Research Article

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Examining Industry Wage Differentials in the Palestinian Territories

Abstract: It has been widely documented that there is a high level of inter-industry wage dispersion in the United States and several other developed countries. Unfortunately, due to the lack of data availability, industry wage differentials in developing countries have been examined in only a few studies and have been constrained by data limitations. Identifying the causes of industry wage differentials is crucial because it has policy implications toward mitigating wage inequality and unemployment. In this paper, I investigate industry wage differentials in the Palestinian territories – the West Bank and the Gaza Strip – using a rich dataset that allows cross-sectional and longitudinal analyses. I find that observed labor quality, unobserved labor quality, and labor market segmentation along the public and private sector represent the most suitable explanations for inter-industry wage dispersion in the Palestinian territories. Additionally, there is (limited) evidence of a shirking model especially in Gaza.

Keywords: inter-industry wage dispersion, industry wage differentials, efficiency wages, labor market segmentation, Palestinian territories
JEL Classification Codes: J31

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1 Introduction

It has been widely documented that industry wage differentials are large and persistent in several countries (Krueger and Summers 1987; Gittleman and Wolff 1993). Three major theoretical frameworks used to explain inter-industry wage dispersion are competitive wage explanations, collective bargaining models, and efficiency wage theories. In perfectly competitive labor markets, the wage is equal to the marginal product of labor or in other words, equally productive

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workers earn the same wage. Thus, according to the competitive wage model, high levels of inter-industry wage dispersion reflect either differences in human capital (observable and unobservable) across workers, differences in work conditions across workers or transitory shifts in labor demand across industries where the short-run immobility of labor has not fully adjusted.

The empirical evidence in the United States suggests that high industry wage differentials have persisted for decades even after accounting for human capital variables and work conditions (Slichter 1950; Dickens and Katz 1986). This is inconsistent with the predictions of the standard competitive wage model where workers are paid their marginal product; naturally, these high and persistent "adjusted" industry wage differentials have led to a growing literature on the extent to which collective bargaining models and efficiency wage theories explain inter-industry wage dispersion. Beyond the United States, researchers have documented large and persistent industry wage differentials in 14 selected OECD countries over time and space and have also found that the industry wage structure is preserved in terms of rank order stability (Gittleman and Wolff 1993). Furthermore, this literature strongly implies that competitive wage explanations cannot fully account for inter-industry wage dispersion; additionally, while collective bargaining action and efficiency wage theories play at least a minor role in explaining industry wage differentials, their existence is still not fully resolved (Dickens and Katz 1986; Krueger and Summers 1988; Caju et al. 2010).

Unfortunately, industry wage differentials in developing countries have been examined in only a few studies (Arbache 2001; Jaffry et al. 2006; Erdil and Yetkiner 2001). The results of these studies suggest that differences in skill levels across industries and labor market segmentation as explained by efficiency wage theories account for a large portion of inter-industry wage dispersion in developing economies. Specifically, Erdil and Yetkiner (2001) show that industry differentials are high for both developed and developing countries and the rank order stability for the industry wage structure is preserved. However, in OECD countries, worker productivity is the primary driver of inter-industry wage dispersion while establishment size is the main engine for developing countries. Examining the root causes of inter-industry wage dispersion in developing economies is not only important in that it contributes to our global understanding of industry wages differentials but also because identifying the causes of industry wage differentials may have policy implications toward mitigating wage inequality and unemployment.

Although the above-mentioned studies are pioneers in studying industry differentials in the developing world, they were constrained by data limitations either in terms of their accuracy or level of detail. For instance, I know of no study that has studied industry wage differentials in a developing economy using a

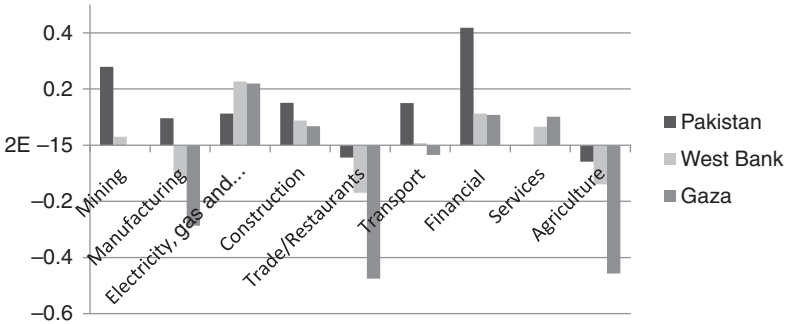
longitudinal dataset, which would allow the researcher to address whether the differences in individual attributes of workers across industries contribute to rising wage dispersion. Studies on developing economies have largely relied on OLS specifications to estimate industry wage differentials. Furthermore, since individual wages and employment details are not available for all industries in a given country, studies have primarily relied on the manufacturing sector which limits the analysis on industry differentials. Finally, with the exception of Turkey, countries in the Middle East and North African (MENA) region are not covered in the above-mentioned studies given the scarcity of reliable data in the region.

In this paper, I investigate industry wage differentials in the Palestinian territories – the West Bank and the Gaza Strip – using a rich micro-level panel dataset covering the years 2000–2010 that allows for both cross-sectional and longitudinal analyses. The data are collected by the Palestinian Labor Force Survey (PLFS) which includes detailed questions on educational attainment, one digit and two digit industry categories, occupational categories, job tenure, union status, full-time status, public/private sector affiliation, work conditions, pension status, and firm size. The questions addressed in this paper are: How high and persistent is inter-industry wage dispersion in the West Bank and Gaza? How do both territories compare to other nations, developed and developing? How far do competitive wage explanations, collective bargaining models, and efficiency wage theories go in explaining industry differentials? Is the industry wage structure preserved? Can these results be reconciled with the limited evidence available on industry differentials in developing economies?

The next section offers a brief synopsis of the (limited) international evidence on industry wage differentials and situates industry differentials in the West Bank and the Gaza Strip in an international context. Section 3 provides a description of the Palestinian Labor Force Survey (PLFS) data and reports summary statistics. Section 4 provides a brief theoretical summary of the three major explanations followed by the results; and Section 5 concludes.

2 International evidence

The West Bank and Gaza are located in Southwest Asia (aka Middle East) where the West Bank borders Jordan and Israel and Gaza borders Israel and Egypt. As a useful comparison to developing countries in the region, Pakistan's (one digit) industry differentials (adjusted for education, experience, marital status, occupation, and job attributes) are graphed in Figure 1 using data from Jaffry et al. (2006) along with those of the West Bank and Gaza using data from 2008q4 to 2010. I estimate industry differentials by: (1) regressing log wages on the 9 one-digit



	Pakistan	West Bank	Gaza
Inter-industry wage dispersion	0.154	0.131	0.273
Correlation with pakistan's industry differentials	1	0.535	0.593

Figure 1: Industry differentials in Pakistan, the West Bank and Gaza
Source: Industry differentials in Pakistan are estimated in Jaffry, Ghulam, and Shah (2006) in a pooled estimate of 1990–91 and 2003–04 survey data. For the West Bank and Gaza, industry differentials are computed using Palestinian Labor Force Survey Data (2008Q4–2010) administrated by the Palestinian Central Bureau of Statistics (PCBS). Wage Dispersion is computed as the standard deviation of industry differentials

industry dummies and the above-mentioned socio-economic characteristics, (2) calculating the weighted (by employment shares) average of the coefficients of the industry dummies in the regression in step(1) and then (3) subtracting the average in step (2) from each of the industry coefficients obtained in step (1). Industry wage differentials in Gaza are much larger in magnitude in comparison to the West Bank and Pakistan; further, the level of inter-industry wage dispersion, simply measured as the standard deviation of industry differentials, in the West Bank and Pakistan is similar to that of the United States (≈0.12) as reported in Krueger and Summers (1988) while Gaza's inter-industry wage dispersion is larger.[1] The two economies of the West Bank and Gaza have taken divergent paths recently due to the political strife in the region in the past 10–15 years.[2] Given this political and economic instability, I focus on the period between the

1 The difference between the measure of inter-industry wage dispersion used here and that in Krueger and Summers (1988) is that the latter measure is calculated by taking into account the size of the standard errors of the industry coefficients (for a more detailed explanation see footnote 16). I also use the measure used in Krueger and Summers (1988) in the remainder of the analysis.

2 The intifada (initiated in September 2000) and the Gaza blockade (officiated in June 2007) induced several changes in the Palestinian economies of the West Bank and Gaza. Table 7 in Appendix highlights the divergence in relevant labor market outcomes between the West Bank and Gaza after the intifada and the Gaza blockade by reporting descriptive statistics during the pre-intifada period (1999), shortly after the onset of the intifada (2002) and the post-Gaza

fourth quarter of 2008 and the fourth quarter of 2010 where Palestinian labor markets experienced a period of relative stability.

In Table 1, I present raw industry wage differentials for the West Bank and Gaza in 2008q4–2010 as well as the United States, Germany and Japan in 1985 (Gittleman and Wolff 1993).[3] Although the differentials presented here for the United States are over 25 years old, they are still relevant since industry differentials have been preserved over time (Gittleman and Pierce 2012). Industry differentials are estimated in the same manner as noted above except they are not adjusted for socio-economic characteristics. Inter-industry wage dispersion, simply measured as the standard deviation of industry wage differentials, is much higher in the United States, Germany, and Gaza than in Japan and the West Bank. Note that unlike the differentials reported in Krueger and Summers (1988), these industry differentials are raw differentials and are not adjusted to account for how large the standard errors on the coefficients of the dummy industry variables are (more on this in footnote 9).

In addition to explaining inter-industry wage differentials in the Palestinian territories, this paper is also concerned with the extent in which the industry wage structure is preserved in terms of rank order stability. The degree of rank order stability is measured by computing the correlation between industry differentials when using two specifications. This allows us to ascertain whether high-wage and low-wage industries have changed under different conditions, (e.g. across time and space) which can have important policy implications as well as facilitate in identifying the underlying mechanisms behind inter-industry wage dispersion.

The industry wage structure in the West Bank and Gaza is much more similar to Japan and Germany than the United States. Furthermore, the correlation between industry differentials in the West Bank and Japan is almost identical to the correlation of industry wage differentials between Japan and the United States. The (relative) dissimilarity in the industry wage structures between Japan and the United States is consistent with Erdil and Yetkiner (2001) who calculate a correlation of 0.48 between the industry differentials in Japan and the United States in 1992 while the corresponding statistic for selected newly

Blockade period (2009) for both territories. While the West Bank and Gaza were always different, the changes between them were exaggerated by the intifada and the blockade. This issue is briefly revisited in Section 4 when considering the competitive wage explanation that industry differentials reflect changes in transitory demand shocks across industries. For more detail on changes in Gaza after the blockade, see Adnan (2012a).

3 Data for the US, Germany and Japan were taken from Gittleman and Wolff (1993); their datasets included a maximum of 20 industries, some of which were missing for Japan and Germany. For the West Bank and Gaza, I matched the two digit industries in the Palestinian Labor Force Survey Data (PLFS) to the 20 industries named above.

Table 1: Raw industry differentials in the West Bank and Gaza and developed economies

Industry	United States (1985)	Germany (1985)	Japan (1985)	West Bank 2008q4–2010	Gaza 2008q4–2010
Electricity, gas and water	0.553	0.354	0.659	0.383	0.162
Mining	0.525	0.271	−0.177	0.039	−0.763
Basic metal products	0.484	0.100	0.497	−0.093	−0.740
Chemicals	0.429	0.261	0.365	−0.012	−0.855
Machinery	0.385	0.137	0.068	−0.169	−0.754
Transportation	0.344	0.037	0.239	0.080	−0.360
Non-metallic products	0.253	0.040	−0.178	−0.031	−0.781
Finance and insurance	0.227	0.232		0.401	0.208
Printing and publishing	0.198	0.039	−0.111	−0.004	−0.411
Food and beverages	0.153	−0.153	−0.457	−0.240	−0.550
Construction	0.149	−0.127	−0.071	−0.021	−0.326
Government services	0.034	0.056	0.500	0.125	0.267
Real estate	0.015			−0.106	−0.851
Other manufactured	−0.038	−0.327	−0.054	−0.134	−0.690
Wood and wood products	−0.065	−0.119		−0.236	−0.763
Community and social services	−0.293	−0.282	−0.278	0.164	−0.013
Textiles	−0.310	−0.309	−0.369	−0.257	−0.634
Commerce	−0.314	−0.174		−0.272	−0.820
Restaurants and hotels	−0.484	−0.519		−0.093	−0.763
Agriculture	−0.707	−0.257	−0.539	−0.334	−0.942
Inter-industry wage dispersion	0.353	0.239	0.37	0.201	0.386
Correlation w/US	1	0.858	0.654	0.498	0.212
Correlation w/Germany			0.690	0.576	0.302
Correlation w/Japan				0.653	0.435

Source: Industry differentials in the United States, Germany, and Japan are estimated in Gittleman and Wolff (1993). For the West Bank and Gaza, industry differentials are computed using Palestinian Labor Force Survey Data (2008Q4–2010) administered by the Palestinian Central Bureau of Statistics (PCBS).

industrializing countries (Argentina, Brazil, Chile, Korea, Mexico, Philippines, Singapore and Turkey) and the United States ranges between 0.75 and 0.82. They find that the industry wage structure of developing countries slowly converges to that of the United States over time. Therefore, while the correlation between industry differentials in the West Bank and the United States is only 0.50, this may be an underestimate since there is a 25-year gap between US data reported in Table 1 (1985) and West Bank data (2008q4–2010). Note the

correlation between Gaza's industry differentials and those of all three advanced economies is much smaller in magnitude relative to the West Bank.[4]

3 Data and descriptive analysis

The datasets in this paper use micro-level household panel data from the quarterly *Palestinian Labor Force Survey* (PLFS) administered by the Palestinian Central Bureau of Statistics during the period 2008q4–2010. The survey has been administered by the Palestinian Central Bureau of Statistics since 1995, following the establishment of the Palestinian Authority (PA). During each quarter, over 7,500 households are interviewed. Although the target population includes all people over the age of 10 years, labor market characteristics are only collected for those who meet the minimum work requirement age of 15 years old. The questionnaire is designed such that households are interviewed for two consecutive quarters and then dropped from the sample for the next two quarters and are then revisited for the following two quarters, allowing one to construct short panels. In this paper, I restrict the sample to male individuals aged 15–64 years that were surveyed between 2008q4 and 2010.[5] Data collection is of high quality with a survey response rate of approximately 90% during the period of study.

To test the extent in which the standard competitive wage model explains inter-industry wage dispersion, data on workers' individual attributes such as educational attainment, labor market experience, job-specific capital and work conditions are included in the analysis below. Furthermore, to consider the role of collective bargaining and efficiency wage models in explaining industry wage differentials, I include variables that potentially reflect institutional differences across industries: an individual's occupational status (white collar versus blue collar), firm size (large being defined as 16 or more people in the work enterprise), pension status, union status, years of job tenure, and public/private sector status.

Table 2 displays the means of relevant variables for male-wage earners in the West Bank and the Gaza Strip by one-digit industries. The discussion here is mainly qualitative given statistical uncertainty in the form of standard errors (not reported). In the West bank, approximately half of male-wage earners are

4 This may be attributed to the fact that in addition to being a third world country, Gaza suffers from the economic isolation imposed upon it from the blockade.

5 I exclude women because they have low labor force participation rates on the order of 16% in the period of study 2008Q4–2010. Furthermore, less than half of the women who were labor force participants were in the wage sector and reported wages. Hayo and Caris (2013) examine why female labor force participation rates in the MENA region are so low.

Table 2: Mean of relevant variables by industry for the West Bank (2008q4–2010)

	% Employed/ industry	Years of schooling	Daily wage ($2010)	Age	Tenure (months)	% White collar	% Large firm	% Public sector	% Pension	% Unionized (2009–2010)
West Bank										
Agriculture	0.043	8.9	$16.99	30.8	62.4	0.010	0.51	0.017	0.017	0.144
Manufacturing	0.146	9.7	$21.94	30.7	80.3	0.079	0.73	0.005	0.125	0.159
Construction	0.158	9.3	$23.63	32.2	95.7	0.020	0.32	0.002	0.031	0.134
Commerce	0.143	10.5	$21.26	29.6	55.6	0.107	0.42	0.002	0.135	0.123
Transportation	0.047	10.8	$28.46	36.7	71.5	0.211	0.65	0.035	0.333	0.216
Services	0.462	13.2	$30.26	36.7	105.1	0.575	0.94	0.701	0.870	0.299
Gaza										
Agriculture	0.064	9.1	$7.19	32.3	67.0	0.003	0.49	0.016	0.002	0.585
Manufacturing	0.034	9.9	$10.94	31.8	71.1	0.108	0.62	0.012	0.018	0.438
Construction	0.016	9.8	$15.30	34	34.4	0.077	0.42	0	0.026	0.507
Commerce	0.078	10.2	$9.08	30.6	48.1	0.051	0.22	0.004	0.012	0.407
Transportation	0.054	10.4	$14.63	36	62.4	0.107	0.29	0.070	0.128	0.524
Services	0.753	12.9	$24.98	36.9	104.7	0.521	0.98	0.836	0.861	0.122

Source: Palestinian Labor Force Survey Data (2008q4–2010) administered by the Palestinian Central Bureau of Statistics (PCBS).

employed in the services industry while the corresponding fraction in the Gaza Strip is about three-quarters. Since the majority of the services industry is included in the public sector, the summary statistics above are consistent with the recent literature which has argued that the Palestinian authority expands the public sector to offset losses in the private sector following periods of conflict (Daoud 2001; Miaari and Sauer 2006; Bulmer 2003). Private sector contraction over the past 10–15 years is especially prevalent in the construction and manufacturing industries in Gaza.[6]

In both territories, educational attainment is the highest in the services industry and the lowest in agriculture. Although wage earners in services have the highest wages in both territories, in the West Bank, wages in services resemble those in the transportation and construction industries. However, in Gaza, there seems to be a much larger disparity between wages in the services industry and other industries.[7] In both regions, there is a difference in the accumulation of job-specific capital as measured by job tenure between those in the services industry and the average in the remaining industries – approximately 2 years in the West Bank and 3 years in the Gaza Strip.

Almost all wage earners in the services industry in both territories are employed in large work establishments (defined as at least 16 employees).[8] As for the manufacturing industry, approximately 73% and 62% of firms are large in the West Bank and Gaza. In the West Bank, there is a high percentage of small firms in construction and commerce, whereas for Gaza, small firms are predominantly in the commerce and transportation industries. White-collar workers, public sector workers, and workers who receive pensions are primarily concentrated in services for both territories. Although the transportation industry has a relatively high percentage of white-collar workers and workers who receive pensions, the transportation industry as displayed in Table 2 represents approximately 5% of all wage earners in both territories. Patterns of unionization are remarkably different across industries as well as territories. In the West Bank,

6 See Table 7 in the appendix and Adnan (2012a) for more details.

7 Note that (daily) wage rates in the Palestinian territories are high relative to other developing countries in the (MENA) region. This may be explained by the recent and ongoing flows of Palestinian labor to Israel's labor market. Since Israeli wages are the highest in the region, upward pressure wages in the West Bank and Gaza is expected.

8 The informal economy in the West Bank and the Gaza Strip may explain why almost all wage earners in the services industry are employed in large firms. Unfortunately, the survey does not allow the researcher to distinguish between workers in the formal economy and those in the informal economy. Interestingly, Palestinian employees in Israel's formal economy can be distinguished from those in Israel's informal economy through a survey question about the worker's ID type and permit status conditional on Israeli employment.

unionization is most prevalent in the services (30%) and transportation (22%) industries while the remaining industries have lower rates of unionization (12–16%). In the Gaza Strip, all industries have rates of unionization exceeding 40% except for services, which has a unionization rate of only 12%.

4 Relevant theories and results

4.1 Competitive wage explanations

The competitive wage model postulates that a worker's wage depends on his/her individual productivity. A direct implication of this model is that industry wage differentials arise because industry affiliation is correlated with factors related to worker productivity. For example, to the extent that high-wage industries employ more productive and educated workers than low-wage industries, wage dispersion across industries increases. A second explanation is that industry wage differentials are partially due to compensating wage differentials (Rosen 1986). According to this explanation, workers with undesirable job characteristics such as hazardous activities, taxing labor, repetitive tasks, and long hours are paid compensating wage differentials to reward them for unfavorable working conditions. If unpleasant working conditions are correlated with industry differentials, then industry wage differentials are picking up compensating wage differentials. Thus controlling for job characteristics that directly affect a worker's utility may explain wage dispersion. A third explanation is that industry wage differentials may be attributed to transitory demand shocks across sectors and the immobility of short-run labor. That is, consider a scenario where industry wages were competitive such that industry wage differentials are nonexistent. If some industries experience a positive demand shock, prices and wages will rise within these industries and remain above the market-clearing level until the supply of labor sufficiently shifts to the right among high-wage industries to clear wages.

4.2 Empirical results for competitive wage explanations

Table 3 displays the level of inter-industry wage dispersion for various samples in order to examining the validity of competitive wage explanations, separately for the West Bank and the Gaza Strip. The dependent variables in all the regressions (a–i) represent the logarithmic wage for males employed in the domestic sector of the West Bank and the Gaza Strip. Male employees who work in Israel or the settlements are excluded from the data. Regression (a.)

Table 3: Samples for examining competitive wage explanations

	West Bank			Gaza		
	Employees	**Standard deviation**	**Correlation[1]**	**Employees**	**Standard deviation**	**Correlation[1]**
Observed labor quality						
a.) Without controls	17,817	0.182**	0.806	9,657	0.421**	0.916
b.) Without controls (2 digit)	17,817	0.199**	–	9,657	0.455**	–
c.) Controls for observable traits	17,817	0.110**		9,657	0.299**	
Unobserved labor quality						
d.) OLS regressions	5,841	0.130**	0.634	3,123	0.288**	0.841
e.) Individual fixed effects	5,841	0.026**		3,123	0.144**	
Compensating wage differentials?						
f.) No proxies	15,985	0.112**	0.996	8,894	0.294**	0.986
g.) Inclusion of proxies for CWD	15,985	0.113**		8,894	0.252**	
Transitory demand shocks (2 periods)						
h.) 1999–2000q3	13,615	0.130**	0.788	8,614	0.139**	0.910
i.) 2008q4–2010	17,817	0.110**		9,657	0.299**	

Source: Palestinian Labor Force Survey Data (1999–2010) administered by the Palestinian Central Bureau of Statistics (PCBS).

Notes: Regressions (a.) and (b.) are obtained by regressing the log wage on one-digit and two-digit industry dummy variables respectively. For regression (c.), controls include 4 schooling groups, experience, experience squared, tenure, tenure squared, locality type (urban, rural, or refugee camp), marital status, 7 occupation dummies, work in the public sector, year dummies, and quarter dummies. The following two regressions restrict the sample to wage earners who switched industries, where regression (d.) is an OLS regression using the same controls as in (c.) and regression (e.) simply adds individual fixed effects. Regressions (f.) and (g.) exclude quarter 4 of 2008. Regression (f.) uses the same controls as in (c.) while regression (g.) includes proxies for compensating wage differentials (see text). Regressions (h.) and (i.) include the same controls as regression (c.) but for two different time periods. The standard deviation is weighted by employment shares and is adjusted using the standard errors of industry differentials. ***F*-test that industry wage differentials jointly equal 0 reject at the 0.00001 level. [1]This statistic refers to the correlation between the industry differentials (for one digit industries) of a subsample and its complement.

represents OLS estimates of unadjusted industry wage differentials where the only explanatory variables are one-digit industry affiliation dummy variables (full results are available upon request). OLS estimates of unadjusted industry wage differentials are computed separately for each territory given the considerable differences between the two territories. To formally test this, I ran a chow test and the null hypothesis that there is no difference between industry wage differentials in the West Bank and Gaza is rejected at the 1% level. Therefore, for the remainder of this paper, I estimate wage equations separately for wage earners in the West Bank and Gaza.

In this paper, industry wage differentials are used to estimate inter-industry wage dispersion by computing the weighted adjusted standard deviation of industry differentials. As in Krueger and Summers (1988), this is done by first computing the standard deviation of industry wage differentials deviated from the weighted (by employment shares) mean industry wage differential and then accounting for the magnitude of the standard errors.[9]

As regression (a.) shows wage dispersion in the West Bank is less than half of that in the Gaza Strip. One concern may be that a large portion of Palestinian wage earners work in the services industry, which may lead to imprecisely estimated industry differentials through a lack of variation across industries, thereby producing large standard errors. This is potentially problematic because although the estimated level of wage dispersion described above is a lower bound for the level of wage dispersion across industries due to the omission of the covariance terms (see footnote 9), if the standard errors of industry differentials are sufficiently high, then the bias is much larger. To assess the likely impact of the diminished variation across industries on inter-industry wage dispersion, I also report the adjusted standard deviation for two-digit industries in regression (b.) which allows for more variation across industries (full results in Appendix; Table 6). Note that the adjusted standard deviations for one-digit and two-digit industries are very similar suggesting that the seeming lack of variation across industries is not generating a large bias; therefore, industry differentials estimated from one-digit industries can be used to measure wage dispersion.

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9 The adjusted standard deviation is computed as the square root of the variance of industry wage differentials minus the variance of the standard errors of the industry parameters:

$$\mathrm{SD}(\beta) = \sqrt{\mathrm{var}(\hat{\beta}) - \sum_{i=1}^{K} \frac{\hat{\sigma}_i^2}{K}}$$

Where β represents the vector of industry differentials and $\hat{\sigma}_i^2$ is the variance of the standard errors for each industry i. The extent to how much the adjusted standard deviation is underestimated depends on how large the standard errors of the parameters are. Note that the standard deviation is an underestimate since covariance terms are not accounted for.

4.3 Observable and unobservable differences in labor

In regression (c.) of Table 3, OLS estimates of industry wage differentials are derived after accounting for human capital and demographic variables including four schooling groups (high school dropout, high school graduate, associate degree, and bachelor degree or higher), potential labor market experience, potential experience squared, living in an urban, rural, or refugee camp, marital status, seven occupation dummies, working in the public sector, year and quarter dummies.[10] For the West Bank and Gaza, the magnitudes of industry coefficients are substantially reduced by the inclusion of human capital and demographic variables. Despite the decrease in inter-industry wage dispersion, the null hypothesis that industry wage differentials jointly equal 0 is rejected at the 1% level for both the West Bank and Gaza.

Although the primary focus of this paper is to explain industry wage differentials by noting the changes in the measure of inter-industry wage dispersion across different models and explanations, a secondary focus is to note the extent in which the industry wage structure is preserved.[11] Since the literature (see above) widely documents the rank-order stability of industry differentials across time and space, examining which models and/or specifications lead to changes in the industry wage structure may increase our understanding of industry wage differentials. To assess whether the industry wage structure is similar across specifications, I compute the correlation between unadjusted and adjusted industry wage differentials (for one-digit industries) which is displayed in the third and sixth columns of Table 3. The correlations are positive and large in magnitude which strongly suggest that while worker characteristics reduce dispersion in both territories, they do not substantially affect the inter-industry wage structure in either territory; this finding is consistent with the findings in Krueger and Summers (1987) for the US labor market in the 1980s.

One way to build on the previous analysis is to account for unobserved labor quality by exploiting the longitudinal nature of the survey. In regression (d.), human capital and demographic controls are included to estimate OLS industry wage differentials in the West Bank and the Gaza Strip for the sample of individuals who switched industries and for whom earnings and employment data were available in the subsequent quarter. The measure of inter-industry wage dispersion closely mirrors the results in regression (c.) which demonstrates

10 All specifications in this paper are not sensitive to whether education is measured linearly (years of schooling) or non-linearly (four schooling groups).

11 Note that changes in the industry wage structure can occur regardless of the changes in the measure of inter-industry wage dispersion.

that the longitudinal data is representative of the cross-sectional data. The specification in regression (e.) accounts for individual fixed effects in addition to the controls included in regressions (c.) and (d.). These specifications are identified for workers who switched (one-digit) industries between quarters. Note that inter-industry wage dispersion in the West Bank fell from 0.13 to 0.02 when individual fixed effects were included while the corresponding statistic in Gaza fell from 0.29 to 0.14. Again, the null hypothesis that the *F*-test that industry wage differentials jointly equal 0 is rejected at the 1% level for both the West Bank and Gaza.

Unobserved labor quality can only partially explain the results in regression (e.) since attenuated coefficients may also be a result of measurement error. For example, Mellow and Sider (1983) posit that a large portion of industry switches in the US *Current Population Survey* (CPS) result from classification errors. Unfortunately, due to data limitations, I cannot access employer information to match industries based on employer–employee classification in the Palestinian territories. Although not a direct test, the strong and positive correlation between industry wage differentials in the levels and fixed effects specifications suggest that unobserved labor quality does not substantially alter the inter-industry wage structure for Gaza but the evidence is more tenuous for the West Bank.

4.4 Compensating wage differentials

The theory of equalizing differences states that employers compensate individuals whose jobs have attributes that are associated with negative utility. In specification (f.), the sample size is restricted since questions regarding work conditions are only included in the 2009 and 2010 surveys. Note that the exclusion of the last quarter of 2008 barely alters the regression results so that specification (f.) closely resembles specification (c.). In regression (g.), I use six variables that may plausibly proxy for work conditions: (1) whether an employee wants to change his job because of "bad" working conditions; (2) whether an employee wants to change his job because he thinks his occupation does not suit him[12]; (3) whether an employee wants to change his job because he is not

12 Although one can argue that workers who believe their jobs are not good matches may earn less money because their skills are not suitable for their jobs, I included this measure to address the number of imperfect matches that result from relatively skilled individuals settling for jobs that require a lower set of skills due to the increases in the unemployment rates in the West Bank and Gaza in the past 10–15 years (see Table 7 in the appendix). Nevertheless, when this control is removed from the regression, the results barely change for both territories.

satisfied with the duration of the contract[13]; (4) three overtime measures measured as whether an employee works over 40 hours a week; (5) whether an employee works over 60 hours a week; (6) whether an employee works over 80 hours a week.

For wage earners in the West Bank, the wage dispersion measure is almost the same and the correlation between the two specifications is 0.99 suggesting the industry wage structure is preserved. In contrast, the theory of equalizing differences appears to explain some of the wage differences in Gaza since wage dispersion decreases by four percentage points. That said, the industry wage structure is almost unaltered since the correlation between industry differentials before and after work conditions are included is approximately 0.99. These results are consistent with studies in the United States that suggest that compensating wage differentials play a minimal role in explaining wage dispersion (Brown 1980; Smith 1979; Rosen 1986; Krueger and Summers 1988).

4.5 Transitory labor demand shocks

One concern with the evidence presented thus far is that inter-industry wage dispersion may be ascribed to a combination of transitory labor demand shocks across industries and the short-run immobility of labor. This is especially relevant in the context of the Palestinian economy, which one can argue has not fully recovered from political disturbances and political barriers that restrict the mobility of labor (Adnan 2012a).[14] To account for the possibility that demand shocks and slow labor market adjustment explain the inter-industry wage structure, one can examine industry differentials during the pre-intifada period 1999–2000Q3.[15] During this prior period, the Palestinian economy was relatively stable and both territories had varying degrees, labor and product market integration

13 This answer choice refers to workers who were offered part-time or seasonal work positions; the survey does not distinguish unsatisfied part-time workers from unsatisfied seasonal workers.

14 After the onset of the intifada (September, 2000), Palestinian residents in the West Bank and Gaza were subjected to a variety of labor mobility restrictions ranging from Israeli border closures where Israel and Israeli settlements were inaccessible to physical closure obstacles (e.g. checkpoints, roadblocks, earth mounds, etc.) sporadically placed to limit and monitor the movement of Palestinians. Furthermore, Palestinian residents in the West Bank and Gaza inherit ID cards issued to them at the age of 15 years by the Israeli Authorities that determine their degree of mobility (Tawil-Souri 2011, 2012). These cards are especially relevant during times of conflict when border closures and closure obstacles play a large role in labor mobility.

15 Since the intifada occurred in the fourth quarter of 2000, only the first three quarters of 2000 are included in the sample.

with Israel. Regression (i.) is identical to regression (c.) which primarily includes human capital and demographic variables, whereas regression (h.) is a specification that is analogous to (h.) but covers the period 1999–2000Q3.

The results show that industry differentials are slightly larger in magnitude for the West Bank during the pre-intifada period and much smaller in magnitude for Gaza. Specifically, wage dispersion is about two percentage points higher in the West Bank during the pre-intifada period and about half its current level in Gaza. The large increase in inter-industry wage dispersion in Gaza is consistent with Gittleman and Wolff (1993), who find that industry wage differentials are strongly correlated with industry's production growth and profits, GDP growth, capital intensity, and degree of export orientation. All of the above-mentioned factors have been profoundly impacted by recent events especially the blockade rendering Gaza's economy essentially closed (Adnan 2012b).[16] However, despite these changes in overall wage dispersion, the inter-industry wage structure has been preserved for both territories as indicated by the relatively high correlation between the industry differentials ($\approx$0.91).[17] These results are consistent with Arbache, Dickerson, and Green (2004), who find that the industry wage structure is unwavering even in the presence of macroeconomic shocks.

In summary, the competitive wage model implies that once labor has adjusted to demand shocks, equally productive workers are paid the same wage once human capital characteristics and work conditions are controlled for. Data from most modern labor markets however suggest at best a limited role for this model. Seemingly equally productive workers nonetheless are paid different wages, which has motivated several researchers to develop alternative models where institutional differences across industries play a role in setting wages. Institutional differences can affect differential production costs and revenue, which impacts the degree of rent-sharing by firms thereby causing inter-industry wage dispersion. Thus, to the extent that institutional influence is strong and variant across industries, industry wage differentials for equally productive workers would persist even if labor mobility was unrestricted.

16 The full results also imply that some industries were more adversely affected by Gaza's economic isolation than others. For example, the industry differentials of Commerce, Agriculture and Manufacturing plunged while the differential for the service sector rose. These results are expected given the losses incurred by the private sector coupled with the dramatic rise in public sector spending following the intifada.

17 The high correlation between industry differentials during the pre-intifada period and the post-blockade period in Gaza suggests that despite the large increase in inter-industry wage dispersion over the past 10–15 years, Gaza's economy reached a new steady state where industry differentials are much larger but have similar rank order stability.

4.6 Union-related arguments

Inter-industry wage differentials may also be attributed to differences in the percentage of unionized workers across industries. If the level of wages across industries is positively correlated with the level of union density across industries, then the magnitude of wage dispersion is expected to decrease after controlling for union status. However, as displayed on the first two rows of Table 4, there is almost no change in the level of inter-industry wage dispersion before and after controlling for union status; also, industry differentials for the two specifications are highly correlated. These results are consistent with the literature (Krueger and Summers 1989; Dickens and Katz 1986) that examines the US labor market in the 1980s. That being said, one should be cautious about how this positive correlation is interpreted especially in light of evidence that union membership is not

Table 4: Samples for examining union-related arguments

	West Bank			Gaza		
	Employees	**Standard deviation**	**Correlation[1]**	**Employees**	**Standard deviation**	**Correlation[1]**
Control for Union Status?						
a.) Yes	15,985	0.113**	0.999	8,894	0.252**	0.999
b.) No	15,985	0.113**		8,894	0.249**	
Union						
a.) Unionized	3,472	0.123**	0.701	1,905	0.226**	0.825
b.) Non-unionized	12,508	0.109**		6,989	0.310**	
Nonunionized occupations						
a.) White Collar	2,928	0.059*	−0.326	3,015	0.231**	0.747
b.) Blue Collar	9,580	0.120**		3,974	0.327**	

Source: Palestinian Labor Force Survey Data (2009–2010) administered by the Palestinian Central Bureau of Statistics (PCBS).

Notes: The first two rows include the full sample of employees surveyed in 2009 and 2010. The second two rows disaggregate the sample by union status estimating the regressions separately for each group. The third two rows disaggregate the nonunionized group into blue-collar and white-collar occupations and estimate the regressions separately for each group. Controls include 4 schooling groups, experience, experience squared, 8 tenure groups, locality type (urban, rural or refugee camp), marital status, 7 occupation dummies, work in the public sector, year dummies, and quarter dummies. The standard deviation is weighted by employment shares and is adjusted using the standard errors of industry differentials. ***F*-test that industry wage differentials jointly equal 0 reject at the 0.00001 level. **F*-test that industry wage differentials jointly equal 0 reject at the 0.05 level. [1]This statistic refers to the correlation between the industry differentials of a subsample and its complement.

exogenous but depends on a variety of firm-specific factors (e.g. type of collective agreement, union density, establishment size, capital intensity, profits, job risk, right-to-work laws) including industry affiliation (Hirsch and Berger 1984; Ashenfelter and Johnson 1972). Unfortunately, I do not have sufficient employer data to address the endogeneity concerns related to union membership.

There are two other union-related arguments that have been proposed in the literature to explain changes in industry differentials. The first argument asserts that if the relative bargaining power of unions depends on industry characteristics, possible outcomes include changes in the inter-industry wage structure as well as greater wage dispersion among unionized workers. This is because unions can exploit their bargaining power to raise wages without undergoing large increases in unemployment, which can lead to relatively large differences in the levels of wages across industries. Therefore, to the extent that unions in the territories have differential bargaining power across industries, unionized workers are expected to have a high level of wage dispersion. This result could have been strengthened if it were possible to match employees with their respective type of collective agreement.[18]

The second union-related argument proposed in the literature is the union threat model, where employers pay workers a wage premium in order to offset the cost of union avoidance (Dickens 1986). Ruback and Zimmerman (1984) conclude that unionization can lead to lower stock prices and Freeman (1983) shows that unionized firms have lower profits, suggesting that non-unionized firms have strong incentives to avoid unionization. One strategy firms use to avoid unionization is to offer workers a wage premium that is at least equivalent to the union wage premium net the unit cost of unionization (for workers) and at most slightly less than the union wage premium (Foulkes 1980; Katz 1986; Dickens 1986). The union threat model has been supported by empirical evidence that finds a positive correlation between an individual's firm union density and non-union wages (Dickens and Katz 1986). Unfortunately, I do not have firm-specific information about the employees in the dataset and cannot test for the union threat model directly.

To address the two above-mentioned concerns, Table 4 reports OLS estimates of industry differentials that are computed for unionized and non-unionized workers separately for both territories. Inter-industry wage dispersion is substantial among union employees in both territories which supports the

18 If these data were available, fixed effects for various types of collective agreements would be included; the extent in which industry differentials are attenuated after the inclusion of these fixed affects highlights the degree in which there is differential bargaining power across industries.

perception that labor markets are characterized by unions with differential bargaining power across industries. More information regarding the types of collective agreements involved is necessary to further support this claim. In Gaza, there is a sizeable difference between inter-industry wage dispersion of nonunion members and that of union members (8.4 percentage points) which is consistent with a union threat model where there is differential costs of union avoidance across industries. As noted above, firm-level data such as firm union density would be helpful to the analysis.[19]

4.7 Efficiency wage considerations

Efficiency wages theories are based on the notion that job or firm characteristics that do not directly affect a worker's utility impact wages. As formalized by Shapiro and Stiglitz (1984) and Stiglitz (1986), efficiency wage models imply that profits are an increasing function of the wage rate and thus some firms find it lucrative to pay wage premiums to reduce turnover and monitoring costs. The problem with the efficiency wage approach is that it is difficult to test empirically because little is known about turnover costs, monitoring costs, or recruitment costs. In the past, the literature has relied on a number of proxies to evaluate these costs. In Table 5, efficiency wage considerations are tested empirically to the full extent of the available data.

4.8 Occupational status

In the first two rows, the sample is disaggregated by occupational status into two groups: white-collar workers and blue collar workers. Regressions are run separately for both of these groups using human capital and demographic controls to estimate industry wage differentials (unreported) for each group along with their corresponding measure of inter-industry wage dispersion (reported). This process is repeated for each of the following variables: establishment size, pension status, public sector status, and tenure.

In Gaza, wage dispersion among blue-collar workers is almost 11 percentage points higher than that for white-collar workers while the reverse is true for the West Bank. A relatively high level of wage dispersion among blue-collar workers

19 However, the fact that blue collar workers experience a considerably higher level of wage dispersion than white collar workers among nonunion workers in Gaza (last two rows of Table 4) also gives credence to the union threat model since blue collar workers tend to pose a greater union threat (Katz 1986)

Table 5: Samples for considering efficiency wage theories

	West Bank			Gaza		
	Employees	**Standard deviation**	**Correlation[1]**	**Employees**	**Standard deviation**	**Correlation[1]**
Occupation						
a.) White collar	5,455	0.136**	0.569	3,937	0.185**	0.854
b.) Blue collar	12,362	0.109**		5,720	0.292**	
Work enterprise size						
a.) Large (16 +)	12,588	0.110**	0.839	8,039	0.390**	0.508
b.) Small (< 16)	5,229	0.083**		1,618	0.164**	
Deferred payments						
a.) Pension	8,215	0.159**	0.783	6,356	0.081**	0.823
b.) No pension	9,601	0.082**		3,301	0.236**	
Sector						
a.) Public sector	5,836	0.089*	−0.308	6,140	0.000	−0.345
b.) Private sector	11,981	0.094**		3,157	0.283**	
Tenure						
a.) Tenure < 2 years	4,425	0.100**	0.641	1,882	0.281**	0.732
b.) Tenure ≥ 2 years	13,392	0.132**		7,775	0.296**	

Source: Palestinian Labor Force Survey Data (2008Q4–2010) administered by the Palestinian Central Bureau of Statistics (PCBS).

Notes: In the first two rows, the sample is disaggregated by occupational status into two groups: white-collar workers and blue-collar workers. Regressions are run separately for both of these groups to estimate industry wage differentials (unreported) for each group along with their corresponding measure of inter-industry wage dispersion (reported). This process is repeated for each of the following variables: establishment size, pension status, public sector status, and tenure. Controls include 4 schooling groups, experience, experience squared, 8 tenure groups, locality type (urban, rural or refugee camp), marital status, 7 occupation dummies, work in the public sector, year dummies, and quarter dummies. The standard deviation is weighted by employment shares and is adjusted using the standard errors of industry differentials. ***F*-test that industry wage differentials jointly equal 0 reject at the 0.00001 level. **F*-test that industry wage differentials jointly equal 0 reject at the 0.05 level. [1]This statistic refers to the correlation between the industry differentials of a subsample and its complement.

can be attributed to a market characterized by union threats or a labor market where blue-collar workers require higher monitoring costs. Similar arguments can be made about white-collar workers since we have little information about firms' monitoring costs or collective agreements. Either way, the arguments proposed cannot account for the preservation of the industry wage structure between white-collar and blue-collar workers. That is, if blue-collar workers are

difficult to monitor in a given industry and are therefore paid a wage premium to discourage them from shirking, it is not clear why white-collar workers in the same industry are also paid a wage premium. Similar patterns in the inter-industry wage structure between white-collar and blue-collar workers have been partially accredited to sociological models, which posit that firms have an incentive to maintain an internal wage structure through rent-sharing.[20]

4.9 Firm size

I find that working in a large establishment is associated with a wage premium in the West Bank and Gaza (unreported) but industry differentials are almost identical before and after controlling for establishment size; these results are consistent with Katz (1986) and Krueger and Summers (1988). The fact that there was no change in the level of inter-industry wage dispersion is expected if industry affiliation and firm size are uncorrelated. However, one expects wage dispersion to increase with firm size since relatively large firms experience greater variation in monitoring costs than smaller firms. In the West Bank, wage dispersion in large firms is approximately 30% greater than dispersion in small firms while in Gaza, dispersion in large firms is more than double the dispersion in small firms. Despite the large difference in wage dispersion, the industry wage structure between big and small work establishments is preserved.

4.10 Deferred payment schedules

In Gaza, inter-industry wage dispersion among workers who are offered a pension plan is 0.08 while the analogous statistic for those who are not offered a pension plan is 0.24. The opposite, however, is true for the West Bank, where workers who are offered a pension plan have greater measured wage dispersion (0.16) than those who are not offered pension plans (0.08). It is not clear why the results in Gaza are consistent with a shirking model where firms use deferred payment plans as a partial disciplinary device to incentivize workers not to shirk, while such a model does not appear to explain the dispersion of wages in the West Bank. Note that in both territories the industry wage structure is preserved.

20 For example, firms may pay their blue -collar workers a premium to avert unionization but will pay white-collar workers a premium as well to raise group effort (Akerlof 1982, 1984).

4.11 Public/private sector segmentation

In Gaza, the public sector has no inter-industry wage dispersion and the null hypothesis that industry differentials are equal to 0 cannot be rejected using both one-digit and two-digit industry affiliations. In the West Bank, inter-industry wage dispersion among public and private sector firms is about equal although the level of wage dispersion is slightly lower in the public sector. Further, within the public sector, the *F*-test that industry wage differentials are jointly equal to 0 is rejected at only a marginally significant level. Note that for both territories, the industry wage structure for the public and private sectors is not preserved. This segmentation between the public and private sector is consistent with dual labor market theory where there is a primary sector and a secondary sector (Piore and Doeringer 1971). If the public (private) sector is analogous to the primary (secondary) sector and if industries are heterogeneous with respect to monitoring costs, then one expects public sector workers to experience a higher level of inter-industry wage dispersion than private sector workers.[21] As stated above, however, this is not the case. Although labor markets in the territories are segmented along the lines of the public and private sector, there is no evidence that a shirking model can explain the differences in inter-industry wage dispersion between the two sectors.[22]

Overall, I find that inter-industry wage dispersion increases with establishment size in both territories, which is consistent with a shirking model. I also find that with respect to occupational status and pension status, Gaza's labor market is consistent with a shirking model while the West Bank's labor market is not consistent with the shirking model. Moreover, the public sector has a lower level of inter-industry wage dispersion than the private sector and in Gaza, there is no sign of inter-industry wage dispersion in the public sector. Although there appears to be labor market segmentation along the public and private sector in

21 The reason for this is because according to the labor market segmentation described in Piore and Doeringer (1971), private sector workers are strictly supervised while public sector workers are loosely monitored and therefore heterogeneity in monitoring costs across industries will likely lead to higher wage dispersion for public sector workers. This is very similar to the previous analysis on firm size.

22 A more likely explanation for the lack of wage dispersion in the public sector suggests there is little to no heterogeneity in monitoring costs across industries in the public sector so that workers are loosely monitored and all industries pay a wage premium relative to the private sector but within the public sector, there is almost no inter-industry wage dispersion. The generous public sector wage premium is consistent with the expansion of public sector budgets in the territories (especially Gaza) following the intifada and the Gaza Blockade.

the Palestinian territories, without additional assumptions, the results are inconsistent with the shirking model. I now turn to the evidence on the turnover model.

4.12 Tenure and general models

To the extent that industries are heterogeneous in paying workers with long job tenures high-wage premiums to reduce turnover costs, wage dispersion should be larger for workers with more job-specific capital than new-entrants. Indeed, in the West Bank, workers with more than 2 years of job-specific capital experience 30% more wage dispersion than new entrants. In Gaza, however, the difference in wage dispersion between the two groups is only 5%. Furthermore, the industry wage structure for the two groups is preserved in both territories.

One way to test a direct implication of a turnover model is to investigate the relationship between industry differentials (adjusted for the above-mentioned relevant variables) and industry returns to job tenure; a positive correlation would be consistent with firms paying premiums to reduce turnover costs. Further, regressions can also be run separately with respect to the variable of interest (as in the main results – Tables 3–5). Similarly, one can also compute the relationship between industry differentials and establishment size to test the shirking model more directly. Direct tests of turnover and shirking models (unreported) show that there is at best tenuous evidence in favor of efficiency wage models in the Palestinian territories.

5 Conclusion

This paper examines inter-industry wage dispersion in the West Bank and Gaza by investigating the role of competitive wage explanations, collective bargaining models, and efficiency wage theories. I find that while the level of inter-industry wage dispersion in the West Bank resembles that of developed economies and several developing economies, the level of inter-industry wage dispersion in Gaza is much higher.

The results indicate that during the period 2008Q4–2010, inter-industry wage dispersion is reduced by approximately one-third when adjusted for human capital and demographic variables, and for Gaza, proxies for work conditions reduce the dispersion measure further by a few percentage points. Unobservable characteristics explain over 50% of the remaining wage dispersion in Gaza and over 80% of the remaining wage dispersion in the West Bank.

However, the extent in which these results could be driven by industry classification errors cannot be assessed without matched employer–employee level data. Using the pre-intifada period (1999–2000Q3) as a comparison period for the period of interest in this paper (2008Q4–2010), I find that transitory labor demand shocks cannot explain inter-industry wage dispersion in the West Bank. As for Gaza, I find that although wage dispersion increased dramatically over the 10 year period, the industry wage structure was preserved, calling into question the possibility that short-run demand shocks can account for persistent industry wage differentials. Further, the increase in inter-industry wage dispersion between the two periods is expected given the extraordinary economic changes in Gaza following the intifada and the blockade.

Computations of wage dispersion by subsamples have shed some light on the role of unions and efficiency wage models in the Palestinian labor market. In both territories, a high level of wage dispersion among unionized workers suggests a model where unions have uneven bargaining power across industries. In assessing efficiency wage theories, this paper aims to identify whether Palestinian labor markets are characterized by the turnover model and/or the shirking model. In addition, the findings in this paper corroborate the (limited) international evidence that inter-industry wage dispersion increases with establishment size and tenure in both territories, which is consistent with a shirking and turnover model respectively. Furthermore, with respect to other variables such as occupational status and deferred payment schedules, Gaza's labor market is more consistent with a shirking model. In both territories, there is evidence of dual labor markets where labor markets are segmented between the public sector and the private sector. In both territories, the public sector has a lower level of inter-industry wage dispersion than the private sector and the industry wage structure between the two sectors is not preserved.

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Appendix

Table 6: Unadjusted inter-industry wage differentials for two-digit industries

Industry	(1) West Bank	(2) Gaza
Agriculture, hunting and related service activities	−0.334	−0.954
Forestry, logging and related service activities	−0.157	0.104
Fishing, aquaculture and service activities incidental to fishing	0.158	−0.576
Extraction of crude petroleum and natural gas	0.158	0.104
Mining of metal ores	0.042	0.104
Food products and beverages	−0.254	−0.564
Tobacco products	0.237	0.104
Textiles	−0.715	0.104
Wearing apparel	−0.521	−0.37
Luggage, handbags, saddler, harness and footwear	−0.243	−0.293
Wood products	−0.234	−0.777
Paper products	−0.086	0.329
Publishing and printing	0.032	−0.468
Coke, refined petroleum products and nuclear fuel	0.158	0.104
Chemicals and chemical products	−0.01	−0.869
Rubber and plastics products	−0.257	−0.612
Non-metallic mineral products	−0.029	−0.795
Basic metals	0.13	0.104
Metal products	−0.126	−0.754
Machinery and equipment	−0.229	0.104
Office, accounting and computing machinery	−0.077	0.104
Electrical machinery and apparatus	−0.302	−0.717
Radio, television and communication equipment	0.158	0.104
Medical and optical instruments	0.47	−0.97
Motor vehicles and trailers	0.158	0.104
Transport equipment	0.158	0.104
Furniture	−0.161	−0.756
Recycling	−0.027	0.104
Electricity and hot water	0.475	0.153
Collection and distribution of water	0.158	0.104
Construction	−0.022	−0.356
Sale, maintenance and repair of motor vehicles	−0.361	−0.987
Wholesale trade	−0.047	−0.395
Retail trade and repair	−0.297	−0.898
Hotels and restaurants	−0.091	−0.76
Land transport	0.049	−0.483
Air transport	0.423	0.104
Support and transport aid	0.322	0.104
Telecommunications	0.122	0.176

(*continued*)

Table 6: (*Continued*)

Industry	(1) West Bank	(2) Gaza
Financial intermediation	0.468	0.185
Insurance and pension funding	0.166	0.457
Aid with financial intermediation	0.405	0.104
Real estate activities	−0.104	−0.865
Renting of machinery	−0.083	0.104
Computer-related activities	0.183	−0.751
Research and development	0.543	0.745
Other business activities	0.132	−0.343
Public administration	0.064	0.257
Education	0.24	0.286
Health and social work	0.227	0.262
Sewage and sanitation	−0.28	0.329
Activities of organizations	0.008	−0.314
Recreational activities	−0.065	−0.105
Other service activities	−0.017	−1.119
Activities of households	−0.057	−2.069
Extraterritorial bodies	0.289	0.083
Other	0.02	0.036
Weighted Adj. Standard Dev.	0.199	0.455
Observations	17,817	9,657
R^2	0.119	0.395

Source: Palestinian Labor Force Survey Data (1999–2009) administered by the Palestinian Central Bureau of Statistics (PCBS).

Table 7: Descriptive statistics during the pre-intifada, post-intifada and post-blockade period

	Pre-intifada		Post-intifada		Post-blockade	
	West Bank	Gaza	West Bank	Gaza	West Bank	Gaza
Unemployment rate	0.098	0.182	0.317	0.403	0.183	0.387
% in Public sector	0.178	0.380	0.306	0.592	0.247	0.659
Employment shares						
Agriculture	0.054	0.087	0.042	0.068	0.067	0.049
Manufacturing	0.171	0.133	0.159	0.088	0.154	0.036
Construction	0.366	0.238	0.207	0.067	0.240	0.006
Commerce	0.112	0.054	0.121	0.043	0.135	0.080
Transportation	0.028	0.027	0.035	0.015	0.042	0.046
Services	0.268	0.462	0.437	0.718	0.362	0.782

Source: Palestinian Labor Force Survey Data (1999–2009) administered by the Palestinian Central Bureau of Statistics (PCBS).

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