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# **Food Security Profiling of Tulkarem Governorate**

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**Working Paper  
Series No. 3 - 2009**

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## **Socio-Economic and Food Security (SEFSec) Monitoring System in the West Bank and Gaza Strip**

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**Based on data produced by the  
Palestinian Central Bureau of  
Statistics**

**Disclaimer**

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## Methodology

Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life. In the occupied Palestinian territory (oPt), food security is a direct consequence of access to income and employment. While food is available in the oPt, trade restrictions makes the oPt a net food importer of goods that are not locally produced. The Palestinian population are thus faced with a food system with which they have no sovereignty over and is currently fragile due to the political dimensions of the conflict. As such, the Socio-economic and Food Security survey was developed in order to capture, reliable and updated information on the living conditions of Palestinian households in a rapidly changing political context.

The Socio-Economic and Food Security survey, conducted in January/February 2009 in the West Bank, was designed to meet following objectives:

1. Provide an overview of the socio-economic characteristics of households residing in the West Bank;
2. Differentiate among the socio-economic conditions of Palestinian households according to the criteria of geographic location, locality type, sex, refugee status, and livelihood group;
3. Assess the overall trends in income and expenditure of households in the West Bank over the past 6 months;
4. Assess the changes in food acquisition<sup>1</sup> patterns and coping mechanisms (including the assistance);
5. Measure the assistance received by households and household's evaluation of this assistance; and
6. Provide evidence-based recommendations for food security policy and programming purposes.

The methodology used for this survey is largely consistent with the methodology used in the May 2008 *Joint Rapid Food Security Survey in the Occupied Palestinian Territory* conducted by the World Food Programme (WFP), the Food and Agriculture Organisation (FAO) and the United Nations Relief Works Agency (UNRWA). Considering that the dataset is cross-sectional, the analysis is static as it uses income and consumption. A third variable reflecting the changing socio-economic impact of Israeli measures was added to make the model more dynamic. These variables were used to cluster the data into three clusters of households that are homogeneous with respect to how they were impacted during the past 6 months by the Israeli measures. The households within the clusters were then classified according to their consumption and income levels (3 way crosstabs) based on which the food insecurity levels were determined (for detailed procedures and methodology please see Annex I of the Socio-Economic and Food Security Survey of the West Bank, August 2009).

The following report is a part of the broader socio-economic and food security monitoring system conducted jointly by the World Food Programme and FAO in collaboration with the Palestinian Central Bureau of Statistics. The Governorate Food Security Profiling provides a profile of the characteristics of food insecure households within a specific governorate. For further examination on specific issues, users are encouraged to contact the Palestinian Central Bureau for Statistics.

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<sup>1</sup> Food acquisition: from purchase, self-production and gifts (both formal and informal assistance). In the oPt food acquisition mainly depends on household purchasing power, which in turn mainly depends on income (hence employment) and price levels. However, assistance plays a major role in food security and should be regularly monitored to infer impact on household socio-economic status.

**Working Paper Series 3**  
**Governorate Food Security Profiling WBS**

**VI. Tulkarem Governorate**

**A. Population and Demography**

**Table 1: Percentage of Registered Refugees Out of Total Population**

	Registered Refugees	Other	Total
Population	50,926	105,819	156,745
Percent	32%	68%	100%

Source: PCBS Population Census 2007

Tulkarem governorate is situated in the north western part of the West Bank and shares a geographical boundary with Jenin to the north, Nablus to the east and Qalqilya to the south. Tulkarem is the sixth largest governorate in terms of population size. An estimated 7 percent or 156,745 of the remaining West Bank population reside in Tulkarem. The average household size in Tulkarem is 5.3 members. This means an estimated 29,575 households reside in Tulkarem.

The population of Tulkarem is concentrated within the urban centres. Sixty-seven percent of the population live in the urban areas, 22 percent in the rural areas and 11 percent are living in refugee camps. An estimated 32 percent of the population are registered refugees. Out of the total households living in urban areas, 31 percent of the households are registered as refugees. Additionally, 27 percent of refugee households live in the rural areas and 98 percent of them live in refugee camps.

**Table 2: Distribution of Population by Locality**

	Urban	Rural	Refugee Camps	Total
Number of Communities	9	24	2	35
Population	106,185	34,683	17,120	157,988
Percent	67%	22%	11%	100%

Source: PCBS Population Census 2007

**B. Labour Force**

The labour force participation rate in Tulkarem has been gradually increasing from the second quarter of 2008 to the first quarter of 2009. In the second quarter of 2008, the labour force participation rate was 36.3 percent and rose to 41.2 percent by the first quarter of 2009. Between the first quarter and second quarter of 2009, labour force participation decreased by 0.9 percent. During the same period, the unemployment rate in Tulkarem fluctuated. Unemployment soared from 18.1 percent to 30.3 percent between the second quarter and the third quarter of 2008. From the third quarter of 2008 onwards, the unemployment rate declined to 21.4 percent; an 8.9 percent decline.

**Table 3: Labour Force Participation and Unemployment Rate**

	Q2 08	Q3 08	Q4 08	Q1 09	Q2 09
Labour Force Participation %	36.3%	37.7%	39.5%	41.2%	40.3%
Unemployment %	18.1%	30.3%	22.9%	26.3%	21.4%

Source: PCBS Labour Force Surveys, 2<sup>nd</sup> Half 2008 to 1<sup>st</sup> Half of 2009

Closer examination of the absolute numbers shows that the population above the age of 15 years increased by 1,447 individuals during the second half of 2008. At the same time, labour force participation increased by 3,647 individuals. The number of new jobs created was 1,137 leaving 2,510 individuals unemployed due to the lack of available jobs. In the second half of 2009, the population above the age of 15 grew by 1,469 with 1,373 individuals joining the labour force who were absorbed through the creation of 1,657 new jobs. Hence, the unemployment rate dropped signifying an improvement in socio-economic conditions.

**Table 4: Change in Population, Labour Force Participation, Employment and Unemployment**

	Q2 08	Q3 08	Q4 08	Q1 09	Q2 09	Change 2 <sup>nd</sup> half 2008	Change 1 <sup>st</sup> half 2009
Population	159,096	160,289	161,492	162,703	163,923	2,395	2,431
above 15	96,115	96,836	97,563	98,294	99,031	1,447	1,469
Labour Force participation #	34,890	36,507	38,537	40,497	39,910	3,647	1,373
Unemployed	6,315	11,062	8,825	10,651	8,541	2,510	-284
Employed	28,575	25,446	29,712	29,846	31,369	1,137	1,657

Source: PCBS Population Census 2007 and Labour Force Survey Rounds

### **C. Wages and Prices**

The net change between the average nominal daily wage and real daily wage was close to zero during the period under review. This indicates that no major price changes occurred. Average nominal daily wage during the second quarter of 2008 to the fourth quarter of 2008 fell from 83.5 NIS to 79.7 NIS. Between the fourth quarter of 2008 and the first quarter of 2009, the average nominal daily wage increase to 86.1 NIS and stabilised to remain at the same rate in the second quarter of 2009. Average real wages between the second quarter to the third quarter of 2008 declined from 75.4 NIS to 71.5 NIS. By the first quarter of 2009, real wages was up by 7.4 NIS and decreased slightly from 78.9 NIS to 78.5 NIS in the second quarter of 2009.

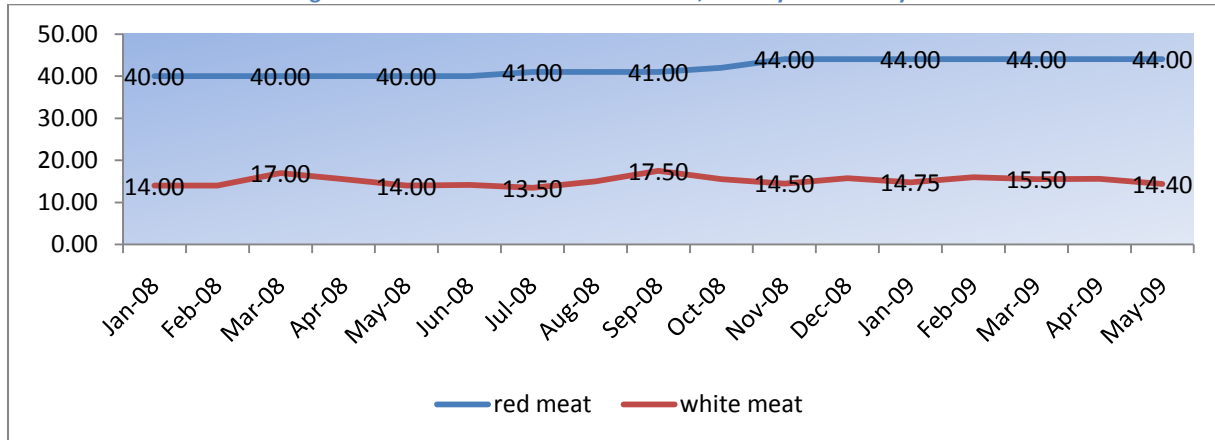
**Table 5: Average Nominal Daily Wage vs. Average Real Daily Wage**

	Q2 08	Q3 08	Q4 08	Q1 09	Q2 09
Average nominal daily wage NIS	83.5	82.7	79.7	86.1	86.1
Average real daily wage NIS	75.4	73.5	71.5	78.9	78.5

Source: PCBS Data

Since no consumer price index was compiled at governorate level the prices of basic food commodities were selected to determine the socio-economic conditions of households. The price per kilo of red meat remained stable during the first half of 2008. During the second half of 2008, the price of red meat increased slightly to 41 NIS per kilo. By the first half of 2009, the prices stabilised to 44 NIS per kilo, higher than the long term average of 41.94 NIS per kilo. In contrast to red meat, the price of chicken has been fluctuating over periods of time. In January 2008, the price per kilo of chicken stood at 14 NIS and rose to 17 NIS by March 2008 dropping again by July and rising again to peak at 17.50 NIS per kilo. Prices continued to fluctuate during the first half of 2009 and May 2009 stood at 14.40 NIS per kilo.

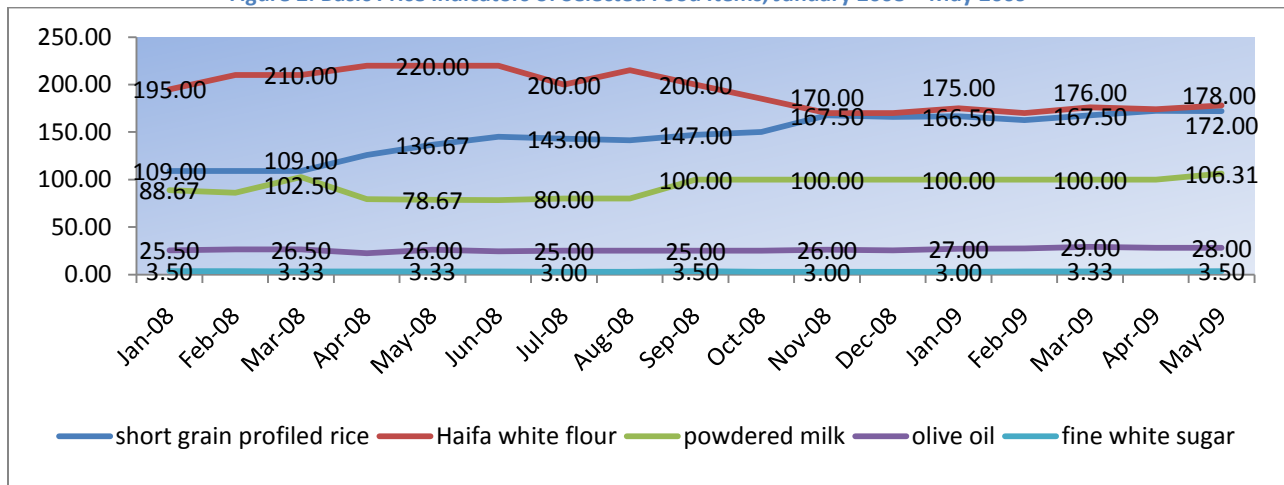
Figure 1: Prices of Red Meat and Chicken, January 2008 – May 2009



Source: PCBS Data

The price of Haifa white flour in January 2008 was 195 NIS and towards the end of the first half of 2008 peaked to 220 NIS. Prices of flour fluctuated so that by November 2008 it stood at 170 NIS. In January 2009 the price stood at 175 NIS decreasing by March 2009 and increased to 178 NIS by May 2009; 7 percent lower than the long term average. The price of short grain rice remained stable between January and March 2008. From March 2008 to May 2009, the price of rice rose from 109 NIS to 172 NIS; a 17 percent increase from the long term average. The price of powdered milk fluctuated between January and July 2008 but stabilised by September 2008 through to April 2009 at 100 NIS increasing slightly by May 2009 to 106.31 NIS. The price of olive oil and fine white sugar remained relatively stable in comparison throughout the observed period.

Figure 2: Basic Price Indicators of Selected Food Items, January 2008 – May 2009

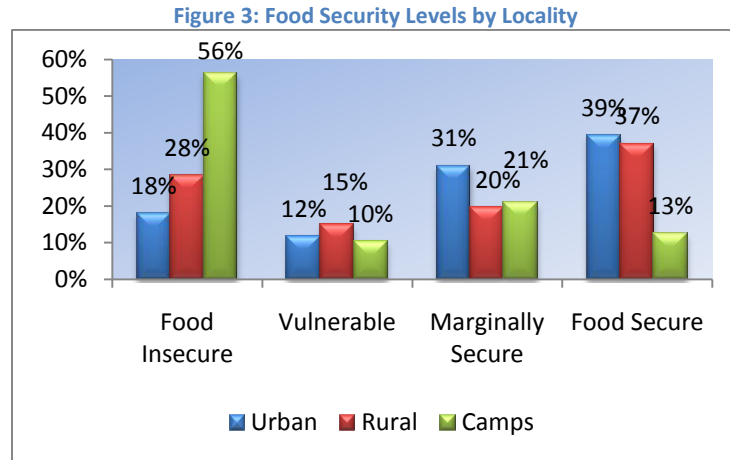


Source: PCBS Data

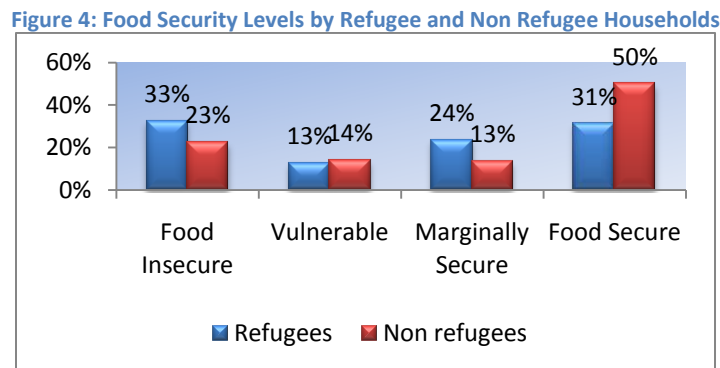
#### D. Food Insecurity Levels

The prevalence of food insecurity is highest amongst households living in refugee camps. Fifty-six percent of refugee households compared to 28 percent among rural households and 18 percent among urban households are food insecure. However, in absolute terms, urban households have higher

numbers of households who are food insecure due to a higher concentration of the population in urban areas.



Refugee households show a higher prevalence of food insecurity compared to non refugee households. Thirty-three percent of refugee households are food insecure compared to 23 percent of non refugee households. Alternatively, 50 percent of non refugee households are food secure compared to 31 percent of food secure refugee households.



**E. Gender of Head of Household and Food Security Levels**

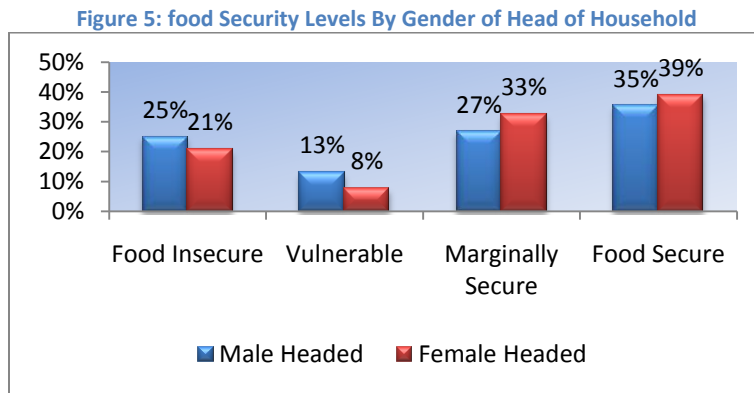
The percentage of female headed households is slightly higher in Tulkarem compared to the Remaining West Bank. Fifteen percent of Tulkarem’s households are female headed households and 85 percent are male headed households. In comparison, 12 percent out of the total remaining West Bank households are female headed while 88 percent are male headed households.

**Table 6: Percentage of Male and Female Headed Households vs. Remaining West Bank**

	Tulkarem	Remaining West Bank
Male Headed Households	85%	88%
Female Headed Households	15%	12%

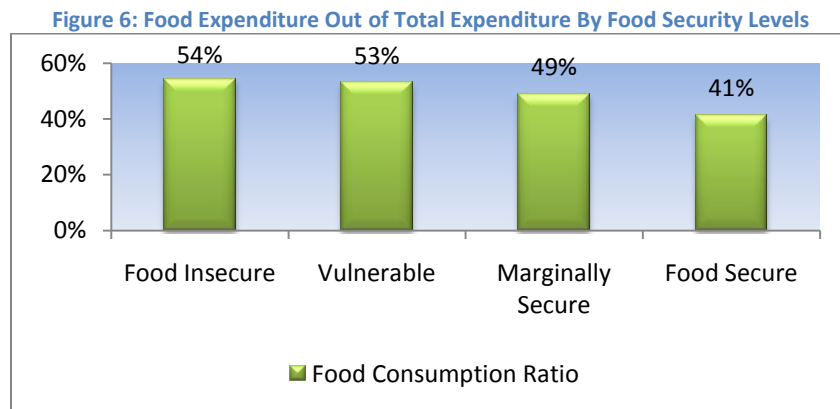
The prevalence of food insecurity is slightly higher among male headed households compared to female headed households unlike other trends in the West Bank. Twenty-five percent of male headed households compared to 21 percent of female headed households are food insecure. Alternatively,

female headed households also have slightly higher prevalence of food security compared to male headed households; 39 percent of female headed households are food secure compared to 35 percent of male headed households.



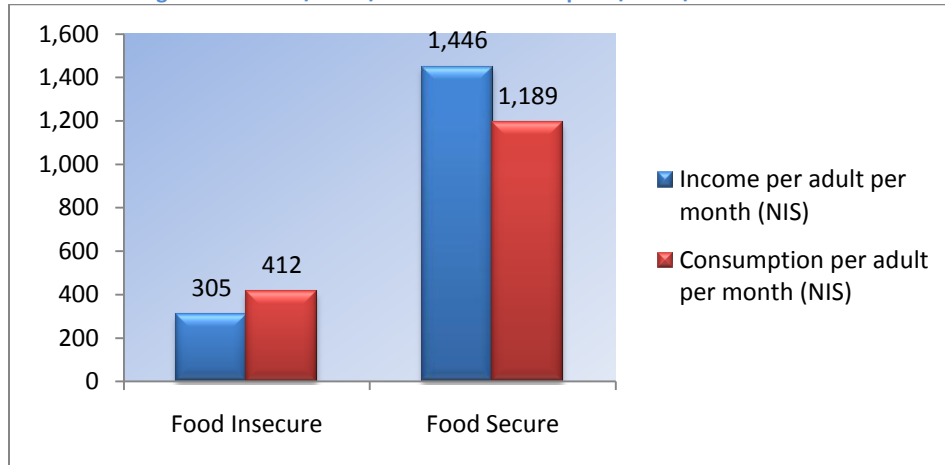
**F. Food Consumption and Income Levels**

The food consumption ratio of the marginally secure, vulnerable and food insecure households are higher than those of the PCBS threshold. Food insecure households are spending 54 cents of every dollar on food and vulnerable households are spending 1 percent lower. Marginally secure households are spending 49 percent out of every dollar on food. Considering that the PCBS threshold for worst of households are those that spend 44 percent of their total expenditures on food, the marginally secure, vulnerable and food insecure are thus categorised as worse off. The assumption is that households have less disposable income on other non food items such as health care and education which have an influence in households’ food security levels.



Similar to previous findings, food secure households report higher levels of income compared to their consumption levels while the opposite is true for food insecure households. Food secure households report an average monthly income per adult of 1,446 NIS while and an average monthly consumption per adult of 1,189 NIS. In comparison, food insecure households report an average monthly income per adult of 305 NIS and a monthly consumption per adult of 412 NIS. This could signify that food insecure households are purchasing their consumption needs on credit while food secure households are capable of saving income. Furthermore, food insecure households have a 65 percent unmet consumption gap in order to move out of their food insecure thresholds to achieve food security.

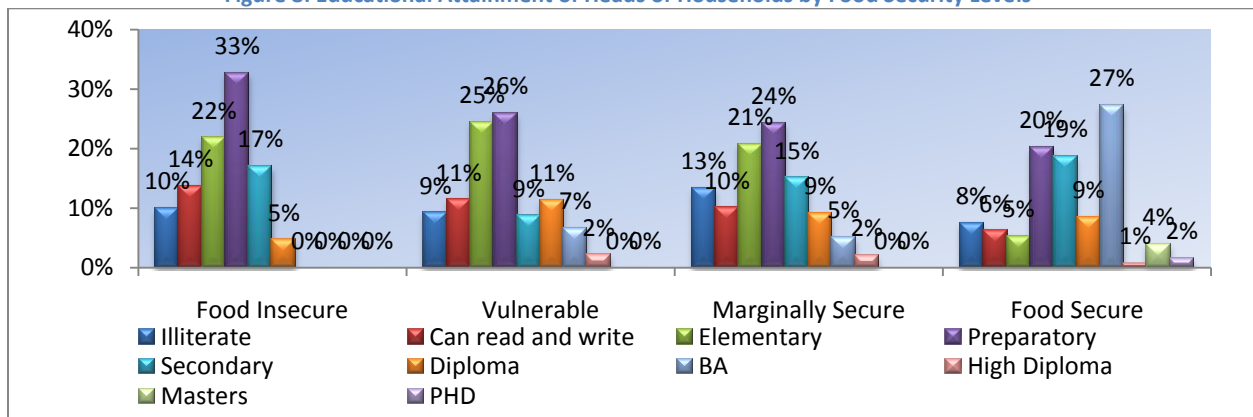
Figure 7: Income/Adult/Month vs. Consumption/Adult/Month in NIS



**G. Education of Heads of Households and Food Security Levels**

The following figure refers to the educational attainment of heads of households distributed by their food security levels. As shown, the level of education of the head of household also influences the food security of the household. Food insecure households generally have lower levels of education compared to food secure households. Twenty-seven percent of food secure heads of households are holders of B.A. degrees while none of the food insecure heads of households reported being holders of a B.A. degree. In absolute terms, there are higher levels of heads of households who achieved preparatory level as their highest educational attainment. Among these groups, thirty-three percent are food insecure and 20 percent are food secure heads of households. Between the food secure and the food insecure, only slight differences appear among those who completed secondary level education. Nineteen percent of the food secure compared to 17 percent of the food insecure have achieved secondary level as their highest educational attainment. This indicates that while higher education creates better opportunities for households to be food secure, between 10 to 12 years of education is the minimum levels of achievement needed for households to be food secure.

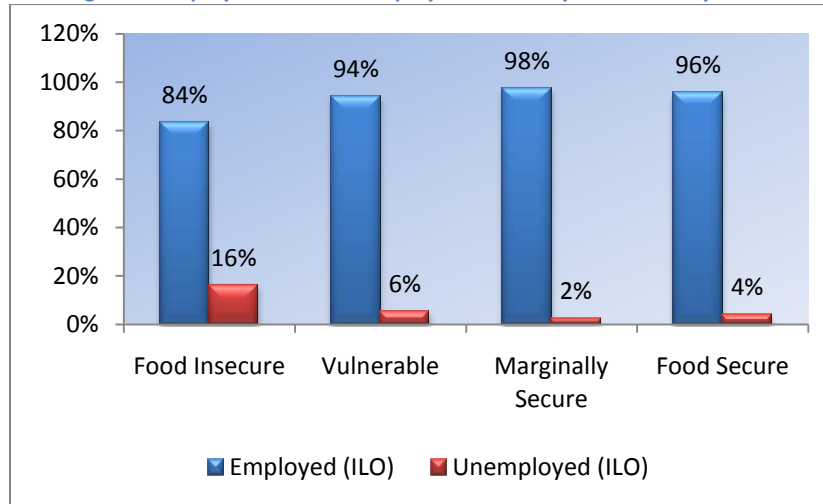
Figure 8: Educational Attainment of Heads of Households by Food Security Levels



## H. Employment, Occupation, Sector and Place of Employment of Head of Households

Following previous trends with other governorates, higher levels of unemployment are found amongst food insecure households than food secure households. A total of 16 percent of the food insecure households are unemployed compared to 4 percent of food secure households.

Figure 9: Employment and Unemployment Rate By Food Security Levels



The vast majority of food insecure heads of households are employed within elementary occupations, at 41 percent. The other areas of employment in which food insecure heads of households are distributed in are: plant machine operators (17%); crafts/related trade (14%); services/sales (14%); skilled agricultural worker (13%); and legislative/senior managers (2%). Food secure households are distributed in more diverse areas of employment. Twenty-three percent are employed as specialists, 19 percent in elementary occupation, 12 percent as legislative managers and 10 percent as professionals. Furthermore, the percentage of food secure households employed in all other areas range from 5 percent to 9 percent.

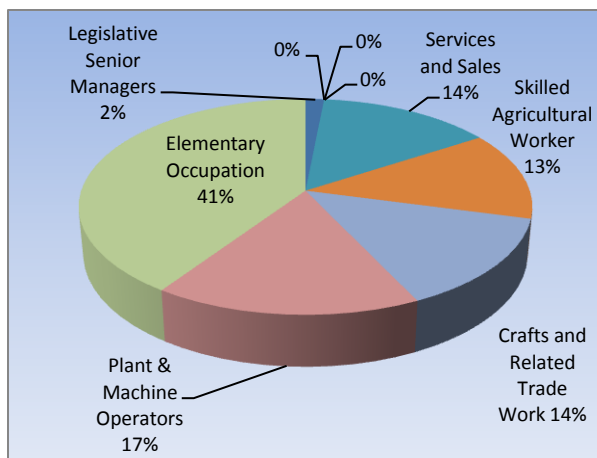


Figure 10: Occupation of Food Insecure Heads of Households

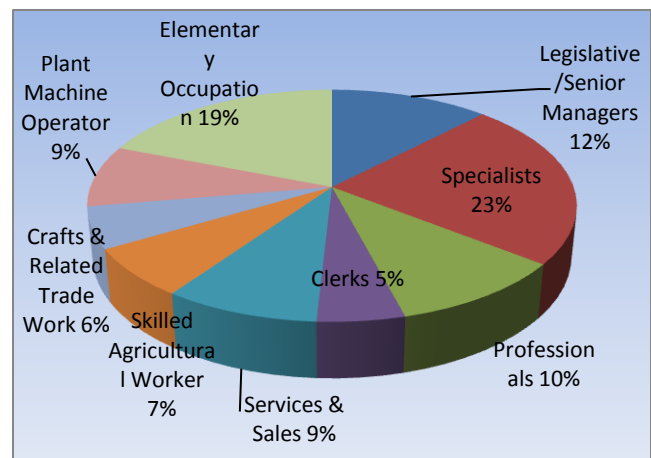


Figure 11: Occupation of Food Secure Heads of Households

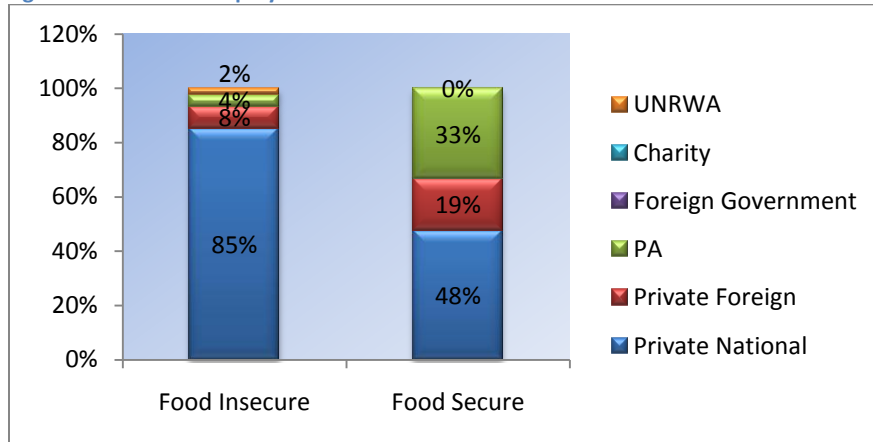
The following table refers to the sector of employment of food insecure heads of households and food secure households. Twenty-five percent of food insecure households are employed within agriculture and fishing and 24 percent are employed in the construction sector. Additionally, 18 percent of food insecure households are employed in the wholesale retail trade, 11 percent in mining and manufacturing and 10 percent in transport storage and communication. In comparison, 20 percent of food secure households are employed in the construction sector, 15 percent in public administration/defense and in education, and 14 percent in the wholesale retail trade. Agriculture and fishing employs 10 percent of food secure heads of households followed by mining and manufacturing composing of 9 percent and transport, storage and communication composing of 6 percent of the food secure heads of households.

**Table 7: Area of Employment of Food Insecure and Food Secure Heads of Households**

	Food Insecure	Food Secure
Agriculture and fishing	25%	10%
Mining manufacturing	11%	9%
Construction	24%	20%
Wholesale retail trade	18%	14%
Restaurants and hotels	1%	1%
Transport storage communication	10%	6%
Finance insurance and mediation	0%	2%
Properties, rents and commercial businesses	0%	0%
Public administration and defense	4%	15%
Education	0%	15%
Health and social work	0%	6%
Other social and personal care	4%	2%
International organisations	2%	0%
<b>Total</b>	<b>100%</b>	<b>100%</b>

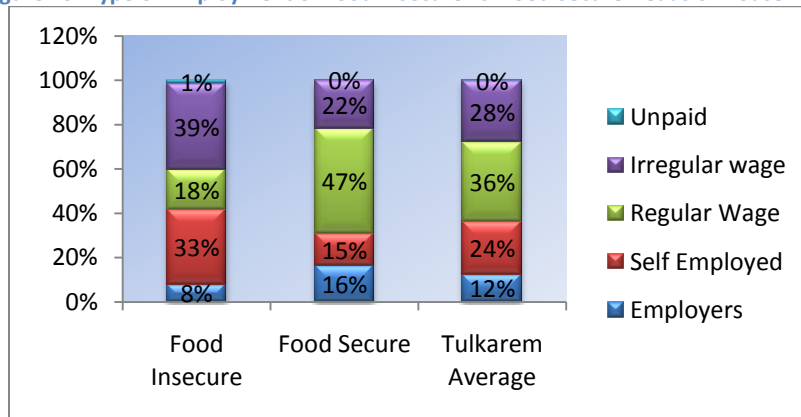
The majority of food insecure heads of households are employed in the private national sector at 85 percent. Only 8 percent are employed in the private foreign sector, 4 percent within the Palestinian National Authority (PA) and 2 percent within the United Nations Relief Works Agency (UNRWA). In comparison, a greater percentage of the food secure heads of households are employed within the PA and within the private foreign sector; 33 percent and 48 percent respectively. This suggests that greater opportunities for food security are found in employment within the PA and employment within the private foreign sector.

Figure 12: Sector of Employment of Food Insecure and Food Secure Heads of Households



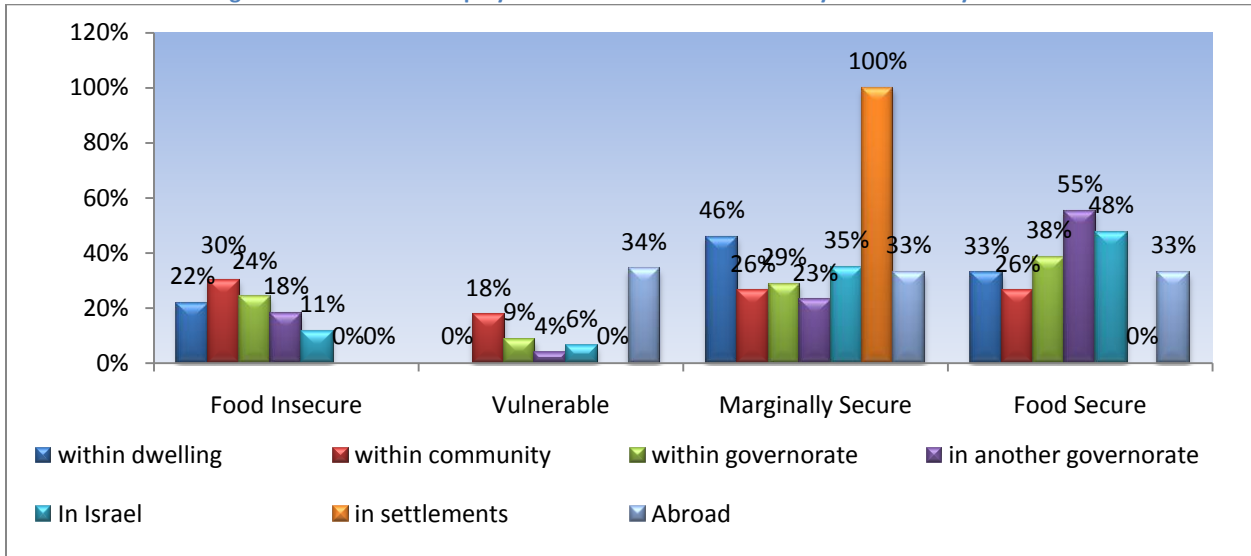
Similar to previous findings, households generally derive a greater opportunity for being food secure if they receive regular wages. Forty seven percent of households compared to 18 percent are regular wage employees. Self employment and irregular wage work provides the least likelihood for households to be food insecure.

Figure 13: Type of Employment of Food Insecure vs. Food Secure Heads of Households



Only the marginally secure reported working in settlements and these households represent a minor portion of the population in absolute terms. The figure below indicates that all households who reported working in settlements are marginally secure. Households derive greater food security when the head of household is employed in another governorate; 55 percent of food secure compared to 18 percent of the food insecure are employed in another governorate. The data below is better understood when comparing by totals of the food secure and marginally secure with the totals of the vulnerable and food insecure. For example, employment within the community provides a greater opportunity for households to be food secure or marginally secure; 52 percent of food secure and marginally secure households report working within the community compared to 48 percent of food secure and vulnerable households combined. In conclusion, for Tulkarem households, food security levels of households is less determined by the location and more determined by the type and sector of employment and the salary scale.

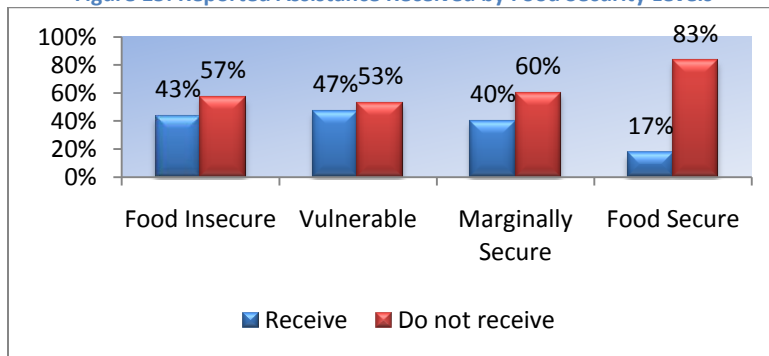
Figure 14: Location of Employment of Heads of Households by Food Security Levels



**I. Assistance and Targeting**

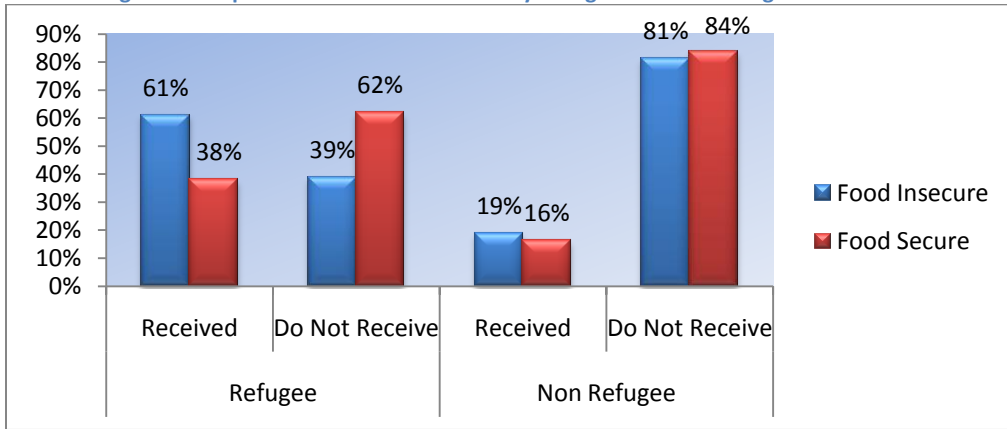
Findings of the survey show that 34 percent of the population receive some sort of assistance. Forty-three percent of the food insecure population reported receiving assistance compared to 17 percent of the food secure population.

Figure 15: Reported Assistance Received by Food Security Levels



Similar to previous findings, food insecure refugee households compared to non refugee households receive some form of assistance. Sixty one percent of refugee households reported receiving assistance compared to 19 percent of non refugee households. Furthermore, the findings appear to show an inclusion error of 38 percent of food secure refugee households receiving assistance compared to 16 percent of food secure non refugee households.

Figure 16: Reported Assistance Received by Refugee and Non Refugee Households



Findings of the survey further shows that the food insecure households residing within refugee camps have better access to social safety net schemes than households living in rural or urban areas. Ninety-six percent of food insecure households in refugee camps receive assistance.

Figure 17: Reported Assistance Received by Locality

