was negatively affected while the other areas are not, also results shows the same trend for GS. Employment probability after one year of the intifada within WB areas differences was of no statistical significance

5. Conclusions:

Since September 28th a dramatic negative changes started to occur in the social and economic of the Palestinians, through following the dynamics of labor force and analyzing the available data by using the suitable model fit the Palestinian case the following conclusions can be noticed:

Results indicate that personal characteristics have a strong influence on labor status change in the beginning of Intifada, but the age and educational qualification have not statistical significant influence through the Intifada. I found that men have higher employment probabilities in all years, for all ages. Employment probabilities for women are strongly concave functions of age in all years, but employment probabilities for men was linear functions of age with positive slope in the beginning of Intifada, and it changed to concave functions of age after more than one year of Intifada. This feature is explained by fact that young individuals have a higher probability of losing their jobs, while older workers have a higher probability of clinging to their jobs. After filtering out the effect of new entries by age, I found that there is no statistical significant influence through the Intifada. The high education (BA/BSc and more) in West Bank (WB) have high employment probabilities in all years, while, the diploma (2-3 years of education after secondary education) in GS (GS) have high employment probabilities in all years. This aspect is influenced by the low supply of individuals have diploma in GS comparing with WB.

The public sector plays a major role in employment during the intifada, faced with a negative role of Israeli labor market (loosing jobs), this disturbs supply and demand on labor force, and leads to increase unemployment rate, unemployment rate in GS was higher than the rate of WB, that can be referred to the separation wall surrounding GS which prevent employees to work in Israel and settlements. As strict Israeli measures is proceeding in WB, unemployment rates are becoming closer in both WB and GS, while the rate is expected to increase more and more in WB As long as Israelis continue creating the separation wall in the Palestinian Territory. The public sector has the highest probability of employing unemployed during the intifada its role in GS was more than in WB.

The private sector was affected negatively by the beginning of the intifada and that was clear in GS, where variations were of statistical differences, but not in WB. At the level of the Palestinian Territory its noticed that employed in construction was too much negatively affected compared to the other sectors. The small projects have a positive role in all cases it was the lowest affected at the beginning of the intifada, where it was among the highest sectors in providing job opportunities for unemployed in both agriculture and non agriculture sector in both regions (WB and GS) during the intifada.

Looking at the results of the three models give a clear picture of the characteristics of those lost their jobs at the beginning of the intifada and those could get a job during the intifada. Results can be used to understand the labor force supply characteristics and the required supply characteristics to fulfill the labor market needs. Lower probability of holders of educational

qualification lowers than tawjihi to keep their jobs, and the probability continued to decrease after one year of the intifada, this assist to understand the large supply of this group faced by low demand on this group, this will result in increasing the gap between demand and low educational qualifications. Low probability of loosing job for employees in small projects reveals the importance of small projects contribution in employment. Spontaneous self-restructuring of local labor market took place as a result of the ongoing circumstances with regard to labor market, despite its limited capacity pre-intifada the agriculture sector in GS was of a high probability in providing job opportunities. Employment probability in WB exceeds that of GS, but this probability decreased by time as a result of the strict Israeli measures and building the separation wall in the Palestinian Territory, where this wall started in the north of WB this will increase the probability of loosing jobs compared to the other areas of WB. It is noticed that the strictest Israeli measures are against GS and the North of WB then the South, the impact is reflected on the results of these areas.

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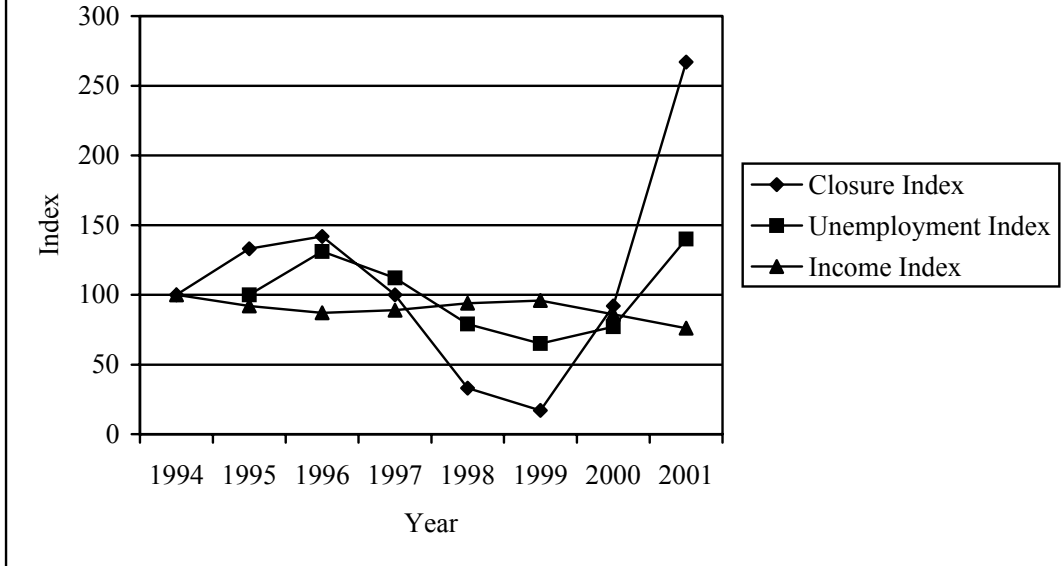
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Figure 1: Days of Closure, Per Capita Income and Unemployment Rate in the PT: 1994-2001



Source: UNSCO, World Bank and PCBS

Figure 2: Data Structure

Year	1999	2000				2001				2002				2003	
Quarter	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Round No.	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
Group 1	R. 2			R. 3	R. 4										
	R. 1	R. 2			R. 3	R. 4									
		R. 1	R. 2			R. 3	R. 4								
			R. 1	R. 2			R. 3	R. 4							
				R. 1	R. 2			R. 3	R. 4						
Group 2					R. 1	R. 2			R. 3	R. 4					
						R. 1	R. 2			R. 3	R. 4				
							R. 1	R. 2			R. 3	R. 4			
								R. 1	R. 2			R. 3	R. 4		
									R. 1	R. 2			R. 3	R. 4	
										R. 1	R. 2			R. 3	R. 4

Group 1 of Data

Group 2 of Data

Name of variables with t come from the above group (2nd Rep.)

Name of variables with f come from the above group (2nd Rep.)

Name of variables with s come from the above group (4th Rep.)

Note: R means Repetition

Figure 3: The probabilities and their reference periods

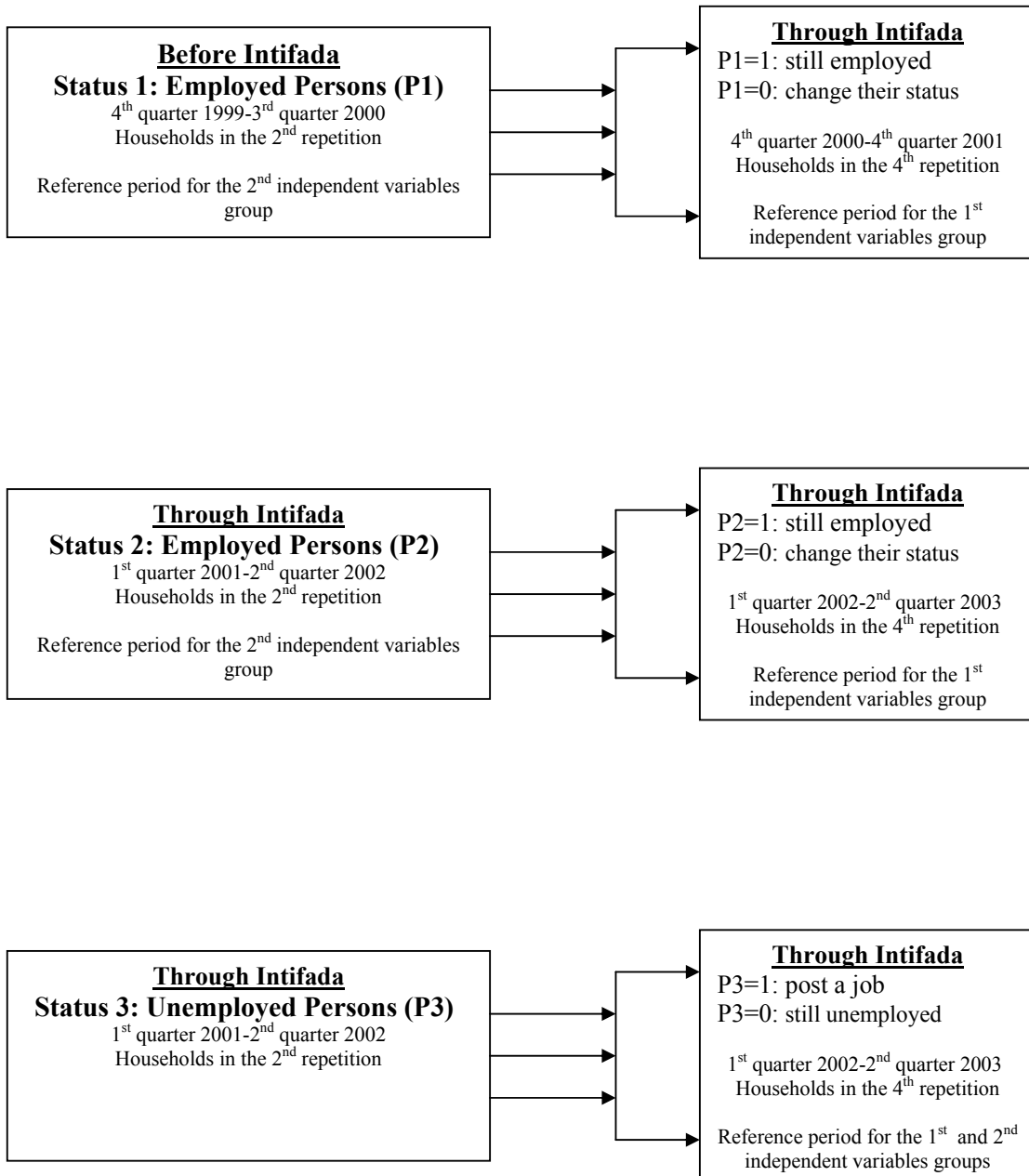


Figure 4: Persons 22-64 years old by education qualification and Region: 2002

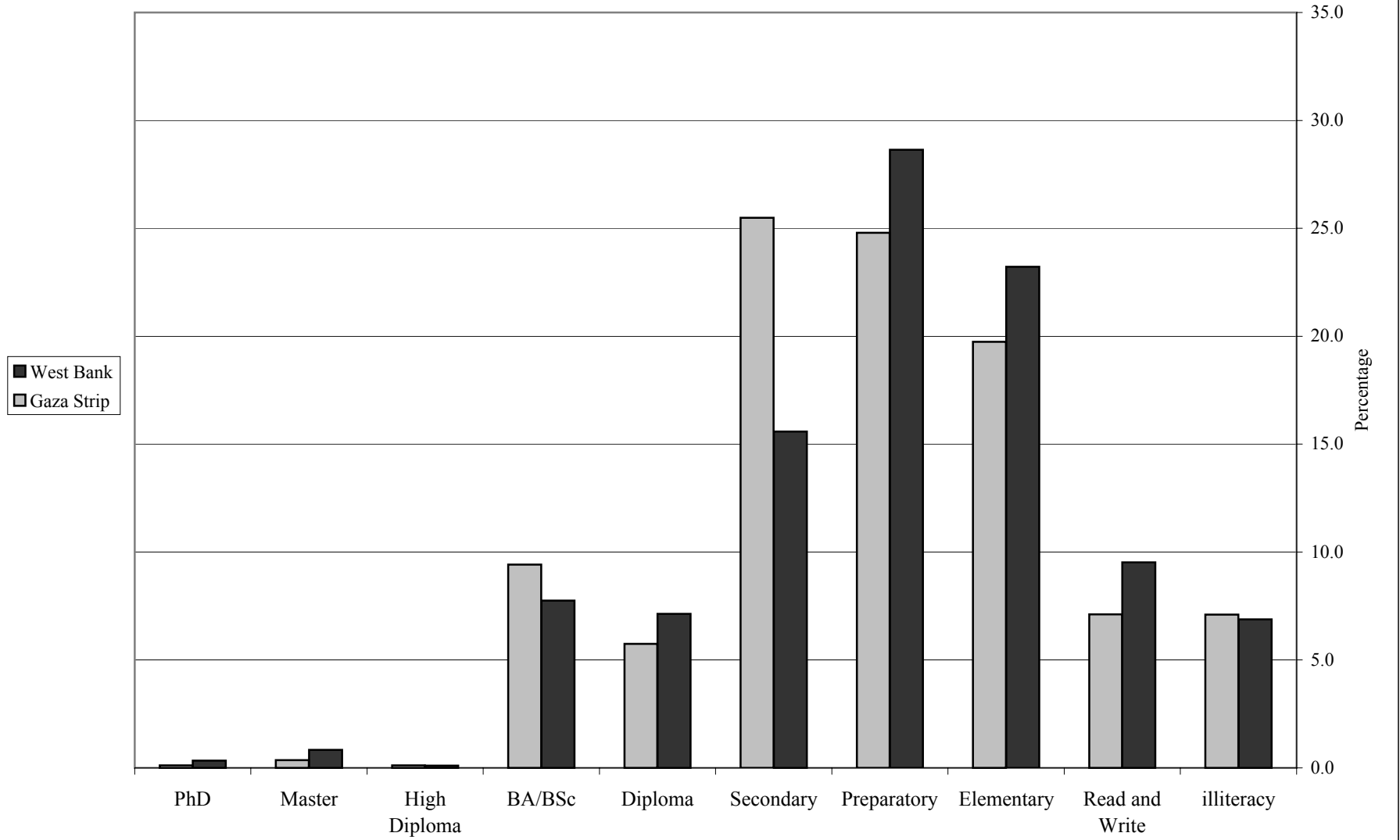


Figure 5: Probability of employed persons before the Intifada still employed through Intifada by sex, education qualification, Region and age (P1)

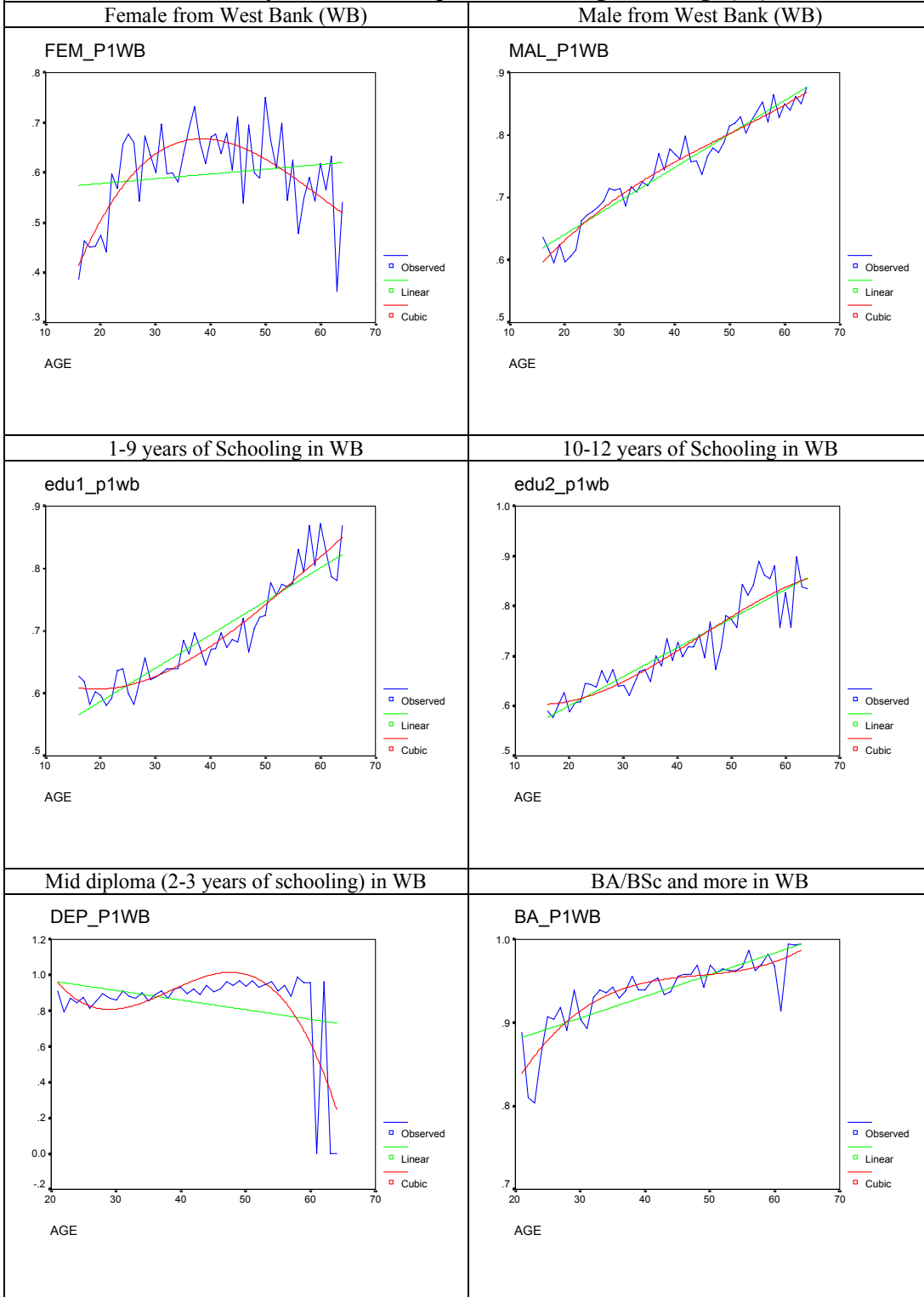


Figure 5 (Cont.): Probability of employed persons before the Intifada still employed through Intifada by sex, education qualification, Region and age (P1)

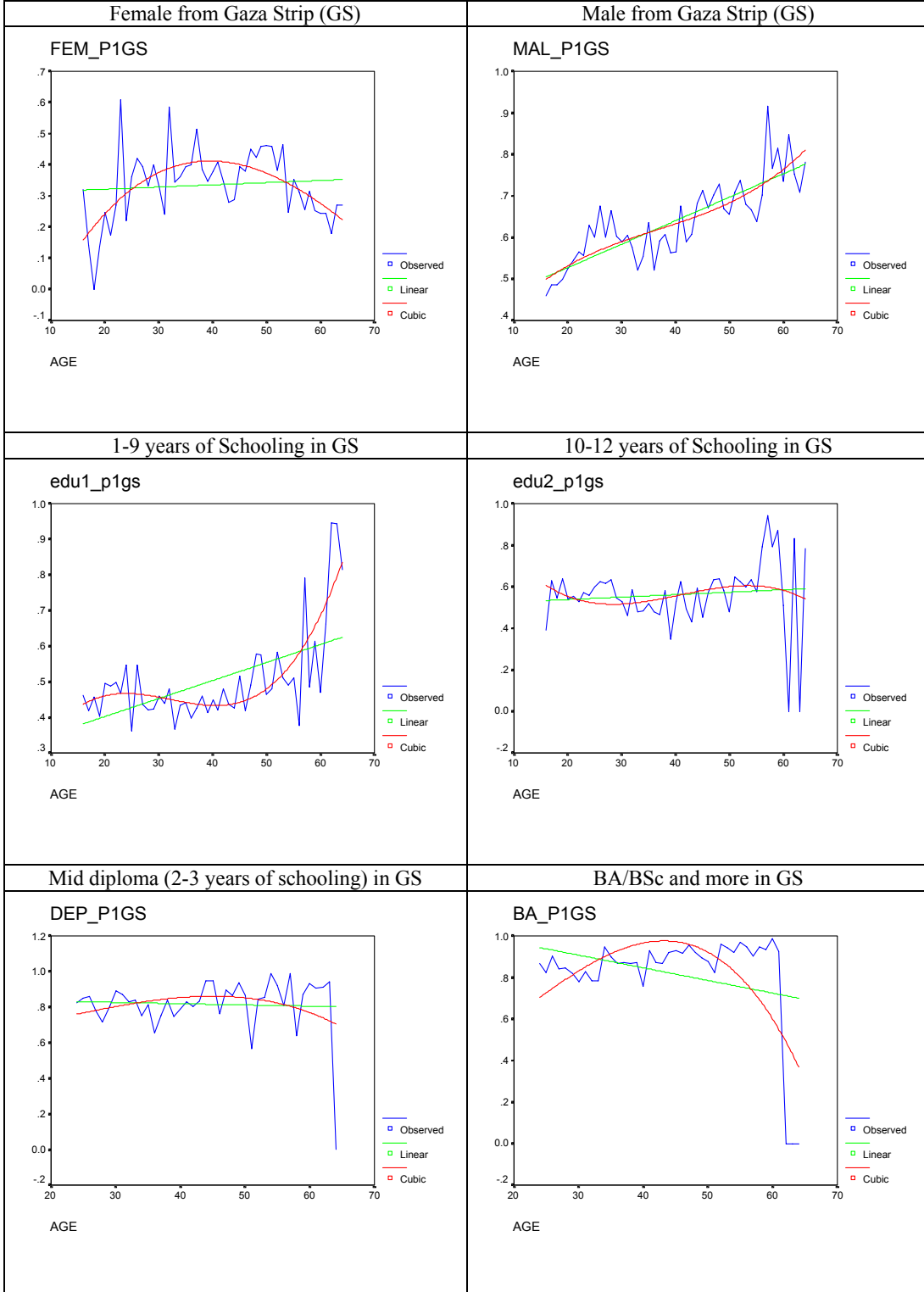


Figure 6: Probability of employed persons through Intifada still employed by sex, education qualification, Region and age (P2)

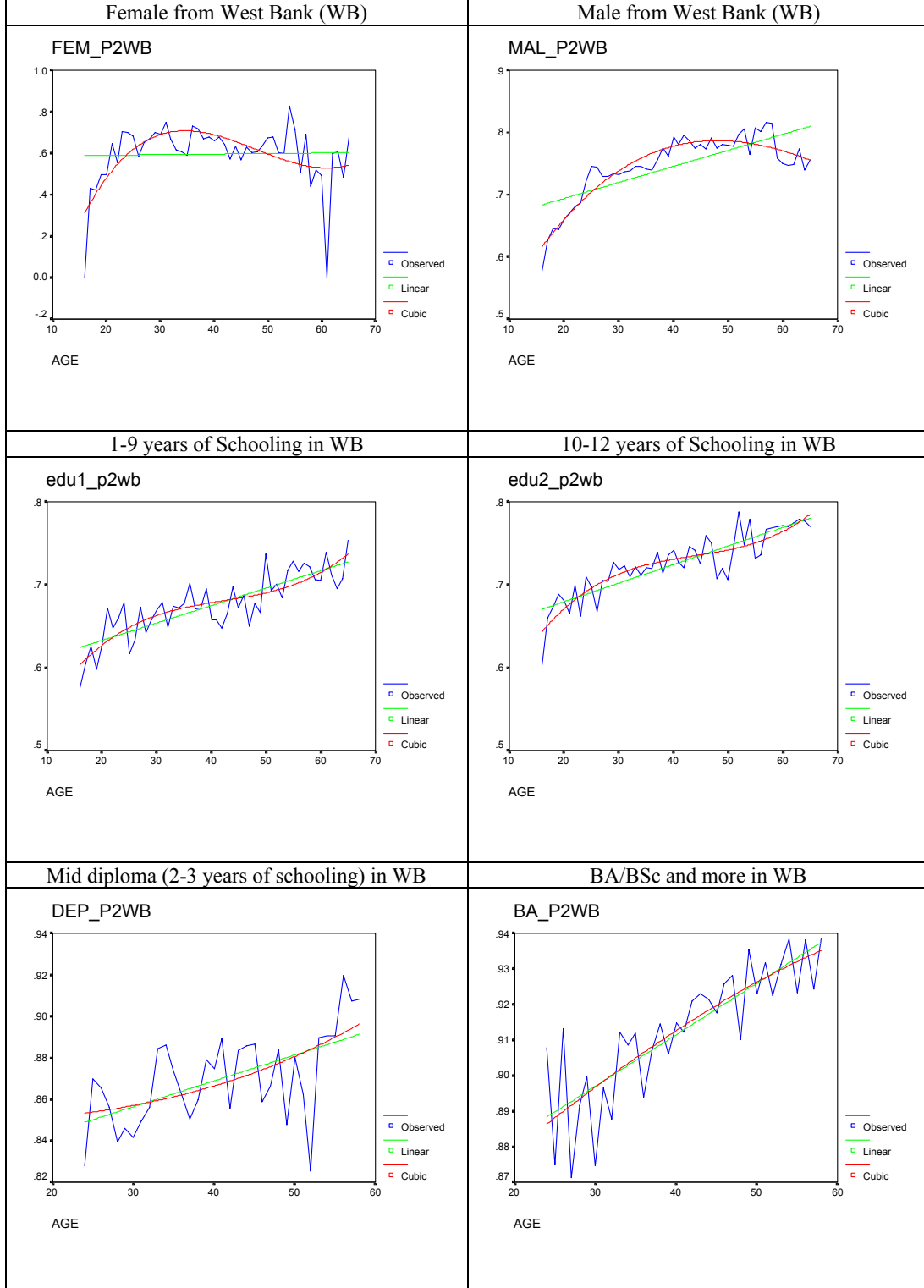


Figure 6 (Cont.): Probability of employed persons through Intifada still employed by sex, education qualification, Region and age (P2)

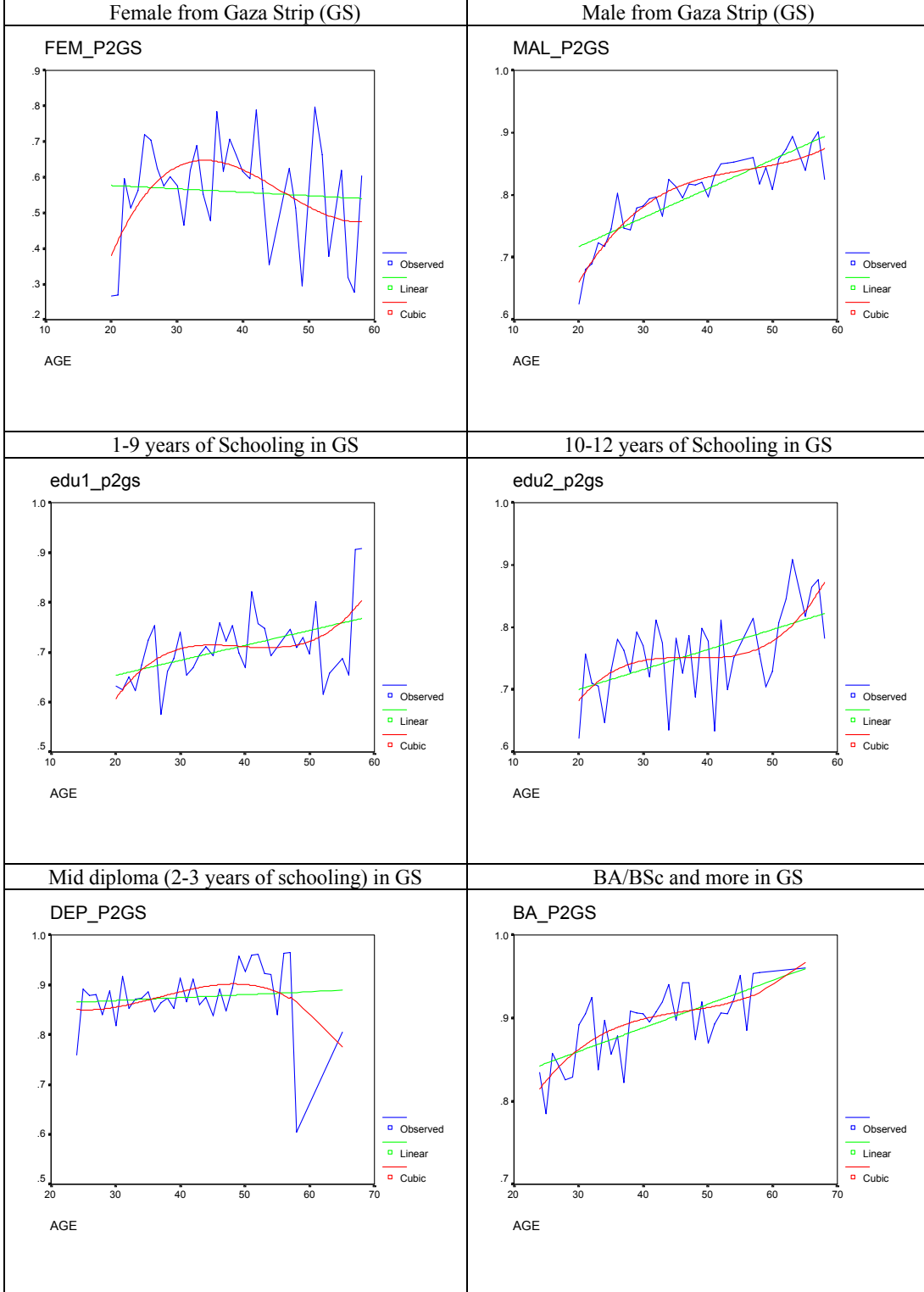


Figure 7: Probability of unemployed persons through Intifada get a job by sex, education qualification, Region and age (P3)

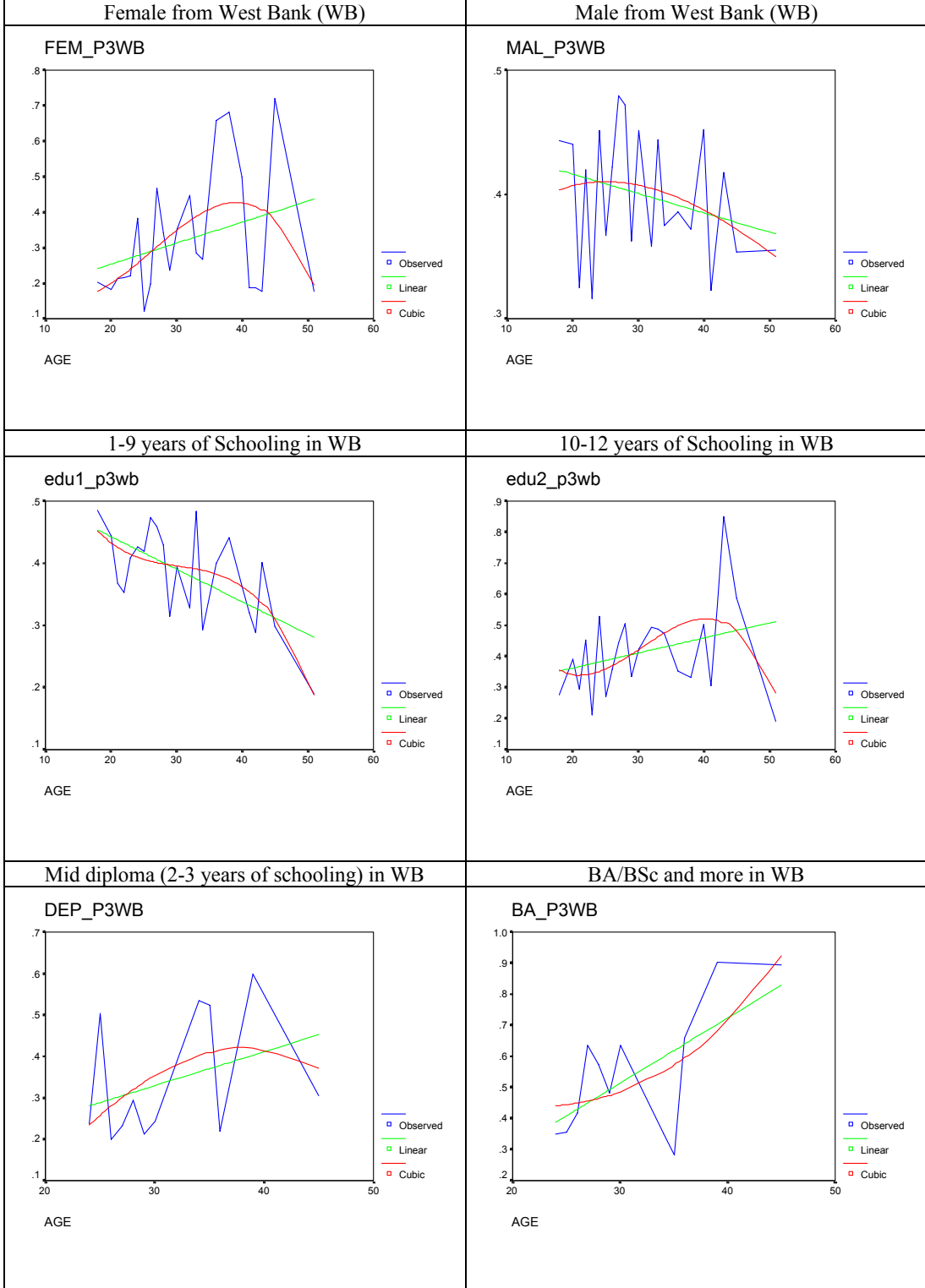
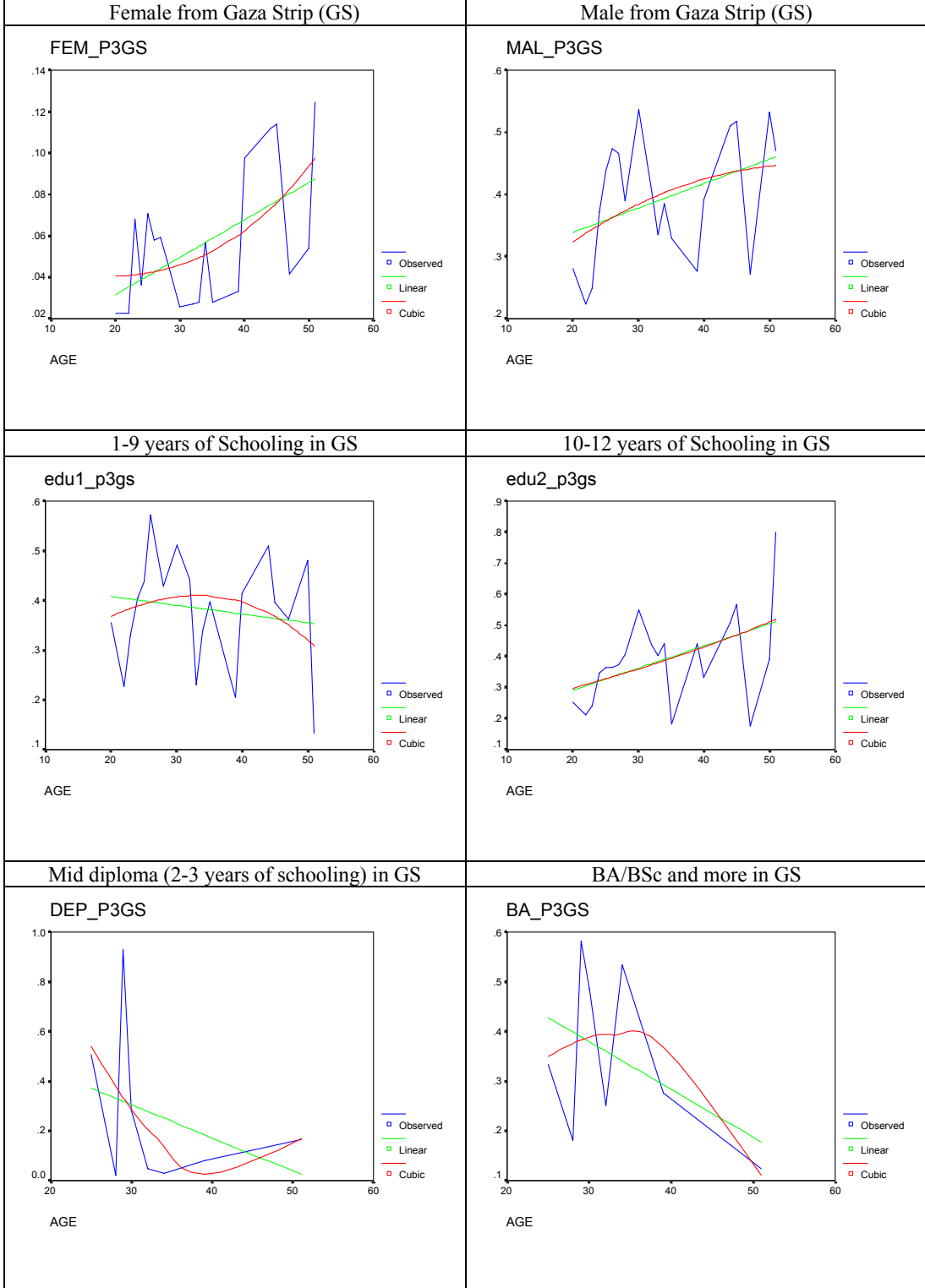


Figure 7 (Cont.): Probability of unemployed persons through Intifada get a job by sex, education qualification, Region and age (P3)



Appendix

The theory:

Suppose that a binary dependent variable, y , takes on values of zero and one. A simple linear regression of y on x is not appropriate, since among other things, the implied model of the conditional mean places inappropriate restrictions on the residuals of the model. Furthermore, the fitted value of y from a simple linear regression is not restricted to lie between zero and one. Instead, we adopt a specification that is designed to handle the specific requirements of binary dependent variables. Suppose that we model the probability of observing a value of one as:

$$\Pr(y_{it} = 1 | \beta_i, \mathbf{x}_{it}, z_{it-\Delta}, y_{it-\Delta}) = 1 - F(-\beta' \mathbf{x}_{it} z_{it-\Delta} y_{it-\Delta})$$

Where \mathbf{x}_i is the explanatory personal variables, z_i is the other explanatory variables come from previous information (before 2 quarters: Δ), β is a coefficient and F is a continuous function, strictly increasing function that takes a real value and returns a value ranging from zero to one. The choice of the function F determines the type of binary model. It follows that

$$\Pr(y_i = 0 | \beta_i, \mathbf{x}_{it}, z_{it-\Delta}, y_{it-\Delta}) = F(-\beta' \mathbf{x}_{it} z_{it-\Delta} y_{it-\Delta})$$

Given such a specification, we can estimate the parameters of this model using the method of maximum likelihood. For the probit model, the likelihood function is

$$L = \prod_{i=1}^n [F(\beta' \mathbf{x}_{it} z_{it-\Delta} y_{it-\Delta})]^{y_{it}} [1 - F(\beta' \mathbf{x}_{it} z_{it-\Delta} y_{it-\Delta})]^{1-y_{it}}$$

where $F(\cdot)$ is the cumulative distribution function of the standard normal distribution.

And the log-likelihood is given by:

$$\ell(\beta) = \log L(\beta) = \sum_{i=1}^n y_{it} \log F(\beta' \mathbf{x}_{it} z_{it-\Delta} y_{it-\Delta}) + \sum_{i=1}^n (1 - y_{it}) \log [1 - F(\beta' \mathbf{x}_{it} z_{it-\Delta} y_{it-\Delta})]$$

The results interpretation:

Interpretation of the coefficient values is complicated by the fact that estimated coefficients from a binary model cannot be interpreted as the marginal effect on the dependent variable. The marginal effect of x_{it} on the conditional probability is given by:

$$\frac{\partial F(y | \beta \mathbf{x}_i)}{\partial x_{jt}} = f(-\beta \mathbf{x}_i) \beta_j$$

where $f(x) = dF(x)/dx$ is the density function associated with F . Note that β_j is weighted by a factor f that depends on the values of all of the regresses in x . Note also that since the density function is nonnegative, the direction of the effect of a change in x_{it} depends only on the sign of the β_j coefficient. Positive values of β_j imply that increasing x_{it} will increase the probability of the response; negative values imply the opposite. For more details see (Maddala, 1983, ch.2). Also, for other explanatory variables in the previous time, have the same procedure.

Table 1: Basic Changes in the Labour Force Indicators in Palestinian Territory During 2000 - 2003 (ILO Standards)

Variable	R (18)	R (19)	R (20)	R (21)	R (22)	R (23)	R (24)	R (25)	R (26)	R (27)	R (28)	R (29)
	Q3-00	Q4-00	Q1-01	Q2-01	Q3-01	Q4-01	Q1-02	Q2-02	Q3-02	Q4-02	Q1-03	Q2-03
Labour Force Participation Rate	43.5	39.2	38.8	38.3	38.3	39.1	38.7	36.9	37.6	39.2	38.8	40.7
Full Employment Rate	83.6	66.9	69.2	72.0	70.5	70.3	67.6	62.9	59.8	67.1	65.4	68.7
Underemployment Rate	6.4	4.8	3.9	4.3	4.2	3.5	3.5	3.5	4.6	5.6	4.3	7.0
Unemployment Rate	10.0	28.3	26.9	23.7	25.3	26.2	28.9	33.6	35.6	27.3	30.3	24.3
Employed in Agriculture	12.7	16.9	12.1	12.4	11.4	12.1	13.4	16.7	11.3	17.6	14.7	17.7
Employed in Construction	21.7	10.8	13.6	14.9	15.1	14.6	11.2	8.5	11.0	12.7	11.6	12.1
Employed in Manufacturing	15.0	12.8	14.9	14.0	13.3	13.5	14.3	12.1	12.6	12.5	12.8	12.1
Employed in Services	28.6	35.2	35.1	33.6	35.5	34.6	35.1	37.9	37.5	33.1	34.9	32.6
Elementary Occupation Workers	19.8	13.7	15.9	16.2	16.1	15.7	15.1	13.2	13.0	15.2	13.4	14.1
Craft and Related Trade Workers	24.5	16.2	18.8	19.5	18.7	19.0	17.9	15.6	18.6	17.8	18.5	18.0
Employed in Israel & Settlements	22.1	9.1	14.6	14.4	12.5	13.2	11.6	7.3	11.8	10.4	9.5	8.9
Employers	4.4	4.6	4.8	5.3	4.3	4.3	3.5	3.3	4.2	3.7	3.2	3.0
Self - Employed	18.1	23.1	21.6	23.6	24.4	26.0	27.6	27.3	25.0	27.0	28.8	28.7
Wage Employees	67.6	59.3	64.1	61.8	62.3	60.5	59.4	58.0	61.9	57.9	58.0	55.6
Unpaid Family Members	9.9	13.0	9.5	9.3	9.0	9.2	9.5	11.4	8.9	11.4	10.0	12.7
Average Monthly Work Days *	22.8	23.3	22.6	23.2	23.4	23.2	22.7	23.1	23.0	23.2	22.1	23.3
Average Weekly Work Hours *	45.0	40.7	41.3	42.9	43.4	41.2	40.7	41.4	41.5	41.0	40.5	42.2
Median Daily Net Wage (NIS) *	70.0	61.5	61.5	65.4	60.0	60.0	60.0	57.7	69.2	60.0	57.7	57.7

*: Workers in Israel and Settlements are included

Q: Quarter, Example: Q1-99 means: 1st Quarter of 1999

R: Round

Source: Palestinian Central Bureau of Statistics, 2003. *Labor Force Survey: (April-June, 2003) Round. Press Conference on the Labor Force Survey Results* . Ramallah-Palestine.

Table 1 (Cont.): Basic Changes in the Labour Force Indicators in West Bank During 2000 - 2003 (ILO Standards)

Variable	R (18)	R (19)	R (20)	R (21)	R (22)	R (23)	R (24)	R (25)	R (26)	R (27)	R (28)	R (29)
	Q3-00	Q4-00	Q1-01	Q2-01	Q3-01	Q4-01	Q1-02	Q2-02	Q3-02	Q4-02	Q1-03	Q2-03
Labour Force Participation Rate	45.3	42.9	41.6	41.1	41.4	41.5	40.4	37.3	40.1	42.1	39.7	42.5
Full Employment Rate	84.8	68.1	71.6	75.8	72.1	73.5	70.6	66.7	62.5	65.6	63.8	69.7
Underemployment Rate	7.7	5.6	4.5	5.2	5.2	4.3	3.9	3.6	6.5	7.4	4.9	7.9
Unemployment Rate	7.5	26.3	23.9	19.0	22.7	22.2	25.5	29.7	31.0	27.0	31.3	22.4
Employed in Agriculture	11.3	17.1	11.7	12.9	12.0	11.9	11.3	14.6	11.8	18.6	12.4	17.9
Employed in Construction	24.2	13.3	17.6	18.6	18.3	18.0	13.6	10.7	12.9	13.5	12.4	13.0
Employed in Manufacturing	16.1	14.6	16.9	15.4	14.4	15.0	16.1	14.6	13.4	13.7	14.2	13.5
Employed in Services	24.6	29.0	28.0	26.6	29.3	28.6	31.4	32.7	32.0	28.7	32.7	28.7
Elementary Occupation Workers	20.5	15.2	17.8	17.8	18.0	17.5	15.8	13.3	14.0	13.8	13.0	12.9
Craft and Related Trade Workers	25.7	18.2	20.9	21.6	20.0	20.4	19.4	18.5	19.6	18.8	19.4	19.1
Employed in Israel & Settlements	24.8	11.3	19.1	18.7	16.1	17.3	15.6	9.6	15.0	12.8	12.6	11.7
Employers	4.6	4.8	5.2	4.9	3.7	4.4	3.8	3.6	4.6	4.4	3.8	3.2
Self - Employed	19.9	24.6	22.9	25.3	26.1	27.5	28.5	29.1	25.6	27.8	30.2	30.7
Wage Employees	66.2	57.0	62.6	59.6	60.2	58.6	59.1	56.4	60.1	54.8	57.6	52.8
Unpaid Family Members	9.3	13.6	9.3	10.2	10.0	9.5	8.6	10.9	9.7	13.0	8.4	13.3
Average Monthly Work Days *	24.3	23.2	23.1	23.6	24.1	23.7	23.0	22.5	22.2	23.2	22.8	23.9
Average Weekly Work Hours *	46.2	40.6	41.5	43.8	44.7	42.6	41.4	41.7	39.5	41.1	40.5	42.4
Median Daily Net Wage (NIS) *	63.2	61.5	60.0	60.6	57.7	57.7	57.7	57.7	67.3	60.0	60.0	57.7

*: Workers in Israel and Settlements are not included

Q: Quarter, Example: Q1-99 means: 1st Quarter of 1999

R: Round

Source: Palestinian Central Bureau of Statistics, 2003. *Labor Force Survey: (April-June, 2003) Round. Press Conference on the Labor Force Survey Results* . Ramallah-Palestine.

Table 1 (Cont.): Basic Changes in the Labour Force Indicators in Gaza Strip During 1995 - 2003 (ILO Standards)

Variable	R (18)	R (19)	R (20)	R (21)	R (22)	R (23)	R (24)	R (25)	R (26)	R (27)	R (28)	R (29)
	Q3-00	Q4-00	Q1-01	Q2-01	Q3-01	Q4-01	Q1-02	Q2-02	Q3-02	Q4-02	Q1-03	Q2-03
Labour Force Participation Rate	40.1	32.0	33.4	33.1	32.1	34.4	35.4	36.2	32.9	33.6	37.2	37.3
Full Employment Rate	81.0	63.7	63.4	63.0	66.5	63.0	61.2	55.5	53.4	70.8	68.7	66.6
Underemployment Rate	3.5	2.8	2.5	2.1	1.6	1.6	2.5	3.1	0.1	1.2	2.8	5.0
Unemployment Rate	15.5	33.5	34.1	34.9	31.9	35.4	36.3	41.4	46.5	28.0	28.5	28.4
Employed in Agriculture	16.2	16.1	13.3	11.0	9.6	12.5	18.8	21.9	9.7	15.3	19.4	17.2
Employed in Construction	15.9	3.5	2.4	3.9	6.0	5.1	4.8	3.4	5.2	10.9	10.1	10.1
Employed in Manufacturing	12.3	7.5	9.4	10.0	10.0	9.2	9.6	6.2	10.2	9.6	10.0	9.1
Employed in Services	38.0	53.7	54.8	54.1	53.0	51.3	45.1	49.9	53.9	43.2	38.8	41.4
Elementary Occupation Workers	18.0	9.9	10.7	11.7	10.9	10.4	13.4	13.1	10.3	18.8	14.1	16.8
Craft and Related Trade Workers	21.7	10.5	13.0	13.3	15.2	15.0	14.2	8.7	15.6	15.2	16.7	15.4
Employed in Israel & Settlements	15.4	2.7	2.0	1.6	2.2	1.7	1.4	1.7	2.1	4.6	3.6	2.1
Employers	4.0	4.0	3.7	6.5	6.0	3.9	2.9	2.6	3.2	2.0	2.0	2.5
Self - Employed	13.6	18.7	17.7	18.5	19.6	21.8	25.1	23.1	23.5	25.2	26.1	23.8
Wage Employees	71.0	65.9	68.3	68.2	68.2	65.8	60.3	61.8	67.4	65.5	58.7	62.1
Unpaid Family Members	11.4	11.4	10.3	6.8	6.3	8.5	11.7	12.5	5.9	7.3	13.2	11.6
Average Monthly Work Days *	23.7	24.8	24.5	24.7	24.6	24.5	23.7	24.4	24.8	23.8	21.9	22.8
Average Weekly Work Hours *	42.8	40.6	39.8	40.9	41.8	38.4	39.6	39.6	42.3	38.9	40.0	40.6
Median Daily Net Wage (NIS) *	46.2	53.8	50.0	50.0	50.0	50.0	50.0	50.0	53.8	50.0	50.0	50.0

*: Workers in Israel and Settlements are not included

Q: Quarter, Example: Q1-99 means: 1st Quarter of 1999

R: Round

Source: Palestinian Central Bureau of Statistics, 2003. *Labor Force Survey: (April-June, 2003) Round. Press Conference on the Labor Force Survey Results* . Ramallah-Palestine.

**Table 2A: Man Power (15-64 years old) Dynamics by Labor Force Status:
Q4/1999-Q2/2003**

Labor force dynamic between before and through Intifada (observation-status 1)				
Man power on the beginning of Intifada	Man power before Intifada			
	Employment	Unemployment	Outside of LF	Total
Employment	6300	315	896	7925
Unemployment	1757	448	488	2861
Outside of LF	1564	280	13410	17483
Total	9621	1043	14794	28269
Labor force dynamic between before and through Intifada (layer percentage-status 1)				
Man power on the beginning of Intifada	Man power before Intifada			
	Employment	Unemployment	Outside of LF	Total
Employment	24.7	1.2	3.5	28.0
Unemployment	6.9	1.8	1.9	10.1
Outside of LF	6.1	1.1	52.7	61.8
Total	37.8	4.1	58.1	100.0
Labor force dynamic through Intifada (observation-status 2)				
Man power after more than one year of Intifada	Man power on the beginning of Intifada			
	Employment	Unemployment	Outside of LF	Total
Employment	3746	750	727	5223
Unemployment	779	915	548	2242
Outside of LF	566	304	9517	10387
Total	5091	1969	10792	17852
Labor force dynamic through Intifada (layer percentage-status 2)				
Man power after more than one year of Intifada	Man power on the beginning of Intifada			
	Employment	Unemployment	Outside of LF	Total
Employment	21.0	4.2	4.1	29.3
Unemployment	4.4	5.1	3.1	12.6
Outside of LF	3.2	1.7	53.3	58.2
Total	28.5	11.0	60.5	100.0

Source: Palestinian Central Bureau of Statistics, 2003. Labor Force Survey Database Q4/1999-Q2/2003. Ramallah-Palestine.

Table 2B: Labor Dynamics for Persons 15-64 years old by Industry: Q4/1999-Q2/2003

Labor force dynamic between before and through Intifada (observation-status 1)									
Labor Force -on the beginning of Intifada	Labor force before Intifada								
	Agriculture	Manufacturing	Construction	Commerce, Hotels and Restaurants	Transport, Storage and Communication	Services	Unemployment	Outside Labor Force	Total
Agriculture	529	32	116	40	20	23	57	369	1186
Manufacturing	10	694	58	51	7	25	32	104	981
Construction	32	36	790	54	20	32	61	70	1095
Commerce, Hotels and Restaurants	38	52	72	843	27	41	48	144	1265
Transport, Storage and Communication	11	21	34	31	242	19	19	23	400
Services	24	47	44	45	34	2106	98	186	2584
Unemployment	184	252	871	256	72	122	616	488	2861
Outside Labor Force	618	234	266	203	40	203	280	15639	17483
Total	1446	1368	2251	1523	462	2571	1211	17023	27855

Labor force dynamic through Intifada (observation-status 2)									
Labor Force after more than one year of Intifada	Labor force on the beginning of Intifada								
	Agriculture	Manufacturing	Construction	Commerce, Hotels and Restaurants	Transport, Storage and Communication	Services	Unemployment	Outside Labor Force	Total
Agriculture	314	11	27	25	11	20	164	303	875
Manufacturing	9	409	17	24	5	9	79	72	624
Construction	12	29	285	25	5	19	232	61	668
Commerce, Hotels and Restaurants	18	26	28	558	22	21	143	141	957
Transport, Storage and Communication	8	6	9	11	160	14	39	13	260
Services	10	13	25	36	11	1514	93	137	1839
Unemployment	105	120	262	134	41	117	915	548	2242
Outside Labor Force	177	83	55	120	25	106	304	9517	10387
Total	653	697	708	933	280	1820	1969	10792	17852

Source: Palestinian Central Bureau of Statistics, 2003. Labor Force Survey Database Q4/1999-Q2/2003. Ramallah-Palestine.

Table 3: Dynamic Probit Model Results For Employed Persons Before Intifada by Region

(Model 1: P1)

Dep. Var. = P1	West Bank			Gaza Strip			Palestinian Territory		
	dF/dx (%)	Std. Err.	P>z	dF/dx (%)	Std. Err.	P>z	dF/dx (%)	Std. Err.	P>z
	-17								
sex_d*	22.83	10.2	0	36.20	9.97	0	28.65	14.78	0
age	0.35	5.89	0	0.43	4.15	0	0.37	7.08	0
edu1_9*	11.17	4.53	0	6.64	1.65	0.1	9.53	4.50	0
edu10_12*	11.10	4.45	0	8.26	2.03	0.043	9.68	4.48	0
diploma*	20.87	7.62	0	24.79	5.01	0	21.65	8.70	0
baandmor*	22.13	8.16	0	23.68	5.06	0	22.29	9.23	0
unpaid_t*	-12.45	-3.53	0	-37.95	-7.35	0	-23.58	-7.81	0
gov_t*	17.09	6.02	0	14.18	3.18	0.001	17.91	7.55	0
isr_t*	-33.78	-10.66	0	-59.32	-13.64	0	-45.28	-17.05	0
selfag_t*	-2.20	-0.50	0.617	-28.81	-4.79	0	-14.71	-3.97	0
sefnon_t*	0.17	0.05	0.958	-19.65	-3.79	0	-8.03	-2.85	0.004
pcons_t*	-20.02	-5.01	0	-46.43	-7.57	0	-30.53	-8.72	0
pmanuf_t*	-5.33	-1.57	0.115	-29.21	-5.02	0	-14.47	-4.72	0
ptrade_t*	-3.72	-0.91	0.365	-27.58	-3.98	0	-14.84	-3.93	0
pagr_t*	-0.28	-0.04	0.969	-31.25	-4.25	0	-17.13	-3.33	0.001
slfcfr_t*	-18.36	-5.50	0	-19.68	-3.62	0	-17.83	-6.22	0
plfelm_t*	-6.68	-2.37	0.018	-10.02	-1.90	0.058	-7.29	-2.88	0.004
rural*	1.45	1.14	0.256						
urban*				-0.35	-0.16	0.871	0.58	0.52	0.605
wb_north*	-7.24	-4.09	0						
wb_south*	7.30	4.11	0						
wb*							23.45	18.69	0
Number of obs	5591			2865			8456		
LR chi2(17)	1089.8			1112.3			2167.0		
Prob > chi2	0.00			0.00			0.00		
Pseudo R2	0.16			0.28			0.20		
Log likelihood	-2870.2			-1399.0			-4353.5		

(*) dF/dx is for discrete change of dummy variable from 0 to 1
z and P>|z| are the test of the underlying coefficient being 0

Table 4: Dynamic Probit Model Results For Employed Persons Through Intifada by Region

(Model 2: P2)

Dep. Var. = P2	West Bank			Gaza Strip			Palestinian Territory		
	dF/dx (%)	Std. Err.	P>z	dF/dx (%)	Std. Err.	P>z	dF/dx (%)	Std. Err.	P>z
sex_d*	16.44	6.51	0	26.82	6.21	0	18.82	8.73	0
age	0.09	1.20	0.232	0.27	2.68	0.007	0.15	2.57	0.01
edu1_9*	7.28	2.10	0.035	10.37	2.54	0.011	8.02	3.00	0.003
edu10_12*	8.62	2.47	0.013	11.12	2.74	0.006	9.50	3.56	0
diploma*	16.43	4.60	0	17.59	4.44	0	16.52	6.06	0
baandmor*	19.86	5.72	0	16.08	3.98	0	18.07	6.77	0
unpaid_f*	-17.89	-4.65	0	-22.86	-4.27	0	-19.23	-6.19	0
selfag_f*	-7.60	-2.02	0.044	-7.13	-1.52	0.129	-6.94	-2.37	0.018
sefnon_f*	-7.63	-2.61	0.009	-18.91	-4.65	0	-11.31	-4.79	0
pcons_f*	-7.28	-1.78	0.075	-16.63	-1.95	0.051	-9.34	-2.59	0.01
pmanuf_f*	-3.64	-1.11	0.266	-15.66	-2.54	0.011	-5.85	-2.07	0.038
ptrade_f*	3.09	0.78	0.433	-15.65	-2.39	0.017	-2.48	-0.74	0.462
pagr_f*	7.81	1.22	0.221	-1.18	-0.13	0.899	5.35	1.08	0.278
slferf_f*	-3.23	-0.98	0.329	3.11	0.68	0.496	-0.57	-0.21	0.833
plfelm_f*	-18.25	-4.58	0	-15.86	-1.93	0.053	-17.46	-4.97	0
gov_f*	9.97	3.45	0.001	9.25	2.69	0.007	10.44	4.78	0
isr_f*	-23.04	-6.67	0	-17.73	-1.99	0.046	-24.29	-7.99	0
rural*	-3.37	-2.13	0.033	7.28	2.03	0.043	-1.58	-1.1	0.271
wb_north*	-1.98	-0.95	0.341	-	-	-	-	-	-
wb_south*	4.06	2.12	0.034	-	-	-	-	-	-
wb*							5.26	3.41	0.001
Number of obs	3489			1602			5091		
LR chi2(15)	386.8			259.9			610.2		
Prob > chi2	0.00			0.00			0.00		
Pseudo R2	0.09			0.15			0.10		
Log likelihood	-1859.2			-753.5			-2634.4		

(*) dF/dx is for discrete change of dummy variable from 0 to 1
z and P>|z| are the test of the underlying coefficient being 0

Table 5: Dynamic Probit Model Results For Unemployed Persons Through Intifada by Region

(Model 4: P4)

Dep. Var. = P3	West Bank			Gaza Strip			Palestinian Territory		
	dF/dx (%)	Std. Err.	P>z	dF/dx (%)	Std. Err.	P>z	dF/dx (%)	Std. Err.	P>z
sex_d*	4.10	0.48	0.632	16.70	1.53	0.126	10.19	1.56	0.118
age2	0.00	-0.84	0.402	0.01	2.36	0.018	0.00	0.98	0.327
yerschol	0.12	0.20	0.845	1.42	2.27	0.023	0.42	1.01	0.315
unpaid_s*	58.88	7.80	0	71.03	7.71	0	64.10	11.47	0
selfag_s*	61.61	9.72	0	72.06	7.13	0	64.80	12.77	0
sefnon_s*	63.98	9.97	0	77.54	11.61	0	69.90	15.51	0
pcons_s*	38.47	3.13	0.002	39.99	3.23	0.001	39.06	4.61	0
pmanuf_s*	46.61	4.01	0	33.40	2.6	0.009	41.68	4.94	0
ptrade_s*	58.61	5.13	0	57.59	2.86	0.004	57.68	5.75	0
pagr_s*	34.94	1.99	0.047	41.29	3.04	0.002	39.84	3.91	0
slferf_s*	-9.57	-1.06	0.288	-15.41	-1.44	0.149	-11.63	-1.75	0.08
plfelm_s*	23.23	2.06	0.04	46.64	4.44	0	32.59	4.33	0
gov_s*	60.84	7.04	0	71.41	6.77	0	65.52	10.06	0
rural*	-5.09	-1.41	0.157	14.85	1.76	0.079	-1.86	-0.58	0.561
wb_north*	-11.52	-2.45	0.014	—	—	—	—	—	—
wb_south*	10.77	2.16	0.031	—	—	—	—	—	—
wb*	—	—	—	—	—	—	5.57	1.86	0.062
Number of obs	1047			922			1969		
LR chi2(16)	467.2			639.8			1032.9		
Prob > chi2	0.00			0.00			0.00		
Pseudo R2	0.33			0.53			0.39		
Log likelihood	-470.3			-283.2			-792.0		

(*) dF/dx is for discrete change of dummy variable from 0 to 1
z and P>|z| are the test of the underlying coefficient being 0

Table 6: Independent Variables Description

Variables	Description	Model 1	Model 2	Model 3
sex_d*	1= Male, 0= Female	X	X	X
age	Age in complete years (continuous variable)	X	X	
age2	Age square (continuous variable)			X
edu1_9*	1= 1-9 years of schooling, 0= other	X	X	
edu10_12*	1= 10-12 years of schooling, 0= other	X	X	
diploma*	1= diploma, 0= other	X	X	
baandmor*	1= BA/BSc and more, 0= other	X	X	
yerschol	Years of schooling (continuous variable)			X
unpaid_t*	1=Unpaid family member, 0=other	X	X	X
gov_t*	1=Wage employees in Government, 0=other	X	X	X
isr_t*	1=Employed person in Israel and settlements, 0=other	X	X	
selfag_t*	1=Self employed in agricultural sector, 0=other	X	X	X
sefnon_t*	1=Self employed in non-agricultural sector, 0=other	X	X	X
pcons_t*	1=Wage employees in construction, 0=other	X	X	X
pmanuf_t*	1=Wage employees in manufacture, 0=other	X	X	X
ptrade_t*	1=Wage employees in trade sector, 0=other	X	X	X
pagr_t*	1=Wage employees in agricultural sector, 0=other	X	X	X
slfcrf_t*	1=Craft occupation , 0=other	X	X	X
plfelm_t*	1=Elementary occupation , 0=other	X	X	X
rural*	1=rural, 0=other	X	X	X
urban*	1=urban, 0=other	X		
wb_north*	1=North of West Bank, 0=other	X	X	X
wb_south*	1=South of West Bank, 0=other	X	X	X
wb*	1=West Bank, 0=Gaza Strip	X	X	X

*: dummy variable

X: The variable was used

t with some name of variables change to *f* or *s* as in the models. All the name of variables include *t* or *f*, this is mean that the value come from the second repetition of persons (*t* or *f*: means the variable come from previous 2 quarter of data)