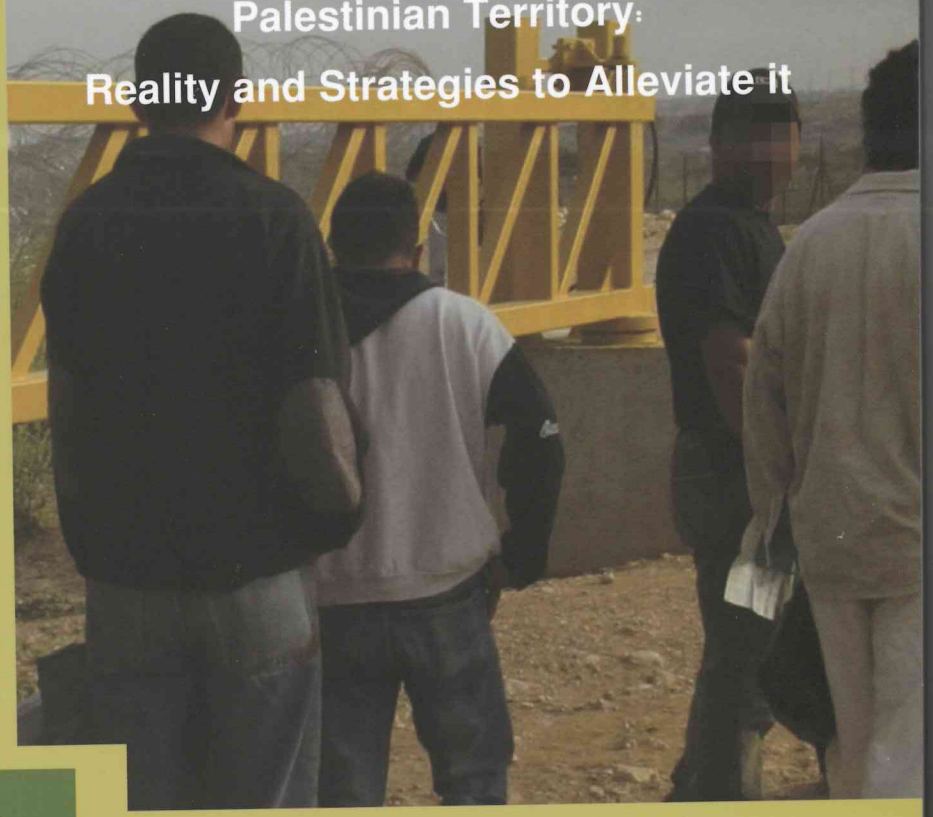
Proceeding of MAS's Annual Conference 2006

Unemployment in the Palestinian Territory: Reality and Strategies to Alleviate it



M A S

Palestine Economic Policy Research Institute

2006

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The Palestine Economic Policy Research Institute (MAS)
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- ✧ Promoting knowledge-based policy formulation by conducting economic and social policy research in accordance with the expressed priorities and needs of decision-makers.
- ✧ Evaluating economic and social policies and their impact at different levels for correction and review of existing policies.
- ✧ Providing a forum for free, open and democratic public debate among all stakeholders on the socio-economic policy-making process.
- ✧ Disseminating up-to-date socio-economic information and research results.
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Palestine Economic Policy Research Institute (MAS)
Jerusalem and Ramallah

FORWARD

The Palestine Economic Policy Research Institute (MAS) is pleased to present you with the results of its annual conference, which was held in Birzeit University on November 13, 2006. This year, the conference was entitled '*Unemployment in the Palestinian Territory: Reality and Strategies to Alleviate it.'*

The subject of the conference was identified as a priority for Palestinian society as the unemployment crisis is becoming an overwhelming problem affecting hundreds of thousands of Palestinian families. Like the majority of economic problems facing the Palestinian people, this crisis is a result of Israeli occupation. The intensification of this aggression since September 2000 has led to a deterioration in the investment environment as well as negatively impacting economic activities in all Palestinian governorates. This is in addition to the closure of the Israeli labour market to Palestinian workers, and the replacement of Palestinians working in Israel with foreign workers.

This publication includes the papers, speeches and comments that were presented in the conference's five sessions. We list them as they were presented in the conference with minor language editing. Our aim is to circulate the ideas discussed in the conference to the widest possible audience. Through this, we hope to continue the process of in-depth debate on the proposed issues, to clarify our vision of the challenges facing Palestinian development, and to identify possible strategies to address these challenges.

I would like to extend my thanks to all those who contributed to the conference. We extend our thanks to Dr. Andra Garber, Head of the Near East, Middle East and North Africa Department of Friedrich Ebert Stiftung, which sponsored this conference. We also extend many thanks to Mr. Yousef Al Qaryoti, acting Regional Director for the ILO (Ms. Rasha El-Shurafa from the ILO's Jerusalem office delivered the speech on his behalf); Dr. Ismail El-Zabri, Chairman of MAS Board of Trustees; and Mr. Shaher Sa'ad, Head of the Federation of Palestinian Trade Unions. MAS also extends its thanks to the sessions' chairpersons, presenters of papers and discussants especially Dr. Nabeel Kassis, Mr. Saleh Al Kafri, Dr. Basim Makhoul, Dr. Abdel Fattah Abu Shokor, Dr. Mahmoud Al Ja'fari, Mr. Sami Mi'ari, Dr. Adel Al-Zagha, Dr. Mohammed Nasr, Mr. Sufyan Al

Barghouthi, Dr. Cairo Arafat, Mr. Jamil Hilal, Dr. Hadeel Qazzaz, Ms. Samia Al Botmeh, Mr. Izzat Al Sho'aibi, Ms. Fadia Al Masri, Dr. Abdul Majeed Swelim, Dr. Jawad Al Naji, Mr. Christopher Albrecht, Dr. Yousef Dauod, Dr. Fadle Al Naqib and Dr. Majdi Al Maliki.

We also extend our gratitude to those who participated in the roundtable discussions: Dr. Salah Al Zaro, Dr. George Abed, Dr. Ghassan Al Khatib, Mr. Maher Al Masri and Dr. Knut Dethlefsen.

We also would like to thank all those who participated in technical and logistic arrangements, the interpreters, and all those who raised questions and enriched the discussions.

Dr. Samir Abdullah
Director General

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First Session:
Unemployment Crisis and Prospects for Employment Generation in the Palestinian Territory

"Impact of Conflict on the Palestinian Labor Market"

Mr. Sami Miari
WBGS World Bank Mission

1. Introduction

This paper measures the effects of the number of foreign workers in the Israeli labor market and the frequency of temporary closures imposed on the West Bank and Gaza Strip on:

1. The probability of a Palestinian to be employed in Israel.
2. Mean monthly earnings of Palestinians.

This paper falls within two fields of economic literature:

1.1 Conflict

The economic costs of political conflict have long been a subject of great interest to economists and the large number of papers in this area offer ample empirical evidence that political instability has important economic consequences. However, most of the leading studies tend to focus on the implications of political instability for macroeconomic variables such as savings, investment and growth. For example, Eckstein and Tsiddon (2004) showed that political instability caused a decline in aggregate demand in Israel and a decline in the growth of the economy because of the sharp decrease in investment demand and in local revenues.

In this paper, we contribute to the literature on the economic costs of political instability by measuring the implications of the Israeli-Palestinian conflict for Palestinian employment and earnings.

1.2 Immigration

The empirical results of this study can also be placed into the context of the effects of immigrant workers on the employment and earnings outcomes of unskilled natives – Palestinians employed in Israel.

2. Data

The micro-level data used in this paper are mainly taken from the Palestinian Labor Force Survey (PLFS) of the Palestinian Central Bureau of Statistics which was combined with:

- ✧ Quarterly time series data on the number of foreign workers in Israel (Israeli Bureau of Statistics, IBS).
- ✧ Number of foreign worker permits issued by the Israeli Ministry of Labour (IMOL).
- ✧ Frequency of temporary closures of the West Bank and Gaza Strip, between the years 1999 and 2004 (UNCSO and Palestinian Ministry of Labour, PMOL).

2.1 Palestinian Labor Force Survey (PLFS)

- ✧ The PLFS began in 1995, following the signing of the Oslo Accords and the creation of the Palestinian Authority (PA). In the PLFS, the same household is investigated four times over six quarters. Each yearly survey round after 1998 contains approximately 7,600 households with 22,000 individuals aged 15 years and over residing in the West Bank or Gaza Strip.
- ✧ We restrict the sample from the PLFS to males in the labor force between the ages of 18 and 64, and those surveyed during the 24 quarters between the first quarter of 1999 and the fourth quarter of 2004. Palestinian women are excluded because their labor force participation rates have traditionally been low, especially in the Israeli labor market.

3. Palestinian Employment

The employment rate among residents of both the West Bank and Gaza sharply fell between 1999 and 2004, with a steep drop from 2000 to 2001, and a modest recovery in 2003. Throughout the period, residents of Gaza had employment rates which are approximately 10% lower than residents of the West Bank.

Figure 1: Palestinian Employment by Place of Work

The employment rate of Palestinian wage earners in Israel decreases nearly monotonically.

Figure 2: Real Monthly Earnings (1996=100) of Palestinian, by Place of Work

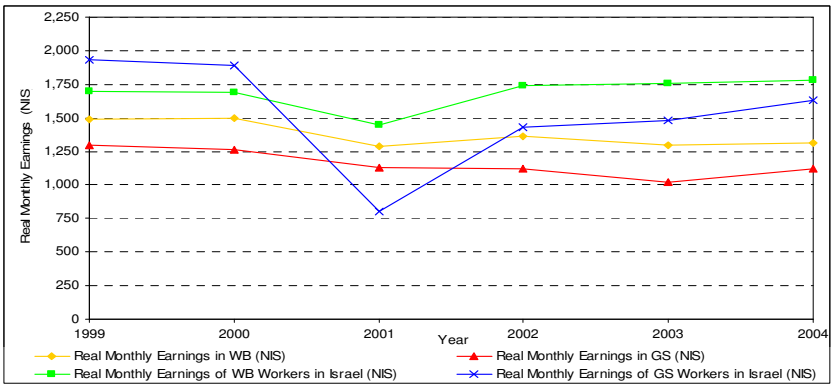


Figure (2) shows that the mean monthly earnings, regardless of work location, fell between 1999 and 2004 for residents of both the West Bank and the Gaza Strip.

In contrast, mean monthly earnings of residents of the West Bank who work in Israel increased slightly between 1999 and 2004. However, this was not the case for Palestinians from Gaza working in Israel.

Table 1: Distribution of Palestinian and Foreign Workers Employed in Israel by Sector

Year	Agriculture	Construction	Manufacturing	Commerce Hotels	Transport Storage	Services
	-1	-2	-3	-4	-5	-6
Residents of the West Bank						
1999	0.073	0.552	0.131	0.144	0.018	0.082
2000	0.075	0.551	0.123	0.159	0.018	0.074
2001	0.066	0.506	0.146	0.179	0.018	0.085
2002	0.075	0.409	0.173	0.208	0.025	0.111
2003	0.066	0.466	0.154	0.196	0.021	0.098
2004	0.075	0.41	0.167	0.209	0.029	0.111
Residents of the Gaza Strip						
1999	0.14	0.603	0.148	0.076	0.011	0.024
2000	0.179	0.52	0.172	0.09	0.02	0.019
2001	0.239	0.058	0.566	0.106	0	0.032
2002	0.264	0.391	0.302	0.03	0.014	0
2003	0.19	0.452	0.302	0.049	0.006	0
2004	0.138	0.495	0.27	0.097	0	0
Foreign Workers						
1999	0.115	0.332	0.012	0.04	0	0.502
2000	0.105	0.309	0.011	0.056	0	0.519
2001	0.099	0.336	0.01	0.063	0	0.492
2002	0.097	0.318	0.011	0.06	0	0.514
2003	0.113	0.268	0.088	0.062	0	0.549
2004	0.135	0.267	0.078	0.06	0	0.53

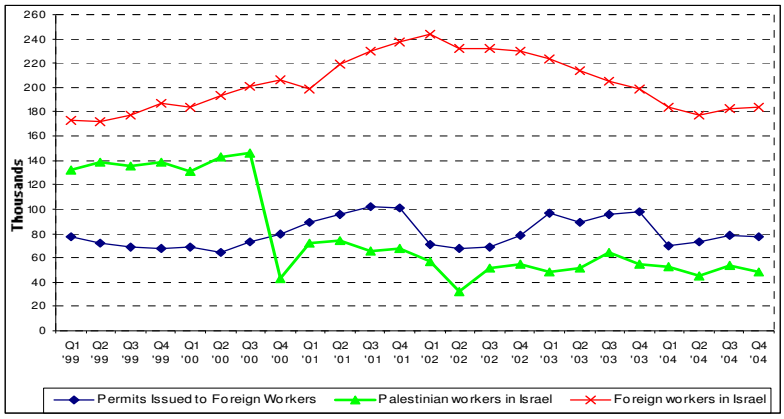
- As table (1) indicates, Palestinians from the West Bank are concentrated in the construction, manufacturing and hotel sectors in Israel, with the bulk of employment being in construction. Palestinians from Gaza are highly concentrated in construction, manufacturing and agriculture, also with the bulk of employment in construction.

  The bottom panel of Table 1 shows that foreign workers are concentrated in construction, agriculture and services (household services).

  Thus, there is a substantial overlap in sectors of employment in Israel between Palestinians and foreign workers.

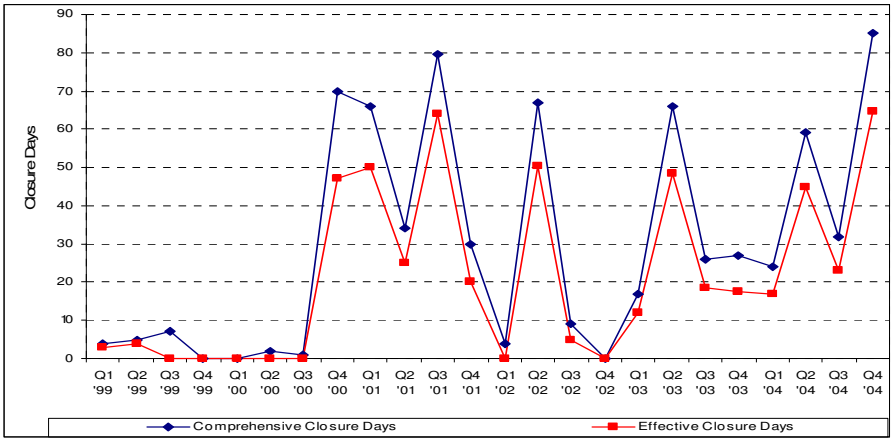
- Table (1) also shows that residents of Gaza shifted more sharply out of construction and into agriculture and manufacturing than residents of the West Bank after the Palestinian uprising in 2000. This could partially explain why residents of Gaza experienced a decrease in mean monthly earnings in Israel as opposed to residents of the West Bank.

Figure 3: Foreign Workers, Foreign Worker Permits, and Palestinian Laborers in Israel



- Figure (3) shows that there were approximately 180,000 foreign workers in Israel in the first quarter of 1999. The number grew to a peak of 240,000 in the first quarter of 2002 and subsequently fell to around 180,000 once again in 2004.
- Interestingly, the mean of 203,500 total foreign workers in Israel over the sample period can be broken down into 131,500 illegal foreign workers and only 72,000 legal foreign workers (permit holders).
- Figure (3) also presents graphical evidence on the relevance of our instrument. It suggests a strong correlation between the number of permits issued each quarter and the total number of foreign workers. It is also clear that there is a sharp increase in the number of foreign worker permits issued, as well as total number of foreign workers in the Israeli labor market, following the beginning of the Palestinian uprising in the fourth quarter of 2000.
- There has been a large drop in the number of Palestinians working in Israel in the fourth quarter of 2000, which never regains pre-uprising levels.

Figure 4: Days of Closure of the West Bank and Gaza Strip



- Figure (4) plots the UNSCO data of the number of days of comprehensive closures and the number of days of effective closures in each quarter between 1999 and 2004. UNSCO calculates the number of days of effective closures by netting out from comprehensive closures Saturdays, half the number of Fridays and universally-celebrated Jewish and Muslim holidays.

- Figure (4) also shows that closures were relatively infrequent between 1999 and the start of the second Palestinian uprising. In the fourth quarter of 2000, there was a dramatic increase in the number of days of closure, which fluctuates with a rather high variance throughout the rest of the sample period.

4. Methodology and Results

The empirical model we use to measure the effect of foreign workers and closures on Palestinian employment outcomes is:

$$Yit=\alpha 0+\alpha 1Ft+\alpha 2Ct+\beta Xit+\varepsilon it,$$

Where: **i=**individual index; **t=** quarter.

Yit = is either a dummy indicating employment in Israel or the natural logarithm of monthly earnings.

This equation describes **Yit** as a function of:

Ft = is the total number of foreign workers in Israel in quarter **t.**

Ct = is the proportion of work days lost in quarter **t** due to closures (effective closures days divided by the number of potential work days in the quarter).

Xit = individual characteristics (years of schooling, age and age squared, dummies indicating marital status, residence in an urban area, and residence in a refugee camp). Also included in **Xit** are unrestricted quarterly and year effects.

εit = the error term.

Note that including **Ct** helps separate short-run lack of access to the Israeli labor market and long-term replacement by foreign workers.

Including these background characteristics in the regression equations will, in fact, help capture the influence of Israel's Palestinian work permit policy, since the issuance of work permits to Palestinians is mostly based on these observed characteristics.

A probability: growth in the region as a whole could lead to voluntary movement of Palestinian laborers back into the local economies of the West Bank and Gaza Strip, and simultaneously increase entry of illegal foreign workers into the Israeli labor market.

Therefore in order to correct for this source of bias, in addition to estimating (1) by OLS, IV estimation of (1) is performed using the cumulative number of foreign worker permits issued as an instrument for the total number of foreign workers.

The first stage in two-stage least squares estimation of (1) is:

(2) $Ft=\delta 0+\delta 1Pt+\delta 2Ct+\delta 3Xit+\xi it,$

Where Ft = (number of foreign workers) is a function of:

Pt = cumulative number of foreign worker permits issued through quarter t.

ξit = error term.

The error term in (2), ξit, is likely to be correlated with εit in (1) because both error terms contain factors related to labor demand, and other macroeconomic factors, in Israel and the surrounding region.

The reason that Pt is exogenous to εit lies in the assumption that administrative lags and inefficiencies in the issuance of foreign worker permits leads to "random" permit issuances. Lags and inefficiencies create a situation whereby the number of permits issued in each quarter is not a direct result of contemporaneously rising wages or falling unemployment in Israel or its surrounding areas.

Additionally, Pt will also not be perfectly correlated with Ft because of the availability of illegal foreign labor.

We do not have an instrument for temporary closures of the West Bank and Gaza Strip since closures are mostly a consequence of surges in the Israeli-Palestinian conflict that have little to do with the unobserved determinants of Palestinian labor demand.

The estimation of IV might still result in a biased effect by foreign workers because the random error component in (1) might contain unobserved individual effects that are potentially correlated with the number of foreign workers in Israel, εit could be further specified as:

(3) $\varepsilon_{it} = \mu_i + \nu_{it}$

Where μi captures unobserved characteristics of Palestinian laborers that are fixed over time, and νit is an independent and identically distributed disturbance term.

Palestinian workers that are: more productive, more motivated, have better Hebrew language skills, closer geographically to work locations in Israel, and work in employment sectors less amenable to foreign worker penetration, may be differentially more employable in Israel and less substitutable with foreign workers.

In order to correct for the bias created by unobserved characteristics of the individuals, we motivate estimation of (1) by fixed-effects regression:

IV estimates of the effect of foreign workers are much stronger than OLS estimates and are statistically significant. The first stage estimates indicate that the permit instrument is highly relevant in both sub-samples.

Table 2: Estimation Results of the Linear Probability Models for Working in Israel- Palestinians from WB (N=110,154)

	OLS	First Stage	IV	Fixed Effects (OLS)	First Stage	IV Fixed Effects
Foreign Workers (1,000s)	-.0007* (.0001)	-	-.0065* (.0006)	-.0006* (.0001)	-	-.0086* (.0006)
Closures	-.1015* (.0040)	-1.7289* (.1072)	-.1073* (.0041)	-.1012* (.0040)	-4.2343* (.1191)	-.1256* (.0045)
Foreign Worker Permits (1,000s)	-	.4651* (.0066)	-	-	.4326* (.0081)	-
R^2	.0697	.8626	.0535	.0224	.7210	.0280
Significant at 5% * * Significant at 1% * Standard errors are indicated by parentheses						

Fixed-effects estimates, which exploit the permit instrument, yield the strongest estimated impact of foreign workers.

The IV fixed-effects coefficient of -.0086 is very precisely estimated and implies that an increase of 10% in the supply of foreign workers reduces the employment rate of Palestinians from the West Bank into Israel by 17.2%.

Since the size of the wage earner labor force in the West Bank in 1999 is 370,319 workers, a reduction of 17.2% in the employment rate translates into 63,695 less Palestinians from the West Bank working in Israel for every 20,000 additional foreign workers.

IV and IV fixed-effects estimates of the impact of closures are not very different from those obtained by OLS. The IV fixed-effects estimate of -.1256 is statistically significant and implies that a one standard deviation increase of the frequency of closures decreases the employment rate of Palestinians from the West Bank in Israel by 3.8%.

Table 3: Estimation Results of the Linear Probability Models for Working in Israel- Palestinians from GS (N=56,446)

	OLS	First Stage	IV	Fixed Effects (OLS)	First Stage	IV Fixed Effects
Foreign Workers (1,000s)	-.0005* (.0001)	-	-.0049* (.0008)	-.0003* (.0001)	-	-.0062* (.0008)
Closures	-.0604* (.0030)	-1.2217* (.1507)	-.0631* (.0032)	-.0458* (.0033)	-3.5328* (.1733)	-.0618* (.0045)
Foreign Worker Permits (1,000s)	-	.3947* (.0093)	-	-	.3013* (.0125)	-
R^2	.0990	.8716	.0769	.0728	.8575	.0724
Significant at 5% * * Significant at 1% * Standard errors are indicated by parentheses						

OLS estimates of the coefficient on foreign workers is rather weak in magnitude but has a statistically significant effect on Palestinians from the Gaza Strip.

The IV fixed-effects coefficient of -.0062 is also very precisely estimated and implies that an increase of 10% in the supply of foreign workers reduces the employment rate of Palestinians from the Gaza Strip by 12.4%.

This reduction in the employment rate corresponds to 21,350 fewer Palestinians from Gaza working in Israel (the size of the wage earner labor force in Gaza in 1999 is 172,715) or a substitution rate of roughly one to one.

The smaller effect of foreign workers on residents of Gaza could be due to lower reservation wages among Gaza residents. Lower reservation wages, compared to Palestinians from the West Bank, could arise as alternative employment opportunities in Gaza are considerably more limited.

The IV fixed-effects coefficient of -.0618 is also precisely estimated and implies that a one standard deviation in the frequency of closures reduces the employment rate of Palestinians from Gaza in Israel by 1.9%.

Table 4: Estimation Results of a Log -Linear Model of Palestinian Workers in Israel Monthly Earnings for and Local Economy-Palestinians from WB (N=49,470)

	OLS	First Stage	IV	Fixed Effects (OLS)	First Stage	IV Fixed Effects
Foreign Workers (1,000s)	-.0002 (.0003)	-	-.0066* (.0016)	-.0001 (.0003)	-	-.0053* (.0013)
Closures	-.0741* (.0108)	-2.6254* (.1590)	-.0850* (.0108)	-.0659* (.0087)	-4.7464* (.1767)	-.0819* (.0097)
Foreign Worker Permits (1,000s)	-	.3603* (.0089)	-	-	.4180* (.0099)	-
R^2	.1188	.8761	.1110	.0877	.6639	.0875
Significant at 5% * * Significant at 1% * Standard errors are indicated by parentheses						

This table presents estimates of a log-linear model of Palestinians monthly earnings determination. OLS estimates of the impact of foreign workers on the monthly earnings of Palestinians from the West Bank are not significant. However, IV estimates, both with and without fixed effects, are precisely estimated and non-negligible in magnitude.

The first stage estimates again indicate that the permit instrument is highly relevant.

The IV fixed effects estimate of -0.0053 implies that a 10% increase in the supply of foreign workers (a one standard deviation increase) reduces the mean monthly earnings of Palestinians from the West Bank by 10.6%.

The IV fixed effects estimate of -.0819 implies that a doubling of the frequency of closures (a one standard deviation increase) reduces the mean monthly earnings of Palestinians from the West Bank by 2.5%.

Table 5: Estimation Results of a Log -Linear Model of Palestinians Monthly earnings for Workers in Israel and Local Economy- Palestinians from GS (N=26,644)

	OLS	First Stage	IV	Fixed Effects (OLS)	First Stage	IV Fixed Effects
Foreign Workers (1,000s)	-.0022* (.0004)	-	-.0176* (.0032)	-.0015* (.0004)	-	-.0094* (.0021)
Closures	-.0420* (.0123)	-.9573* (.2233)	-.0475* (.0125)	-.0108 (.0105)	-4.2748* (.2489)	-.0355* (.0119)
Foreign Worker Permits (1,000s)	-	.2489* (.0127)	-	-	.3254* (.0154)	-
R^2	.2766	.8737	.2363	.2575	.8379	.2609
Significant at 5% * * Significant at 1% * Standard errors are indicated by parentheses						

The IV fixed effects estimate of -.0094 implies that a 10% increase in the supply of foreign workers (a one standard deviation increase) reduces the mean monthly earnings of Palestinians from the West Bank by 18.8%.

The larger impact of foreign workers on the mean monthly earnings of Palestinians from Gaza is consistent with the weaker impact of foreign workers on this latter group's employment rate in Israel. That is, relatively worse employment opportunities in the local economy of the Gaza Strip generate lower reservation wages for workers in Israel and larger earnings losses due to displacement from the Israeli labor market.

The IV fixed effects estimate of -.0355 implies that a doubling of the frequency of closures (a one standard deviation increase) reduces the mean monthly earnings of Palestinians from the West Bank by 1.1%.

As in the case of the effect of closures on employment rates in Israel, the direct, transitory impact of closures on mean monthly earnings is much weaker than the permanent impact of closures and long-run substitution by foreign workers.

Controlling for sample selection bias

In most studies of the impact of immigration on the earnings of natives and information on the employment outcomes of natives after displacement by immigrants is not available.

In this section, we simulate this common situation by restricting the sample to Palestinians who are working in Israel. That is, the observed earnings information for many of these individuals who subsequently work in the local Palestinian economy is not included in estimation, as it is in previous tables.

In other words, we can quantify the extent of sample selection bias that would have arisen had the PCBS data set not been so rich.

We perform this exercise only for Palestinians from the West Bank since the resulting sample size for Palestinians from Gaza is rather small.

Table 6: Estimation Results of a Log -Linear Model of Palestinians Monthly Earnings in Israel - Palestinians from GS (N=15,316)

	OLS	First Stage	IV	Fixed Effects (OLS)	First Stage	IV Fixed Effects	IV Fixed Effects (Unrestricted Sample)
Foreign Workers (1,000s)	.0004 (.0006)	-	.0072** (.0033)	.0006 (.0006)	-	.0058 (.0041)	-.0053* (.0013)
Closures	-.0289 (.0225)	-5.4365* (.3042)	.0021 (.0254)	-.0912* (.0209)	-6.1825* (.4199)	-.0640** (.0310)	-.0819* (.0097)
Foreign Worker Permits (1,000s)	-	.3240* (.0143)	-	-	.2620* (.0230)	-	-
R^2	.0949	.8947	.0870	.0526	.7234	.0546	.0875
Significant at 5% * * Significant at 1% * Standard errors are indicated by parentheses							

The IV fixed-effects estimate of the impact of foreign workers, in the sample restricted to workers in Israel only, is .0058 and is not precisely estimated (the standard error is .0041).

The results suggest that there is no significant change in the mean earnings with the influx of foreign workers. This is in sharp contrast to the precisely estimated coefficient on foreign workers of -.0053 of table (5), which uses the earnings data in both economies.

Thus, sample selection substantially biases upward the effect of "immigrants" on "natives" in this context, and substantially biases downward the labor market costs of the conflict.

5. Conclusion

In this paper, we contribute to the literature on the economic costs of political instability by measuring the consequences of the Israeli-Palestinian conflict for Palestinian employment and earnings.

We find that an increase of 10% in the supply of foreign workers, reduces the employment rate of Palestinians from the West Bank in Israel by 17.2% and the employment rate of Palestinians from Gaza in Israel by 12.4%. A one standard deviation increase in the supply of foreign workers reduces the mean monthly earnings of Palestinians that reside in the West Bank by 10.6% and the mean monthly earnings of Palestinians that reside in Gaza by 18.8%.

The impact of foreign workers is relatively stronger than the impact of temporary closures because the former corresponds more closely to a permanent, long-run labor substitution effect, while the latter captures a transitory, short-run restriction on Palestinian labor supply.

Our study also contributes to the immigration literature. We are able to overcome many of the problems associated with not being able to find significant negative effects of immigrants on the employment and earnings of natives. In the Israeli market for unskilled labor, Palestinians can be considered natives and foreign workers recent immigrants. Identification of the effect of immigrants on natives in this case rests on the fact that Palestinians and foreign workers truly compete in the Israeli labor market. The PLFS panel data include information on the employment and earnings of Palestinians in the local economies of the West Bank and Gaza Strip after displacement by foreign workers in Israel, and we have what we believe is a credible instrument to correct for biases due to non-random immigration.

Third Session:
Short and Long Term Policies to Combat Unemployment

The German Experience in Tackling Unemployment

Mr. Christoph Albrecht
Social Science Research Center- Berlin

The following information is taken from a journal funded by the EU in the mid-1990's covering the development of labor market policy in former East Germany, now called the new Germany states, from 1992-1995. I was a member of the editing committee.

From the year 1989 and the beginning of the year 1990, the most radical transformation of a planned economy to a market economy was embarked upon by the parliament of the GDR. The freely-elected parliament in March 1990 put forth the option of a rapid incorporation into the Federal Republic of Germany. This option had been foreseen in the West German basic law by its creators in the late 1940's. Looking at developments in Germany, especially East Germany, we have to be aware of the fact that economic transformation in the former GDR has taken a different path from that followed in other former planned economies in eastern and central Europe. One advantage of the political and economic union in Germany is the introduction of a stable currency. The new state was spared all the destabilizing factors of the other transformed economies like high inflation and a parallel currency system. The new state was able to deal with the massive funds coming from West Germany—some hundred billion Euros in 1991—and that was equal to 65% of the last East German GNP. When the German Monitory Union took place on 1 July 1990, it was less than eight months after the fall of the wall. The economy of the former GDR was integrated into the national economy of the Federal Republic of Germany and was subjected to a shock. Finally, on 3 October 1990, with the realization of German unification, a tried and tested free market economic system was introduced and implemented. What did shock mean in the following years in the new Germany?

- In the last three months of 1989, the total number of work hours in the former GDR was 4.3 million hours. Two years later it has fallen to 2.4 million hours.
- In 1990, the East German GNP fell by 17% compared to the previous year. One year later, it dropped by a further 35%. Thus, within two years the GNP halved.

Labor productivity in East Germany in 1991 was less than one-third of the West German figure. The East German government believed that their economy was one of the best in the world. The process of de-industrialization was almost unstoppable, so the industrialized base of the GDR was almost completely destroyed. In 1990, before unification, the GDR parliament passed an act which created a privatization agency. It was created specifically for the purpose of privatizing and restructuring the East German economy, making all companies stock companies, and transferring ownership to a trust agency. This resulted in the largest state holding in the world. Its property consisted of 90,000 companies and 40,000 establishments. In addition, it owed 57% of the total surface area of the GDR. About four million workers, approximately 50% of the East German workforce at that time, found in the summer of 1990 that the trust agency was their employer. The slogan of the agency was "swift privatization, resolute restructuring, conscious closure."

The creator of the slogan, one of the outstanding managers in the Federal Republic, was murdered by a sniper in April 1991. The case has not been solved. The trust agency has described the economic policy as "a task to promote the structural adjustment of the economy to the requirements of the market."

In January 1992, 5,600 companies were privatized and 1,080 were closed. At the end of 1991, workers were working in the remaining companies. But 700,000 were out of work, and 1,400,000 were working part-time. What did this development mean for the labor market?

For the years 1990-1995, the decline in employment took more than 300,000 jobs. The number of registered unemployed one year after the fall of the wall was 640,000 persons. One year later, it reached

1.1 million persons and this number remained stable for several years. In percentages, the unemployment rate started 7.3% then increased to 11.8% and reached 15% in 1993.

Two of the labor market instruments that have been used in East Germany are short-term work allowance and early retirement to ease the depression of the labor market. Short-term work allowance expanded from 660,000 to 1,800,000 in a six-month period. It was a very expensive function.

Labor market measures that had medium and long-term aspects (such as coordination and training measures) also served to ease pressure on the labor market. Implementation depended on the availability of a network of policy-makers, providers and deliverers, which was developed only gradually.

Despite the far smaller size of the working population, there were more participants in job creation and training measures in East Germany than in West Germany. In 1992, there were only 250,000 West Germany participants compared to 500,000 in East Germany.

What are the costs?
In 1991, labor market policy cost 50 billion Euros; and in the period from 1991-1993, 25 billion Euros were spent, which then decreased to 20 billion. Spending remained at this rate for a long time. In terms of structural figures, in 1991 one third of the 50 billion Euros was used for short term allowances. Another 30% went for wage compensation. Five years later, the short-term allowance dropped to 1.2% and the wage compensation benefits increased to 40%. Measures addressing orientating the labor market to the future increased to 55%. Thus, there was a structural change in the labor market measures from the immediate reaction to relieve the situation and ease the labor market to more medium-term measures. At the same time, there was also increasing migration by East German workers to West Germany. In the mid-1990's, there were approximately 4,500,000 workers who left their country to seek work in West Germany. There is still a high level of migration from East to West Germany.

Short Term Policies to Combat Unemployment in Palestine

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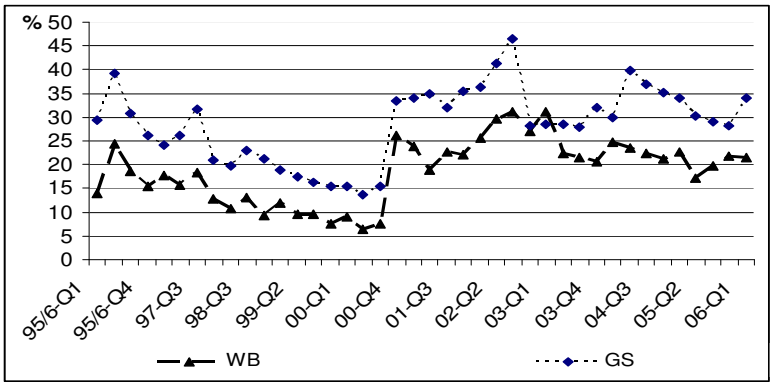
1. Historical Review

The establishment of the Palestinian National Authority (PNA) in 1995 sparked new hopes and optimism for a political settlement and ultimate independence. The establishment of new government institutions absorbed many workers; however, government employment was spiraling out of control putting a financial drain on the much needed resources for other legitimate reasons. But the expansion of the government sector did have other positive side effects: The first was the increased demand for skilled workers thus increasing the schooling premium (Daoud, 2005). The second factor was the contribution to lowering unemployment.

Figure 1 below shows that between 1995 and 2000, unemployment was experiencing a negative growth trend. It was still persistently lower in the West Bank (WB) than in the Gaza Strip (GS). The second Intifada began in late 2000, and with that political instability came the disruption to the labor markets. On the one hand, Israeli measures of closing off its labor markets to Palestinians resulted in a sharp jump in unemployment. Internal and external closures also lead to disruption of trade which magnified the economic recession. Unemployment reached nearly 50% in the Gaza Strip during the height of the Israeli siege in 2002.

FIGURE 1: Unemployment rate in the WB and GS



Unemployment continues to be in the double digit level which is alarming even by less developed countries standards.

The Palestinian economy's ability to absorb workers is defined as the difference between labor supply and domestic employment. This difference reflects the unemployed and employment in Israel. Labor supply is driven by either increased participation or population growth or both. In the Palestinian context, female participation has increased, but only marginally. The dominant factor in the increased labor supply has been population growth

Figure 2: Participation rate by gender

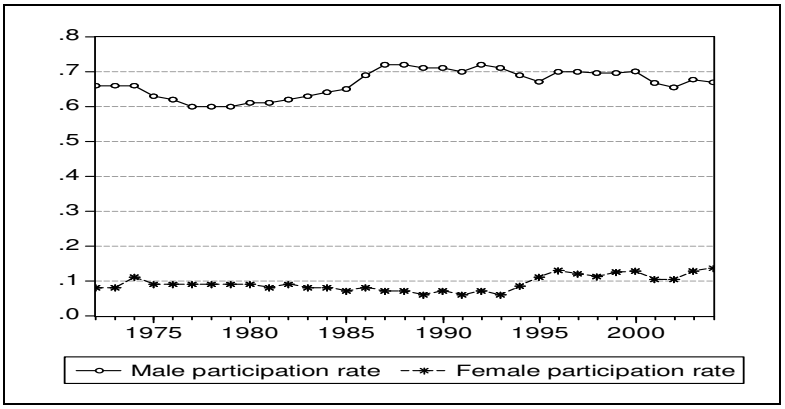


Figure 3 below shows how the supply/demand difference is increasing over time; it was nearly 53,000 in 1972 and increased to 263,000 by 2004.

Makhool (2001) pointed out that only 62% of labor market entrants get to find jobs in the domestic market; the remaining 38% will be totally unemployed if employment in Israel is reduced to zero (as the GOI plans to do by 2008). Based on his study, the most promising sectors in employment generation are services, whole sale and retail, and construction. The least contributing sectors to job creation are agriculture, industry, and storage and transportation.

Figure 3: Absorption capacity of Palestinian labor markets

2. Unemployment Forecasts

In this section unemployment forecasts will be presented based on the econometric model of Makhool, *et al* (2004) and developed further by Daoud, El-Khafif and Makhool (2005). In order to do the forecast, assumptions about the exogenous variables must be made. Those can be found in detail in Makhool *et al* (2004). A brief review is presented below:

- movement towards some sort of a settlement in 2005-06
- Trade and fiscal arrangements between the PNA and Israel and the ROW will return to those prevailing after the establishment of the PNA in 1994 and before the 2nd *Intifada* in September 2000
- Labor mobility will be 180 days, to reflect the Israeli permit policy
- An increase in tariffs on imports from Israel and the ROW

Specific growth figures are assumed for the exogenous variables and the endogenous policy variables in Table 1 below. It must be noted that the key variables are population growth which affects labor supply, closures on labor and trade which affect employment in Israel, and public and foreign transfers which generate domestic employment. Public employment, which contributed significantly to reducing unemployment in the second half of the 90's, is assumed to converge to an average of 1.5% in the forecast period, down from 10% in 2005.

Table1: Baseline Forecast Assumptions

	Internal policy/exogenous variables							External exogenous variables							
	Public invest't	Gov. transfers	Public employ.	Credit exten.	Pop'n	Income tax rate	VAT rate	Net cur. transfers 97$ mill.	Closure days/year		Israel lending rate	Exchange rate	Israel GDP	Israel CPI	Jordan GDP
									Trade	Labor					
	Annual average growth rate					Annual average		Annual average				NIS/US$	Annual average growth rate		
1988-93	14.6	4.4	-0.5	19.8	5.4	3.4	2.7	227	11	11	0.271	2.18	5.3	15.8	2.0
1994-99	1.3	0.0	15.6	60.2	4.3	1.8	5.9	421	77	77	0.183	3.43	0.0	0.0	0.0
2000-04	-6.1	-8.3	-0.7	-5.3	-10.9	-2.2	6.3	1130	177	177	0.105	4.41	1.1	1.7	4.3
2005	17.3	-2.6	11.5	8.0	3.9	1.4	13.5	1268	155	180	0.073	4.66	5.2	1.2	4.9
2006	**7.0**	**2.7**	**10.3**	**7.0**	**4.1**	**1.5**	**13.0**	**1000**	**120**	**180**	**0.750**	**4.65**	**3.6**	**2.0**	**4.7**
2007	**5.0**	**5.1**	**1.5**	**6.0**	**4.2**	**3.0**	**13.0**	**900**	**60**	**180**	**0.080**	**4.71**	**4.1**	**2.5**	**4.6**
2008	**4.0**	**4.0**	**1.5**	**5.0**	**4.0**	**3.0**	**13.0**	**850**	**45**	**180**	**0.080**	**4.77**	**4.2**	**2.6**	**4.4**
2009-15	**3.0**	**3.6**	**1.5**	**4.0**	**3.6**	**3.0**	**13.0**	**711**	**45**	**180**	**0.074**	**5.04**	**3.3**	**3.3**	**4.0**

Source: Daoud, Elkhafif, Makhool (2005)

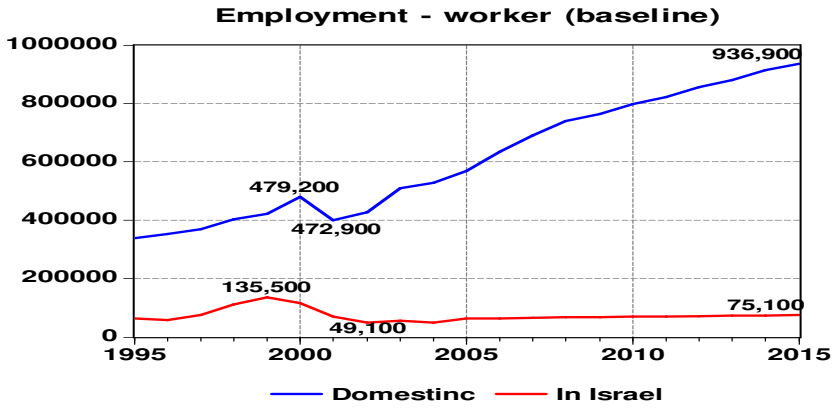
The forecast period, as depicted in red in the above table, is 2006 to 2015. The baseline forecast of the unemployment rate is provided in figure 4 below:

Figure 4: Unemployment baseline forecast

The figure above shows four distinct trends; the first and the second are in the historical period and signify the importance of the political situation. During 2001, unemployment jumped from a mere 14% to 31% indicating a turbulent period. Between 2003 and 2005 some recovery was evident and unemployment went down to 23% in 2005. Table 1 above shows that large net current transfers, public transfers, public investment, and credit extension will contribute to the reduction in unemployment during 2006 and 2007. But this trend is reversed when public transfers, net current transfers, public investment and public employment converge to a lower steady figure. This occurs despite the fact that population growth is reduced to 3.9% from 2009 on.

The bulk of employment has typically been domestic, but in the years to come it is expected that the share of employment in Israel will decline to 7% (down from nearly 25% in 1999). On the other hand, domestic employment will account for the remaining 93%. See figure 5 below:

Figure 5: Employment distribution



This has serious implications for the Palestinian economy, including the ability to consume and pay for imports from the surplus in net factor income. With a much lower figure, the trade deficit will become a bigger burden on the economy. Export promotion and import substitution must be encouraged. This would reduce the trade deficit and provide jobs, something the government cannot provide at this time due to its limited resources. Another consequence would be to reduce national income because domestic wages are much lower that the wages Palestinians who were once employed in Israel were accustomed to receiving.

Policy options for combating unemployment

Effective unemployment reduction policy programs can be devised to minimize its negative effects on the economy and society by knowing its root causes. The general features of unemployment in Palestine are as follows:

- ✧ High unemployment incidence
- ✧ High unemployment duration
- ✧ High unemployment volatility
- ✧ Strong ties to political realities
- ✧ A dichotomy between the West Bank and the Gaza Strip

A common denominator to the factors listed above is the sluggish demand for labor on two grounds. First, the relatively small size of the Palestinian

economy is a hindering factor. The second reason is that it is a tightly closed economy, in particular the Gaza economy. Both of these factors necessitate a long term solution of opening the borders as an essential condition for unemployment reduction. At this stage one can safely conclude that most of Palestinian unemployment is tied to the political cycle. As a result, the PA's initial reaction of employment generation schemes was a step in the right direction; however, it was not sufficient. There are a few tools at its disposal which can reduce unemployment. Two fiscal policies were simulated in light of recent developments, as monetary policy instruments are nearly non-existent; they are:

Policy Scenarios

First: Fiscal Expansion

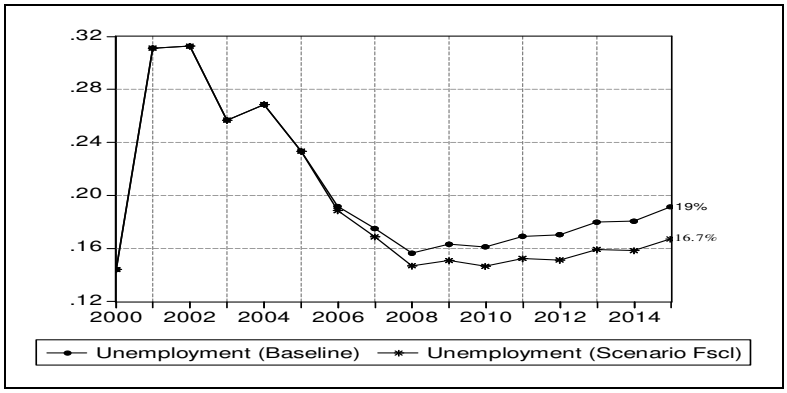
The following scenario assumes an increase in government spending and a slight increase in taxes to reduce the expenditure pressure on the deficit. The baseline scenario assumes that Israel will continue collecting tariff and VAT on Palestinian imports on behalf of the PA.
Assumptions:

- Public investment 10% above the levels in baseline scenario.
- Government transfers 5% above the levels in baseline scenario.
- Distortion correction schemes targeting non-construction investment => non-construction price deflator to decline gradually from 100% in 2005 to 90% in 2009 on.
- VAT average effective rate to increase gradually from the 9.2% assumed in the baseline to reach 10% in 2011 on.

Model simulation results indicate a 4.1% increase in GDP growth above the base line scenario. The baseline grew roughly by a cumulative of 73% between 2005 and 2015, which gives a 7% annual increase in real GDP. The corresponding decrease in unemployment is shown in the figure below:

Unemployment falls by 2.3 percentage points below the baseline which indicates that GDP must be increased roughly 1.8% to reduce unemployment 1 percentage point.

Figure 6: Fiscal policy scenario



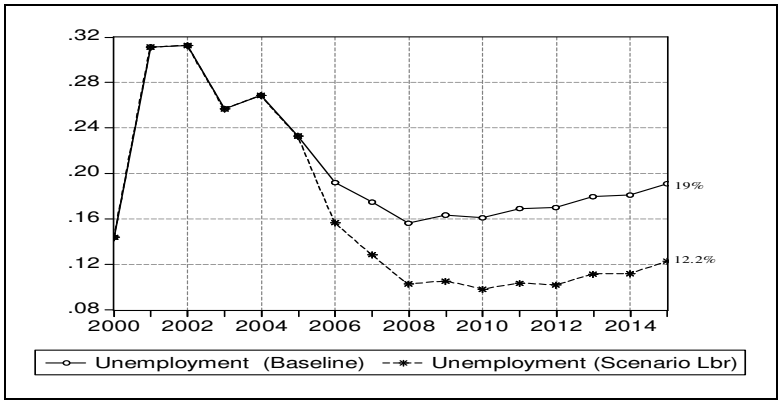
Second: Labor Policy

This section draws on the work of Daoud, El-khafif, Makhool (2005). Baseline scenario assumes a non-regulated labor market. Supply of Palestinian labor to Israel is restricted by the number of closure days/year and the number of Israeli permits issued.
Assumptions:

- Impose 28% tax on wage earnings of Palestinian employment in Israel in 2006, increasing to 38% in 2012 on, to bring net (after tax) wage from employment in Israel close to average domestic wage.
- Revenue collected from this tax is totally allocated to domestic employment generation programs, such as sectoral wage-sharing schemes or any other scheme that reduce the wage to the employer while the employee receives the market rate.
- 30%, 30% and 40% of tax revenue is allocated to agriculture, industrial and services sectors, respectively.

The basic idea behind the assumptions of the labor policy above is that Palestinian labor supply to Israel is not driven by the wage differential and to bridge the gap between domestic wages and wages offered to Palestinians in Israel. The effect of this scenario on unemployment is shown below:

Figure 7: Labor policy scenario



In comparison to figure 6 above the labor policy is a lot more effective in combating unemployment. In addition, this policy is less costly in terms of fiscal deficit and trade deficit. The only cost is deterioration in labor productivity due to subsidies to certain sectors.

3. Profile of the unemployed

Table 2 below shows the characteristics of the unemployed, including the average unemployed being 30 years of age with 10 years of schooling.

Table 2: Profile of the unemployed by some indicators: 1999-2005

Indicator	1999	2000	2001	2002	2003	2004	2005
Average age	30	30	31	32	31	31	31
Average years of Schooling	10	10	10	10	10	10	10
Proportion Married	51.4	53.1	56.0	57.6	51.0	54.3	53.1
Proportion Camp	19.6	17.3	17.5	19.3	16.5	16.8	17.8
Proportion Rural	28.4	30.2	31.9	30.6	30.1	29.0	29.0
Proportion Urban	52.0	52.5	50.6	50.1	53.4	54.2	53.2
Proportion Male	83.7	86.8	92.6	92.6	88.6	87.5	84.5
Proportion Female	16.3	13.2	7.4	7.4	11.4	12.5	15.5

Source: Palestinian Central Bureau of Statistics, 2006. *Labour Force Survey Database: 1999-2005. Ramallah-Palestine*. (Unpublished Data)

The table also shows that the variables are quite stable across the time periods. The period 2001 and 2002 is a notable exception, particularly for female and urban unemployment. It seems that the proportion of the unemployed decreased during the second Intifada; this is attributable to fewer females seeking employment during that period.

Table 3: West Bank and Gaza Strip profile

Year / Quarter		No. of Valid Cases		Median Age		Average Schooling		Median Duration		Proportion Camp		Proportion Married	
		WB	**GS**	**WB**	**GS**	**WB**	**GS**	**WB**	**GS**	**WB**	**GS**	**WB**	**GS**
1999	**1**	591	514	25-29	25-29	9.3	9.4	5.8	8.9	14.5	35.0	46.9	54.3
	2	399	333	25-29	25-29	9.3	9.2	5.2	10.0	11.5	32.1	52.6	56.5
	3	374	274	25-29	25-29	9.0	9.3	4.9	7.5	15.5	34.7	56.9	50.0
	4	285	255	25-29	25-29	9.0	10.1	6.0	7.5	13.0	32.9	53.3	53.3
2000	**1**	363	248	25-29	25-29	9.2	9.5	5.0	7.2	12.4	32.7	54.8	55.6
	2	236	210	20-24	25-29	9.4	9.1	7.2	7.6	13.6	30.9	40.7	49.5
	3	256	283	25-29	25-29	9.4	9.9	6.2	6.4	14.1	32.2	49.6	49.8
	4	1194	553	25-29	25-29	8.9	9.1	3.2	5.9	11.9	31.6	60.9	60.8
2001	**1**	1080	512	25-29	30-34	8.9	9.5	5.1	6.5	13.9	35.5	57.8	69.9
	2	708	520	25-29	30-34	9.0	9.2	6.3	8.4	15.1	32.1	60.2	68.5
	3	650	473	25-29	25-29	9.1	9.4	8.3	9.3	15.5	35.7	55.7	60.0
	4	666	537	25-29	30-34	9.3	9.3	9.4	10.6	11.9	32.4	51.6	62.6
2002	**1**	690	451	25-29	30-34	9.0	9.3	10.1	10.1	18.1	34.1	55.5	63.0
	2	550	374	30-34	30-34	9.1	9.2	9.6	10.3	8.7	32.1	59.6	65.0
	3	564	724	25-29	30-34	9.4	9.4	15.5	11.3	14.5	35.6	55.5	67.8
	4	915	349	30-34	30-34	9.3	9.4	14.2	11.2	14.2	34.7	58.0	63.9
2003	**1**	950	388	25-29	25-29	9.3	9.7	13.4	9.0	15.6	33.8	54.2	56.7
	2	616	369	25-29	30-34	9.1	9.7	13.1	9.7	13.3	28.2	51.1	57.4
	3	634	376	25-29	25-29	9.5	9.8	11.4	10.6	17.5	31.1	47.2	51.6
	4	528	409	25-29	30-34	9.3	9.9	10.4	9.5	11.7	32.8	55.9	58.2

Source: Aranki and Daoud (2005)

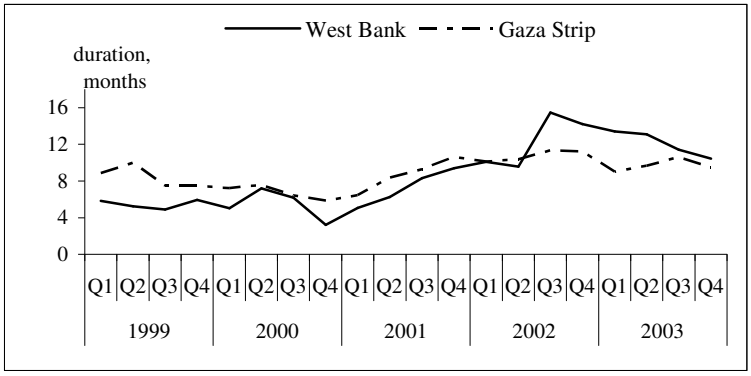
Table 3 above shows the profile of the unemployed in more detail. It shows that despite the fact the average years of schooling is lower in the West Bank than Gaza, median duration is higher in Gaza. This finding

implies that the strict closure enforced on Gaza plays a more important role in raising unemployment duration than does schooling in lwering duration. It can also be noted that the proportion of the unemployed that has refugee status is much higher in Gaza.

4. Duration

Average unemployment duration has been increasing overtime, especially during the 2001-2002 period. In general it fluctuates around 8 months. It is also higher in the Gaza Strip until the second quarter 2002. Duration complicates the incidence of unemployment and is generally influenced by many factors.

FIGURE 7: Average duration of unemployment for the unemployed by months.



Source: Aranki and Daoud (2005)

Aranki and Daoud (2005) studied the determinants of unemployment duration. Duration models or survival analysis models specify the conditional probability of leaving unemployment, given that it has lasted until then. Thus the hazard rate refers to the instantaneous probability that unemployment will end very shortly Aranki and Daoud (2005) used three types of analysis; they are:

1) Non-parametric duration analysis which utilizes the Kaplan-Meier survived function. The estimates show that about 50% of the sample remains unemployed after 20 months and about 20% remain unemployed after 60 months. However, survival estimates decline

faster for the West Bank than the Gaza Strip. The Intifada effect raised unemployment duration.

2) Semi-parametric estimation techniques utilize Cox's proportional hazard model. Analysis of this section reaffirms previous analysis; the Intifada effect is negative. The problem of exit from unemployment decreased in this period. Individuals with refugee status have a significantly lower hazard rate. Married men are more likely to move from unemployment to employment. The schooling coefficient has a counter intuitive sign. A year increase in schooling *lowers* the probability of existing unemployment by 2%. It is also found that duration dependence is negative for both the West Bank and Gaza Strip after 20 months for the former and 12 months for the latter. This implies that the probability of finding employment decreases the longer the person is unemployed.

3) Parametric estimation methods assuming a Weibull distribution are called accelerated failure time. The analysis shows the effect not on exit rate (as in previous sections) but unemployment duration. The analysis shows that the residents of the Gaza Strip have longer durations (2 months) than those of the West Bank.

Other results concerning the Intifada and West Bank and Gaza Strip differences support the findings of semi-parametric model analysis.

5. Conclusion

The studies that were reviewed above all agree on the urgency of unemployment in the Palestinian Territory (PT) and its duration. However, because of the nature of the root causes of unemployment, it is less agreeable to design a framework that leads to unemployment reduction. Even in the policy section, it is assumed that the PNA can change the tax structure or trade policy to lower unemployment, in reality, the tools available to the PNA are fewer than one would like to think.

The problem of unemployment is not unique to the PT compared to other Less Developed Countries (LDC's), its solution methods and circumstances however, are unique. Therefore, in addition the usual set of unemployment reduction/combating challenges, the Palestinians have an overall binding constraint, that is small closed economy. The closed ness

of the Palestinian economy is not a policy option by choice; it is an occupation measure enforced by force.

At present, one of the main sources of alleviating the negative consequences of unemployment is getting worse. Donor countries are suspending their assistance, the government is not able to pay its employees salaries (which increase masked unemployment) and private sector will suffer due to inability of banks to offer transfer services. This indicates that in the few coming months, the situation is only getting worse, and by looking at relaxed definitions of unemployment, the economic consequences are going to be stark.

6. Recommendations

- ✧ The problem is more severe in the Gaza Strip and requires faster action.
- ✧ The problem of unemployment is strongly linked to the political situation; therefore, the more progress on the political front the less unemployment.
- ✧ The future outlook requires some kind of planning in the budgeting process, putting unemployment and reduction as one of the priorities.
- ✧ The PNA has very few policy options at present, neither fiscal nor monetary. Its focus should be aimed at finding a political settlement agreeable to all parties.
- ✧ It should be left to international organizations to fund private sector projects that are capable of sustained job creation.

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