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THE PUBLIC-PRIVATE WAGE DIFFERENTIAL IN THE  
WEST BANK AND GAZA BEFORE AND DURING  
THE SECOND INTIFADA

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**MAX WEBER PROGRAMME**

*The Public-Private Wage Differential in the West Bank and Gaza  
Before and During the Second Intifada*

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**Abstract**

This paper measures the public-private wage differential in the West Bank and Gaza and describes its dynamics before and during the second Intifada using data from the Palestinian Labour Force Survey (PLFS) of the Palestinian Central Bureau of Statistics (PCBS). Because the distribution of individual characteristics and their returns might differ across workers, the wage differential is decomposed into two components: a “human capital” effect and an “unexplained” effect. The results show that in the pre-Intifada period, the wage gap between the public and private sectors had narrowed both in the West Bank and Gaza. However, a sharp increase is seen in the post-Intifada Period. Moreover, most of this increase comes from an increase in “returns” to skill composition in the public sector (unexplained effect), rather than a change in the skill composition of public sector workers (human capital effect). An analysis of the public-private sector wage gap from 1998 to 2006 at various points along the wage distribution using recent quantile regression econometric techniques shows that the wage premium (penalty) for the public sector varies across the distribution, being higher (lower) at the lowest end of the wage distribution and decreasing (increasing) along the wage distribution; it becomes negative in the top percentiles.

**Keywords**

Decomposition; Palestine; public sector; quantile; wage gap; West Bank and Gaza

**JEL Classification:** J31, J45, C14, C24

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## 1. Introduction

Public sector salaries have attracted much attention in the West Bank and Gaza in recent years. Salaries are by far the most important item of expenditure of the Palestinian Authority (PA), accounting for 62% of total expenditure in 2005. Labour market data from the last quarter of 2006 suggest that public sector employment accounts for nearly 25% of all full-time employment. As the largest employer in Palestine, the PA has both political and economic influence on Palestinian labour markets.

Historically, in the West Bank and Gaza, as in other developing countries, the processes of recruitment, promotion, and wage determination have differed substantially between the public and private sectors. Following the second Intifada, the public sector was perceived as a “buffer” against private sector job losses due to increased closures and movement restrictions. More recently, there have also been increases in public sector salaries, so that in 2005 the wage bill averaged \$US 85m per month<sup>1</sup>. Given that the net revenues of the PA were approximately \$US 101m per month in 2005 (Fig. 1), the commitment to public sector salaries and employment squeezes out all other expenditures, including those for critical infrastructure maintenance and development.

This situation has created a serious dilemma for a Palestinian government faced with the twin unenviable tasks of downsizing at a time when the economy has been stagnating from closure and /or reducing public sector salaries with the consequent risk of unpopularity at a time when it needs to convince the populace of its ability to carry out its electoral mandate. On the one hand, high public sector salaries can represent unsustainably high costs for the PA, while on

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<sup>1</sup> Source: International Monetary Fund data files.

the other, excessively low salaries can be expected to have a negative impact on employee motivation and productivity, also making it difficult for the PA to attract skilled professionals.

Theoretical and empirical research points to a number of reasons for the emergence of public-private wage differentials, the most obvious being the difference in the economic, political, and institutional environment surrounding these sectors. The public sectors of most countries are not bound by the profit-maximizing concerns of private sector firms and the consequent cost-consciousness that prevails in a competitive market. In most cases, particularly in developing countries, the public sector must compete with the private sector to attract the top professionals. This situation suggests that while there is a “floor” to public sector wages—often dictated by private sector wages—there might not be a “ceiling”. Finally, wage differentials can also emerge as a part of the “electoral wage-cycle process”, or because of the collective bargaining strength of the health care and education sectors (Disney 1998).

International data on wage differentials are mixed, and it is not easy to draw generalizations based on country patterns<sup>2</sup>. In some developing countries, such as India (Glinskaya and Lokshin 2005) and Pakistan (Hyder and Reilly 2005; Naser 2000), there is evidence of a modest wage premium in favour of the public sector. On the other hand, in cases such as France (Lucifora and Meurs 2004) and Estonia (Kristjan and Olari Lebing 2005), the bias seems to be in the other direction. Some recent studies find a gradual narrowing of the public sector premium in many OECD countries, as market forces have begun to influence public sector performance and decision-making.

An accurate understanding of public sector salaries vis-à-vis the private sector and how they vary across the wage distribution can greatly assist in setting correct wage and employment

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<sup>2</sup> The Palestinian political and economic situation is unique in many ways, and international experience should be interpreted with care when applied to the Palestinian context.



policies. A sizeable public sector wage premium has been observed to lead to aberrant labour market behaviour, as individuals might prefer to “queue, or wait in unemployment” for a stable public sector job with an appealing pension plan, and eschew low-paid and/or uncertain jobs in the private sector. This tendency has immediate relevance to Palestine, where a growing number of young people are entering the pool of the unemployed.

The aim of this paper is to estimate the public-private wage differential in the West Bank and Gaza Strip, and to describe its dynamics between 1998 and 2006 using labour force surveys from the Palestinian Central Bureau of Statistics (PCBS). It is important to discover how much of the wage variation can be explained by differences in individual characteristics in the two sectors, and how much by differences in the returns of these characteristics across sectors.

The econometric results are interesting for a variety of reasons: this is the first serious assessment of wage differentials in Palestine, and the data are rich enough to allow a dynamic analysis across both time and area. The results show that in the pre-Intifada period the wage gap between the public and private sectors narrowed in both the West Bank and Gaza. However, a sharp increase was seen in the post-Intifada Period. Moreover, most of the increase in the wage gap comes from an increase in the “returns” to skill composition in the public sector (unexplained effect), rather than a change in the skill composition of public sector workers (human capital effect). These findings have implications for the incentives to a growing work force to join either of the sectors.

Because of the possibility that the distribution of salaries in the public sector may differ from that in the private sector due to compression, focusing exclusively on the mean salary levels in the two sectors can be misleading. Instead, using recently developed regression techniques, it has been possible to compare the wage differential at various points along the distribution of

salaries. This comparison provides a much richer description of the wage differential along the salary scale, and allows testing for whether there is a decrease or an increase in the differential at upper or lower levels of income respectively.

The wage premium (penalty) for the public sector varies across the distribution, being higher (lower) at the lowest end of the wage distribution and decreasing (increasing) along it; it becomes negative in the top percentiles. Over time, the lower quantiles of West Bank public sector wage earners have continued to earn a significant (log) wage premium, which increased particularly in the post-Intifada period. On the other hand, those in the very top income percentile (95<sup>th</sup>) continue to face a wage penalty that has attenuated over time. In Gaza, over time, especially during the post-Intifada period, the wage premium has increased for both low and high wage earners in the public sector. Comparing 2000 to 2006, the estimates indicate that for workers in the West Bank and Gaza in all percentiles there was a steady increase in the wage premium.

Given the inseparability of the political and economic factors facing the PA, this paper offers an interpretation of the wage gap phenomenon in terms of the changing demographic composition of the workforce over the period under study, during which the public sector was perceived as a “buffer” against private sector job losses due to increased closures and movement restrictions following the second *Intifada*. However, these results have important policy implications, and could explain whether or not public sector workers are underpaid, why they are reluctant to leave their jobs, and why the PA finds it consistently difficult to fill, and retain the staff in, top-level administrative and managerial positions.

The rest of this paper is organized as follows: the next section presents feature data on the Palestinian labour market. Section 3 describes the methodology, econometric specification, and

techniques used to measure wage gaps. The main results of the study are reported in section 4. Section 5 provides further evidence on the wage gap using quantile regressions. The conclusion summarizes the findings and caveats.

## **2. Data**

This paper's data are drawn from the Palestinian Labour Force Survey (PLFS) of the West Bank and Gaza Strip, which is administered by the Palestinian Central Bureau of Statistics (PCBS). The PLFS was established 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. Two investigations are conducted during two consecutive quarters, and then two more are conducted after a break of two quarters, after which the household is dropped from the sample. Each yearly survey round after 1998 contains approximately 7,600 households containing 22,000 individuals aged 15 years and above residing in the West Bank or Gaza. Nomads and persons living in institutions such as prisons or shelters are not included in the survey.

For the purpose of analyzing the public-private sector wage gap, the sample is restricted to male wage employees in the public and private sectors of the West Bank and Gaza local market between the ages of 18 and 64 who reported positive net hourly wages and positive days worked per month in the 1998 and 2006 surveys<sup>3</sup>. This excludes Palestinian workers employed in the

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<sup>3</sup> Wage employment represents approximately 55% of total employment in the West Bank, and two-thirds of total employment in Gaza, percentages that have remained fairly stable since the outbreak of the Intifada. The other three types of employment are "employer", representing approximately 5% of total employment in the West Bank and 3% in Gaza; "self-employed," amounting to roughly 28% in the West Bank and 23 percent in Gaza; and "unpaid family member," which accounts for approximately 11% of employment in the West Bank and 9% in Gaza. These three groups were not asked about their wages in the PLFS.

Israeli labour market<sup>4</sup>. Palestinian women are excluded because their labour force participation rates have traditionally been low<sup>5</sup>. Workers' hourly wages are calculated by dividing daily income by hours worked per day<sup>6</sup>. Because a "simple average" can be strongly affected by large or extreme values, outliers in terms of hourly wage are dealt with by excluding observations below the 1<sup>st</sup> and above the 99<sup>th</sup> percentile of the log hourly wage distribution for each year<sup>7</sup>.

Among the variables included in the analysis of the study data are age, age squared, years of schooling, tenure (total months in the same workplace), personal status (a dummy that takes the value 1 if the worker is married and zero otherwise), full-time employment (a dummy that takes the value 1 if the worker works at least 35 hours a week, and zero otherwise); urban area/refugee camp residence, and a set of occupational dummies.

Rounds of the survey prior to 1998 are not considered because in 1995 the survey was conducted in one quarter only, and it was an experimental sample. In 1996, the survey was conducted over three quarters. It was not until 1998, after the Palestinian census of 1997, that the survey was conducted in all four quarters of the year.

## 2.1 Descriptive Statistics

The share of West Bank male workers employed in the private sector, out of all employees in the West Bank labour market, decreased sharply between 1998 and 2006. This share fell by 10

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<sup>4</sup> Including Palestinians workers in Israel will render a confused public-private wage gap in the Palestinian local market, because Palestinian workers in Israel are generally paid more than those employed in the Palestinian local market.

<sup>5</sup> The female labour force participation rate in 1998-2006 averaged 14.4% for females from the West Bank and 8.4% for females from Gaza.

<sup>6</sup> The PLFS questionnaire on hours worked asks, "How many hours did the household member work in all jobs last week?" This number was multiplied by 4.35 weeks per month, and then divided by the number of reported workdays in the month to calculate hours worked per day.

<sup>7</sup> Thereby removing the most extreme responses, which in some cases are simply the results of incorrect data entry.

percentage points, from a high of 67% in 1998 to 57% in 2006. Note the sharp drop in the employment rate in the private sector in 2002 (Fig. 2). This is a consequence of the second Intifada, which began in September 2000. In 1998, 45% of Gaza male employees worked in the private sector; by 2006, this proportion had dipped to 30% (Figure 3)<sup>8</sup>. While the share of workers in the private sector declined over the period 1998-2006, the role of the public sector in absorbing a new Palestinian labour force grew, especially following the second Intifada. In 1998, 30% of West Bank male employees, and 48% of Gaza male employees were working in the public sector; by 2006 the proportions had reached 39% for West Bank males and 60% for Gaza males (Figs. 2 and 3).

Two factors contributed to the growth of the Palestinian public sector: first, the external and internal closure regimes imposed by the Israeli authorities restricted the mobility of Palestinians and considerably contributed to a decline in the number of Palestinians employed in the Israeli labour market (increasing the supply of employees to the local private sector) and a fall in local economic activity in the West Bank and Gaza (low demand for employees in the local private sector)<sup>9</sup>. Consequently, the number of employees in the local (Palestinian) private sector decreased (Figs. 2 and 3).<sup>10</sup> As a result of the closure regime, the unemployment rate in

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<sup>8</sup> According to the World Bank report in 2006 “West Bank and Gaza Update”: “Between Q3 of 2000 and Q4 of 2000, the number of wage employees working in the private sector in the West Bank fell by 28,500; by Q2 of 2002, a further 27,900 West Bank private sector wage employees were no longer working, a decline of 48% from the last quarter prior to the Intifada, when 117,600 workers enjoyed regular wage employment. In Gaza, the reduction was more sudden: Whereas 43,000 Gazans held regular wage employment in Q3 of 2000, that number fell to 22,600 in Q4 of 2000; a further 2,900 were without regular private sector wage jobs by Q3 of 2002, a decline of 59%.”

<sup>9</sup> For instance, the UNSCO database shows that the number of comprehensive closure days imposed in the West Bank increased from 53 in 1998 to 260 in 2006; and in Gaza from 28 days to 77 days during the same period.

<sup>10</sup> According to the World Bank report in May 2003, “The negative impact on domestic employment of job losses in Israel was aggravated by the difficulties in conducting business within the West Bank and Gaza: Internal closures and curfews are attended by significant transaction costs, disruption in production cycles, losses of perishable output, and lower economies of scale. Regional variations in unemployment and labor participation between the West Bank and Gaza are significant. By Q3/2002, 51,000 of the 327,000 eve-of-intifada private sector jobs had been lost in the West Bank (16%), and 54,000 of 164,000 in Gaza (33%).”

the West Bank increased from 11% in 1998 to 28% in 2002, and in Gaza from 20% in 1998 to 38% in 2002. This increase forced the PA to absorb a large number of the unemployed—despite the unfavourable economic and administrative situation—in order to minimize the negative effect of unemployment. Second, the PA's desire to control both individuals and security in general, caused by the political instability, meant the employment of a great number of workers in the its military and law enforcement establishment.

Table 1 summarizes the means of the labour force attributes observed in the period 1998-2006 for West Bank male workers in the public and private sectors respectively. The labour force profile of workers in the samples changed over the study period. There was a small increase in the average age of private sector workers and their average years of schooling. The same averages among public sector workers, however, remained unchanged over the same period. Comparing 2006 to 2000, there was an increase in the proportion of married workers, and in average worker tenure in both the public and private sectors. Compared with private sector employees, the figures in Table 1 also show that public sector employees were on average better educated, older, more likely to be married, and more likely to be tenured.

However, the trend of real hourly wages differed considerably between the public and private sectors over the period in question. In the public sector, real hourly wages increased over the period 1998-2000, in 2001 they decreased, and from 2002 they again increased as a result of the high demand for public sector employees. On the other hand, in the private sector there was a decrease in salaries over the period 2001-2006 as a result of a sharp decrease in the number

employed in the Israeli labour market and low demand for employees in the local private sector<sup>11</sup>.

A comparison between real hourly wages in the public and private sectors reveals that the unadjusted wage gap between the two sectors decreased between the years prior to the second Intifada, from 3% in 1998 to -4% in 2000. However, it increased after the beginning of the second Intifada, from -1.8% in 2001 to 29 % in 2006.

Table 2 describes the mean characteristics of the Gaza male sample. The labour force profile of males in Gaza shows a slight shift in the average age of private sector workers and their average years of schooling. These averages among public sector workers remained steady over the same period. The proportion of married workers in the public sector remained more or less unchanged, but increased in the private sector. A significant increase in the average tenure of public sector employees is observed, while there is a decrease among private sector employees. The figures in Table 2 also show that public sector employees are on average better educated, older, more likely to be married, and more likely to be tenured. The unadjusted wage gap between the public and private sectors decreased between 1998 and 2001, from 73% in 1998 to 46% in 2001. However, it increased from 57% in 2002 to 135% in 2006.

It is evident from Tables 1 and 2 that over the sample period real wages in the private sector remained below those in the public sector. Apart from the years 2000 and 2001 in the West Bank male sample, the wage gap was in favour of the private sector. Moreover, the decrease in the real hourly wage in the West Bank was faster than that in Gaza, because internal and external

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<sup>11</sup> Miaari and Sauer (2006) document the large and statistically significant negative effects of the Israeli-Palestinian conflict on Palestinian employment rates in Israel and mean monthly earnings, regardless of work location (Israel or the West Bank and Gaza) following the outbreak of the Intifada.

closures imposed in the West Bank after the beginning of the second Intifada were more widespread than those in Gaza<sup>12</sup>.

### 3. Methodology

#### 3.1 Basic specification of model

A convenient starting point for estimating the magnitude of the public-private wage gap is to use ordinary least squares with a dummy variable for public sector participation on a pooled sample of workers. In this approach, an individual  $i$  has (log) real hourly wage  $\ln W_i$ , conditional on observed characteristics  $X_i$  and a dummy variable  $D_i$  that takes the value of 0 or 1 depending on whether the individual works in the private sector or public sector. Adding an error term  $\varepsilon_i$  distributed with a mean of zero leads to the least squares (OLS) specification:

$$\ln W_i = X_i' \beta + D_i \delta + \varepsilon_i \quad (1)$$

where  $\beta$  is a vector of unknown parameters whose estimates would provide the influence or “return” of the observed qualitative variables  $X_i$  on  $\ln W_i$ , and  $\delta$  is the unknown parameter whose estimates provide the *ceteris paribus* impact of working in the public sector.

While simple and intuitive, the foregoing approach is problematic for several reasons. The OLS estimate of  $\delta$  captures only a pure “shift” effect of working in the public sector, and ignores the fact that salaries could well differ because of differences in observed characteristics such as education and age across the two sectors. The pooled OLS dummy variable specification

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<sup>12</sup> External closures consist of restrictions on the movement of Palestinians and Palestinian goods between the West Bank, Gaza, and Israel (as well as third countries). Internal closures consist of restrictions on the movement of Palestinians within the territories.



assumes that the returns to all the observable characteristics are the same in the public and private sectors.

Secondly, the least squares procedure as specified above does not control for endogenous selectivity bias; that is, the distribution of workers between the public and private sectors may not be completely random in the West Bank and Gaza.

Finally, since the public sector compresses the distribution of earnings of employees in the sector relative to the private sector, the least squares estimates are likely to be biased and produce an incomplete picture of the conditional distribution of  $\ln W_i$  (see Disney and Gosling 1998; Nielsen and Rosholm 2001).

The approach employed to correct for these problems was to adopt the Oaxaca-Blinder decomposition method with modifications: a) for decomposing the wage gap according to observed characteristics; and b) implementing a correction for endogenous selectivity bias. Moreover, a quantile regression framework that examines the wage gap at various points along the wage distributions is appropriate to accommodate differing distributions of wages between the two sectors. It is important to correct for these in any econometric specification within the context of Palestine, where the public sector continues to attract workers in an environment where the private sector is buffeted by considerable uncertainty and exogenous shocks.

### ***3.2 Decomposing the wage gap within the OLS framework***

While the preceding section calculates the wage premium/penalty for working in the public sector, it does not allow for a control for the fact that individual attributes or their returns might vary across workers and sectors. Thus, the dummy variable estimates of the preceding section show the “shift” or *ceteris paribus* effect of working in the public sector, and provide no

information as to whether the observed differentials are due to differences in attributes or to differences in the returns on these attributes. The focus of this section is on decomposing the observed wage differential in order to better understand how much of it is caused by differences in the distribution of attributes, and how much is due to differences in the returns to these attributes.

Within the OLS framework, a convenient way of decomposing observed pay gaps is to run separate regressions for each sector. Letting the subscript  $j$  ( $j = 1, 0$ ) denote the public and private sectors respectively, and  $i$  individuals, the following regression specification is estimated for each sector:

$$\text{Ln}W_{ij} = X'_{ij}\beta_j + \varepsilon_{ij}, \quad (2)$$

where  $W_{ij}$  is the hourly wage,  $X_{ij}$  is a vector of worker characteristics, and  $\varepsilon_{ij}$  a zero-mean constant-variance error term. Then, the wage equations, estimated by OLS at the mean point, will be:

$$\overline{\text{Ln}W_j} = \bar{X}'_j \hat{\beta}_j \quad \text{for } j = 1, 0, \quad (3)$$

where  $\hat{\beta}_j$  is the OLS estimate of the marginal effects, or returns of observed characteristics  $X_j$  on salaries, and  $\bar{X}_j$  is the mean level of observed characteristics across sector  $j$ . The regressors vector  $X'_{ij}$  includes age, age squared, years of schooling, tenure (total months in the same workplace), personal status (dummy which takes value 1 if the worker is married and zero otherwise), full-time employment (dummy which takes value 1 if the worker works at least 35 hours a week and zero otherwise); urban area/refugee camp residence, and a set of occupational

dummies<sup>13</sup>. The average public-private gross wage gap  $\ln(1+G)$  is the difference between the average salaries in the two sectors<sup>14</sup>:

$$\overline{\ln W_1} - \overline{\ln W_0} = \ln(1+G) = \underbrace{(\bar{X}_1 - \bar{X}_0) \hat{\beta}^*}_E + \underbrace{\bar{X}'_1 (\hat{\beta}_1 - \hat{\beta}^*) + \bar{X}'_0 (\hat{\beta}^* - \hat{\beta}_0)}_T, \quad (4)$$

where  $\hat{\beta}^*$  is the estimate of the non-discriminatory wage coefficients. Equation (4) is the general Oaxaca decomposition, as per Oaxaca and Ransom (1994). It disentangles the average gross wage differential  $\ln(1+G)$  across the two sectors into two terms: the first term,  $E$ , is the human capital component of the overall wage gap: the differential due to differences in the distribution of average characteristics (the endowment effect). The second,  $T$ , is the unexplained component of the overall wage gap: the differences in the estimated coefficients or “returns” between the two sectors (the treatment effect). If we assume that  $\hat{\beta}^* = \hat{\beta}_1$ , then the general Oaxaca decomposition reduces to the classical Oaxaca-Blinder (1973) decomposition. In this case, the first term will be evaluated at the returns in the public sector, and the second at the mean set of private sector characteristics.

The study was conducted under two differing assumptions regarding the non-discriminatory wage coefficients  $\hat{\beta}^*$ . First, the estimated wage structure of the public sector was adopted as the non-discriminatory standard, i.e.  $\hat{\beta}^* = \hat{\beta}_1$  as per Oaxaca-Blinder (1973). Second,  $\hat{\beta}^*$  is assumed to be equal to the estimated wage coefficients from a pooled regression that includes both public and private sectors, as per Oaxaca and Ransom (1994).

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<sup>13</sup> Controlling for occupational affiliation in the wage regressions would eliminate inter-occupational wage gaps.

<sup>14</sup> Adding and subtracting the term  $(\bar{X}_1 - \bar{X}_0) \hat{\beta}^*$  in Equation (3).

### 3.3 Selectivity-Corrected Wage Gap Decomposition

Estimates of wage gaps are potentially afflicted by sample selection bias arising from self-selection into sector (Heckman 1979). This section explores the possible impact of this source of bias on the estimate of the public-private wage differential. In order to obtain selectivity-corrected decompositions, the selectivity effect as a whole was calculated, then the corrected gross wage gap was decomposed to endowment effect, treatment effect, and selectivity effect. In other words, the decomposition in Equation 4 is generalized as follows<sup>15</sup>:

$$\ln(1 + G) = \underbrace{(\bar{X}_1 - \bar{X}_0) \hat{\beta}^*}_E + \underbrace{\bar{X}'_1 (\hat{\beta}_1 - \hat{\beta}^*) + \bar{X}'_0 (\hat{\beta}^* - \hat{\beta}_0)}_T + \underbrace{(\hat{\theta}_1 \hat{\lambda}_1 - \hat{\theta}_0 \hat{\lambda}_0)}_{Selection}, \quad (5)$$

where  $\hat{\theta}$  is the coefficient of the Inverse Mills Ratio ( $\hat{\lambda}$ ) in the modified wage equation. The selectivity-corrected wage equations are estimated by the Heckman two-step procedure.

The probability of working in the public or private sector depends on the individual's profile, and a number of factors may constitute the costs and benefits of employment in a particular sector, such as job security and working environment. Thus, the explanatory variables in the selection equation are: age, age squared, years of schooling, tenure, personal status, full-time employment; urban area/refugee camp residence, a set of occupational dummies, and number of jobholders in the same household. The number of jobholders in a given household is an additional variable included only in the selection equation. This variable affects the worker's decision to join either the public or private sector in a secure job, yet does not affect his or her

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<sup>15</sup> See Reimers (1983) and Neuman and Oaxaca (2004a) for more details on choosing the "correct" selectivity decomposition.

wage<sup>16</sup>. That is, it accounts for the importance of a secure job and its associated benefits in sector choice<sup>17</sup>.

#### 4. Results

Table 3 summarizes the OLS results from estimating Equation (1) for each year of the PCBS labour force survey in two specifications for each of the West Bank and Gaza. Specifications 1 and 3 include only the public dummy variable; the reported coefficient therefore measures the overall unadjusted (logarithmic) wage gap. In Specifications 2 and 4, in addition to the public dummy variable, all of the explanatory variables as described in the previous section are included, hence the reported coefficient measures the adjusted wage gap.

For all years in the West Bank and Gaza Strip, the estimated coefficients of  $\delta$  are highly significant at the 95% confidence level, and increase over time. It is apparent from Table 3 that introducing the productivity-related variables into the wage equations greatly reduces the measured wage gap. This fact highlights the magnitude of the human capital components of the wage gap.

The estimates for West Bank male workers suggest that in the earlier phases of the second Intifada, public sector male workers in the West Bank faced a wage penalty vis-à-vis their private sector counterparts (controlling for differences in attributes or *ceteris paribus*), yet this effect disappears, then reverses over time. From the beginning of the second Intifada, the PA systematically addressed this issue through salary increases, so that by 2003 there is considerable evidence of an increase in the wage gap. In 1999, the public-private log wage differential was

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<sup>16</sup> See Lokshin, M. and B. Javanovic (2001).

<sup>17</sup> A greater number of jobholders in the same household increases the probability of joining the private sector, without affecting the worker's wage.

estimated at -0.15. However, by 2004 a positive public sector pay premium emerged. In 2005, the public sector pay premium rose significantly as another salary increase was implemented. National elections were held in January 2006 (column 2). Among Gaza Strip male workers, the public sector pay premium declined between the years 1998 and 1999, while the period 2000-2006 witnessed an increase (column 4).

Alongside the fiscal burden of providing the public sector with wage premiums in relation to the private sector and the equity issues it raises, this trend is also worrying for other reasons. Within an environment of high unemployment, particularly among the young, the trend creates an incentive for job seekers to “wait” for a secure job in the public sector (or engage in civil strife to acquire it) rather than be absorbed by a highly fragmented and uncertain private sector, what is known as *rent seeking*.

Although the simple empirical exercise can be revealing, the objective is to decompose the observed wage differential into two components: one is due to differences in individual worker characteristics, and the other is due to differences in returns to those characteristics. The econometric results for the Oaxaca decomposition are shown in Table 4, under the assumption that  $\hat{\beta}^* = \hat{\beta}_1$ . The analyses of Table 5 are performed under the assumption that  $\hat{\beta}^* = \hat{\beta}_{pooled}$ , i.e.  $\hat{\beta}^*$  is equal to the estimated wage coefficients from a pooled regression that includes both public and private sectors. The results under the two assumptions are reported for the sake of completeness, although the description of the data findings will be confined to the first assumption.

The figures in Table 4, column (G), indicate the mean (log) wage differential between the public and private sectors. It is the *sum* or *aggregate* of the endowment effect (E) and the treatment effect (T). An interesting pattern emerges among West Bank male workers: the

treatment effect decreases over the period 1998-2000 and then increases rapidly over time, becoming positive in 2004, suggesting that returns on individual attributes were increasing in the public sector relative to the private sector. On the other hand, the endowment effect, which captures the impact of differences in the distribution of attributes in the two sectors, varied typically between 0.13 and 0.22. A greater weight for this component, assigned primarily to the public sector, can serve to reconcile these facts. In other words, the positive endowment impact in the public sector is offset by the large negative treatment effect in the early years, resulting in a *negative* wage differential or an overall wage penalty for working in the public sector by the year 2000. However, a rapid *rise* in the treatment effect over time generates a *positive* wage gap in favour of the public sector from 2001. In 2006, both the treatment effect and the endowment effect are positive and work in the same direction to provide a substantial wage premium to the public sector, about 50% of which is due to the endowment effect, and 50% to the so-called treatment effect, or *return effect*.

Among Gaza male workers, the treatment effect decreased over the period 1998-2000, and increased rapidly over the period 2001-2006. On the other hand, the endowment effect declined significantly between 1998-2001, and increased monotonously over the period 2002-2006. However, the decline in the endowment and treatment effects in the public sector in the early years of the study in turn result in a significant *decline* in the public-private wage differential. A rapid *rise* in the treatment and endowment effects over time generates a concurrent *increase* in the wage gap from 2002. In 2006, both the treatment effect and the endowment effect are positive and work in the same direction to provide a wage premium to the public sector, about 40% of which is due to the endowment effect and 60% to the return effect.

The results show that in the pre-Intifada period, the wage gap between the public and private sectors narrowed in both the West Bank and Gaza. However, a sharp increase was seen in the post-Intifada period as a result of the increase in public sector wages brought on by a high demand for public sector employees, and a rapid decrease in private sector wages brought on by a sharp decrease in the number of Palestinians working in the Israeli labour market and low demand for employees in the local private sector<sup>18</sup>. This is not surprising given the disruptive influence the Intifada had on private-sector jobs. Moreover, most of the increase in the wage gap in both the West Bank and Gaza in the post-Intifada period stems from an increase in the “returns” to skill composition in the public sector (unexplained effect), rather than a change in the skill composition of public sector workers (human capital effect).

Palestinians working in Israel were less skilled (and lower paid) workers in the private sector, or workers with fewer years of schooling. Unskilled workers returning from Israel compete with locals for private sector jobs, often winning them at the expense of unskilled local workers. Consequently, for wage earners who continued to be employed in the local market, or who had obtained jobs in the local market, the impact was exacerbated by the decline in average real wages over much of the Intifada period, meaning a high gross public-private wage gap among unskilled workers during this period. Further, since the unskilled workers are homogenous, we would expect the endowment effect of the wage gap to be very low. In turn, we would expect the unexplained component of the wage gap to follow the pattern of the overall gross pay gap.

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<sup>18</sup> The number of Palestinian labourers in Israel falls from a high of 146,000 just prior to the start of the uprising (116,000 from the West Bank and 30,000 from Gaza), to around 50,000 in Q4 of 2004; since then, the number of Palestinian workers in Israel and in the settlements has been relatively stable, fluctuating with the extent of closure imposed by Israel.



Table 6 documents the decomposition of the wage gap for skilled and unskilled workers in the West Bank and Gaza respectively. The gross wage gap among unskilled workers in the West Bank decreased between 1998 and 2000, and afterwards increased, reaching 0.24 in 2006. Moreover, for most of that period the endowment effect contributed less than 0.06 to the overall wage gap. The treatment effect among unskilled workers made up the majority of the overall wage gap, and followed the pattern of the overall gross gap. In Gaza, the gross wage gap among unskilled workers decreased over 1998-2001, and increased over 2002-2006. The treatment effect among unskilled workers again made up the majority of the overall wage gap, and followed the pattern of the overall gross gap.

Table 7 reports the selectivity-corrected decomposition results. The results show that self-selection had a slight effect on the human capital components of the wage gap, because productivity-related variables are not affected by the measurement method. On the other hand, the unexplained components were greatly affected by the selectivity correction, since this entire component relies on the estimators in the wage regressions.

## **5. Estimating the wage gap at various percentiles**

The simple OLS analysis has thus far focused exclusively on the average level of earnings differentials between the public and private sectors. It provides little information on the extent to which this differential varies across the wage distribution. Empirical evidence from many countries suggests that the pay gap,  $\ln(1+G)$ , varies across the wage spectrum, and focusing on the mean could be misleading. Here, the dummy-variable approach is used in a quantile

regression model, where the estimates of  $\beta$  and  $\delta$  are computed at various points along the wage distribution. A series of quantile regressions is estimated, taking the form<sup>19</sup>:

$$Q_{\theta}(\ln w_i | x_i) = x_i \beta_{\theta} + d_i \delta_{\theta}, \quad (6)$$

where  $\theta$  is an arbitrary percentile between (0,1);  $Q_{\theta}(\ln w_i | x_i)$  is the “ $\theta^{\text{th}}$ ” quantile function of wages conditional on observed characteristics or attributes specified by  $x_i$ ;  $\beta_{\theta}$  is the vector specifying the “returns” or “effects” of individual characteristics; and  $\delta_{\theta}$  captures the unexplained gap of log earnings, all at the  $\theta^{\text{th}}$  quantile. Within the QR framework, for any given  $\theta$  and a sample size of  $n$ ,  $\beta_{\theta}$  is derived as the argmin to

$$n^{-1} \sum_{i=1}^n \mu_{\theta}(\ln w_i - x_i \beta_{\theta}), \quad (7)$$

where  $\mu_{\theta}$  is the “check” function and is defined as  $\mu_{\theta} = \theta \varepsilon$  if  $\varepsilon \geq 0$ , or  $\mu_{\theta} = (\theta - 1) \varepsilon$  if  $\varepsilon < 0$ .  $\varepsilon$  is the “error” term analogous to the OLS specification. The QR estimates of  $\beta$  at any given quantile can be interpreted as the “returns” to the attributes if  $Q_{\theta}(w_i | x_i)$  is assumed to be linear (or a linear approximation).

The usefulness of this technique can be seen from Table 8, which compares the OLS and quantile regression (QR) estimates of the dummy variable, or unexplained variation (or impact) of working in the public sector. While the OLS estimates only give information near the median or 50<sup>th</sup> percentile of the wage distribution, the QR technique also provides estimates at various points along the wage distribution.

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<sup>19</sup> See Koenker and Bassett (1982) for details on quantile regressions.

Looking at the pay differential across the wage distribution suggests a distinct trend over time: the wage premium (penalty) for the public sector varies across the distribution, being higher (lower) at the lowest end of the wage distribution and decreasing (increasing) along the wage distribution. It becomes negative at the top percentiles. Over time, especially during the post-Intifada period, the wage premium increased for both low and high wage earners in the public sector, becoming less negative for high wage earners in the West Bank public sector and more positive for high wage earners in the Gaza public sector. With a job market ravaged by years of conflict, poorer workers in the public sector were able to earn a higher wage premium compared to those in their income bracket in the private sector.

West Bank workers in the lowest 5<sup>th</sup> percentile earn significant wage premiums in the public sector compared to their private sector counterparts. The data suggest that from 2001 even those in the 20<sup>th</sup> percentile of the wage distribution started to earn a positive pay premium in the public sector. The premium increased at the lower end of the distribution as 2004 salary increases were implemented, so that by 2004, in addition to the lowest 5<sup>th</sup> and 20<sup>th</sup> percentiles of the wage distribution, those near the median level of income (Q50) and even higher, earned a premium in the public sector. By 2006, the wage gap is high at the lower quantiles, and almost negligible at the 75<sup>th</sup> percentile. However, those at the very top of the wage distribution (i.e. the 95<sup>th</sup> percentile or Q95) continue to be penalized in their salaries, though the penalty has decreased in recent years.

However, Gaza workers in the 5<sup>th</sup>, 20<sup>th</sup>, 50<sup>th</sup>, and 75<sup>th</sup> percentiles earn significant wage premiums in the public sector compared to their private sector counterparts, and from 2003 even those in the 95<sup>th</sup> percentile of the wage distribution started to earn a positive pay premium in the public sector (see Table 8).

## 6. Conclusion

Currently, Palestinian public sector salaries absorb at least 85% of net revenues, crowding out all other expenditure. The past five years have seen a series of wage increases in the public sector with the stated intention of bringing public sector salaries up to par with the private sector. This paper has measured the public-private wage differential in the West Bank and Gaza, and described its dynamics before and during the second Intifada using data from the PLFS of the PCBS. The paper is a first systematic analysis of the public-private wage gap in the context of the economic costs of political instability. While the public sector continues to attract workers, the private sector is buffeted by considerable uncertainty and exogenous shocks. As the public sector was seen as a “buffer” against private sector job losses due to increased closures and movement restrictions following the second Intifada, employment in it expanded as the political and economic situation worsened. Given the inseparability of political and economic factors in the PA, this paper offers an interpretation of the wage gap phenomenon in terms of the changing demographic composition of the Palestinian workforce over the study period. The paper has used Oaxaca-Blinder decomposition to estimate the human capital and unexplained components of the wage gap.

The estimates for West Bank workers suggest that in the earlier years of the analysis, particularly in the pre-Intifada period, the public sector suffered a penalty in (log) hourly wages, but this penalty disappeared, and then reversed over time. In 1999, the public-private log wage differential was estimated at -0.15. However, from 2004 a clear public sector premium emerges, which rises significantly in 2005, just prior to the Palestine national elections. Among Gaza Strip workers, the public sector pay premium declined between 1998 and 1999, and then increased between 2000 and 2006.

The unadjusted wage gap between the public and private sectors among West Bank workers decreased in the years prior to the second Intifada, from 3% in 1998 to -4% in 2000. However, it increased after the beginning of the second Intifada, from -1.8% in 2001 to 29% in 2006. Among Gaza workers, the data show an unadjusted wage gap between the public and private sectors decreasing in the years 1998-2001, from 73% in 1998 to 46% in 2001. However, it increased from 57% in 2002 to 135% in 2006. Moreover, most of the increase in the wage gap in both the West Bank and Gaza in the post-Intifada period stems from an increase in the “returns” to skill composition in the public sector (unexplained effect), rather than a change in the skill composition of public sector workers (human capital effect).

The massive influx of Palestinians who had previously worked in the Israeli private sector before the second Intifada into the PA local private sector, and a fall in local economic activity in the West Bank and Gaza, both reduced the demand for and increased the supply of Palestinian unskilled workers at the same time. Therefore, the wage for private sector employees decreased over the Intifada period. Moreover, the high demand for public sector employees caused an increase in public sector wages. Consequently, although in the pre-Intifada period the wage gap between the public and private sectors narrowed, it has widened in the post-Intifada period.

Looking at the pay differential in the West Bank and Gaza across the wage distribution suggests a distinct trend over time: the wage premium (penalty) for the public sector varies across the distribution, being higher (lower) at the lowest end of the wage distribution and decreasing (increasing) along the wage distribution. It becomes negative at the top percentiles. Over time, the lower quantiles of West Bank wage earners have continued to earn a significant (log) wage premium, and this has increased particularly in the post-Intifada period. On the other hand, those in the very top income percentile (95<sup>th</sup>) continue to face a wage penalty, which has

attenuated over time. In Gaza, especially in the post-Intifada period, the wage premium increased for both low and high wage earners in the public sector. Comparing 2000 to 2006, estimates indicate that workers in the West Bank and Gaza in all percentiles showed a steady increase in the wage premium.

Besides the fiscal burden of providing the public sector with wage premiums vis-à-vis the private sector and the equity issues this raises, this trend is also worrying for other reasons. In an environment of high unemployment, particularly among the young, this trend creates an incentive for job seekers to “sit it out” and wait for a secure job in the public sector rather than become absorbed in a highly fragmented and uncertain private sector.

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**Table 1: Summary Statistics of Variables by Sector: West Bank Males, 1998-2006**

Year	Hourly wage		Schooling		Age		Personal status		Tenure		N	
	Public	Private	Public	Private	Public	Private	Public	Private	Public	Private	Public	Private
1998	6.54 (3.35)	6.34 (3.49)	12.40 (3.90)	9.58 (3.51)	35.04 (10.88)	30.00 (9.82)	0.69 (0.46)	0.59 (0.49)	80.67 (96.83)	58.93 (78.79)	2,095	4,382
1999	6.96 (3.38)	6.80 (3.46)	12.50 (3.91)	9.59 (3.50)	35.29 (10.37)	30.27 (9.80)	0.76 (0.43)	0.62 (0.48)	85.74 (94.59)	63.51 (74.22)	2,207	4,388
2000	6.90 (3.29)	7.19 (3.61)	12.46 (3.87)	9.72 (3.54)	34.28 (10.93)	30.47 (9.92)	0.70 (0.46)	0.61 (0.49)	81.23 (91.82)	69.46 (77.77)	2,525	4,231
2001	6.48 (2.74)	6.60 (3.15)	12.42 (3.74)	9.86 (3.38)	35.43 (10.87)	30.81 (9.68)	0.73 (0.44)	0.63 (0.48)	85.58 (91.21)	68.21 (77.66)	2,111	2,954
2002	6.64 (3.33)	6.58 (3.94)	12.71 (6.41)	10.21 (4.50)	37.72 (11.10)	31.08 (9.83)	0.78 (0.42)	0.62 (0.49)	105.90 (272.93)	69.84 (78.53)	1,524	1,932
2003	6.64 (3.40)	6.01 (3.55)	12.75 (3.73)	10.05 (3.54)	37.63 (10.93)	31.69 (10.31)	0.78 (0.41)	0.62 (0.48)	98.61 (94.65)	70.81 (81.98)	1,790	2,493
2004	7.07 (3.49)	5.75 (3.60)	12.63 (3.63)	10.15 (3.57)	37.15 (11.19)	31.53 (10.13)	0.78 (0.42)	0.64 (0.48)	98.11 (92.55)	70.09 (80.56)	1,871	2,548
2005	6.99 (3.34)	5.56 (3.42)	12.44 (3.59)	10.07 (3.44)	35.84 (10.74)	31.90 (10.19)	0.76 (0.43)	0.65 (0.48)	92.01 (85.26)	69.56 (78.33)	2,356	3,505
2006	7.29 (3.54)	5.65 (3.67)	12.32 (3.67)	10.13 (3.46)	35.75 (10.69)	32.07 (10.15)	0.74 (0.44)	0.64 (0.48)	98.92 (221.12)	84.94 (386.15)	2,331	3,460
<b>Total</b>	6.85 (3.33)	6.32 (3.57)	12.50 (4.04)	9.88 (3.57)	35.87 (10.89)	30.99 (10.00)	0.74 (0.44)	0.62 (0.48)	91.06 (137.58)	68.91 (150.68)	18,810	29,893

**Source:** Author calculations using Palestinian Labor Force Surveys (PLFS) of the Palestinian Central Bureau of Statistics (PCBS).

**Note:** The sample includes West Bank salaried, prime-aged (18-65) males. The Income variable is the real hourly wage in constant 1996 New Israeli Shekels (₪). In 1996, ₪1.00 equalled approximately \$US 0.33. The Married variable takes on the value 1 if the person is married, and 0 otherwise. The Tenure variable is in months. Standard deviations in parentheses.

**Table 2: Summary Statistics of Variables by Sector: Gaza Males, 1998-2006**

Year	Hourly wage		Schooling		Age		Personal status		Tenure		N	
	Public	Private	Public	Private	Public	Private	Public	Private	Public	Private	Public	Private
1998	6.48 (3.44)	3.76 (1.99)	12.56 (3.72)	8.90 (3.64)	34.52 (11.03)	29.38 (9.60)	0.75 (0.43)	0.68 (0.47)	62.60 (79.68)	38.76 (49.39)	1,781	1,507
1999	6.57 (3.07)	4.01 (2.35)	12.19 (3.74)	9.43 (3.60)	35.21 (10.84)	29.00 (9.02)	0.85 (0.35)	0.66 (0.47)	61.71 (65.09)	39.68 (48.28)	2,294	1,762
2000	6.77 (3.10)	4.35 (2.69)	12.41 (3.60)	9.45 (3.87)	35.13 (10.58)	30.04 (10.01)	0.83 (0.38)	0.67 (0.47)	62.13 (59.89)	44.79 (57.92)	2,353	1,425
2001	6.73 (2.60)	4.60 (2.49)	12.49 (3.50)	10.05 (3.80)	34.92 (10.37)	31.14 (9.69)	0.81 (0.39)	0.73 (0.45)	64.22 (58.55)	49.93 (60.06)	2,240	745
2002	6.77 (2.97)	4.30 (3.09)	12.59 (3.53)	9.96 (3.76)	36.18 (10.37)	31.07 (9.85)	0.84 (0.36)	0.71 (0.46)	71.23 (68.22)	42.81 (52.32)	1,902	848
2003	6.49 (3.12)	4.01 (2.28)	12.41 (3.78)	9.51 (3.67)	36.28 (10.83)	31.86 (9.36)	0.82 (0.38)	0.75 (0.43)	75.02 (59.06)	44.42 (48.54)	2,085	1,303
2004	6.73 (3.23)	3.98 (2.64)	12.55 (3.71)	9.95 (3.81)	36.21 (10.75)	32.37 (9.76)	0.80 (0.40)	0.73 (0.45)	80.83 (64.26)	47.46 (62.33)	2,186	1,140
2005	7.68 (3.49)	3.69 (2.56)	12.46 (3.64)	9.72 (3.63)	35.95 (10.15)	32.38 (9.90)	0.84 (0.37)	0.72 (0.45)	84.69 (60.70)	39.40 (56.87)	2,453	1,417
2006	8.41 (3.66)	3.58 (2.47)	12.47 (3.52)	9.99 (3.55)	35.38 (10.14)	33.16 (10.36)	0.83 (0.38)	0.75 (0.44)	87.92 (65.27)	37.77 (55.49)	2,445	1,191
<b>Total</b>	7.00 (3.27)	3.99 (2.50)	12.45 (3.64)	9.60 (3.71)	35.54 (10.56)	31.00 (9.80)	0.82 (0.38)	0.71 (0.46)	72.67 (65.11)	42.20 (54.32)	19,739	11,338

**Source:** Author calculations using Palestinian Labor Force Surveys (PLFS) of the Palestinian Central Bureau of Statistics (PCBS).

**Note:** The sample includes Gaza salaried, prime-aged (18-65) males. The Income variable is the real hourly-wage in constant 1996 New Israeli Shekels (₪). In 1996, ₪1.00 equalled approximately \$US 0.33. The Married variable takes on the value 1 if the person is married and 0 otherwise. The Tenure variable is in months. Standard deviations in parentheses.

**Table 3: Estimated Unadjusted and Adjusted Wage Differential**

<i>Year</i>	<b>West Bank males</b>		<b>Gaza males</b>	
	(1)	(2)	(3)	(4)
<b>1998</b>	0.063 (0.013)	-0.081 (0.014)	0.541 (0.016)	0.252 (0.020)
<b>1999</b>	0.038 (0.012)	-0.151 (0.014)	0.528 (0.014)	0.214 (0.019)
<b>2000</b>	-0.016 (0.012)	-0.152 (0.012)	0.487 (0.016)	0.233 (0.017)
<b>2001</b>	0.013 (0.012)	-0.099 (0.013)	0.433 (0.019)	0.236 (0.018)
<b>2002</b>	0.074 (0.018)	-0.144 (0.019)	0.539 (0.020)	0.270 (0.024)
<b>2003</b>	0.149 (0.016)	-0.067 (0.016)	0.501 (0.015)	0.256 (0.019)
<b>2004</b>	0.274 (0.015)	0.033 (0.014)	0.583 (0.018)	0.298 (0.020)
<b>2005</b>	0.287 (0.013)	0.077 (0.013)	0.791 (0.016)	0.428 (0.018)
<b>2006</b>	0.330 (0.014)	0.158 (0.016)	0.917 (0.017)	0.556 (0.021)

**Source:** Author calculations using Palestinian Labor Force Surveys (PLFS) of the Palestinian Central Bureau of Statistics (PCBS).

**Note:** Samples include salaried, prime-aged (18-65) males. The reported gap is measured by the coefficient of sector dummy variables (that take on the value 1 if the worker is employed in the public sector, and 0 if employed in the private sector) in a pooled wage regression that includes both public and private sector employees. The dependent variable in all specifications is the log of hourly wage. Specifications 1 and 3 include only public dummy variable. Specifications 2 and 4 include public dummy variable, age, age squared, years of schooling, tenure, personal status, full-time employment, urban area/ refugee camp residence, and a set of occupational dummies. Standard errors are in parentheses. All figures are significant at the 5% significance level.

**Table 4: Decomposing the Wage Differential Over Time**  
 $\beta^* = \beta_{public}$

<i>Year</i>	West Bank males			Gaza males		
	<b>G</b>	<b>E</b>	<b>T</b>	<b>G</b>	<b>E</b>	<b>T</b>
<b>1998</b>	0.063	0.147	-0.085	0.541	0.259	0.282
<b>1999</b>	0.038	0.202	-0.164	0.528	0.287	0.241
<b>2000</b>	-0.016	0.166	-0.182	0.487	0.251	0.237
<b>2001</b>	0.013	0.131	-0.118	0.433	0.143	0.289
<b>2002</b>	0.074	0.208	-0.134	0.539	0.191	0.348
<b>2003</b>	0.149	0.197	-0.047	0.501	0.218	0.283
<b>2004</b>	0.274	0.224	0.050	0.583	0.231	0.352
<b>2005</b>	0.287	0.188	0.099	0.791	0.345	0.447
<b>2006</b>	0.330	0.170	0.161	0.917	0.354	0.564

**Source:** Author calculations using Palestinian Labor Force Surveys (PLFS) of the Palestinian Central Bureau of Statistics (PCBS).

**Note:** Specifications based on wage equations with the regressors: age, age squared, years of schooling, tenure, personal status, full-time employment, urban area/refugee camp residence, and a set of occupational dummies. G refers to the gross wage gap (or  $\ln(1+G)$ ), E refers to the human capital component of the wage gap (endowment effect), and T refers to the unexplained (treatment effect) component of the wage gap. All figures are significant at the 5% significance level.

**Table 5: Decomposing the Wage Differential Over Time**  
 $\beta^* = \beta_{pooled}$

<i>Year</i>	West Bank males			Gaza males		
	G	E	T	G	E	T
<b>1998</b>	0.063	0.112	-0.049	0.541	0.430	0.111
<b>1999</b>	0.038	0.125	-0.087	0.528	0.441	0.087
<b>2000</b>	-0.016	0.078	-0.094	0.487	0.366	0.122
<b>2001</b>	0.013	0.074	-0.061	0.433	0.293	0.139
<b>2002</b>	0.074	0.168	-0.094	0.539	0.389	0.150
<b>2003</b>	0.149	0.195	-0.045	0.501	0.368	0.133
<b>2004</b>	0.274	0.251	0.023	0.583	0.421	0.161
<b>2005</b>	0.287	0.235	0.052	0.791	0.571	0.221
<b>2006</b>	0.330	0.227	0.103	0.917	0.620	0.297

**Source:** Author calculations using Palestinian Labor Force Surveys (PLFS) of the Palestinian Central Bureau of Statistics (PCBS).

**Note:** Specifications based on wage equations with the regressors: age, age squared, years of schooling, tenure, personal status, full-time employment, urban area/refugee camp residence, and a set of occupational dummies. G refers to the gross wage gap (or  $\ln(1+G)$ ), E refers to the human capital component of the wage gap (endowment effect), and T refers to the unexplained (treatment effect) component of the wage gap. All figures are significant at the 5% significance level.

**Table 6: Wage Differential Decomposition by Skill Group:  $\beta^* = \beta_{public}$**

Year	West Bank males						Gaza males					
	Skilled			Unskilled			Skilled			Unskilled		
	G	E	T	G	E	T	G	E	T	G	E	T
1998	0.066	0.131	-0.065	-0.106	-0.017	-0.089	0.408	0.205	0.203	0.398	0.109	0.289
1999	0.045	0.167	-0.122	-0.171	-0.021	-0.150	0.458	0.193	0.264	0.412	0.170	0.242
2000	0.019	0.158	-0.139	-0.202	0.004	-0.206	0.351	0.185	0.165	0.382	0.123	0.260
2001	0.005	0.108	-0.102	-0.130	-0.022	-0.107	0.225	0.101	0.124	0.375	0.041	0.334
2002	-0.077	0.142	-0.219	-0.060	0.053	-0.113	0.246	0.117	0.129	0.470	0.061	0.410
2003	-0.008	0.124	-0.132	0.019	0.050	-0.031	0.354	0.153	0.202	0.400	0.113	0.287
2004	0.080	0.129	-0.049	0.141	0.043	0.097	0.231	0.092	0.140	0.519	0.136	0.383
2005	0.158	0.148	0.011	0.153	0.019	0.134	0.458	0.194	0.265	0.719	0.252	0.466
2006	0.213	0.080	0.133	0.240	0.025	0.216	0.676	0.243	0.433	0.858	0.270	0.588

**Source:** Author calculations using Palestinian Labor Force Surveys (PLFS) of the Palestinian Central Bureau of Statistics (PCBS).

**Note:** A skilled worker is defined as one with more than 12 years of schooling. Specifications based on wage equations with the regressors: age, age squared, years of schooling, tenure, personal status, full-time employment, urban area/refugee camp residence, and a set of occupational dummies. G refers to the gross wage gap (or  $\ln(1+G)$ ), E refers to the human capital component of the wage gap (endowment effect), T refers to the unexplained (treatment effect) component of the wage gap. All figures are significant at the 5% significance level.

**Table 7: Selectivity-Corrected Wage Gap Decomposition:  $\beta^* = \beta_{public}$**

Year	West Bank males					Gaza males				
	G	E	T	Selection	$\hat{G}$	G	E	T	Selection	$\hat{G}$
1998	0.062	0.577	-0.183	-0.332	0.393	0.541	0.444	0.368	-0.271	0.812
1999	0.035	0.542	-0.779	0.272	-0.237	0.528	0.625	-0.200	0.103	0.424
2000	-0.016	0.144	-0.510	0.350	-0.366	0.487	0.468	-0.115	0.134	0.353
2001	0.013	0.158	-0.420	0.276	-0.262	0.433	0.398	-0.143	0.177	0.255
2002	0.074	0.171	0.225	-0.322	0.396	0.539	-0.062	0.803	-0.202	0.741
2003	0.149	0.274	-0.225	0.100	0.049	0.501	0.192	0.617	-0.308	0.809
2004	0.274	0.317	0.329	-0.372	0.646	0.583	-0.032	0.760	-0.146	0.728
2005	0.287	0.271	-0.442	0.458	-0.171	0.791	0.097	0.895	-0.201	0.993
2006	0.330	0.289	-0.351	0.392	-0.062	0.917	0.171	1.084	-0.337	1.254

**Source:** Author calculations using Palestinian Labor Force Surveys (PLFS) of the Palestinian Central Bureau of Statistics (PCBS).

**Note:** G refers to the gross wage gap (or  $\ln(1+G)$ ), E refers to the human capital component of the wage gap (endowment effect), T refers to the unexplained (treatment effect) component of the wage gap. Selection is the component of the wage gap attributed to self-selection into Sector, and  $\hat{G}$  is the selectivity-corrected gross wage gap. Main entries are based on the two-step Heckman procedure. The dependent variable in the wage equations is the logarithm of hourly wage; the independent variables are age, age squared, years of schooling, tenure, personal status, full-time employment, urban area/refugee camp residence, and a set of occupational dummies. The selection equation includes as explanatory variables age, age squared, years of schooling, tenure, personal status, full-time employment, urban area/ refugee camp residence, a set of occupational dummies, and number of jobholders in the same household. All figures are significant at the 5% significance level.



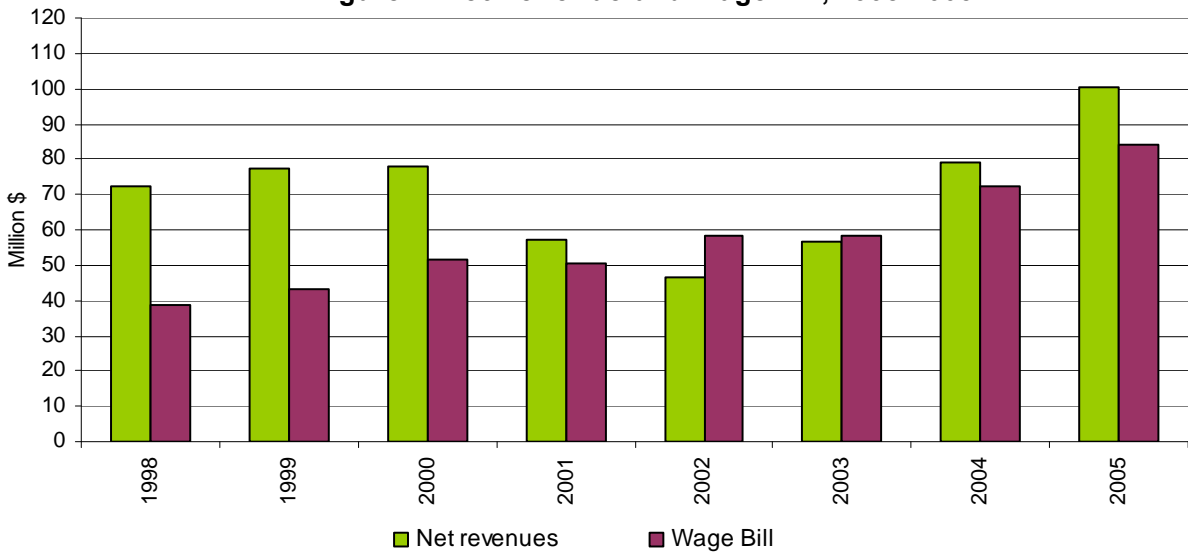
**Table 8: Comparing the OLS and Quantile Regression Results**

Quantile Regression wage differentials at various percentiles												
Year	West Bank males						Gaza males					
	OLS wage differential	5 <sup>th</sup>	20 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	95 <sup>th</sup>	OLS wage differential	5 <sup>th</sup>	20 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	95 <sup>th</sup>
1998	-0.081	0.169	0.050	-0.106	-0.200	-0.251	0.252	0.558	0.374	0.249	0.143	0.075
1999	-0.151	0.072	-0.026	-0.146	-0.241	-0.385	0.214	0.439	0.376	0.227	0.141	-0.018
2000	-0.152	0.225	-0.033	-0.187	-0.277	-0.400	0.233	0.527	0.395	0.247	0.140	-0.039
2001	-0.099	0.221	0.023	-0.127	-0.237	-0.327	0.236	0.482	0.360	0.251	0.143	0.027
2002	-0.144	0.186	0.095	-0.159	-0.309	-0.440	0.270	0.670	0.523	0.290	0.153	-0.091
2003	-0.067	0.311	0.096	-0.084	-0.224	-0.293	0.256	0.550	0.353	0.241	0.174	0.088
2004	0.033	0.338	0.205	0.033	-0.086	-0.263	0.298	0.490	0.443	0.321	0.238	0.027
2005	0.077	0.387	0.237	0.062	-0.048	-0.174	0.428	0.703	0.554	0.439	0.350	0.216
2006	0.158	0.401	0.354	0.157	0.010	-0.177	0.556	0.815	0.684	0.583	0.469	0.281

**Source:** Author calculations using Palestinian Labor Force Surveys (PLFS) of the Palestinian Central Bureau of Statistics (PCBS).

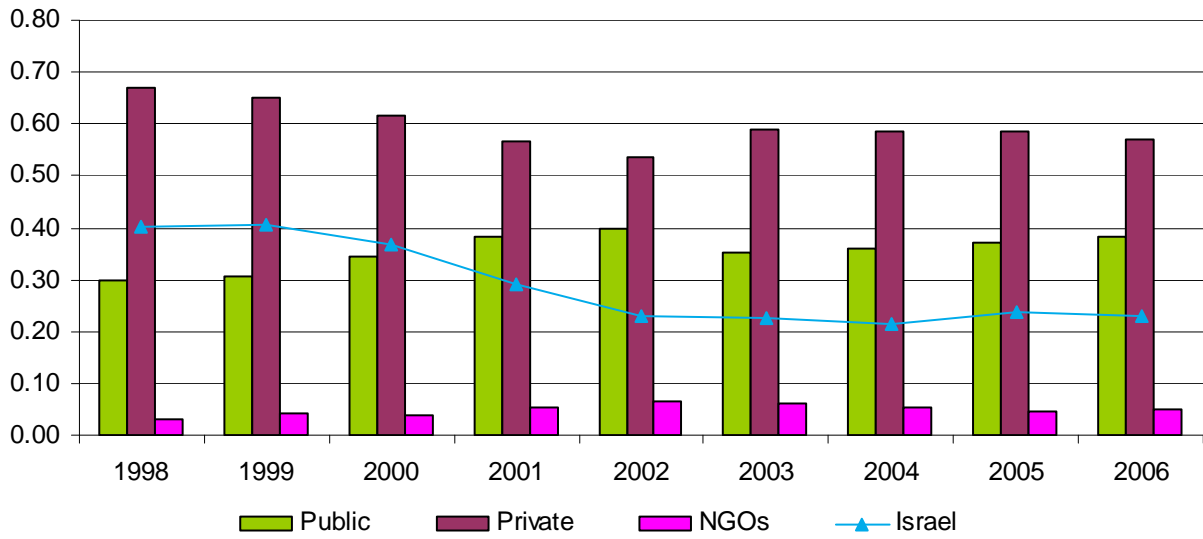
**Note:** The dependent variable in the wage equations is the logarithm of hourly wage; the independent variables are age, age squared, years of schooling, tenure, personal status, full-time employment, urban area/refugee camp residence, a set of occupational dummies, and a sector dummy variable (that takes on the value 1 if the worker is employed in the public sector, and 0 if employed in the private sector). All figures are significant at the 5% significance level.

**Figure 1: Net Revenue and Wage Bill, 1998-2005**



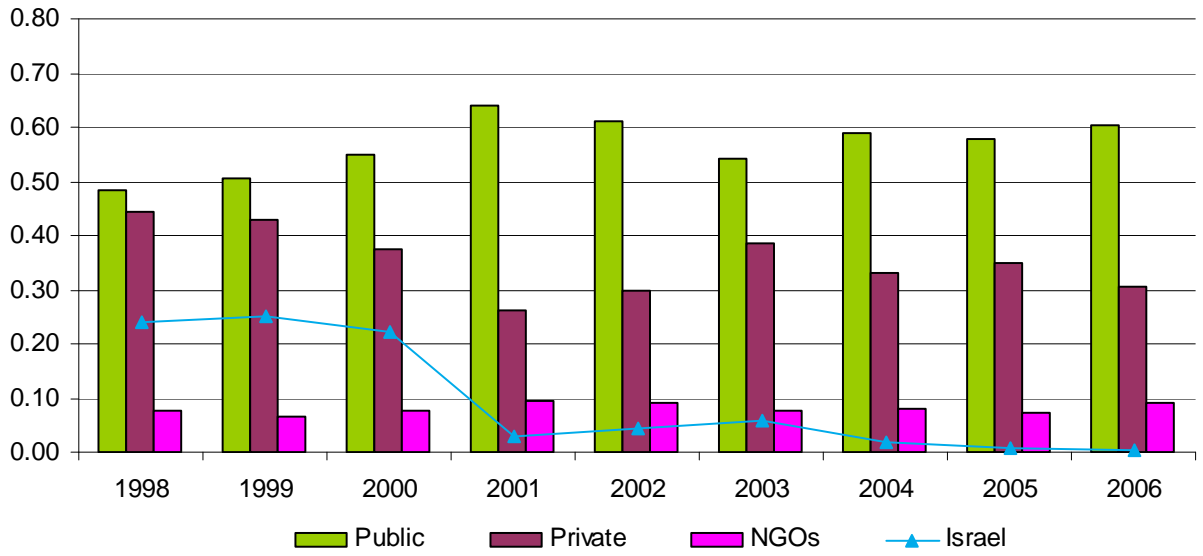
Source: International Monetary Fund data Files .

**Figure 2: Share of West Bank male employees across various sectors, 1998-2006.**



Source: Author calculations using Palestinian Labor Force Surveys (PLFS) .

**Figure 3: Share of Gaza male employees across various sectors, 1998-2006.**



Source: Author calculations using Palestinian Labor Force Surveys (PLFS) .