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# Food Security Profiling of Tubas 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

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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**  
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**III. Tubas Governorate**

**A. Population and Demography**

The governorate of Tubas is located in the north eastern part of the West Bank and is surrounded by Jenin governorate to the north, Nablus governorate to the West and Jericho governorate in the south. Tubas governorate represents 2 percent of the West Bank population or 50,261 individuals. Out of the total population, approximately 15 percent of the population are registered refugees. With an average household size of 5.6 members, the number of households residing in the region is approximately 8,975 households.

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

	Registered Refugees	Other	Total
Population	7,362	42,899	<b>50,261</b>
Percent	15%	85%	<b>100%</b>

Source: PCBS Population Census 2007

The population of Tubas is concentrated within the urban area. Out of the total population 67 percent live in the urban areas, 22 percent in rural areas and 11 percent in refugee camps. Fifteen percent of Tubas's population are registered refugees with 4 percent living in urban areas, 6 percent in rural areas and all the others living in refugee camps.

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

	Urban	Rural	Refugee Camps	Total
Number of Communities	3	17	1	21
Population	33,497	11,052	5,712	50,261
Percent	67%	22%	11%	100%

Source: PCBS Population Census 2007

**B. Labour Force**

Approximately 52 percent of the Tubas population are aged 15 and above. Labour force participation compared against the unemployment in Tubas has consistently varied in its fluctuation. In the second quarter of 2008, the rate of labour force participation is 42 percent and increased slightly by 1 percent by the third quarter of 2008. Meanwhile, the unemployment rate increased from 12.9 percent to 16.3 percent between the second quarter and the third quarter of 2008. Labour force participation decreased again to 39 percent in the fourth quarter of 2008 and the unemployment rate decreased to 15 percent. Between the first quarter of 2009 and the second quarter of 2009, labour force participation rose from 41 percent to 48 percent with unemployment decreasing from 13 percent to 12 percent.

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

	Q2 08	Q3 08	Q4 08	Q1 09	Q2 09
Labour Force participation %	42%	43%	39.0%	40.6%	48.1%
Unemployment %	12.9%	16.3%	14.5%	13.2%	12.1%

Source: PCBS Labour Force Surveys

The figure below shows basic demographic and labour force trends in absolute numbers. During the second half of 2008, the population above the age of 15 increased by 427 individuals although labour force participation decreased by 740 individuals. During the same period 824 jobs were lost increasing

the number of unemployed by 84. The drop in labour force participation is therefore related to the number of labour force participants who became discouraged from looking for employment rather than an indication of an improvement in the socio-economic conditions in Tubas governorate. In the first half of 2009, the labour force increased to 2,826 individuals while 2,753 jobs were created leaving 73 individuals unemployed.

**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	51,015	51,398	51,783	52,171	52,563	768	780
above 15	28,340	28,552	28,767	28,982	29,200	427	433
Labour Force Participation #	11,959	12,220	11,219	11,767	14,045	-740	2,826
Unemployed	1,543	1,992	1,627	1,553	1,699	84	73
Employed	10,417	10,228	9,592	10,214	12,346	-824	2,753

Source: PCBS Population Census 2007 and Labour Force Survey Rounds

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

During the period under review, the net change between nominal and real daily wages was close to zero indicating that very little price changes occurred. However both nominal wages and real wages incrementally increased although a gap exists between real wages (actual purchasing power) and nominal wage. The average nominal daily wage during the second quarter of 2009 was 76.7 NIS with the value of real wages 9 percent lower than nominal wages.

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

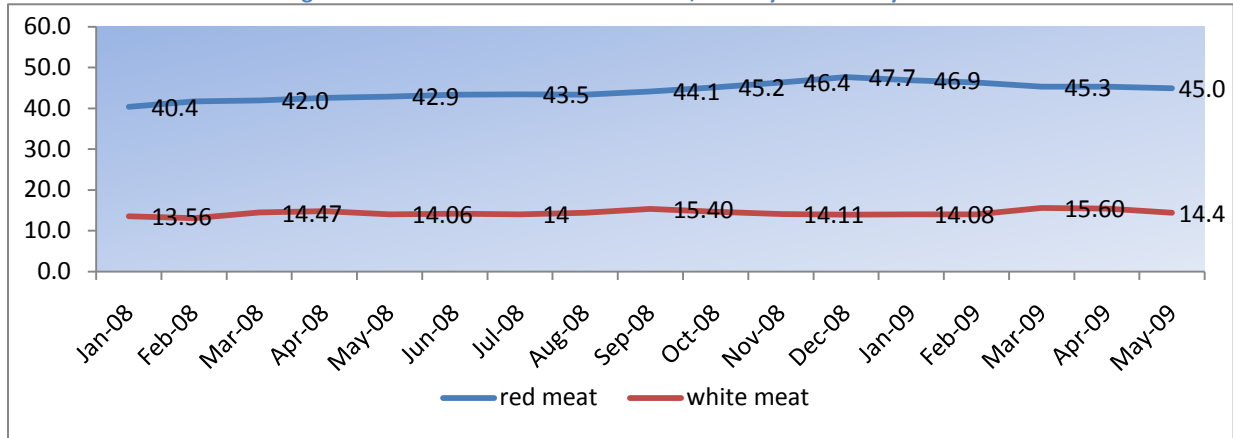
	Q2 08	Q3 08	Q4 08	Q1 09
Average nominal daily wage NIS	73.2	74.2	75.5	76.7
Average real daily wage NIS	66.1	66.0	67.7	70.3

Source: PCBS Data

Currently, no data has been collected at the Tubas governorate level on the consumer price index or observations made on the prices of basic commodities. Therefore, the prices of food items in the West Bank have been selected to provide an overall sense of the socio-economic situation of households in relation to food prices.

In the beginning of 2008, the cost of red meat was 40.40 NIS per kilo. Prices of red meat increased slowly so that by the end of 2008, the cost of red meat was 47.70 NIS per kilo. The prices of red meat decreased by the end of the second half of 2008 to 45 NIS per kilo although slightly higher than the long term average. In January 2008, the price of chicken was 13.56 NIS per kilo and consistently increased until September 2008 when it reached its peak of 15.40 NIS per kilo in that year. From January to February 2009, the price of chicken stabilised but increased again to 15.60 NIS per kilo and decreased again by May 2009 to 14.49 NIS per kilo.

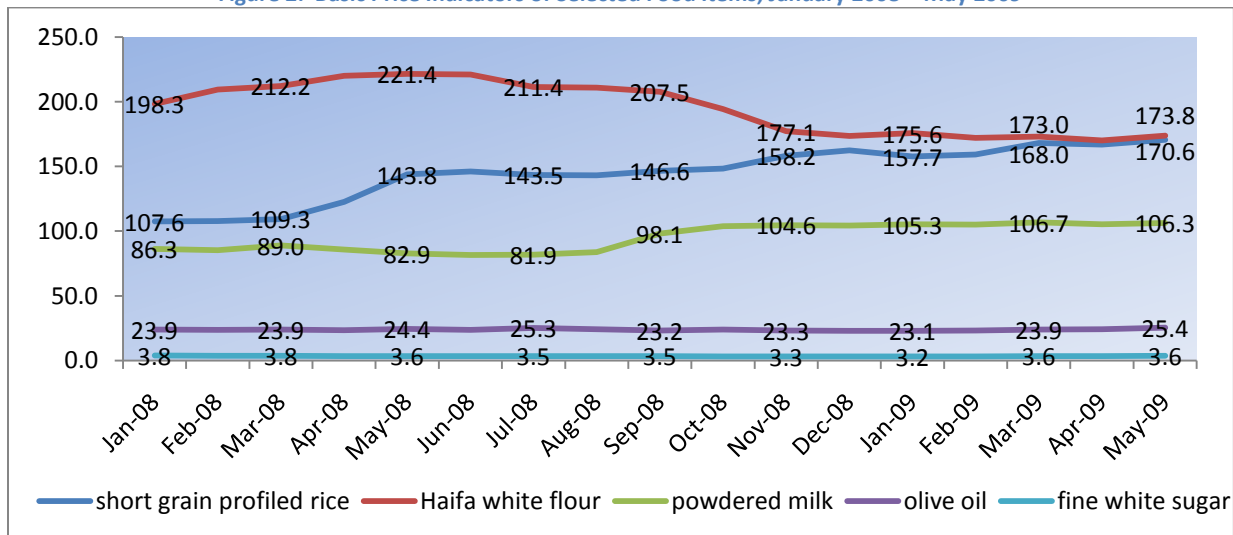
Figure 1: Prices of Red Meat and Chicken, January 2008 – May 2009



Source: PCBS Data

With the exceptions of olive oil and white sugar, which remained relatively stable between January 2008 and the second half of 2009, the prices of other selected food commodities have fluctuated significantly during this observed period. The figure below shows that the cost of Haifa white flour stood at 198 NIS and rose to 221 NIS by May 2008. Prices sharply decreased to 177 NIS by November 2008 to increase incrementally to 174 NIS in May 2009 but still much lower than the long term average. Short grained profiled rice cost 108 NIS per kilo in the beginning of January 2008 and soared to 171 NIS per kilo by May 2009; a 59 percent increase from the January 2008 price. The price of powdered milk increased in March 2008 to drop again by July 2008 and consistently increased from July 2008 to reach 106 NIS by May 2009.

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

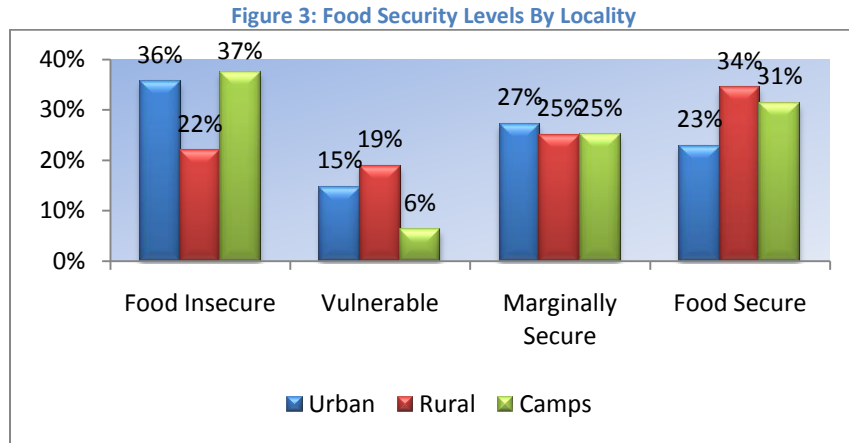


Source: PCBS Data

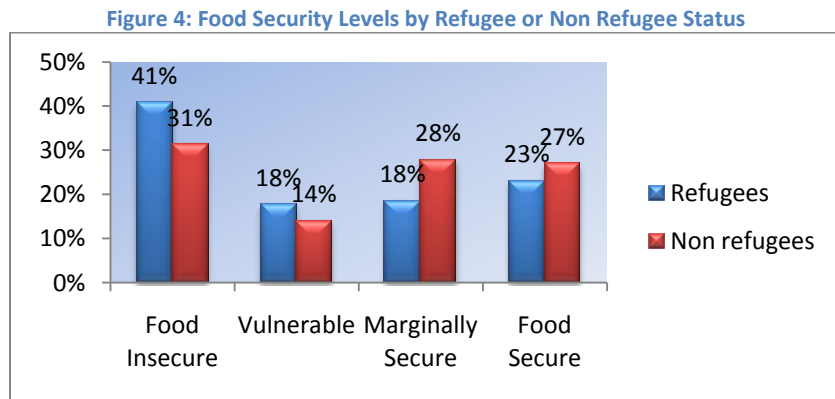
#### D. Food Insecurity Levels

Figure 3 indicates the distribution of the food security groups by locality. A slightly higher prevalence of food insecurity exists among refugee camps than urban areas while rural areas have the lowest

prevalence of food insecurity. As shown, 37 percent of refugee camp households and 36 percent of urban households are food insecure compared to 22 percent of rural households. Urban households have greater prevalence of food insecurity and vulnerability combined compared to refugee camp households; 51 percent of urban households compared to 43 percent of refugee camp households. Alternatively, rural households show a greater likelihood for higher food security levels than refugee camps or urban households. This may point to a greater consumption of rural households own production to meet their basic needs compared to households from refugee camps and urban areas.



The prevalence of food insecurity is higher among refugees than non refugees. Forty-one percent of refugees compared to 31 percent of non refugees are food insecure and 18 percent of refugees and 14 percent of non refugees are vulnerable to food insecurity. Non refugee households have a greater prevalence of food security and marginal security compared to refugee households. A combined total of 55 percent of non refugee households are food secure and marginally secure compared to a combined total of 41 percent of food secure and marginally secure refugee households.



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

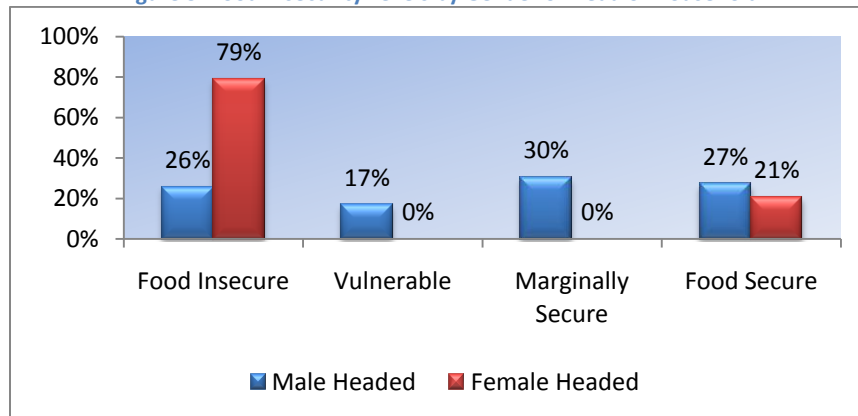
A total 12 percent of households in the West Bank are female headed with the remaining 88 percent who are male headed households. Out of the total number of households in Tubas, 13 percent are female and 87 percent are male headed.

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

	Tubas	Remaining West Bank
Male Headed Households	87%	88%
Female Headed Households	13%	12%

The prevalence of food insecurity is higher among female headed households compared to male headed households and still higher when combining the total food insecure and vulnerable households. A total of 79 percent of female headed households are food insecure compared to a combined total of 43 percent food insecure and vulnerable male headed households.

**Figure 5: Food Insecurity Levels by Gender of Head of Household**

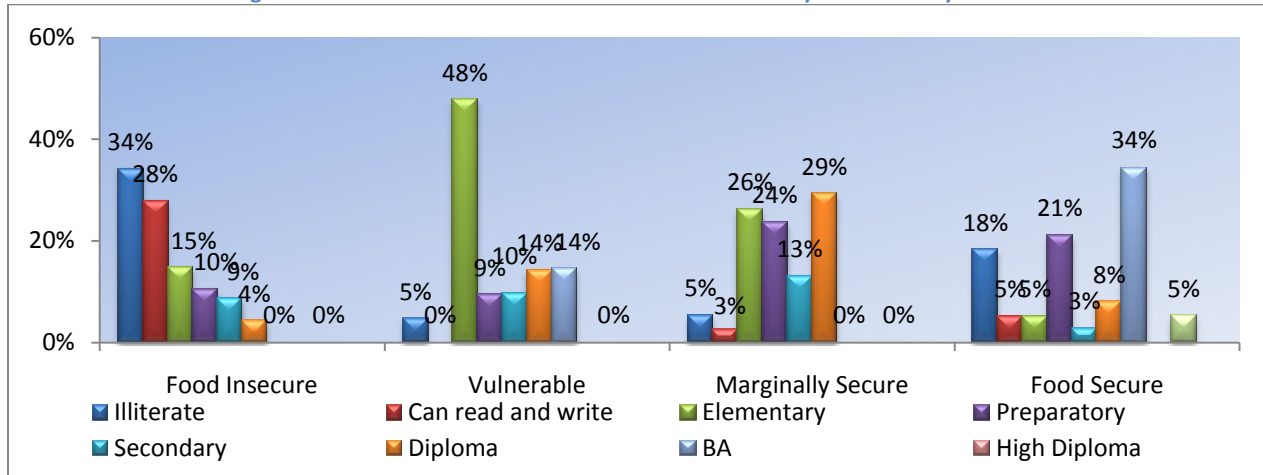


**F. Education of Head of Household and Food Security Levels**

The correlation between the food security levels and educational attainment in Tubas governorate of heads of households are inconsistent and do not show the same trends as the West Bank.<sup>2</sup> Levels of educational attainment are generally low and in particular among food insecure heads of households. Thirty-two percent of the total heads of households surveyed in Tubas are illiterate. Out of the total percentage that is illiterate, 34 percent are food insecure. While low levels of education amongst food insecure heads of households are expected, 18 percent of the illiterate heads of households are also food secure. On the other hand, 35 percent of food secure heads of households reported completion of a Bachelor’s degree as their highest educational attainment and additionally 14 percent of households vulnerable to food insecurity. No conclusive explanation can be attributed to the inconsistencies in educational levels in Tubas and requires further investigation.

<sup>2</sup> The Remaining West Bank Average indicates that 48 percent of total heads of households have completed up to elementary level education and differences between the food insecure and food secure vary slightly.

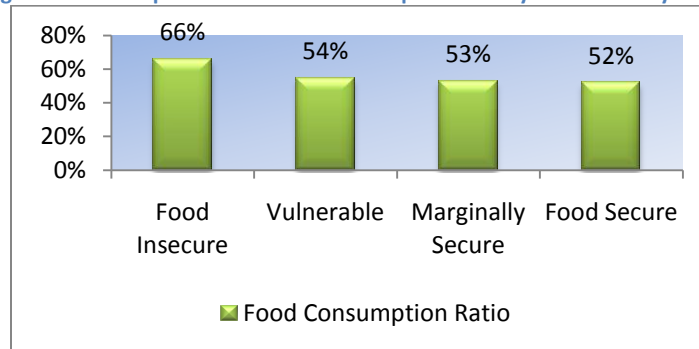
Figure 6: Educational Attainment of Head of Household By Food Security Levels



### G. Food Consumption and Income Levels

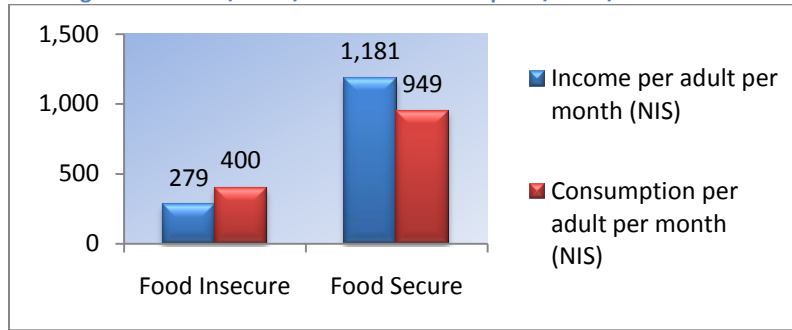
The ratio of food expenditure out of the total expenditure of food secure household is higher than the PCBS threshold for worse-off households. Food secure households spend 52 cents of every dollar on food; the PCBS threshold for worse off households is those that spend 43 cents of every dollar on food. This means that the entire population of Tubas is considered worse off as they have less disposable income to spend on other non food items which is also influential in determining the food security of households.

Figure 7: Food Expenditure out of Total Expenditure By Food Security Levels



The reported income per adult of food secure households is 1,181 NIS per month. Food insecure households report an average monthly income per adult of 279 NIS. The average monthly consumption levels per adult is lower than the reported income levels per adult for food secure households. This may indicate food secure households ability to save income. In contrast, food insecure households report a lower level of income compared to their consumption levels. While there is a tendency for households to underreport income levels, this could also indicate that food insecure households are in fact in debt. The consumption levels being the more accurate indicator shows that food insecure households have a monthly consumption gap of 58 percent in order to move out of their food insecurity thresholds towards food security.

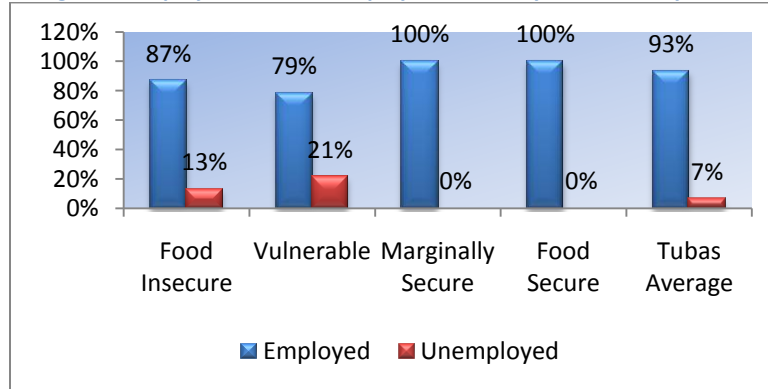
Figure 8: Income/Adult/Month vs. Consumption/Adult/Month in NIS



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

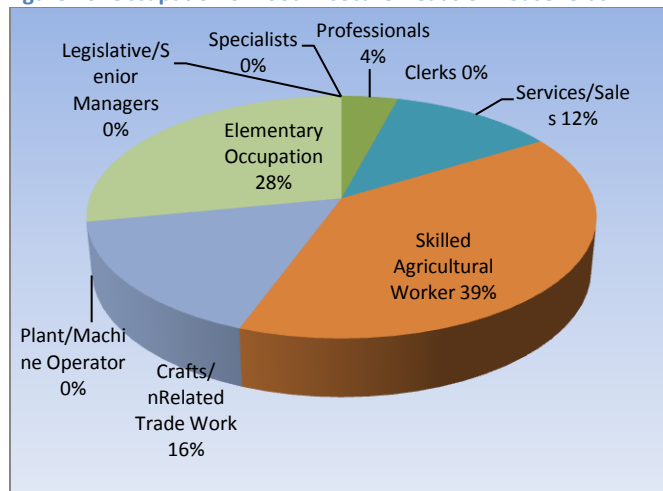
Seven percent of the total Tubas population are unemployed. Out of the total unemployed, 13 percent of the food insecure households and 21 percent of vulnerable households are unemployed.

Figure 9: Employment and Unemployment Rate by Food Security Levels

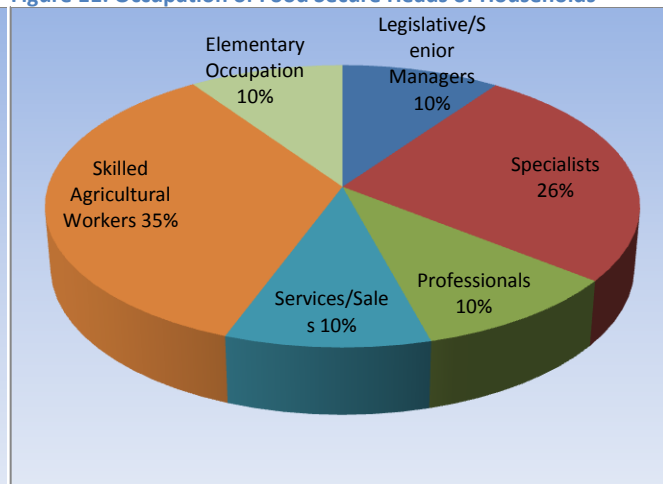


Following similar patterns, food insecure heads of households occupy a larger percentage of the labour force working in elementary occupation and crafts/related trade work; 28 percent and 16 percent respectively. However, a greater percentage of food insecure households are employed as skilled agricultural workers. Following the same trends as other West Bank governorates, food insecure households only compose a small proportion of highly skilled jobs and even then only 4 percent as professionals. The profile of food secure households shows that 34 percent are employed as skilled agricultural workers. Additionally, 26 percent are employed as specialists while 10 percent are distributed in elementary occupations, as legislative managers, professionals and services/sales. It can be concluded that a greater proportion of the Tubas population are employed as agricultural workers.

**Figure 10: Occupation of Food Insecure Heads of Households**



**Figure 11: Occupation of Food Secure Heads of Households**



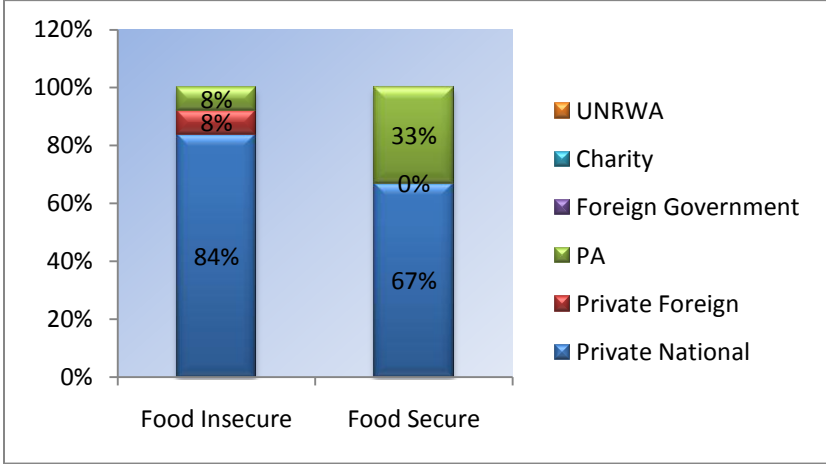
The following table indicates that the agriculture livelihood is the mainstay for the vast majority of the population in Tubas governorate. A total of 59 percent of the food insecure heads of households are found in the agriculture sector followed by 16 percent in construction, and 8 percent in wholesale retail trade, properties, rents and commercial businesses and public administration and defense. Comparatively, 44 percent of food secure households are employed in the agriculture sector, 20 percent in public administration and defense and 13 percent in the whole sale retail trade. Education, health and social work and other social and personal care compose of 6 percent each of the food secure heads of households. The diversity of livelihood options within the region for both the food secure and food insecure appears limited.

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

	Food Insecure	Food Secure
Agriculture and fishing	59%	44%
Mining manufacturing	0%	0%
Construction	16%	0%
Wholesale retail trade	8%	13%
Restaurants and hotels	0%	0%
Transport storage communication	0%	3%
Finance insurance and mediation	0%	0%
Properties, rents and commercial businesses	8%	0%
Public administration and defense	8%	20%
Education	0%	6%
Health and Social Work	0%	6%
Other Social and Personal Care	0%	6%
International Organisations	0%	0%
Total	100%	100%

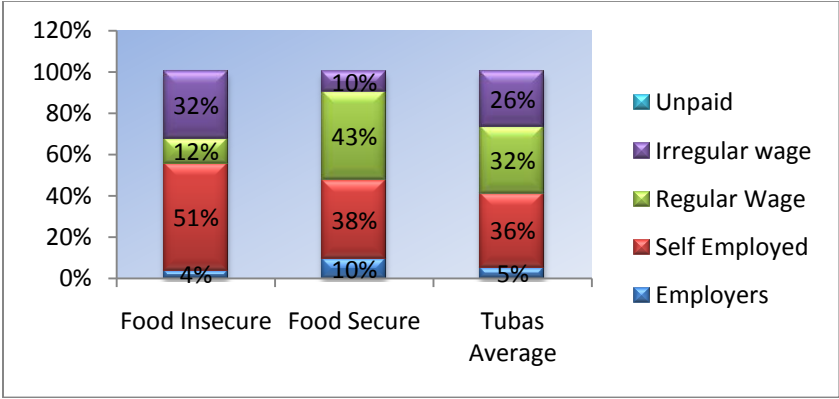
Further examination of the sectors of employment show that a vast majority of the food insecure heads of households (84 percent) are employed within the private national sector. Private foreign sector and the Palestinian National Authority (PA) comprises of only 8 percent each of food insecure heads of households. Food secure households appear to only be employed within the private national sector (67%) or the PA (33%).

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



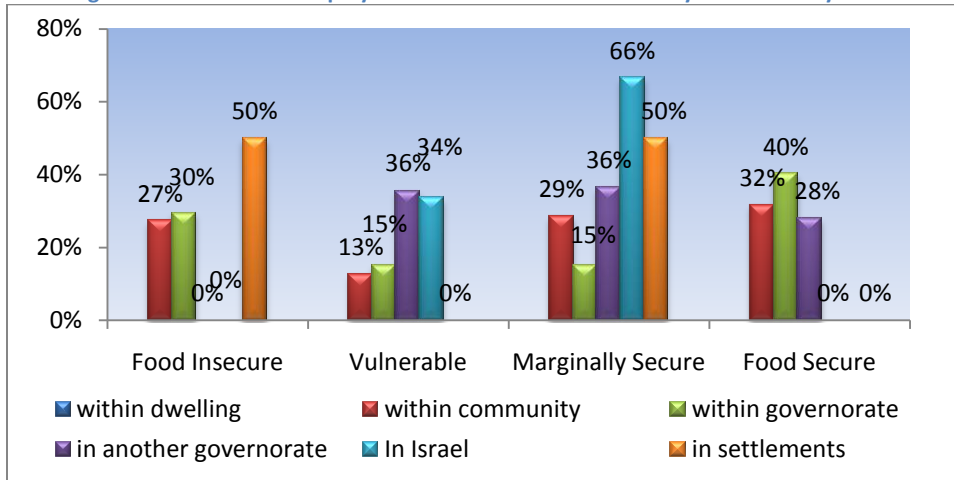
The range of food insecure heads of households who are self employed in the West Bank governorates are between 11 to 37 percent. The proportion of food insecure heads of households in Tubas governorate is exceptionally higher than the average range. Self employment composing 36 percent of the total Tubas population followed by regular wage work (32 percent of the population) composed of the vast majority of types of employment for the population. However, 32 percent of food insecure heads of households are irregular wage workers.

Figure 13: Comparison of Type of Employment



Employment within settlements is equally attributed to food insecure households and marginally secure households. A greater likelihood of food security and marginal security occurs for households employed outside their own governorate (64% combined) while a total of 66 percent of marginally secure households reported employment within Israel.

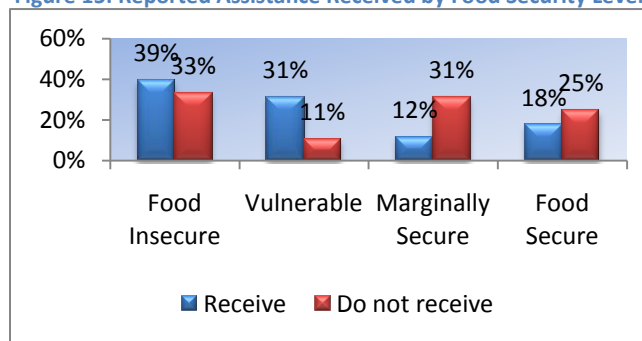
Figure 14: Location of Employment of Heads of Households By Food Security Levels



### I. Assistance and Targeting

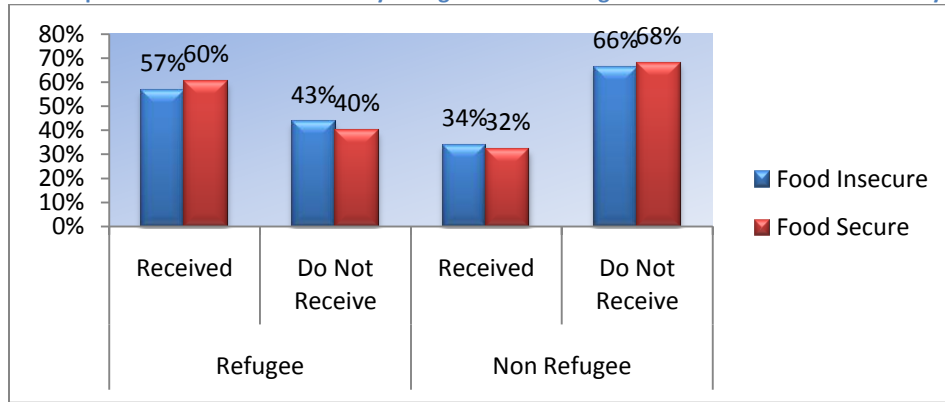
Food insecure and vulnerable households appear to be better targeted than all other food security groups with 39 percent of food insecure households and 31 percent of vulnerable households reported having received assistance. The following shows however that 18 percent of food secure households are receiving assistance.

Figure 15: Reported Assistance Received by Food Security Levels



The following figure refers to a comparison between refugee and non refugee households, their food security levels and their reported assistance. Similar to previous findings of other governorates, food insecure refugee households are better targeted compared to non refugee households most likely due to greater accessibility to social safety net schemes for refugees. Fifty-seven percent of food insecure refugee households compared to thirty-four percent of food insecure non refugee households reported receiving assistance. However, as high as 60 percent of food secure refugee households also reported receiving assistance and among food secure non refugee households these figures are as high as 32 percent.

Figure 16: Reported Assistance Received by Refugee of Non Refugee Status and Their Food Security Levels



The following figures show that households residing in refugee camps are better targeted compared to households in rural or urban areas. Eighty-three percent of food insecure households living in refugee camps reported receiving assistance. Rural areas are also well targeted compared to urban areas. Seventy-one percent of food insecure rural households reported receiving assistance. The mistargeting of assistance to food secure groups is particularly high amongst rural areas and lower amongst food secure households in refugee camps. A total of 91 percent of food secure households and 60 percent of food secure refugee camp households reported receiving assistance. As mentioned in section D, the prevalence of food insecurity amongst urban households is almost as high as refugee camp households. According to these findings, a readjustment of the targeting of assistance is required to ensure aid effectiveness.

Figure 17: Reported Assistance Received by Locality and Food Security Levels

