

# **The Labor-Market Effects of Palestinian Return Migration**

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## **Abstract**

This paper examines the effect of return migration on non-migrant Palestinians in the West Bank and Gaza Strip from 1981 to 1992. I find that higher return migration is correlated with higher wages and lower employment for non-migrants. These results are inconsistent with what one would expect from an increase in migration; however, they are remarkably robust across various definitions of skill groups. While many of the specified models do not yield statistically significant results, there is a pattern for which results tend to be significant. In general, the effect of migration is more significant for lower skilled workers than for higher skilled workers. Increasing the number of return migrants by five percentage points is predicted to increase wages by five to ten percent and decrease employment by five to ten percentage points. This implies that overall earnings of Palestinians are not affected by return migration.

## **I. Introduction**

Where should Palestinians be allowed to live? Few issues in Palestinian-Israeli relations are as politically difficult as this one. For example, when the Camp David II talks collapsed in July 2000, the main issue that Palestinian leader Yasser Arafat found unacceptable was Israeli Prime Minister Ehud Barak's position concerning refugees. Since the outbreak of violence later that fall (the Al-Aqsa Intifada), Israelis of many political perspectives have been backing some form of "transfer" (expulsion from Palestine) as a solution to the Palestinian-Israeli conflict (Blecher, 2002). Even more recently, Israeli Prime Minister Ariel Sharon wanted Palestinian negotiators to drop any insistence on the "right of return" for Palestinian refugees before Israel complied with any aspect of the recently unveiled "road map" (Bennet, 2003). While many of the concerns about refugees are explicitly political (and not economic) in nature, the economics of Palestinian return migration should inform the political solution. If Palestinians returning to the West Bank and Gaza Strip do not have a negative impact on the Palestinian economy, then the return of refugees is also likely to have little effect on the Israeli economy. This paper examines the economic effects of return migration flows to the West Bank and Gaza Strip from 1981 to 1992 and finds that higher return migration does not have a substantial negative impact on the labor market outcomes of non-migrant Palestinians.

There has been no previous research on the economic effects Palestinian return migration, although much research has examined the effects of immigration on a host country's economy. The main difference between return migration and immigration concerns the characteristics of those arriving in the country and those already there. With immigration, newly arriving immigrants are ethnically distinct from the natives of the host country. Also, immigrants usually do not have the same human capital: they possess inferior host-country language skills and acquire their education and training in their home country. With return migration, returnees and non-migrants are of the same ethnic background. Returnees and non-migrants may have different levels of human capital, but returnees usually have additional training and skills

compared to non-migrants. While noting the differences between the cases of return migration and immigration, this paper uses the methodology developed in the study of the economic effects of immigration to study the effects of Palestinian return migration.

Research into the economic effects of immigration on wages and employment of natives produces mixed results. Given the recent magnitude of immigration to the US, researchers expect to find a large adverse impact from the arrival of immigrants. Most research, however, (see Borjas (1994) for a summary) finds a negative but numerically small effect from immigration. To explain this finding, some economists contend that internal migration of natives works to mitigate the effects of immigration (see, e.g. Card (1990), Friedberg and Hunt (1995) and Filer (1992)). Natives either leave high immigration areas for regions with less immigration or do not move to areas with large inflows of immigrants. If natives respond to the inflows of immigrants, then the estimated effects from cross-sectional studies could be much smaller than the actual effects on wages and employment in the economy as a whole.

For the case of Palestinian migration, one can consider four waves of Palestinian emigration. The first three occurred after World War I, after the formation of the state of Israel in 1948, and after the June 1967 (Six Day) War. These migrations mostly consisted of Palestinians from the region containing the West Bank and Gaza Strip and the current state of Israel fleeing their homeland (Palestine). These migrants largely went to the surrounding Arab states, Europe, or the US. With the rise in oil production in the Gulf States in the 1960s, an economically motivated migration began (Sayigh, 1979). These migrants tended to stay for long periods of time and worked in managerial, technical, and professional occupations.<sup>1</sup> Beginning in the 1980s the employment opportunities for Palestinians in the Gulf began to dry up, and many of these economic migrants returned to the West Bank and Gaza Strip. The trickle of return migration became a flood after 1990 as Palestinians working in Kuwait either fled as Iraq invaded Kuwait or were expelled by the Kuwaiti government when the Kuwaitis were returned to power. While

most of these returnees initially chose to relocate in Jordan, many of them eventually found their way back to the West Bank and Gaza Strip.<sup>2</sup>

Using OLS and IV regressions, I find that return migration from 1981 to 1992 does not have a substantial negative impact on the labor market outcomes of non-migrant Palestinians. While there appears to be a negative effect of return migration on the employment of non-migrants, there is a positive effect on their wages. This counter-intuitive result is confirmed using three separate definitions of skills groups: predicted wage deciles, education-experience groups, and occupational groups. These effects are more pronounced in lesser-skilled workers, but the overall impact implies that worker earnings are not affected by return migration. The increase in wages completely offsets the decrease in employment for Palestinian non-migrants.

The rest of the paper is organized as follows. Section II presents some basic descriptive statistics concerning emigration from and return migration to the West Bank and Gaza Strip. Section III shows the effect of return migration on wages and employment. Section IV concludes and reflects on the policy implications of the findings.

## **II. Data and Descriptive Statistics**

In this paper I use data from the Territories Labor Force Survey (TLFS) conducted by Israel's Central Bureau of Statistics (ICBS). The TLFS was conducted by local (Palestinian) enumerators who were employed by the ICBS. The ICBS based the weighting and enumeration of the survey upon an original census of the region conducted in 1968. Because of the antiquity of this census, the accuracy of the weights used for this survey is questionable. Despite this, Angrist (1995) showed that the wage profiles found in independent surveys and those from the TLFS are very similar, lending support for the accuracy of this survey's sampling method.<sup>3</sup> Additional problems arose while administering the survey during times of crisis. With the beginning of the Intifada in 1987, data collection became more difficult, especially since enumerators were

working for the government that people were protesting against. Restrictions on travel during periods of curfew also made data collection difficult during these times.

Table 1 shows some of the demographic characteristics of migrant, returnee, and non-migrant Palestinians from the TLFS. The first characteristic to notice is the relative proportion of these migrants. In 1982 (the peak year), migrants represented 10.3 % of the 15-64 year old males in the sample. This proportion fell by an order of magnitude to only 1.1 % in 1991, with 1984 and 1987 being two of the years with the largest percentage point declines. The reason for the slow-down of out-migration was partly due to the fall in oil prices during the 1980s, which slowed down the economic expansion in the Gulf and decreased the demand for imported labor. Compounding this decrease in demand, Gulf countries shifted away from Arab workers and toward Asian (non-Arab) workers in the early 1980s.<sup>4</sup> Arabs were seen as potential troublemakers in their host countries while non-Arabs were seen as culturally less similar, less likely to stay, and thus less likely to stir up trouble. Although Gulf countries shifted towards non-Arab Asian workers, the decline in demand driven by the oil market also caused non-Arab migration to peak in the early 1980s.<sup>5</sup>

Migrants and returnees were more educated than non-migrants, but returnees were less educated than non-returnee migrants. The average number of years of schooling for non-migrants in 1981 was 7.4 years, compared to 11.8 years for migrants and 10.6 years for returnees. While average schooling for non-migrants increased to 9.1 years by 1991, the increase in average schooling for migrants was slower than this, as migrants had an average of 13.2 years of schooling in 1994. The average schooling of returnees was fairly erratic over this period. For example, in 1987 returnees had 10.7 years of schooling, while the next year this average had dropped to 9.6 years.

This pattern of education is consistent with previous research on return migration (Dustmann, 1997; Galor and Stark, 1991). These authors propose that there are two reasons for migrants to return. First, individuals can return home as part of a planned life cycle decision

when they decide to save more abroad and then consume more in their home country.<sup>6</sup> Second, the migrant could have overestimated the employment opportunities and come home quickly after failing in the host country labor market. Due to the shortage of skilled workers in the Gulf, failures are more likely to be from the lower end of the wage distribution; therefore, returnees are less skilled than all migrants. Undoubtedly, the precipitous fall in return migration during the mid 1980s was in partly due to the Intifada that began in December 1987. Fewer Palestinians migrated during the Intifada, and even a smaller proportion returned from abroad. Because those who returned during the Intifada were less educated than earlier returnees, if a worker could afford to stay abroad, he probably did. Migrants were generally younger, less likely to be married and disproportionately from the West Bank when compared to non-migrants. Returnees were older, more likely to be married, and disproportionately from the Gaza Strip.

### III. Empirical Model and Estimation

To derive an empirical model, I use a basic labor demand, labor supply theoretical framework. As return migration increases the supply of Palestinian labor, there should be two effects on the labor market outcomes of non-migrants: employment and wages should fall. Although overall employment expands with an increase in labor supply, the decrease in equilibrium wages from an increase in labor supply decreases the willingness of non-migrants to work. Faced with lower wage offers, non-migrants choose alternatives to paid labor including household production, education and retirement. The basic model used to estimate these effects is the following

$$y_{ijdt} = \alpha + \beta Retmig_{jdt} + \gamma X_{idt} + \varepsilon_{ijdt}$$

Thus, the labor market outcome  $y_{ijdt}$  (employment, wages) for individual  $i$  at time  $t$  who lives in district  $j$ , and is part of skill group  $d$  is a function of the level of return migration at time  $t$

in subdistrict  $j$  for skill group  $d$  and a set of individual characteristics in that period  $X_{idt}$ . The coefficient  $\alpha$  represents the intercept, and  $\varepsilon$  is the error term. It is important to note that the return migration is suggested to only affect like-skilled workers. Thus, a physician's return to the West Bank is proposed to have an effect on the labor market outcomes of another physician, but not affect a farm worker.

The predicted sign on  $\beta$  is negative, as higher return migration is predicted to push down wages for all similar workers. As the offered wage drops below the reservation wage for marginal workers, they will no longer be in the labor force and employed. Additionally, if wages are slow to adjust downward, more qualified returnees could be hired in the place of non-returnees and unemployment will increase.

A main econometric issue in studies of the effect of migration on wages is the possible endogeneity of migration flows. Endogeneity would arise if a lower wage in one area leads to less return migration to that area, or if lower wages throughout the region lead to workers delaying their return until wages are higher. While most migration studies are concerned with more migrants being drawn toward high wage areas, that issue is less of a concern here. During the Israeli occupation of the West Bank and Gaza Strip, Palestinians were severely restricted in their ability to build new homes and buy and sell property. Therefore, a Palestinian from Jenin would not consider moving to Bethlehem when he returned from the Gulf. Temporal endogeneity, however, could still be a problem. If returnees wait to return until wages are high (or simply avoid returning when macroeconomic conditions are bad), migration might appear to cause higher wages, while, in fact, wages are causing more return migration. Because of this possibility, I test for endogeneity of return migration in both the wage and employment equations and find support of return migration being endogenous (Wooldridge, 2003, p. 483). For that reason, I will present both OLS estimates and IV estimates in the tables below.

#### *Education-Experience Groups*

Table 2 reports estimates from several models measuring the effects of migration on wages and employment. This table reports estimates where skill groups are defined by education and experience. I derive ten skill groups based on five education categories: less than 9 years of schooling, 9 to 11 years, 12 years, 13 to 15 years, and 16 or more years. I then split each of these five education groups into two: one with less than 15 years of experience and one with 15 or more years. Each of the cells in table 2 represents  $\hat{\beta}$  from equation 1, the estimated effect of skill group, region and time specific return migration on a labor market outcome. The top panel presents estimates using ordinary least squares (OLS) regression and the bottom panel presents estimates using instrumental variable (IV) regression. The dependent variable is either the natural log of the individual's wage (rows 1, 2, 5 and 6) or a dummy variable for employment status (rows 3, 4, 7 and 8), where the dependent variable is equal to one if the individual is employed and zero otherwise. In the first column I use the sample including all skill groups, while the next four columns keeps certain skill groups and excludes all others. The rows represent models with different dependent variables (wages and employment) with and without district fixed effects. The set of independent variables used in both models includes average age, age squared, years of schooling, nine district dummies, year and quarter dummies, a marriage dummy, and dummies for sector of work. The wage equation also uses days worked per month as a regressor, and in the model with the full sample (the first column), I include dummies for skill groups.

The IV estimation uses the proportion of skill-group-district residents that were migrants four quarters prior to enumeration as the instrument for average return migration. For the IV estimates, I conducted standard  $N \times R^2$  overidentification tests for various sets of instruments including oil prices and different lags of outmigration. The specifications with the greatest problems appeared to be those with oil prices as instruments, so the specification in table 2 only includes outmigration lagged by four quarters. Another problem is that grouped data can naturally lead to a bias in these overidentification tests (see Hoxby and Passerman, 1998). When using



grouped data, overidentification tests reject overidentifying restrictions too often. Thus, by rejecting those that do not pass the overidentification tests with grouped data, this paper is being conservative with its choice of instruments. Additionally, Hausman tests on the appropriateness of IV over OLS for these models supported the use of IV.

The basic finding from table 2 is that return migration has a positive effect on wages and a negative effect on employment, but many of the estimated coefficients are not statistically significant. In the OLS estimates, the effect of return migration on wages is positive and significant for the entire sample (column one, rows one and two) and for those with less than fifteen years of experience (columns two and three, rows one and two). For those with more experience, the effect is not significant. The IV estimates largely confirm the OLS findings: return migration is estimated to have a positive effect on wages, with the effect concentrated in those with less than fifteen years of experience.

The OLS employment regressions in rows three and four imply a negative and significant effect of return migration on employment when using the full sample (column 1), but the effect is not statistically significant in six of the eight OLS models in columns 2-5. In the IV regressions the negative effect on employment is statistically significant in most of the models without district fixed effects, with the exception being the most educated and experienced group (column 5). When district effects are included (row 8), the estimated coefficient is significant only with the full sample (column 1).

The economic importance of the effect of return migration is fairly large. For example, most of the estimates of  $\hat{\beta}$  in the OLS log wage equation reported in table 2 are in the range of 1 to 2. These estimates imply that an increase in return migration from five percent of a region's population to ten percent of its population would increase wages by five percent (lower bound) to ten percent (upper bound). The IV estimates imply a larger effect, where the same increase in return migration (five percentage points) would increase wages by as much as twenty-five

percent. The effect of return migration on employment is also relatively large. The same five percentage point increase in return migration would lead to a decrease in the probability of being employed five to ten percentage points. Thus, the overall effect of the increase in wages and decrease in employment, cancel each other out and have no overall effect on the total earnings of non-migrants Palestinians.

The positive effect on wages is hard to reconcile with the theoretical effect of immigration. While it is possible that the return migration variable is proxying for something that increases labor demand (or migration increases labor demand through general equilibrium effects), this would be inconsistent with the negative impact on employment. One potential explanation is that average return migration is correlated with higher oil prices as shown in figure 1. High oil prices are correlated with more jobs available in the Gulf, higher remittances from expatriate Palestinians, and more financial support for Palestinian institutions by Gulf States. Due the generally buoyant economy during times with high oil prices, many Palestinians may not need to seek employment. In essence, when times are good in the WBGS, there may be a reverse form of the added worker effect occurring: secondary earners drop out of the labor force when times are good.

One possible issue affecting these results is the definition of skill groups. Imprecisely defined skill-groups could result in biased estimates. Because of this possibility, I check the sensitivity of my results by presenting results based upon alternative measures of skills: predicted wage deciles and occupation groups.

#### *Predicted Wage Skill Groups*

In this section I use predicted wage deciles to define skill groups. This definition has the advantage of being able to allow for sorting that may take place based upon differences in unobserved skill. If individuals who have more unobserved skill are sorted into high paying sectors or occupations, then predicted wage deciles would group them together, while education and experience groups may not.

In order to take into account the potential difference in employment opportunities between returnees and non-migrants, I first separate these two groups and estimate log wage equations. In these log wage regressions there is a full set of age and education dummies (and age and education dummies interacted with each other) in addition to industry and demographic dummies.<sup>7</sup> All years and districts were pooled in this regression, so it can be seen as a single labor market for the entire occupied territory, where district wages are only different in their levels. After running these regressions, predicted wages are determined separately for returnees and non-migrants. Individuals are then sorted by predicted wages into deciles within each year-quarter sample in order to define the skill groups.

Table 3 presents estimates of the model where skill groups are now defined by predicted wage decile. Again, return migration is hypothesized to only affect those workers who are in the same wage decile, in a given subdistrict and quarter. The values of the cells in table 3 are estimations of  $\beta$  from equation 1. This table also lists OLS and IV estimates with IV being the preferred specification. A series of tests concerning the appropriateness of IV and the instruments were also run for this specification, with the same basic findings as the education-experience groups reported above.

The first column of table 3 includes the entire sample, and columns 2-5 include only certain skill deciles. These columns present results for deciles one and two (column 2), three through five (column 3), six and seven (column 4), and eight through ten (column 5), with lower predicted wages being in the lower deciles. The OLS estimates presented in table 3 are similar to the results presented in table 2: return migration positively affects wages and negatively affects employment. The positive effect on wages appears to be concentrated in the lower skill deciles, but it is worth noting that this effect also shows up in the top three predicted wage deciles. In addition, these findings are not sensitive to the inclusion of district fixed effects. The negative employment effects of return migration are more dependent upon the model specification and the specific skill groups in the estimation. For example, in the full sample (column 1) and with

deciles six and seven (column 4), the effect of migration on employment is negative and significant in the model with district fixed effects, but not in the model without these district effects. In the IV estimates there appears to be no effect on employment or wages as only three of the twenty models estimated report statistically significant results.

#### *Occupational Groups*

Table 4 presents estimated effects of return migration on the labor market, where these estimates group the data by occupations. Thus each worker's wage and employment is a function of the proportion of return migrants in his region that have the same occupation. The first column of table 4 presents regressions that include all occupations, while the next four columns present estimates of specific occupational groups: clerks and salesmen (column 2), farm workers (column 3), skilled laborers in construction and manufacturing (column 4), and unskilled laborers in construction and manufacturing (column 5). I do not present results for managers, teachers and engineers (the most skilled occupational group) because these estimated effects were consistently insignificant. As was the case in tables 2 and 3, the basic results from this table imply that return migration has a positive effect on wages but a negative effect on employment. The findings are not as consistent as those from table 2 and 3. Of the ten OLS models estimated for the wage equation, only four had even marginal significance. For farm workers (column 3) and unskilled laborers (column 4), return migration tends to increase wages, but this is not necessarily true for any other occupation. The IV estimates in the wage equation are extremely unstable, which can be seen by the large standard errors reported. Therefore, there is very little confidence in the appropriateness of IV in these particular equations.

The negative effect of migration on employment is considerably more consistent than the positive effect on wages. In the OLS estimates, the models both with and without district fixed effects show that the effect of migration in the full samples (column 1) was negative and significant. When separating the sample into specific occupations (columns 2-5) the effects are less consistent. For both clerks (column 2) and farm workers (column 3) the effect on

employment is negative and significant, but only when not including district fixed effects. For unskilled laborers, the negative effect less sensitive to model specification.

In the employment models using IV, there appears to be some estimation problems, as the standard errors get much larger in these equations. The negative effect of migration on employment shows up in these estimates for both the full sample model with and without district fixed effects, but the standard errors are ten times what they were in the OLS specification. Likewise, in only two of the eight sub-samples is the effect on employment statistically significant. Opposite of the OLS result, the IV employment estimates for farm workers with district fixed effects show a positive effect of return migration on employment, while this effect was negative for the full sample.<sup>8</sup>

#### IV. Conclusion

This research examines the effect of Palestinian return migration on the labor markets of the West Bank and Gaza Strip from 1981 to 1992. While one would expect that an increase in the supply of labor, in the form of return migration, would have negative effects of non-migrants, we find little support for this. While return migration appears to decrease employment of non-migrants, as we would expect, it also tends to increase wages for non-migrants. This finding is not sensitive to using different definitions of skill groups. Using OLS I find that for most groups higher return migration is correlated with higher wages and lower employment. In order to correct for the observed endogeneity of return migration, I also use IV estimation and get results consistent with the OLS models. One pattern that appears in all three skill group definitions is that the effect of return migration is more pronounced for less skilled workers. Specifically, return migration is more likely to affect unskilled laborers, workers in the first five deciles of the wage distribution and workers with less than 15 years of experience.

Thus, there appears to be only some labor market impact from Palestinian return migration, and this impact is not unambiguously negative. While employment for some workers

tends to decrease, there is also an increase in the wages of some workers. Increasing the number of return migrants by five percentage points is predicted to increase wages by five to ten percent and decrease employment by five to ten percentage points. This implies that overall earnings of Palestinians are not affected by return migration.

These results are incongruous with what should be the effects of an increase in the supply of labor. There are two possible explanations for these findings. First, return migration could boost local demand if returnees come back as part of a lifetime decision where they work abroad and retire back in the homeland. If this is the case, then higher return migration could increase the demand for local workers and push up wages. With the rise in income secondary workers are no longer needed, and this could lead to lower employment of non-returnees.

A second possibility is that workers who return increase the demand for labor locally, but cause disemployment of Palestinians working in Israel. Many of the returnees tend to work in Israel upon arriving back in the region, and it is possible that they replace non-returnee workers who had been employed there. Returnees retained savings from abroad could still increase demand for workers in the West Bank and Gaza Strip, but the increase in demand would not fully off-set the displacement in Israel leading to lower employment. Both of these scenarios will be explored in future research.

The policy implications of this paper are straightforward but should not be overstated. Since Palestinians returning to the West Bank and Gaza Strip did not have a negative impact on local labor market conditions, there should be little fear that returning refugees would negatively affect the Israeli labor market. Because the Palestinian and Israeli labor markets display a high degree of segmentation, the effect on Israelis should be even more muted than the effect on Palestinians. Despite this, one must be careful not to overstate these findings. A lack of a strong finding is not the same as saying that there is no effect. The data could be too noisy. Likewise, one must be careful when making out of sample predictions. This is especially true when the predictions use values for the independent variables that are much larger than the data used in the

estimates. While return migration never rose above two percent of the sample, there are approximately as many Palestinians living outside of Israel, the West Bank and the Gaza Strip as there are within those areas. No one can be sure what a doubling of the Palestinian population would do to the Palestinian and Israeli labor markets. If, on the other hand, the return of Palestinians takes place slowly, and over a number of years, the accumulated savings and skills of returnees imply that the labor markets may very easily be able to absorb any workers that return.

## Endnotes

1. See Shaban (1993) for details about this migration.
2. Those who first went to Jordan before returning home were primarily from the West Bank and not from Gaza. While West Bankers hold a Jordanian passport, Gazans (up until the establishment of the Palestinian Authority in 1994) only held Egyptian travel documents, which did not allow as much freedom of movement as Jordanian passports. Not only did this difference make finding a job in the Gulf more difficult for Gazans than West Bankers, it also restricted their movements to third countries like Jordan.
3. Angrist (1995).
4. The reason for this shift toward non-Arab workers was primarily political (see Richards and Waterbury (1996), Chapter 15).
5. Many of the chapters in Amjad (1989) report a decline in migration to the Gulf from Asian countries after 1982).
6. See Dustmann (1997) for more about the interaction between savings abroad and consumption at home for return migrants.
7. The complete list of variables used in these regressions are as follows: dummies for four educational categories and two experience groups (along with their interactions), dummies for working in manufacturing, construction, and service sectors (agriculture is excluded), a dummy for being married, dummies for living in a city or refugee camp (village is excluded), ten district dummies, a dummy for Gaza, fourteen yearly dummies, and three quarterly dummies.
8. These IV estimates use four quarters outmigration lagged as a dependent variable. Specifications of the IV model with a broader set of instruments (5 quarters outlag and oilprices) also show a positive effect of return migration on farm employment. The  $N \times R^2$  overidentification tests resulted in small test statistics, not allowing us to reject the



null hypothesis of no correlation between the instruments and the residuals from the 2SLS estimates.

TABLE 1  
Descriptive Statistics: Non-Migrants, Migrants, and Returnees

Year	<u>Proportion of Population</u>			<u>Years of Schooling</u>			<u>Age</u>		
	Non-Migrant	Migrant	Returnee	Non-Migrant	Migrant	Returnee	Non-Migrant	Migrant	Returnee
1981	89.9% <sup>c</sup>	9.4%	0.7%	7.39	11.83	10.55	30.7	26.2	26.8
1982	87.7%	10.3%	1.9%	7.50	11.99	9.52	30.6	26.6	28.9
1983	89.3%	8.6%	2.1%	7.67	12.22	9.85	30.6	27.7	29.0
1984	91.5%	6.9%	1.6%	7.84	12.24	10.44	30.6	29.1	30.8
1985	92.3%	6.4%	1.3%	8.00	12.26	10.70	30.3	29.2	31.6
1986	93.2%	5.7%	1.1%	8.15	12.56	10.52	30.4	29.1	31.7
1987	95.0%	3.9%	1.1%	8.26	12.52	10.68	30.5	30.1	32.5
1988	96.9%	2.6%	0.5%	8.35	12.39	9.64	30.5	30.3	34.9
1989	97.8%	1.8%	0.4%	8.50	11.78	9.98	30.6	29.3	35.4
1990	98.7%	1.1%	0.2%	8.89	12.86	10.21	30.6	29.9	31.4
1991	98.3%	1.1%	0.5%	8.70	12.95	9.88	30.8	27.4	29.3
1992	98.3%	1.2%	0.6%	8.86	12.67	10.11	30.9	27.7	29.7

<sup>c</sup>Migrants are all those reported to be abroad for work, school or other reason during the survey quarter. Returnees are all those who had been reported to be abroad in a previous survey (since each individual is surveyed four times) but is not abroad in the current survey.

TABLE 2

## Return Migration's Effect on Wages and Employment: Education and Experience Groups

	Full Sample	School<12 Exp<15	School ≥ 12 Exp < 15	School<12 Exp ≥ 15	School ≥ 12 Exp ≥ 15
OLS Estimation					
Dep Var= Log Wage No District Fixed Effects	0.874 (0.392)	1.33 (0.586)	0.924 (0.412)	0.322 (0.597)	-0.105 (0.074)
Dep Var= Log Wage District Fixed Effects	1.23 (0.389)	2.68 (0.311)	1.04 (0.451)	1.36 (1.29)	0.118 (0.069)
Dep Var= Employment No District Fixed Effects	-0.432 (0.178)	0.004 (0.300)	-0.191 (0.118)	-1.18 (0.244)	0.003 (0.021)
Dep Var= Employment District Fixed Effects	-0.238 (0.102)	-0.083 (0.309)	-0.081 (0.077)	-0.133 (0.244)	0.038 (0.069)
IV Estimation					
Dep Var= Log Wage No District Fixed Effects	4.32 (1.03)	-1.71 (1.69)	4.93 (0.307)	-4.12 (4.55)	2.42 (3.86)
Dep Var= Log Wage District Fixed Effects	5.37 (0.729)	6.07 (2.54)	5.58 (1.00)	5.04 (5.64)	4.69 (3.14)
Dep Var= Employment No District Fixed Effects	-1.90 (0.793)	-2.34 (1.05)	-0.735 (0.148)	-6.15 (0.157)	-1.67 (1.23)
Dep Var= Employment District Fixed Effects	-1.28 (0.507)	-0.410 (0.249)	-0.284 (0.247)	-1.06 (1.29)	-2.09 (1.95)

Standard errors are in parentheses. The values in the cells are the estimated  $\beta$  from equation 1, the estimated effect of return migration on labor market outcomes. Each column represents using a different sample, while each row represents a different estimation equation. The other regressors used in the model include years of schooling, age, age squared, quarterly dummies, yearly dummies, marriage dummy, dummies for sector of work (agriculture, construction, services, manufacturing), dummies for working in Israel and Jerusalem, dummies for living in a refugee camp and urban area, days or work per week, and a dummy for living in Gaza. The instrumental variable models used out migration from the district four quarters prior as the instrument for current return migration.

TABLE 3

Return Migration's Effect on Wages and Employment: Skill Deciles					
	Full Sample	Deciles 1, 2	Deciles 3-5	Deciles 6,7	Deciles 8-10
OLS Estimation					
Dep Var= Log Wage No District Fixed Effects	0.853 (0.314)	1.67 (3.35)	0.803 (0.237)	0.516 (0.270)	0.717 (0.160)
Dep Var= Log Wage District Fixed Effects	1.21 (0.332)	4.82 (0.754)	1.10 (0.297)	0.386 (0.344)	0.794 (0.279)
Dep Var= Employment No District Fixed Effects	-0.348 (0.119)	-0.613 (0.534)	-0.401 (0.203)	-0.604 (0.185)	-0.390 (0.187)
Dep Var= Employment District Fixed Effects	-0.079 (0.057)	-0.379 (0.169)	-0.164 (0.085)	-0.044 (0.080)	-0.179 (0.089)
IV Estimation					
Dep Var= Log Wage No District Fixed Effects	0.399 (1.50)	-0.696 (7.18)	1.13 (0.939)	1.67 (2.85)	-1.92 (2.18)
Dep Var= Log Wage District Fixed Effects	2.04 (1.13)	8.12 (1.14)	2.43 (1.34)	0.974 (3.76)	-0.903 (1.23)
Dep Var= Employment No District Fixed Effects	-0.167 (0.473)	-1.10 (1.14)	-1.11 (0.329)	-2.21 (0.385)	-0.903 (1.23)
Dep Var= Employment District Fixed Effects	1.01 (0.344)	0.079 (0.838)	-0.376 (0.461)	0.458 (0.837)	0.640 (0.493)

Standard errors are in parentheses. The values in the cells are the estimated  $\beta$  from equation 1, the estimated effect of return migration on labor market outcomes. Each column represents using a different sample, while each row represents a different estimation equation. The other regressors used in the model include years of schooling, age, age squared, quarterly dummies, yearly dummies, marriage dummy, dummies for sector of work (agriculture, construction, services, manufacturing), dummies for working in Israel and Jerusalem, dummies for living in a refugee camp and urban area, days or work per week, and a dummy for living in Gaza. The instrumental variable models used out migration from the district four quarters prior as the instrument for current return migration.

TABLE 4

Return Migration's Effect on Wages and Employment: Occupations					
	Full Sample	Clerks, Salesman	Farm Workers	Skilled Laborers	Unskilled Laborers
OLS Estimation					
Dep Var= Log Wage No District Fixed Effects	0.473 (0.447)	0.197 (0.788)	1.40 (0.891)	0.213 (1.15)	1.25 (0.690)
Dep Var= Log Wage District Fixed Effects	1.03 (0.398)	0.656 (0.681)	1.56 (0.794)	1.27 (0.869)	1.73 (0.706)
Dep Var= Employment No District Fixed Effects	-0.631 (0.115)	-0.331 (0.139)	-1.41 (0.491)	-0.275 (0.192)	-0.984 (0.315)
Dep Var= Employment District Fixed Effects	-0.340 (0.107)	-0.145 (0.132)	0.226 (0.383)	0.117 (0.156)	-0.380 (0.209)
IV Estimation					
Dep Var= Log Wage No District Fixed Effects	-1.52 (2.13)	-15.1 (11.4)	-0.297 (6.20)	-0.098 (2.85)	2.76 (2.80)
Dep Var= Log Wage District Fixed Effects	3.72 (1.81)	-12.3 (10.0)	12.2 (6.53)	3.51 (2.43)	5.99 (3.23)
Dep Var= Employment No District Fixed Effects	-14.4 (2.28)	-0.267 (0.904)	-7.03 (2.32)	-1.31 (0.555)	-9.78 (6.35)
Dep Var= Employment District Fixed Effects	-14.8 (2.43)	1.63 (1.33)	6.05 (2.63)	-0.318 (0.379)	-4.94 (6.36)

Standard errors are in parentheses. The values in the cells are the estimated  $\beta$  from equation 1, the estimated effect of return migration on labor market outcomes. Each column represents using a different sample, while each row represents a different estimation equation. The other regressors used in the model include years of schooling, age, age squared, quarterly dummies, yearly dummies, marriage dummy, dummies for sector of work (agriculture, construction, services, manufacturing), dummies for working in Israel and Jerusalem, dummies for living in a refugee camp and urban area, days or work per week, and a dummy for living in Gaza. The instrumental variable models used out migration from the district four quarters prior as the instrument for current return migration.

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Figure 1: Oil Prices and Return Migration (1981-1992)

