

**Social Safety of Workers in the Construction Industry: the Case of  
Hebron and Bethlehem Governorates - Palestine**

**Majed I. Al-Sari\***

**Issam A. Al-Khatib**

**Abstract**

Construction sector is one of the leading economic sectors in Occupied Palestinian Territories (OPT) and main contributor to sustainable development. The sector is low technological and still labour intensive, and workers of this sector are vulnerable to the risks of accidents and loss of social rights. This paper focuses on the social safety of workers that include work contracts, job security, working hours, disputes, work insurance, salaries and payments, knowledge and familiarity with the Palestinian Labour Law (PLL); through the designation of structured questionnaire and survey random sample of 349 workers. The findings showed that the unskilled labours are the most marginalized and discriminated group among other jobs in this industry. In addition, 82.1% of the workers are without written work contracts, 29.7% are working extra time exceeding the max allowable by the labour law, 78.2% are unfamiliar with the PLL, 87.1% are insured against work accidents and 7.2% have work conflict with their employers and claimed to the Ministry of Labour (MoL). The results also showed that payment of wages took many forms: 54.6% are paid on monthly basis, 20.1% on weekly basis, 7.8% every two weeks and 13.5% irregular depending on the work conditions and progress. It is concluded that the social safety level in the construction industry is still low, and more monitoring and inspection work is required.

**Keywords:** safety, construction industry, social safety.

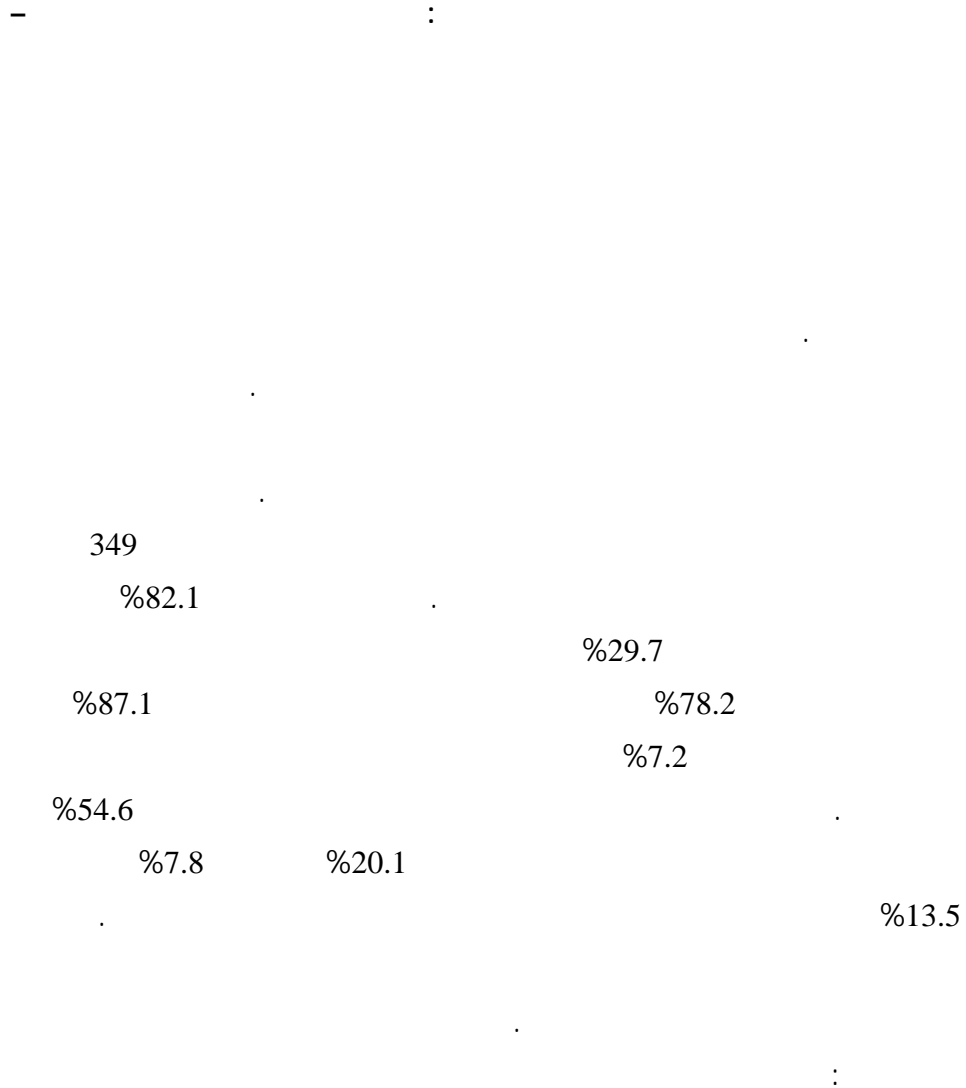
---

\* Faculty of Graduate Studies, Birzeit University, Palestine.

**Received: 28/7/2011.**

**Accepted: 20/2/2013.**

© 2013 Mu'tah University. All right reserved



## **Introduction**

Construction sector is one of the leading economic sectors in the Occupied Palestinian Territories (OPT), which is led by the private sector and contribute to sustainable development and improvement of economic situations. Its contribution in the Palestinian Gross Domestic Product (GDP) depends on the political climate and degree of stability; so it reached 23% from 1989 to 1995, and then reduced to 9% in 2004 due to the second Intifadah (Enshassi, et al., 2007a). Afterward it returned back to increase with improvement of the economic situation as a result of political stability, so it reaches 14.6% of GDP in the first quarter of the year 2012 (PCBS, 2012).

The construction sector occupies an important position among other economic activities. It contributes to 12.9% – 14.5% of the labour force in the West Bank from the year 2004 to 2008; and 16% in the third quarter of the year 2009 (PCBS, 2009). In both governorates (Hebron and Bethlehem), it comes in the fifth level in securing work opportunities; with relatively lower than the total West Bank. Table 1 shows the contribution of the construction sector in the work opportunities in the West Bank and Hebron and Bethlehem governorates in particular Construction sector is a large sector worldwide and involve a large number of labourers and workers; and those are the highest vulnerable group to risks of accidents and exposure to harmful substances.

Construction sector is the highest accident rate among industries (Ahmed et al., 2000; Choudhry and Fang, 2008; Jaillon et al., 2009; Koehen et al., 1995; Lopez et al., 2008; Mohamed et al., 2009; Sawacha et al., 1999; Törner and Pousette, 2009). Construction sites are also one of the most dangerous workplaces due to high incidence of accidents (Teo, et al., 2005). Workers safety is an important element in construction industry; and means the protection of the worker against any threat or discrimination. The management, leadership, skills, training, roles, procedures and cooperation of stakeholders at any organization or company control the creation of good safety culture and climate. "Safety culture is a set of beliefs, norms, attitudes, roles, and social and technical practices which are concerned with minimizing the exposure of employees, managers, customers, and members of the public to conditions considered dangerous or injurious" (Törner and Pousette, 2009; Pidgeon, 1991). Safety in construction sector can be classified into two types: social safety and health safety (protection against

illnesses and physical injury). Health and social safety are related as the social safety mostly links to the job security, which in turn affect the workers health. Choudhry and Fang (2008) concluded that job security is one of the reasons that force workers to engage in unsafe work behaviours. However, workers safety in the construction industry can be insured by employing procedures and specific measures to prevent exposure to toxicants, work accidents and unemployment. Most of the researches on safety in the construction industry in Palestine were concentrating on the health safety rather than social sides (Hassouna, 2005; Enshassi et al., 2008; Enshassi et al., 2007b; Enshassi et al., 2009; Al-Sari' and Al-Khatib, 2012). This paper will focus only on the social safety of workers in the construction industry in the south part of the West Bank as the health safety results were already published in a separate research paper (A-Sari' and Al-Khatib, 2012).

Terms of employment of workers with construction companies can take more than one form such as: daily wages contracts, temporary contract, and open ended contract. In daily wages contract, the worker is paid based on the number of working days. In the temporary contract, he is paid on monthly basis but the contract is limited by a specific period of time; while in open ended contract, he is paid on monthly basis and the contract is endless. For daily wages and temporary contracts, there is no employment security and workers of such contracts are at risk of jobless by the end of the construction activity. On the other hand, most of the field jobs in this sector depend on the development projects, which in turn country economic dependent. This means that social safety is not insured in the construction industry and workers are subjected to unemployment at any time.

Observations showed that there is no social safety for Palestinian workers such as unemployment, and most of the private sector (the leader of the construction sector) workers are employed in accordance with temporary contracts or without written contracts at all; and the employment term is mostly terminated by the end of the construction activity. According to a study carried out by Democracy and Workers' Rights Centre (DWRC) showed that one third of the served workers indicate that they do not have written work contract (DWRC, 2007a). In addition, the only agency responsible for workers safety, in accordance with the Palestinian labour law, is the Ministry of Labour (MoL); which is not enough active to insure adherence to the labour law. Monitoring visits to constructions sites by the

MoL work inspector are not taking place appropriately, associated with none fulfilment obligations by employers regarding workers rights and occupational health and safety instructions, and opens the door toward labour law violation.

The Palestinian legislation with regard to safety in the construction industry is limited within the Palestinian labour law (PLL) and the Ministry of Labour (MoL) acts. In this concern, the legislative framework represented by the PLL and the secondary legislations, which were issued later, are representing a comprehensive system for the safety in the construction industry. The PLL number 7 was issued in the year 2000, which contains 141 articles (DWRC, 2007b), provides legislative framework for work contracts, employing and training, work conditions, work relations, occupational health and safety, regulation of women work, work accidents and diseases, work inspection and penalty system. The law at this stage isn't providing enough and clear regulations concerning work conditions and onsite safety to insure easily complying with. Therefore, the secondary based issued legislations as per the Ministers Council and the Minister of labour decisions and instructions, bridges the gap in the law, and provides more translations, details and amendments with respect to work climate and conditions systems, occupational health and safety systems, work and employment policies (DWRC, 2007b). The law was put into effect, but there is a gap between the legislation and the reality on the ground as well as its degree of implementation varies from one organization to another. . More than 70% of the establishments are not inspected by "the Work Inspection Commission" (MoL, 2009). The reason refers to non-effective work inspection rules, which should be carried out by the regulatory authority to insure the compliance with the legislations at all workplaces without any bias. This paper aims to assess and evaluate the current level of social safety in the construction industry in the southern West Bank of Palestine.

### **Materials and Methods**

The southern part of the West Bank, which consists of Hebron and Bethlehem governorates within the Occupied Palestinian Territories, was the study area. Both governorates were considered and treated as one zone due to short separation distance, contracting inter-relationships and almost similarity in the entire situations as well.

The workers survey questionnaire was designed to target the construction workers and generate their views regarding social and health safety. The results of the health safety were already published in a separate research (Al-sari' and Al-Khatib, 2012), while this research focuses only on the social side issues. Three specialists were consulted for the purpose of questionnaire adjudication before data collection to insure its soundness to achieve the research objectives. Prior to data collection, the questionnaire was experimented, then developed taking into account the adjudicators' comments and experimentation outcome. The questionnaire included information regarding the working contracts, working hours, insurance, work relationships and disputes, workers awareness toward the labour law and regulatory authority, and responsibility of work inspection and monitoring. Moreover, it included information related to work site environment, onsite mitigation measures, safety tools, emergency plans and medical services, workers education and awareness, site inspection, work insurance, health insurance, working hours, risk perception, type of work, work accidents, personal protective equipment (PPE) and associated risks. However, a total number of 349 workers out of 4250, representing eight common construction activities (building, reinforcement steel fixing, plastering, tiling, painting, stone pointing, electrical installations and sanitary installations) were selected as a random sample and surveyed. It is worth to mention that the number of workers in the construction sector is unknown exactly and fluctuated from time to time depends on the number of ongoing projects. Therefore, the number of workers was estimated through the distribution of another questionnaire within a framework of a study about attitudes and behavioural influence of construction waste management in occupied Palestinian territory (Al-Sari' et al., 2012).. That questionnaire included questions regarding the number of the workers in the surveyed contracting companies, and considering the average for those not included in the survey. Once the number of workers is estimated, the sample was estimated according to the following equation (Hogg and Tannis, 1997, Enshassi, et al., 2007b):

$$m = \frac{Z^2 * P(1 - P)}{\epsilon^2} \dots\dots\dots (1)$$

$$n = \frac{m}{1 + \frac{m-1}{N}} \dots\dots\dots (2)$$

Where:

*m* : sample size of unlimited population

*n* : sample size of limited population

*Z* : Standardization value correspondent to confidence level (*Z* = 1.95 for 95% confidence level)

*P* : Proportional of successes assumed 50%.

$\epsilon$  : Maximum error of the point estimate.

It was found that the total number of workers is 4250 during the study period, and accordingly the sample size is estimated to be 349 workers according to equation 1 and 2. However, the total number of respondents to each question of the survey differs from one question to another depending on the workers who responded to answer these questions as shown in Tables 2, 3 and 4.

The survey research method was followed for the purpose of data collection. The questionnaire was completed through direct interview with the targeted population. However, at the beginning of each site survey, the workers' employers were contacted to obtain a permission to access construction sites to carry out the survey as the construction site management is under the responsibility of the contractor throughout the construction period. Site managers or workers respective supervisors were approached and requested to brief the workers about the study purpose to facilitate the process of data collection. The analysis of data was carried out using statistical package for social sciences software version 15; using cross tabulation and frequencies statistical tests to simplify the results and respond to the research objectives.

---

## Results

**Work Contracts and Job Security:** Work relationship between workers and employers is regulated through work contracts by law. The contracts always specify the obligations of each party, the employee and the employer, and conserve their rights and insure secure job for the employer throughout the contractual period. The survey showed that about 82.1% of the workers were without written contracts compared to only 17.9% who have written contracts. Unskilled labours were found to be the highest category (94.2%) who was working without written work contract, while tiling technician category was found the lowest one (61.1%). In comparison by jobs, the findings showed statistical significant relationship between the job and written contract ownership. More details are presented in Table 2.

Moreover, most of these contracts were temporary and terminated on the ground at the completion of the project or the specified activity as 41.5% of the respondents reported that their contracts were between (1-6) months and 24.6% were one year (Fig. 1).

**Working Hours:** The survey showed statistical significance relationship between the job and the working hours. About 65.7% of the workers were working fully according to the max permissible hours, and 29.7% are exceeding the max permissible hours. This percentage is relatively higher among some of the technical jobs such as sanitary installations (64.3%), electricity installations (46.2%), plastering (45.2%). Furthermore, 30.2% of unskilled labours are working extra time exceeding the maximum permissible in violation to the labour even they are being paid or not paid for the overtime work. More details are shown in Table 3.

**Wages and Payments:** The survey showed that the majority of the workers are paid on monthly basis (54.6%), while the remaining 20.1% of them are paid on weekly basis, 7.8% every two weeks and 13.5% irregular depending on the work progress and conditions. The highest rate of irregular payment was (50.0%) and (30.8%) for sanitary and electrical installation technicians respectively. Table 4 provides more information in this concern.



***Disputes and Work Relationship:*** The results showed that the work disputes are not so much since 7.2% of the respondents only reported that they were facing difficulties with their employers, and contacted the MoL to solve these problems, compared to 92.8% of the workers who have no work conflicts. However, the workers' satisfaction (happy or unhappy) was not examined in this research.

The low rate of work disputes indicate that the workers are forced to accept any condition instead losing their jobs under the situation where monitoring is absent and contractors are unwilling to adhere to the law. However, 82.1% (Fig. 2) of the workers that contacted the MoL for work conflict issues reported that the relationship with their employers was worsen. This indicates that the workers' rights are not secured in the construction industry, and the worker is vulnerable to lose his job if he thought to advocate for his rights.

***Work Insurance:*** Work insurance is one of the mitigation measures to cope with work accidents in the construction industry and considered as a compensation tool for workers as well. The survey showed that attitudes of most of the employers in the construction sector toward work insurance is positive since 87.1% of the respondents reported that they were insured against work accidents.

***Knowledge and Familiarity with the PLL:*** In general, the survey provided that the majority of the workers (78.2%) in the construction sector are unfamiliar with the PLL compared to 21.8% only are familiar. To have better understanding of this concern, workers familiarity with the labour law was studied from different points of view including worker's job, age and experience in construction as shown in Figures 3, 4 and 5.

Knowledge with respect to age indicated that there is no variation in the familiarity with the labour law from age 16 up to age 40, then it increases with the increase of the age up to 60, then sloping down after sixty. Furthermore, as the educational level of most of the workers was fallen within the elementary classes, it doesn't provide any statistical significant relationship in terms of familiarity with the labour law.

However, there is no specific relationship between the familiarity with the labour law and the worker's job as shown in Fig. 4. The highest knowledge registered among sanitary installation technicians, while unskilled labours are the lowest level of knowledge.

On the other hand, in comparison between workers experience and familiarity with the labour law (Fig. 5), it is found that there is no specific relationship between both ( $P > 0.05$ ). The highest level of familiarity was observed for workers with over 20 years experience, while the lowest level for (8 – 11) years.

### **Discussion of the Results**

Based on the results, the category of unskilled labours was found the highest marginalised and discriminated among other worker categories since 94.2% of the labours are working without written work contracts. However, the tiling technician category registered the lowest (61.1%) that are working without written work contract. The high number of labour force, specially the unskilled labours, and low demand, low awareness of workers and absence of inspection by regulatory authority, are the main creators of such events.

The majority of the workers who have work contracts were working according to temporary contracts, which could be due to the dependence of public projects on foreign aids that is subjected to interruption from time to time depending on the availability of financial resources. In addition, the private construction activities are less in size and implementing duration as well, which also lead to temporary work opportunities.

The PLL is violated in terms of working hours. The normal working hours per week is 45 hours in accordance to the PLL, article 68. Article 71 of the labour law allows overtime work with a ceiling of maximum 12 hours per week, thus the maximum working hours should not exceed 57 hours per week. The reason behind exceeding the max permissible working time among technical jobs could be that job holders are mostly working unofficially as sub-contractors based on unit rate, and mostly looking to the profit by maximizing their productivity; therefore, the percentage of overtime working among technicians is higher than others. The PLL is not clearly regulated the work time and other benefits related to technical job.

On the other hand, 30.2% of unskilled labours are working extra time exceeding the maximum permissible in violation to the labour law. Although there is a variation between some of the skilled and unskilled labours in overtime working, a large portion of the unskilled labours are working as assistants to the skilled labours, and therefore are forced to follow them. This variation could be partially due to the low number of skilled labours per job compared to the unskilled labours category.

The payment of wages was irregular and also do not meet the labour law requirements. It is clear that the irregular payments are related to the technical jobs, which holders are mostly working in accordance to the unit production. The highest rate of irregular payment is among sanitary (50.0%) and electrical (30.8%) installation technicians; because their work can be distinguished in two periods: by the beginning of the finishing works and by the end of the project; and since the work is mostly based on the unit rate, each unit starts during the first period and ends in the final one, the matter that clarify the higher level in irregular payments for both categories.

The percentage of workers who claimed to the MoL was relatively low. The potential job loss as well as the negative redundancy of the employer are main reasons behind low cases of workers' claims to the MoL regarding their working rights.

Workers familiarity with the PLL doesn't correlate to the worker's job, age or experience. Usually, the holders of technical jobs are more educated and clever than unskilled labours, which clarify the higher percentage of familiarity with the labour law among technicians than unskilled labours. The familiarity with the PLL increases with the increase of the worker's age except for over sixty years old category, which the low number of workers in this category could be the major factor that contribute to inaccurate prediction for this age period. In general, the low level of familiarity with the PLL among workers in the construction industry refers to the shortcoming from the responsible authorities and associations in conducting awareness campaign, training and workshops to promote the workers and increase their understanding regarding the labour law and their rights as well.

---

Although not all workplaces were insured against work injury or death in violation to the labour law, the percentage of insured worksites was relatively high. Because contractors are mostly looking to the profit, they are looking to the insurance as an important element as it alter contractor obligations and transfer liability and compensation for any work accident to a third party.

### **Conclusion and Recommendation**

In general, the level of social safety in the construction industry is still low and doesn't meet the requirements of the PLL. However, inactive work inspection rules are the main reason behind labour law violations, and more monitoring and work inspection by official authorities is required. Observations met expectations regarding social safety of workers in the construction industry. The majority of workers (82.1%) are lacking to written contracts with highest level among unskilled labours (94.2%). Further, it is concluded that jobs are non-secure in this sector since the findings showed that the vast majority of the jobs are temporary and terminated by the end of the project under construction.

Another noticeable issue is that the working hours are exceeding that allowed by the law. 29.7% of the sample stated that they are working extra time than that stipulated under the PLL; and this ratio is slightly higher among the unskilled labours (30.2%). With respect to wages, it has been found that there is a noticeable delay in payments especially for those who are mostly working based on daily wages (unskilled labours). In accordance to the PLL, workers based on daily wages shall be paid on weekly basis; but the reality, 59.4% of unskilled labours are paid on monthly basis.

It has been noticed that workers awareness and familiarity with the labour law is too low as 78.2% of the sample are non familiar; which could be one of the reasons behind their rights confiscation by employers. Another conclusion, which is workers in the construction industry are vulnerable to job loss if they tried to contact the MoL for work conflict issues since 82.1% of those who did so reported worst relationship with their employers after that.

Mu'tah Lil-Buhuth wad-Dirasat, Vol.28 . No. 2, 2013.

---

Moreover, the findings indicated acceptable level of work insurance as one of the safety measures since 87.1% of sample stated that they are insured against work accidents.

Based on the above-mentioned, the promotion of the PLL among workers of the construction industry in OPT is highly recommended. This is essential to provide more understanding and knowledge of the law for both employees and employers, and could lay solid ground for new culture to respect labor law. In addition, tighten the control over workplaces through the increase of the frequency monitoring by competent authorities is also recommended as a tool to compel employers to respect the law and avoid any violation. A monitoring mechanism on the governorate level should be developed to provide more control. Government responsible authorities as well as concerned non-governmental organizations are the main pillars that could play an important role in this concern.

---

### References

- Ahmed, S. M., Kwan, J. C., Weiming, F. Y., Pui Ho, D. C. (2000). Site safety management in Hong Kong. *Journal of management in Engineering*, 16(6): 34 – 42.
- Al-Sari', M. I., Al-Khatib, I. A. (2012). Workers safety in the construction industry in southern West Bank of Palestine. *Eastern Mediterranean Health Journal (EMHJ)*, 18(10): 1028-1033.
- Al-Sari, M. I., Al-Khatib, I. A., Avraamides, M., Fatta-Kassions, D. (2012). A study on attitudes and behavioural influence of construction waste management in occupied Palestinian territory. *Waste Management and Research*, 30 (2): 122 – 136.
- Choudhry RM, Fang D., (2008). Why operatives engage in unsafe work behavior: investigating factors on construction sites. *Safety Science*, 46: 566 – 584.
- Democracy and Workers Rights Centre (DWRC) (2007b). *Palestinian labour law and secondary legislations based issued*, Ramallah, Palestine.
- Democracy and Workers' Rights Centre (DWRC), (2007a). *Work conditions and circumstances in Palestinian workplaces "results of a field survey in various economic sectors in the West Bank and Gaza strip"*.
- Enshassi, A., Choudhry, R. M., Abu Alqumboz, M. (2009). Quality and safety in the Palestinian construction industry. *Revista Ingenieria De Construction*, 24(1): 49 – 78.
- Enshassi, A., Choudhry, R. M., E. Mayor, P., Shoman, Y. (2008). Safety performance of subcontractors in Palestinian construction industry. *Journal of Construction in Developing Countries*, 13(1), 51-62.
- Enshassi, A., Mayor, P., Mohammed, S., El-Masri, F. (2007a). Perception of construction managers toward safety in Palestine. *The Journal of Construction Management*, 4, 41 – 51.
- Enshassi, A., Mohammed, S., Abu Mustafa, Z., Mayer, P. E. (2007b). Factors affecting labour productivity in building projects in the Gaza strip. *Journal of Civil Engineering and Management*, 4: 245-254.
- Hassouna, A., M., 2005. *Improving safety performance in construction projects in Gaza*. Master thesis. The Islamic University of Gaza, Palestine.

- Hogg, R.V., Tannis, E. A. (1997). Probability and statistical interferences. Prentice hall.
- Jaillon, L., Poon, C. S., Chaing, Y. H. (2009). Quantifying the waste reduction potential of using prefabrication in building construction in Hong Kong. *Waste Management*, (29): 309 – 320.
- Koehen, E. E., Kothari, R. K., Pan, C. S. (1995). Safety in developing countries: professional and bureaucratic problems. *Journal of Construction Engineering and management*, 121 (3): 261 – 265.
- Lopez, M. A. C., Ritzel, D. O., Fontaneda, I., Alcantara, O. J. G. (2008). Construction industry accidents in Spain. *Journal of Safety Research*, 39: 497 – 507.
- Mohamed, S., Ali, T. H., Tam, W. Y. V. (2009). National culture and safe work behaviour of construction workers in Pakistan. *Safety Science*, 47: 29 – 35.
- Ministry of Labour (MoL), 2009. "the Work Inspection Commission". The annual report.
- Palestinian Central Bureau of Statistics (PCBS), (2009). Population, housing and establishment Census 2007, final results – housing report – West Bank. Ramallah – Palestine.
- Palestinian Central Bureau of Statistics (PCBS), 2012. Press report. Preliminary estimates of quarterly national accounts. First quarter , 2012. Ramallah, Palestine.
- Pidgeon, N. P. (1991). Safety culture and risk management in organizations. *Journal of Cross-Cultural Psychology*, 22 (1): 129–140.
- Sawacha, E., Naoum, S., Fong, D. (1999). Factors affecting safety performance on construction sites. *International Journal of Project Management*, 17 (4): 337 – 344.
- Teo, E. A., Ling, F. Y. Y., Chong, A. F. W. (2005). Framework for project managers to manage construction safety. *International Journal of Project Management*, 23: 329 – 341.
- Törner, M., Pousette, A. (2009). Safety in construction – a comprehensive description of the characteristics of high safety standards in construction work, from the combined perspective of supervisors and experienced workers. *Journal of Safety Research*, 40: 399 – 409.

**Table (1) Contribution of construction sector in work opportunities**

Area	Year	Contribution to labour force employment (%)
West Bank	2004	13.0
	2005	14.4
	2006	12.9
	2007	13.6
	2008	14.9
Hebron	3 <sup>rd</sup> quarter of	7.6
Bethlehem		2009

Source: (PCBS, 2009).

**Table (1) Work contracts by job**

Variable	Have you a written contract?			
	Answer	Yes	NO	Total
What is your job?	Count			
Building technician	Count	20	50	70
	%	28.6	71.4	100.0
Reinforcement steel technician	Count	5	33	38
	%	13.2	86.8	100.0
Plaster technician	Count	6	25	31
	%	19.4	80.6	100.0
Tiling technician	Count	7	11	18
	%	38.9	61.1	100.0
Pointing technician	Count	3	11	14
	%	21.4	78.6	100.0
Painter	Count	3	14	17
	%	17.6	82.4	100.0
Unskilled labour	Count	6	98	104
	%	5.8	94.2	100.0
Electric technician	Count	4	9	13
	%	30.8	69.2	100.0
Sanitary installation technician	Count	1	13	14
	%	7.1	92.9	100.0
Others	Count	7	20	27
	%	25.9	74.1	100.0
Total	Count	62	284	346
	%	17.9	82.1	100.0

(Chi-square = 25.709, df = 9, P-value = 0.002)



**Table (3) Current weekly working hours in the construction industry**

Variable	How many hours per week you are mostly working?					
	Answer	45 hours or less	46 - 57 hours	More than 57 hours	Others	Total
What is your job?	Count					
	%					
Building technician	Count	4	53	13	0	70
	%	5.7	75.7	18.6	0.0	100.0
Reinforcement steel technician	Count	0	30	8	0	38
	%	0.0	78.9	21.1	0.0	100.0
Plaster technician	Count	1	16	14	0	31
	%	3.2	51.6	45.2	0.0	100.0
Tiling technician	Count	0	10	8	0	18
	%	0.0	55.6	44.4	0.0	100.0
Pointing technician	Count	1	7	6	0	14
	%	7.1	50.0	42.9	0.0	100.0
Painter	Count	0	9	7	0	16
	%	0.0	56.3	43.8	0.0	100.0
Unskilled labour	Count	2	71	32	1	106
	%	1.9	67.0	30.2	0.9	100.0
Electric technician	Count	0	7	6	0	13
	%	0.0	53.8	46.2	0.0	100.0
Sanitary installation technician	Count	0	5	9	0	14
	%	0.0	35.7	64.3	0.0	100.0
Others	Count	7	20	0	0	27
	%	25.9	74.1	0.0	0.0	100.0
Total	Count	15	228	103	1	347
	%	4.3	65.7	29.7	0.3	100.0

(Chi-square = 68.801, df = 27, P-value = 0.000)

**Table (4) Payment of wages by job**

Variable	How often your salary is paid?						
	Answer	Per Week	Per month	Once per two weeks	Irregular: depends on the work progress and conditions	Others	Total
What is your job?							
Building technician	Count	9	40	5	12	4	70
	%	12.9	57.1	7.1	17.1	5.7	100.0
Reinforcement steel technician	Count	8	24	2	4	0	38
	%	21.1	63.2	5.3	10.5	0.0	100.0
Plaster technician	Count	8	13	1	8	1	31
	%	25.8	41.9	3.2	25.8	3.2	100.0
Tiling technician	Count	4	9	1	4	0	18
	%	22.2	50.0	5.6	22.2	0.0	100.0
Pointing technician	Count	5	7	1	0	1	14
	%	35.7	50.0	7.1	0.0	7.1	100.0
Painter	Count	4	5	1	4	3	17
	%	23.5	29.4	5.9	23.5	17.6	100.0
Unskilled labour	Count	26	63	12	2	3	106
	%	24.5	59.4	11.3	1.9	2.8	100.0
Electric technician	Count	1	8	0	4	0	13
	%	7.7	61.5	0.0	30.8	0.0	100.0
Sanitary installation technician	Count	2	3	1	7	1	14
	%	14.3	21.4	7.1	50.0	7.1	100.0
Others	Count	3	18	3	2	1	27
	%	11.1	66.7	11.1	7.4	3.7	100.0
Total	Count	70	190	27	47	14	348
	%	20.1	54.6	7.8	13.5	4.0	100.0

(Chi-square = 68.554, df = 36, P-value = 0.001)

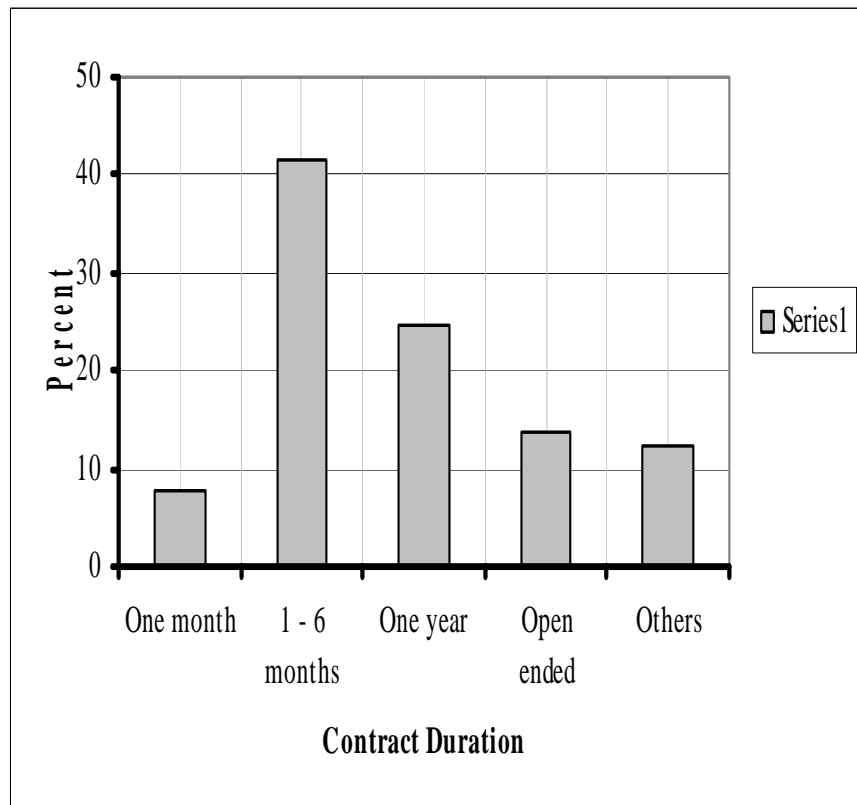


Figure 1: Duration of work contracts

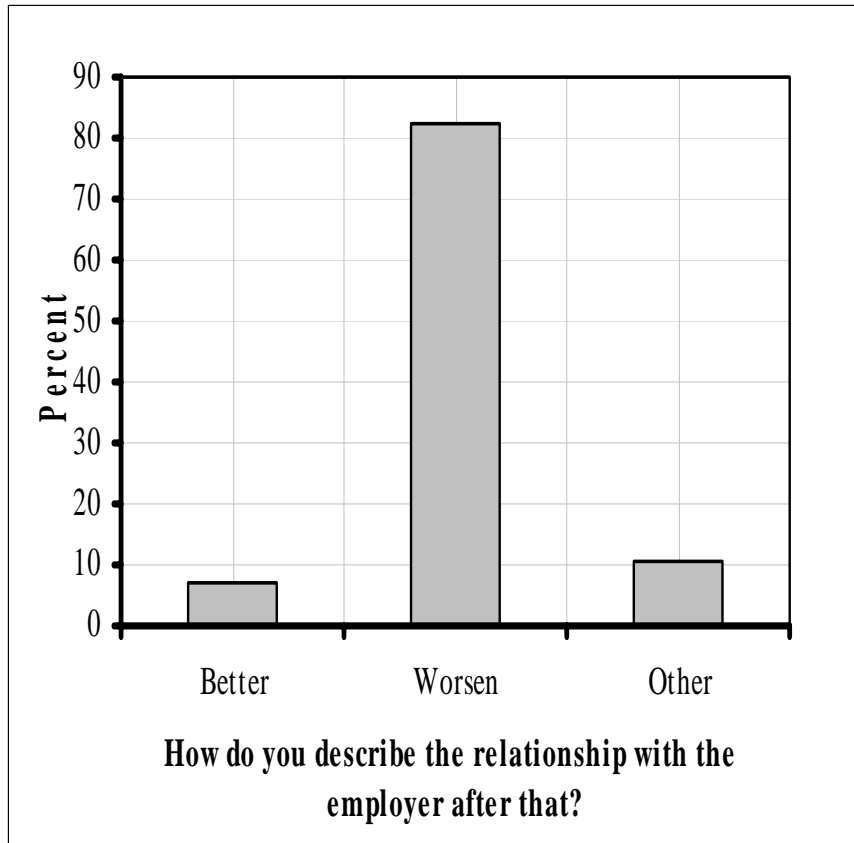
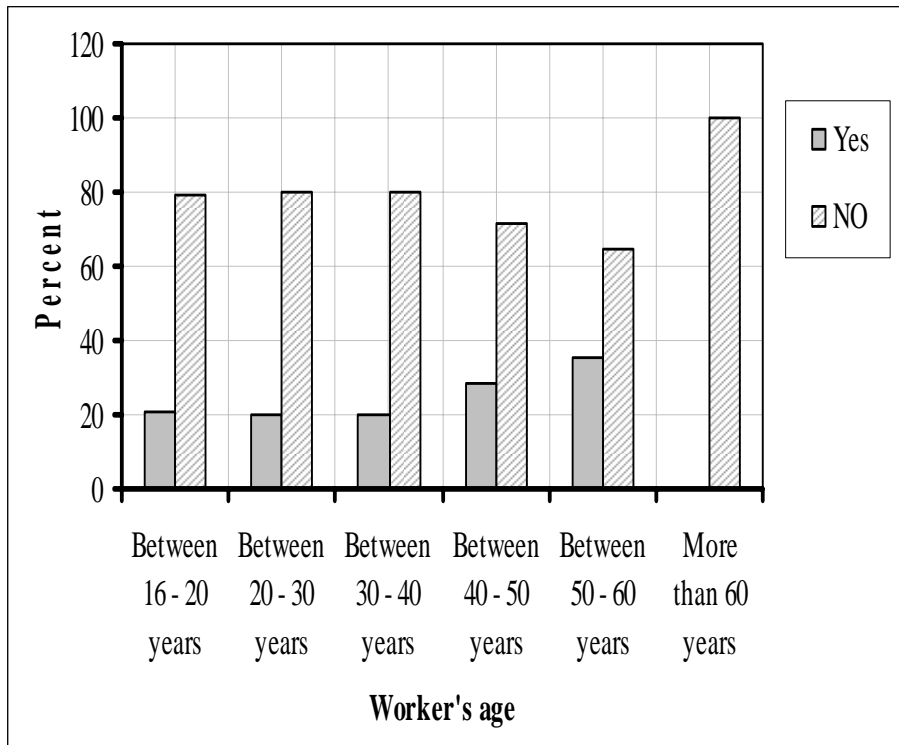
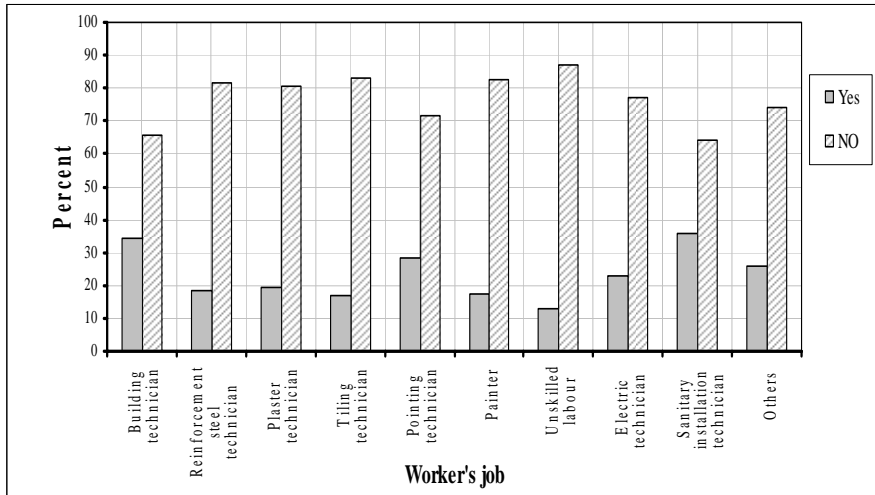


Figure 2: Work relationship



**Figure 3: Familiarity with the PLL by age.**



**Figure 4: Familiarity with the PLL with job.**



**Figure 5: Familiarity with the PLL by experience**

**Appendix**

**Workers' Questionnaire**

Name of the worker: \_\_\_\_\_ Company name: \_\_\_\_\_

Governorate: \_\_\_\_\_ Date of survey: \_\_\_\_\_

**Questionnaire ID in the Sample**

<u>General Information:</u>		
V1	<input type="checkbox"/>	Place of residence: a- Bethlehem <span style="margin-left: 100px;">b- Hebron</span>
V2	<input type="checkbox"/>	Gender: a- Male <span style="margin-left: 100px;">b- Female</span>
V3	<input type="checkbox"/>	Age: a- Less than 16 Years <span style="margin-left: 20px;">b- Between 16 – 20 years</span> <span style="margin-left: 20px;">c- Between 20 – 30 years</span> d- Between 30 – 40 years <span style="margin-left: 150px;">e- Between 40 – 50 years</span> f- Between 50 – 60 years <span style="margin-left: 150px;">g- More than 60 years</span>
V4	<input type="checkbox"/>	Could you please tell me where your monthly income falls? a- Less than NIS1000 <span style="margin-left: 100px;">b- Between NIS (1000 – 2000)</span> c- Between NIS (2000 – 3000) <span style="margin-left: 50px;">d- Between NIS (3000 – 4000)</span> e- Between NIS (4000 – 5000) <span style="margin-left: 50px;">f- More than NIS 5000</span>
V5	<input type="checkbox"/>	Marital status: a- Single <span style="margin-left: 20px;">b- Married</span> <span style="margin-left: 40px;">c- Widow</span> <span style="margin-left: 40px;">d- Divorced</span>
V6	<input type="checkbox"/>	What is your job? a- Building technician <span style="margin-left: 50px;">b- Reinforcement steel technician</span> <span style="margin-left: 20px;">c- Plaster technician</span> d- Tiling technician <span style="margin-left: 50px;">e- Pointing technician</span> <span style="margin-left: 100px;">f- Painter</span> g- Unskilled labor <span style="margin-left: 40px;">h- Other: _____</span>
V7	<input type="checkbox"/>	What is the classification of the company you are working for? a- Category 1 A <span style="margin-left: 20px;">b- Category 1 B</span> <span style="margin-left: 20px;">c- Category 2</span> <span style="margin-left: 40px;">d- Category 3</span> e- Category 4 <span style="margin-left: 50px;">f- Category 5</span> <span style="margin-left: 40px;">g- I don't know</span>
V8	<input type="checkbox"/>	What type of company you are working for? a- Public company <span style="margin-left: 150px;">b- Private limited company</span> c- Others: _____ <span style="margin-left: 100px;">d- I don't know</span>
V9	<input type="checkbox"/>	Who is the donor of the project you are working in? a- The Palestinian Authority <span style="margin-left: 50px;">c- Local authority</span> <span style="margin-left: 50px;">c- International donor</span> d- Local NGO <span style="margin-left: 100px;">e- International NGO</span> <span style="margin-left: 50px;">f- I don't know</span>

<u>Experience and Education:</u>		
V10	<input type="checkbox"/>	How long you have been in this job? a- less than a year      b- 1 – 3 years      c- 4 – 10 years d- 11 – 20 years      e- More than 20 years
V11	<input type="checkbox"/>	How long you have been working in the construction sector? a- 1 – 3 years      b- 4 – 7 years      c- 8 – 11 years      d- 13 – 15 years e- 16 – 20 years      f- over 20 years
V12	<input type="checkbox"/>	What is your level of education? a- University      b- Diploma      c- Secondary      d- Others
V13	<input type="checkbox"/>	Have you ever received safety training (with this company or others)? a- Yes      b- NO; if yes, go to V14; if NO, go to V15
V14	<input type="checkbox"/>	Where did you receive the training? a- With your current or previous employer      b- With MoL c- With the Laborers association      d- With NGO      e- Others:
<u>Occupational Health and Safety:</u>		
V15	<input type="checkbox"/>	Do you think your job is risky? a- Yes      b- NO,      if yes, go to V17; if NO, go to V18.
V16	<input type="checkbox"/>	What types of risks are associated with your job performing? a- Diseases      b- Accidents      c- others: _____
V17	<input type="checkbox"/>	Did you suffer from diseases before you start this course of employment? a- Yes      b- NO
V18	<input type="checkbox"/>	Are you now suffering from any diseases? a- Yes      b- NO
V19	<input type="checkbox"/>	Did you experience work accidents? a- Yes      b- NO; if yes, go to V20 & V21; if NO, go to V22
V20	<input type="checkbox"/>	What was the rate of the accidents? a- Once per year      b- Twice per year      c- Three times per year d- Others: _____
V21	<input type="checkbox"/>	What was the major cause of the accidents? a- Careless of worker.      f- Stress due to excessive overtime work. b- Absence of safety measures.      g- Lack of maintenance of the equipment. c- Inadequate in the safety tools.      h- Exceeding the ultimate capacity of the equipment. d- Non adherence to the safety measures.      i- Low experience of site manager. e- Lack of experience of the worker.      j- Others: _____



V22	<input type="checkbox"/>	Does your supervisor promote safety during work tasks? a- Frequently      b- Occasionally      c- None
V23	<input type="checkbox"/>	Which role / position in the construction industry you think has the most impact on the safety of your workplace? a- Safety officer      b- Foreman      c- Project manager d- Regulatory authority (MoL)      e- Site engineer      f- Others:
V24	<input type="checkbox"/>	Which things you think that people can do onsite to make it safer workplace? a- Safety training and education      b- Enforcement and inspection c- Communications      c- Others:
V25	<input type="checkbox"/>	In your opinion, what is the most frequent factor do you think may affect the workers safety? a- Training and awareness. b- Educational level of workers and contractors. c- Attitudes and behaviors of workers and contractors. d- Workers and contractors perception. e- Effectiveness of government rules and regulations. f- Legislation and policy framework. g- Monitoring and evaluation by regulatory authority. h- Safety measures and procedures. i- Experience of both contractors and workers. j- Project management awareness and action. k- Relationships between workers. l- Others:
V26	<input type="checkbox"/>	Does the company you are working for have a safety manual? a- Yes      b- NO      c- I don't know
V27	<input type="checkbox"/>	Do you use safety tools while you are doing your work? a- Frequently      b- Occasionally      c- None
V28	<input type="checkbox"/>	Why you are not using safety tools? a- Not available      b- Inadequate/out of service      c- I don't know how to use it      d- Others:
V29	<input type="checkbox"/>	Are there any first aids in your workplace? a- Yes      b- NO      c- I don't know
V30	<input type="checkbox"/>	Is there a special first aid employee? a- Yes      b- NO      c- I don't know
V31	<input type="checkbox"/>	Do you receive medical inspection by the beginning of this employment? a- Yes      b- NO
V32	<input type="checkbox"/>	Do you receive regular medical inspection? a- Yes      b- NO;      if yes, go to V33; if now, go to V34
V33	<input type="checkbox"/>	How often the regular medical inspection is done? a- Once per year      b- Once per 2 years      c- Others:

V34	<input type="checkbox"/>	How do you evaluate the overall level of occupational health and safety at your work? a- Very low                      b- Low                      c- Moderate                      d- High e- Very high
<u>Social Safety:</u>		
V35	<input type="checkbox"/>	Have you a written contract? a- Yes                      b- NO;                      if yes, go to V36 & V37; if NO, go to V38
V36	<input type="checkbox"/>	What type of contract you have? a- Permanent                      b- Temporary (fixed term)                      c- I don't know
V37	<input type="checkbox"/>	How long is your contract? a- One month                      b- 1 – 6 months                      c- One year d- Open ended                      e- Others: _____
V38	<input type="checkbox"/>	How many hours per week you are mostly working? a- 45 hours or less                      b- 46 – 57 hours                      c- More than 57 hours d- Others: _____
V39	<input type="checkbox"/>	How often your salary is paid? a- Per Week                      b- Per month                      c- Others: _____
V40	<input type="checkbox"/>	Are you familiar with the Palestinian Labor law? a- Yes                      b- NO
V41	<input type="checkbox"/>	How many days of annual leave you are entitled for? a- 2 weeks                      b- 3 weeks                      c- Others: _____
V42	<input type="checkbox"/>	Have you ever contacted the MOL for work conflict issue with your employer? a- Yes                      b- NO
V43	<input type="checkbox"/>	How do you describe the relationship with the employer after that? a- Better                      b- worsen                      c- Other: _____
V44	<input type="checkbox"/>	Do you have work insurance? a- Yes                      b- NO
<u>Legislations:</u>		
V45	<input type="checkbox"/>	Is your workplace inspected by the MoL? a- Frequently                      b- Occasionally                      c- None
V46	<input type="checkbox"/>	In your opinion, who is the responsible for the monitoring of the workplace safety? a- Contractor                      b- Project owner                      c- Project supervisor c- Regulatory authority (MoL)                      d- Others: _____